Marathon Petroleum Company LP

Section	Topic	Appendix	Topic
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2.0	Notification Procedures	B	Glossary
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4.0	Safety, Health and Security	D	Site Safety and Health Plan
5.0	Response Teams	E	Incident Action Plan
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7.0	Communications	G	Inland and Navigable Waterway Containment and Recovery Strategies
8.0	Resources	H	NOAA's Shoreline Assessment Manual
9.0	Training and Exercises	I	Cross References, DOT Final Rule, USCG Plan Requirements - Final Rule and Minerals Management Service - Final Rule
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1.0

MARATHON PIPE LINE
SECTION 1.0 INTRODUCTION

1.1 PURPOSE/OBJECTIVES

This Oil Pollution Act of 1990 (OPA 90) Emergency Response Plan (Plan) applies to the oil and refined product pipeline systems that are owned and/or operated by Marathon Pipeline Company, LLC (MPL). Except for the required notifications, this Plan does not provide a "how to" approach. That is, it does not provide rigid step by step actions to be taken or procedures to be followed. Experience shows that each spill is different, calling for varying responses. The purposes of this Plan are the following:

- Help MPL personnel prepare for spills;
- Ensure an effective, comprehensive response;
- Prevent injury or damage to company employees and contractors, the public, and the environment;
- Define alert and notification procedures to be followed when a spill occurs;
- Document equipment, personnel, and other resources available to assist with the spill response;
- Establish a response team, assign individuals to fill the positions on the team, and define the team members' roles and responsibilities;
- Define organizational lines of responsibility to be followed during a response;
- Outline response procedures and techniques for combating the spill;
- Satisfy the requirements of regulatory agencies.

Nothing contained in this Plan replaces good judgment or prudent operating practices.

This Plan was developed by MPL as a planning document to demonstrate their potential response capability available to respond to an oil spill from MPL's facilities. The Plan does not represent a guarantee of what will occur or the equipment/resource deployment sequencing that will be used in an actual spill event. Nothing in this Plan is intended to limit responders' actions or decisions. This Plan represents a planning standard, but is not a performance guarantee. Response operations in any spill event will be tailored to meet the actual circumstances of the event.

1.2 DESCRIPTION OF PIPELINE SYSTEMS AND DOCK

Marathon Pipe Line LLC operates more than 5000 miles of pipeline in 14 states. The system includes four (4) response zones and two (2) barge docks. The response zones are: Ohio Valley Response Zone, Martinsville Response Zone, Houston Response Zone, and Cody Response Zone. The barge docks are located on the Mississippi River at Wood River, Illinois and St. James, Louisiana.

The Core Plan information for each response zone, including the Information Summary (as required in 49 Code of Federal Regulations [CFR] 194.113), names and telephone numbers of response organizations and agencies, response equipment information, and information on downstream sensitive sites is provided in Appendix A, organized by Response Zone. Tactical Response Plans and Response Zone Maps are provided in Appendix F, organized by response zone.

1.3 NAME AND ADDRESS OF OPERATOR

Marathon Pipeline LLC
539 South Main Street
Findlay, Ohio 45840-3295

1.4 PLAN DISTRIBUTION

This Plan is available electronically to all MPL employees, including MPL personnel who may respond to a spill on ERP Mobile. An electronic or CD copy of this Plan is also distributed to applicable regulatory agencies, including the Pipeline and Hazardous Materials Safety Administration, Department of Transportation (PHMSA). The Environmental, Safety, and Regulatory Compliance (ES&R) Manager is responsible for coordinating the distribution of the Plan.

If the person holding this copy is reassigned, this copy should be transferred to that person's replacement.

1.5 PLAN REVIEW AND UPDATE PROCEDURES

This Plan will be reviewed annually with the plan holders (from the date of submission to the regulatory agencies). It will be updated when necessary to reflect new oil spill response requirements or procedures. Every five (5) years the Plan will be resubmitted to PHMSA for re-certification.

Revisions should be tracked in the "Document Control" section located at the bottom of the document. If a significant change in operating conditions occurs, the Plan will be revised within thirty (30) days and submitted to the regulatory agencies. If any of the following occur, appropriate revisions will be incorporated into the Plan, and sent to the applicable agencies. Possible reasons for revisions to this Plan include:

- New pipeline construction, extension, or purchase;
- Relocation or replacement of the pipeline;
- Different worst case discharge volume;
- Change in commodities/type of oil transported;
- Change in contractors and/or Oil Spill Response Organizations (OSROs);
- Change in Qualified Individual(s) (QI);
- Change in an *Area Contingency Plan* (ACP) or *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP) that has a significant impact on the appropriateness of response equipment or response strategies;
- Change in response procedures;
- Change in ownership;
- Post exercise evaluation results;
- Post incident evaluation results; and
- Any other information relating to circumstances that may affect full implementation of the Plan.

1.6 COMPANY POLICY/PHILOSOPHY

Environmental Stewardship to protect our natural resources is a fundamental objective of Marathon Pipe Line LLC. This philosophy is in place to communicate and reinforce MPL's commitment. The following objectives are integral parts of MPL's philosophy.

- Any spill can be prevented.
- Waste minimization is an integral part of our operations and planning
- We will pursue opportunities to reduce hazardous emissions
- Active participation with government agencies, public, and industry

1.7 SCOPE OF PLAN/GEOGRAPHIC AREA

This Plan covers oil spills that may occur from the pipeline system and associated facilities operated by MPL. Spill prevention techniques and response procedures are included for spills that could enter adjacent waterways within the response zones described in this Plan.

The MPL geographic area includes four response zones and two barge docks located in 14 states. The response zones, counties and states in which they are located are as follows:

Ohio Valley Response Zone: **Illinois** (Wabash), **Indiana** (Delaware, Floyd, Gibson, Harrison, Jay, Orange, Posey, Spencer, Vanderburgh, Warrick, and Washington), **Kentucky** (Anderson, Bath, Boyd, Breckinridge, Bullitt, Carter, Clark, Daviess, Elliott, Fayette, Hancock, Hardin, Jefferson, Jessamine, Mercer, Montgomery, Nelson, Rowan, Shelby, Spencer, and Woodford), **Michigan** (Hillsdale, Jackson, Lenawee, Monroe, Washtenaw, and Wayne), **Ohio** (Allen, Ashland, Auglaize, Carrol, Clark, Columbiana, Coshocton, Cuyahoga, Delaware, Erie, Fairfield, Franklin, Gallia, Greene, Hancock, Hardin, Hocking, Holmes, Huron, Jackson, Jefferson, Lawrence, Licking, Lucas, Madison, Mahoning, Marion, Medina, Mercer, Montgomery, Morrow, Pickaway, Richland, Stark, Summit, Tuscarawas, Vinton, Wayne, and Wyandot), **Pennsylvania** (Lawrence, Beaver), and **West Virginia** (Wayne).

Houston Response Zone: **Arkansas** (Chicot), **Illinois** (Johnson, Massac, and Williamson), **Kentucky** (Ballard, Carlisle, Fulton, Hickman, and McCracken), **Louisiana** (Ascension, Beauregard, Caldwell, East Baton Rouge, East Feliciana, Grant, LaSalle, Rapides, Richland, St. James, St. John the Baptist, Vernon and West Carroll), **Mississippi** (Bolivar, DeSoto, Marshall, Panola, Quitman, Sunflower, Tallahatchie, Tate, and Washington) **Tennessee** (Crockett, Dyer, Fayette, Haywood, Obion, and Tipton), and **Texas** (Brazoria, Chambers, Fort Bend, Galveston, Harris, Jefferson, Newton, and Orange).

Martinsville Response Zone: **Illinois** (Bond, Champaign, Christian, Clark, Clay, Coles, Cook Crawford, Cumberland, Douglas, Edgar, Edwards, Effingham, Fayette, Ford, Franklin, Hamilton, Iroquois, Jasper, Kankakee, Lawrence, Macon, Macoupin, Madison, Marion, Montgomery, Moultrie, Platt, Richland, Shelby, Wabash, Wayne, Will, and Williamson), **Indiana** (Blackford, Boone, Clay, Daviess, Delaware, Gibson, Grant, Hamilton, Hendricks, Jay, Knox, Lake, LaPorte, Madison, Marion, Martin, Montgomery, Parke, Porter, Posey, Putnam, Sullivan, Tipton, Vermillion, and Vigo), and **Michigan** (Allegan, Berrien, Muskegon, Ottawa, and Van Buren).

Cody Response Zone: **Montana** (Carbon) and **Wyoming** (Big Horn, Fremont, Hot Springs, Natrona, Park, and Washakie).

1.8 REGULATORY MANDATE

OPA 90 requires all petroleum transmission, storage, or handling facilities to provide Facility Response Plans detailing each facility's "abilities" to respond to a spill. The U.S. Department of Transportation (DOT) and the United States Coast Guard (USCG) each have promulgated regulations to ensure compliance with OPA 90 [49 CFR 194 and 195, and 33 CFR 154, respectively]. These agencies have multiple jurisdictions over facilities based on function and location. Generally, the DOT regulates transportation-related facilities. Facilities that, in the

case of a spill, are reasonably expected to discharge oil to major waterways (as defined in 33 CFR 151) are regulated by the USCG.

The pipeline system operated by MPL is transportation related and therefore is regulated by the PHMSA. The required key elements of an OPA 90 Plan include the following.

- Facility information summary including a list and description of response zones;
- Internal and external notification procedures
- List of contacts (names, addresses, and 24-hour telephone numbers), including qualified response personnel;
- Spill detection and on-shore mitigation procedures;
- Response activities detailing responsibilities, authority, and actions;
- Training and exercise procedures;
- Response plan review and update procedures;
- Response zone appendices

1.9 CONSISTENCY WITH NATIONAL CONTINGENCY PLAN AND AREA CONTINGENCY PLANS

This Plan was prepared according to the policies and information contained in the current ACP applicable to each response zone and the NCP. They were reviewed to ensure consistency with the information presented in this Plan regarding:

- Identification of environmentally and economically sensitive areas potentially impacted by a spill;
- Descriptions of MPL response strategies and responsibilities; and
- Integration of MPL response efforts with those of the federal, state, and local agencies.

The ACPs reviewed during the preparation of this Plan include:

- U.S. Environmental Protection Agency (EPA) Regions III, IV, V, VI, VII, and VIII
- USCG: Captain of the Port (COTP) Zones New Orleans, St Louis, and Houston

1.10 INTERFACE WITH OTHER PLANS

In addition to the NCP and applicable ACPs, many other response plans exist that apply to the oil spills within the geographic area of this Plan. These include:

- Federal Region – Regional Response Team *(RRT) Contingency Plan*;

- State spill contingency plans for Arkansas, Illinois, Indiana, Kentucky, Louisiana, Mississippi, Michigan, Montana, Ohio, Pennsylvania, Tennessee, Texas, West Virginia and Wyoming;
- Local Emergency Planning Committee (LEPC) plans;
- MPL's Spill, Prevention, Control, and Countermeasure (SPCC) and dock operations plans
- OSROs'spill contingency plans;
- Corporate Emergency Response Team (CERT) plans;
- An *Incident Action Plan (IAP)* for a specific spill.

This Plan is designed for bridging to and being consistent with the above-listed plans. Their priority will be per federal, state, and local laws and regulations. The MPL Incident Commander, working through team members who act as regulatory liaison, will coordinate with the Federal and State On-Scene Coordinators about this and other matters.

1.11 RESPONSE ZONE PHMSA CONTROL NUMBERS

The U.S. DOT – PHMSA has assigned the following numbers to the response zones designated in this Plan for use in any official communication.

Ohio Valley Response Zone	0716
Houston Response Zone	0712
Cody Response Zone	0789
Martinsville Response Zone	0717

2.0

NOTIFICATIONS

Many notifications and initial response actions should occur simultaneously.
Refer to Section 3.0 for initial response actions.

2.1 INITIAL NOTIFICATION

This section is a guide for notification procedures to be taken when a spill, potential spill, or any other emergency is first reported or observed. These notification procedures can be made 24 hours a day and should be initiated immediately to meet regulatory guidelines.

The first MPL employee or representative who discovers an emergency or is notified of an emergency will be responsible for initiating notification procedures. Emergency response contact information can be found in Appendix A, organized by response zone.

2.2 EMERGENCY RESPONSE TEAM CALL-OUT

2.2.1 MPL LLC Emergency Response Team

The MPL LLC Emergency Response Team (ERT) is trained to respond to emergencies.

- When responding to an emergency, ERT members will fill positions on the MPL LLC Emergency Response Team as defined in Section 5.2.
- Start up, daily, periodic, and demobilization responsibilities are identified for each MPL ERT position. The detailed job descriptions and checklists in Appendix I should be reviewed by all Team members to ensure effective and efficient response efforts.
- Each incident is unique. Establishing precise directions and instructions to be followed by team members for every step of the response process is not possible. Sound judgement, based on experience and effective training, must be used by each team member in determining what actions are appropriate in a given situation.

2.2.2 Call-Out Procedure

The Qualified Individual (or an Alternate), Emergency Response Contractors and Company Response Personnel can be contacted on a 24-hour basis. Multiple means (business phone number, home phone numbers, pagers, etc.) for contacting key personnel are provided in the General Information Summaries for each Response Zone in Appendix A. In addition, MPL maintains a Communications Directory that includes contact numbers for all employees, manned and unmanned stations, Mobile Radio Telephone Interconnect (MRTI) radio towers, cellular phone access, and special dialing (i.e., pagers).

Emergency response contractors have multiple or 24-hour telephone numbers and are listed by Response Zone in Appendix A.

The call-out procedure and responsibilities of Marathon Pipe Line LLC personnel are noted below.

- The Emergency Witness/Observer/First Responder/Person-In-Charge will notify the following.
  - Tankerman on the vessel (if a vessel is involved)
  - Dock Operator/Operations Technician
  - Area Manager: If the Area Manager is unavailable, the Dock Operator/Operations Technician should precede with the Area Manager's activities.
  - MPL Operations Center - Findlay
- The MPL Operations Center - Findlay will:
  - Notify the Area Manager, or his/her on-call alternate.
- The Area Manager will undertake the following.
  - Activate the MPL Local Emergency Response Team.
  - Activate local emergency response contractors, as required.
  - Notify local Field ES&R Representative of all spills in excess of one gallon and any spill that contacts water as soon as practical, but no later than two hours after discovery. Field ES&R will then notify ES&R Compliance of all spills of 5 gallons or more and/or any spill that meets the following DOT immediate verbal notification requirements:
    - caused a death or personal injury requiring hospitalization;
    - resulted in either a fire or explosion not intentionally set by the operator;
    - caused estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000;
    - resulted in pollution of any stream, river, lake, reservoir, or other similar body of water;
    - in the judgment of the operator was significant even though it did not meet the criteria of any of the above.
    - Additionally for natural gas and liquefied natural gas (LNG) systems, an event that involved the release of gas from a pipeline or liquefied natural gas or gas from an LNG facility or that resulted in an emergency shutdown of an LNG facility.
  - When a spill is greater than five barrels or spills requiring regulatory notification (such as those on water), notifications should be made to the Region Manager as soon as practical, but no later than two hours after discovery.
  - Notify the local emergency agencies (Fire, Police, LEPC) as required.

    Consideration should be given to notifying local agencies to inform them of a potential release and that company employees have been dispatched to look for the potential problem.

NOTE: Request their assistance if they receive public notification and ask that their personnel assist in looking for the release if they are properly trained and equipped.

- When spills occur on land that are less than five barrels, and do not impact water, cause an explosion or fire, or impact the public, notifications to the Region Manager should be made quickly, but no later than the next business day.
- Notify other related operations.

- The Region Manager will undertake the following.
  - Notify the local MPL Incident Command System Team.
  - When a spill is greater than 25 barrels, or spills with particular sensitive consequences, notifications will proceed through the MPL Operations Vice President to the MPL President, as quickly as the event warrants.
  - With suspicion that the incident may have been the result of terrorist activity, contact MPL, ES&R, Emergency Response and Security Coordinator.
- The MPL Local Emergency Response Team will undertake the following.
  - Notify Marathon Pipe Line LLC Management.
  - Notify regional emergency response contractors, as required.
  - Notify local, state, and federal regulatory agencies. [NOTE: Calls to the National Response Center (NRC), EPA, DOT, state environmental protection agencies, etc. are typically made by the local Health, Environment, and Safety (HES) Representative.]
- The Marathon Pipe Line LLC Management Team will undertake the following.
  - Notify and activate all or part of the CERT, as required.
  - Notify Marathon Petroleum Corporation (MPC) Executive Management.
- The CERT will undertake the following.
  - Notify and activate Insurance Representatives through Marathon Petroleum Company's Risk Management group.

2.2.3 Insurance Representative

Notification of private insurance carriers and/or claim adjustment companies is handled through Marathon Petroleum Company's Risk Management group. The Risk Management group is activated through contact with the CERT. The Risk Management group is responsible for coordinating contact with the insurance community and, with legal, will provide and arrange for the handling of claims.

2.3 REGULATORY REPORTING

Contact Your Local HES Personnel

The Incident Reporting Form and instructions (ALIRTS) in Appendix C is an MPL internal reporting system that should be used to assist in collecting the necessary information concerning a spill. To provide consistency of content, ALIRTS should be reviewed and completed for all incidents.

Notifiers should record the date and time they make notifications along with the name of the person they contact and (if applicable) case numbers.

Local HES Personnel or the Liaison Officer will provide follow-up reports to all appropriate federal, state and local agencies whenever significant changes have occurred which alter planned response actions, the location of the spill has changed, a change in health risk has been identified, a mutually agreed upon period has passed, or additional information is requested by a bona fide agency representative. Revised estimates of material released must be provided to appropriate federal, state, and local agencies as soon as practicable whenever the amount released is revised. The ALIRTS reporting system, found in Appendix C, should be used to document follow-up notifications.

Required written reports to Regulatory agencies will be prepared and submitted by the HES Manager or designee.

As required by local, state, and federal regulations, in the event of an emergency, Marathon Pipe Line LLC will notify, as necessary, the following:

- National Response Center (NRC)
- U.S. Coast Guard (USCG)/Marine Safety Office (MSO)
- U.S. Environmental Protection Agency (EPA)
- State Emergency Response Commission (SERC)
- Local Emergency Planning Committee (LEPC)
- Local Fire Department

The above notifications will be made as soon as practical after the necessary information has been gathered. In the event of an emergency that may endanger public health, Marathon Pipe Line LLC will notify the following agencies:

- Local Police Department
- Local Emergency Services Organization

The need for assistance from different public emergency response agencies will vary by emergency and cannot be strictly categorized by type of emergency, such as spill, fire, etc.

However, whenever an emergency threatens the public at large or property not owned by the Company, one or more emergency response agencies should be notified. Procedures for contacting emergency response agencies (fire, police, sheriff, highway patrol, hospital, ambulance and state environmental agencies) are given later in this section.

Frequently, a police or sheriff office dispatcher in a community also dispatches the other law enforcement agencies, fire departments, and ambulance services for the community and the surrounding area. If there is any doubt that all the intended agencies have been notified, the caller should call those in question directly.

If an adjoining facility is threatened, the Area Manager (or his designee) is to alert the owner or operator of that facility.

A list of **local** emergency numbers is available in Appendix A by Operations Area for each Response Zone. The name of the station and the MPL emergency telephone number should be clearly posted at the station gate. In addition, SERC and LEPC information organized by state and county is provided as Figure 2.1 at the end of this section.

2.3.1 Federal Reporting

Federal agencies requiring accident/oil spill reporting include the EPA, DOT, USCG, and the U.S. Bureau of Land Management (BLM).

Additionally, the Occupational Safety and Health Administration (OSHA) requires reporting by telephone of any employee deaths or multiple hospitalizations resulting from work-related incidents (See Section 2.3.1.5.)

2.3.1.1 U.S. Environmental Protection Agency

Section 311 of the Clean Water Act requires the reporting of any discharge of hydrocarbons which:

1. Emanates from a company facility, or is observed by an employee while on duty; and
2. Reaches a water of the United States; and
3. Causes a film or sheen upon the surface of the water, or causes a sludge or emulsion to be deposited beneath the surface of the water or the adjoining shoreline.

Such discharges must be reported immediately to the **NRC at 1-800-424-8802**. "Immediately" is interpreted to mean as soon as practical under the circumstances after information gathering, but no later than the same day. In addition, incident reports can be submitted to the NRC via the NRC On-Line-Reporting Tool accessible at http://nrc.uscg.mil/.

2.3.1.2 DOT Office of Pipeline Safety

In accordance with 49 CFR 195.50, an accident report is required for each failure in a pipeline system subject to this Part in which there is a release of the hazardous liquid or carbon dioxide transported resulting in any of the following:

1. Explosion or fire not intentionally set by the operator.
2. Release of 5 gallons (19 liters) or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels (0.8 cubic meters) resulting from a pipeline maintenance activity if the release is:
    a. Not otherwise reportable under this section;
    b. Not one described in §195.52(a)(4);
    c. Confined to company property or pipeline right-of-way; and
    d. Cleaned up promptly;
3. Death of any person;
4. Personal injury necessitating hospitalization;
5. Estimated property damage, including cost of clean-up and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000.

In addition, at the earliest practical moment (typically within 1 hour) following discovery of either a hazardous liquids or carbon dioxide pipeline release resulting in an event described in 49 CFR 195.50, notice must be made to the **NRC either by telephone 800/424-8802 or electronically at http://www.nrc.uscg.mil** if the failure resulted in any of the following:

1. Caused a death or a personal injury requiring hospitalization;
2. Resulted in either a fire or explosion not intentionally set by the operator;
3. Caused estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000;
4. Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or
5. In the judgment of the operator was significant even though it did not meet the criteria of any other paragraph of this section.

In addition to the verbal/electronic notifications, there are also written notifications that must be made to satisfy DOT reporting requirements. 49 CFR 195.54 requires that an accident report be completed for incidents required to be reported under 49 CFR 195.50. This report must be completed on DOT Form 7000-1 and submitted to DOT within 30 days of discovery of the accident. See Corporate Standard MPLDOT017 – DOT Pipeline Accident & Incident Reporting in Appendix H for a detailed listing of these requirements.

In addition to the above-described federal notification requirements, there are state-specific notification requirements for intrastate pipelines in Texas and Kentucky as described in Sections 2.3.2.13 and 2.3.2.4, respectively.

2.3.1.3 Bureau of Land Management

The BLM has published accident reporting requirements for leasees and operators of onshore federal oil and gas leases issued pursuant to the authority prescribed in 30 CFR 221.5, 221.7, and 221.36. These requirements are contained in a Notice titled "Notice to Leasees and Operators of Onshore Federal and Indian Oil and Gas Leases, Reporting of Undesirable Events". MPL has adopted these requirements for accidents occurring on or affecting land managed by the BLM.

The following major undesirable events must be reported by telephone as soon as practical (within a maximum of 24 hours) to the appropriate BLM District Office.

1 Any oil, saltwater, or toxic liquid spill of 100 barrels or more (if entirely contained within the facility firewall, may be reported in writing as described below).

2 Equipment failures or other accidents resulting in the venting of 500 or more million cubic feet (MCF) of gas.

3. Any fire consuming 100 barrels or more of oil or more than 500 MCF of gas.

4. Any spill, venting, or fire occurring in sensitive areas such as lakes, reservoirs, streams, parks, wildlife refuges, recreation areas, or urban or suburban areas.

5. Any accident resulting in a fatal injury.

The major undesirable events above and the following other than major undesirable events require submission of a written report described in NTL-3A to the appropriate BLM District Office within 15 days:

1. Any spill or fire involving the discharge of 10 to 100 barrels in non-sensitive areas and all discharges of 100 or more barrels when the spill is entirely contained by the facility farewall.

2. Equipment failures or other accidents that result in the venting of at least 50 but less than 500 MCF of gas in non-sensitive areas.

3. Any fire consuming 10 to 100 barrels of oil or 50 to 500 MCF of gas.

4. Any accident resulting in a major or life-threatening injury.

In addition, whenever a report regarding an oil spill affecting BLM land is submitted to another federal or state agency, a copy should be sent to the appropriate BLM District Office. Oftentimes, these reports will be accepted by BLM if the report meets the specific criteria of NTL-3A.

BLM Field Office phone numbers are listed in Figure 2.1 in Section 2.0 of the plan.

2.3.1.4 United States Coast Guard

USCG regulations contained in 33 CFR 153 Subpart B require immediate verbal notification to the **NRC at 800/424-8802** for **any** spill reaching surface water, regardless of quantity. Reporting information for the USCG is listed in Figure 2.1 of section 2.0 of the plan.

2.3.1.5 Occupational Safety and Health Administration

OSHA requirements contained in 29 CFR 1904.8 govern the reporting of fatalities or multiple hospitalization of employees as a result of work-related incidents. Specifically:

1. Within eight hours after any of the following occur, an employer is required to notify OSHA by telephone of;
    a. the death of an employee from a work-related incident, if death occurs within 30 days of the incident,
    b. the in-patient hospitalization of three or more employees as the result of a work-related incident, if hospitalization occurs within 30 days of the incident.
2. If the employer does not learn of any of the above reportable incidents at the time it occurs, the employer is responsible to telephonically notify OSHA within eight hours of the time the incident is reported to any agent or employee of the employer.
3. Each above required report shall relate the following information:
    a. establishment time (time when the employer became aware of incident),
    b. location of incident,
    c. time of incident,
    d. number of fatalities and/or hospitalizations
    e. contact person,
    f. phone number, and a
    g. brief description of the accident.

Reporting information for OSHA is listed in Figure 2.1 at the end of this section.

2.3.2 State Reporting

The specific requirements for reporting emergencies, obtaining emergency burn permits, and disposing of spill debris vary among states. In general, the following requirements apply.

Any spill which reaches surface water or groundwater, or threatens to reach water (i.e., if containment efforts are not completely effective or weather conditions are predicted that would compromise containment) must be reported immediately by telephone to the state environmental protection agency and may also require a written report to the agency. Reporting requirements for spills to soil vary by state. Any burning of unrecoverable oil or spill debris (oily straw, vegetation, etc.) requires verbal approval from the applicable state environmental protection agency and may require a written report.

Spill material/debris disposal requirements vary by state. In most states, a hazardous waste generator identification number must be obtained. Information will also be required to be submitted to the disposal facility so the waste disposal can be properly permitted.

In accordance with the Superfund Amendments and Reauthorization Act (SARA) Title III, Section 304, a release of a "listed hazardous substance" which exceeds the "reportable quantity (RQ)" requires immediate verbal notification to the applicable LEPC and the SERC. A likely constituent to potentially be released in a reportable quantity is hydrogen sulfide (H_2S) which has a RQ of one hundred (100) pounds. Benzene is excluded because it is a constituent of petroleum which by federal definition is not a hazardous substance under the Comprehensive Environmental Responsibility Compensation and Liability Act (CERCLA) (most states adopt the federal definitions). Spills contained entirely within a "facility" are not required to be reported pursuant to the SARA (though state regulations may require it). "Facility" is interpreted as pipeline stations and other fenced facilities, right-of-ways, and oil field property, which is not accessible to the public.

To report incidents pursuant to SARA, contact the appropriate LEPC and the appropriate SERC. Local and state reporting information is found in Figure 2.1 in section 2.0 of the plan and organized by State and County, and in Appendix A organized by Response Zone. Some states require notification of the LEPC and the local Fire Department, in addition to the sheriff's office. The LEPCs are listed in Figure 2.1 in section 2.0 of the plan and are organized by state. A list of emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station is located in Appendix A by Operations Areas for each response zone. No written follow-up reports to state or local agencies are required by federal regulations for transportation related spills; however, many states have state-specific spill reporting and response requirements which are listed under each state below.

When calling state agencies, the LEPC, sheriff or other local agencies or departments, the information completed as part of MPL's internal ALIRTS system found in Appendix C, will be required.

2.3.2.1 State of Arkansas

The State of Arkansas requires the reporting of oil spills into state waters, including surface and underground waters, to the **Arkansas Department of Emergency Management (on a 24-hour basis) at 1-800-322-4012** and the NRC. Oil and gas spills resulting from leaks and breaks in pipelines, tanks or other receptacles require immediate reporting to the **Arkansas Oil and Gas Commission**. For incidents occurring in North Arkansas, the **Fort Smith Regional office should be contacted at 1-479-646-6611**. For incidents in South Arkansas, the **El Dorado Regional office should be contacted at 1-870-862-4965**.

Any release of hazardous substances into the environment is required to be reported as quickly as possible to the Arkansas Department of Emergency Management if any of the following occur:

1. A fatality occurs due to fire, explosion or exposure to any hazardous substance.
2. Hospitalization of any persons results from fire, explosion or exposure to any hazardous substance.
3. A danger to life, health or the affected property continues.
4. A release of hazardous substance occurs in any amount by any transporter onto public or private property.

A spill or overfill from tanks containing petroleum that exceed 25 gallons or cause a sheen must be reported within 24 hours. Spills that are less than 25 gallons and not cleaned up within 24 hours must also be reported. A spill or overfill from tanks containing hazardous substances must be reported within 24 hours if the release amount is equal or exceeds the "Reportable Quantity" for that substance.

For SARA Title III compliance, releases should be reported and a written follow-up emergency notice should be submitted to the Arkansas Hazardous Materials Emergency Response Commission.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. Local emergency planning contacts for Arkansas are found in Figure 2.1 Section 2.0 of the plan.

2.3.2.2 State of Illinois

Illinois requires immediate reporting to the **Illinois Emergency Management Agency (IEMA) at 217-782-7860 or 1-800-782-7860,** and the NRC when a release equal to or exceeding the reportable quantity of an extremely hazardous substance or a CERCLA hazardous substance occurs at a facility. These releases must also be verbally reported to the LEPC, with a written follow-up report to the LEPC and IEMA. In addition, immediate reporting to the IEMA and NRC is required for any release of petroleum (or oil) that produces a sheen on nearby surface water and/or threatens navigable waters and for any spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons. IEMA must also be notified and an incident number obtained for contaminated soils or debris from a release to land or water which MPL is planning to burn as part of spill cleanup activities. Releases of less than 25 gallons to land or to water contained on MPL property which are not impoundments of, or cannot connect to, navigable waterways are not reportable.

Immediate telephone notification is also required to the IEMA if an incident or accident involving a hazardous material occurs which results in:

- A member of the general public is killed;
- A member of the general public receives injuries requiring hospitalization;
- An authorized official of an emergency agency recommends an evacuation of an area by the general public;
- A motor vehicle has overturned on a public highway; or
- Fire, breakage, release or suspected contamination occurs involving an etiologic agent.

In addition, for releases entering the Mississippi River, the St. Louis Coast Guard Marine Safety Office (MSO) would like a courtesy call. Emergency burning is allowed only if permission is granted by IEPA, an incident number is obtained from IEMA, and permission is obtained from the property owner.

When calling NRC, IEMA or the LEPC, the information recorded in the ALIRTS system in Appendix C will be required.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Illinois counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.3 State of Indiana

Indiana has reporting requirements for releases from *"facilities"* and from *"modes of transportation"* which includes pipelines. Reports must be made to the **Indiana Department of Environmental Management (IDEM) at 1-800-451-6027 or 1-888-233-7745** within two hours of discovery and updates that indicate a significant increase in likelihood of water damage must be reported within two hours of discovery of updated information. *Releases from a petroleum pipeline* must be reported if they: damage waters of the state; contact soil and exceed 55 gallons; or contain more than 100 pounds or the RQ of a hazardous or extremely hazardous substance (H_2S). *Releases from a facility to water must be reported to* IDEM and NRC if they cause a sheen or contain a hazardous substance/extremely hazardous substance over 100 pounds (H_2S). *Releases to soil beyond a facility boundary* must be reported to IDEM and NRC if they exceed 55 gallons or are over 100 pounds of the RQ of a hazardous substance/extremely hazardous substance (H_2S). *Releases to soil within a facility boundary* must be reported if they exceed the RQ of a hazardous substance/extremely hazardous substance (H_2S), or exceed 1,000 gallons. A facility boundary is defined as the facility boundary, easement, or right-of-way. Releases of less than one pound or one pint, and releases of motor vehicle operating fluids less than 55 gallons that do not damage water, are not reportable. Any release that exceeds 100 pounds of H_2S is also reportable to the LEPC, and a written follow-up report is required. There are additional reporting requirements if within a wellhead protection boundary or near certain protected water resources; or if there is a release of hazardous substances or "objectionable substances" other than petroleum.

For releases from a facility or a pipeline to surface water which cause damage (e.g, affects public health/safety, or domestic/commercial/industrial/agricultural/recreational use, or animal/aquatic life), the nearest affected downstream water user within ten miles of the release, and the affected property owner/operator/occupant must be notified.

When calling IDEM or the LEPC, the information recorded in the ALIRTS system (located in Appendix C) will be required.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Indiana counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.4 State of Kentucky

2.3.2.4.1 Environmental and LEPC Reporting

Kentucky state law [Kentucky Revised Statutes (KRS) 224 01-400) requires reporting to the **Kentucky Department of Environmental Protection, Environmental Response Team (KDEP ERT) Hotline immediately at 1-800-928-2380 or 502-564-2380** for any release that enters water creating a visible sheen, diesel fuel releases of 75 gallons or more into the environment (including into secondary containment) in a 24-hour period, and a release of any other petroleum product of 25 gallons or more into the environment (including into secondary containment) in a 24-hour period. There is no facility or workplace exemption; all discharges meeting the criteria must be reported whether on or off MPL property. If requested by KDEP, a written report containing the information specified in KRS 224 01-400 must also be filed within seven days of the request.

The KDEP ERT Hotline, the LEPC, and the local "warning point" (continuously staffed location that can contact government emergency responders and the public) must be notified immediately of the release of any Hazardous Substance that exceeds the RQ (H_2S over 100 pounds), or which presents an imminent or substantial danger to the public. A written report must also be filed.

When calling the Hotline or the LEPC, the information recorded in the ALIRTS system will be required.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Kentucky counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of this plan.

2.3.2.4.2 Kentucky Public Service Commission Reporting

Kentucky Public Service Commission (PSC) rules require that operators of Kentucky intrastate hazardous liquid pipelines immediately notify at the earliest possible moment following the discovery of any of the following events related to Kentucky intrastate hazardous liquid pipelines:

- Death or personal injury
- Unintentional fire
- Damage to Property exceeding $24,999
- Other significant Occurrence

During normal business hours, call **Kentucky PSC at 502-564-3940.** After business hours, contact the Kentucky PSC hotline at **1-800-772-4636**.

MPL operates the following intrastate lines in Kentucky:

- Louisville to Lexington 8" Products System
- Louisville to Standiford International Airport Jet Fuel system
- Campbell Branch to Viny crude system

The Patoka to Owensboro and Owensboro to Catlettsburg 24" Crude system is considered to be an interstate system.

2.3.2.5 State of Louisiana

2.3.2.5.1 Inland Louisiana

Any unauthorized discharge into air, waters of the state, or the ground of any amount which causes an emergency condition (could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property) must be reported immediately, but in no case later than one (1) hour after learning of the discharge to the Louisiana SERC, **24-hour Louisiana Emergency Hazardous Materials Hotline by telephone at 877-925-6595**. In addition, the discharge must also be immediately reported to **NRC at 1-800-424-8802** as described in Section 2.3.1.1.

Unauthorized discharges which exceed a reportable quantity (one barrel of crude oil or refined petroleum product) but do not cause an emergency condition must be reported to the **Louisiana Department of Environmental Quality (LA DEQ) Office of Environmental Compliance at 225-219-3640 during office hours, or 225-342-1234** after hours, or by e-mail utilizing the Incident Report Form and procedures found at www.deq.louisiana.gov/portal/ within 24 hours after learning of the discharge. In addition, if a discharge occurs in a magnitude that could reasonably be expected to endanger the health and safety of the public or cause a significant adverse impact to the environment, the LA DEQ should be notified

Written reports for unauthorized discharges that cause emergency conditions or result in groundwater contamination shall be submitted to LA DEQ within seven (7) calendar days following the telephone notification or after obtaining knowledge of groundwater contamination.

Written notification reports must contain the following information: name of the person reporting the spill, company name, time and date of verbal notification, location of site or facility where discharge occurred the details and circumstances surrounding the event, and other items specified in Louisiana Administrative Code (LAC) 33:I.3925.

Written notifications should be mailed or faxed to the LA DEQ Office of Environmental Compliance at P.O. Box 4312, Baton Rouge, LA 70821-4312 or (225)219-3708(fax). The transmittal envelope or fax cover page and report should be clearly marked "UNAUTHORIZED DISCHARGE NOTIFICATION REPORT".

2.3.2.5.2 Louisiana Waters

Spills impacting Louisiana Waters must be immediately reported to NRC and the 24-hour Louisiana Emergency Hazardous Materials Hotline as described in Section 2.3.2.5.1. In addition, spills that could endanger the health and safety of the public, cause significant adverse impact to the environment must be reported to LA DEQ as described in Section 2.3.2.5.1.

For spills of one barrel or more in Louisiana Waters, courtesy notifications should be made to USCG Marine Safety Unit with jurisdiction over the geographic area. Contact information for USCG Marine Safety Unit offices within MPL response zones is found in Figure 2.1 at the end of this section.

All MPL's Gulf Coast Facilities fall under District 8 of the USCG.

For an oil spill or potential oil spill that could warrant response action, the USCG's On-Scene Coordinator (OCS) should be notified by contacting the **USCG District 8 Response Division at 1-504-671-2230**.

For major oil spills on Louisiana waters, courtesy notifications should be made to the Region VI (Texas-Louisiana), U.S. Department of Interior Natural Resource Trustees, Office of Environmental Affairs at P. O. Box 649, Albuquerque, New Mexico 87103

Courtesy notifications for major oil spills should be made to the U. S. Fish and Wildlife Service (USFWS) at the following addresses:

U. S. Fish and Wildlife Service
Division of Ecological Services
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506

Region IV Headquarters (404) 679-4000
U. S. Fish and Wildlife Service
Division of Ecological Services
1875 Century Blvd.
Atlanta, Georgia 30345

Oil spills of one barrel or more in wetlands or state wildlife refuges must be reported to the **Louisiana Department of Wildlife and Fisheries at 1-800-256-2749**. If requested, written reports should be directed to the Louisiana Department of Wildlife and Fisheries at P. O. Box 98000, Baton Rouge, LA 70898-9000.

If an oil spill contacts land, a courtesy notification should be made to the LA Department of Natural Resources Office of Conservation.

If an oil spill contacts land in a national park, a courtesy notification should be made to the United States National Parks Service.

2.3.2.5.3 Louisiana State Emergency Response Commission

Louisiana Revised Statutes Title 30, Chapter 16 (The Hazardous Materials Information Development, Preparedness, and Response Act) requires notification of releases that leave a

facility above reportable quantities. This reporting requirement also fulfills the reporting requirements of U.S. EPA regulations under the Emergency Planning & Community Right-to-Know Act (EPCRA), SARA Title III.

Releases from the facility (pipeline station or pipeline right-of-way) which leave the facility, or are a threat to the public must be reported to the NRC, SERC, and LEPC. Reportable release amounts are:

- 100 pounds of flammable liquid (flash point below 100)
  - gasoline, approximately 16 gallons
  - propane, approximately 23 gallons
  - crude oil, approximately 13 gallons
- 500 pounds of combustible liquid (flash point above 100)
  - crude oil, approximately 1.5 bbl
- 5,000 pounds of any material that requires a Material Safety Data Sheet (MSDS)

Written notification of the release is required within five calendar days of the event and should be sent to:

Louisiana State Emergency Response Commission
Department of Public Safety & Corrections
Office of State Police
Transportation & Environmental Safety Section
P. O. Box 66168
Baton Rouge, LA 70896

2.3.2.5.4 Louisiana LEPCs

Each parish in the State of Louisiana has a designated LEPC under Louisiana's Community Right-to-Know law. The same guidelines established for reporting a crude oil release to the Louisiana SERC should be used for reporting to the LEPC. If the Louisiana SERC must be contacted, then the LEPC in the parish that the release occurred in must also be contacted. Written notification of the release is required within five calendar days of the event to the address listed for the LEPC in each parish. Note: If the LEPC cannot be reached, call the local sheriff's office.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A, organized by Response Zone. LEPC contact information for the Louisiana counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.6 State of Michigan

The State of Michigan has no facility/workplace exemption. Therefore, releases to land, even within facility boundaries, where a CERCLA RQ is exceeded require verbal notification to the

Michigan Department of Natural Resources and Environment (MDNR&E) Pollution Emergency Alerting System (PEAS) within 24 hours at 1-800-292-4706 and notification to the local LEPC, Fire Department, and/or Police Department. A written follow-up report is only required if requested by MDNR&E. Immediate notification to the MDNR&E PEAS is required for all oil releases that cause a sheen to waters of the state (navigable waterways) with a written follow-up report filed with MDNR&E within ten days (see http://www.michigan.gov/deq for the MDNR&E Spill or Release Report (EQP 3465)). Emergency response agencies can be notified by contacting the Michigan State Police Dispatch. The Michigan Fire Prevention Code also requires that fires, explosions, spills, leaks, or accidents involving hazardous materials be reported immediately to the **Michigan Department of Energy, Labor and Economic Growth Bureau of Fire Services at 800-525-5555** and the local fire department. In addition, releases of flammable or combustible liquids from aboveground storage tank (AST) systems greater than 55 gallons to the ground or within secondary containment during any 24-hour period must be reported to PEAS as soon as practicable. Within ten days after the release, a written follow-up report must be submitted to MDNR&E.

When calling MDNR&E or the LEPC, the information recorded in the ALIRTS system will be required.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A, organized by Response Zone. LEPC contact information for the Michigan counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.7 State of Mississippi

The State of Mississippi requires reporting of oil spills into state waters, including surface and underground waters, to the **Mississippi Emergency Management Agency (MEMA) State Warning Point at 1-800-222-6362.** Any release of hazardous substances in excess of the "Reportable Quantity" for that substance requires notification to the NRC, MEMA, and the appropriate LEPC. A reportable release from an underground tank requires reporting within twenty-four (24) hours to the Mississippi Department of Environmental Quality (MDEQ). Reportable releases include a spill or overfill from an underground storage tank (UST) containing petroleum that 1) exceeds twenty-five (25) gallons or causes a sheen, a tank tightness failure, presence of free product or vapors in soils, or other indication of UST failure. For reportable UST releases, a written report must be submitted within 10 days to MDEQ, UST Branch.

For SARA Title III compliance, releases must be reported to the NRC, SERC, and LEPC and a written follow-up emergency notice should be submitted to the Mississippi Emergency Response Commission.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Mississippi counties in which MPL operates is provided in Figure 2.1 at the end of this section.

2.3.2.8 State of Missouri

The St. Louis Coast Guard MSO has requested a courtesy call for any spill, which affects the Mississippi River.

2.3.2.9 State of Montana

The State of Montana requires reporting to the **Montana Department of Environmental Quality (MDEQ) at 406-324-4777** within 24 hours of being detected for petroleum releases of greater than 25 gallons from regulated aboveground storage tanks (ASTs) and USTs. After normal business hours releases must be reported to the **Montana Disaster and Emergency Services (MDES) 24-hour number at 1-406-324-4777**. Petroleum releases less than 25 gallons must be contained and cleaned up within 24 hours. If cleanup cannot be completed within 24 hours, the release must be reported to MDEQ. In addition, releases or spills of hazardous substances in amounts meeting or exceeding reportable quantities; spills, overfills, and suspected releases from USTs (ARM 17.56.5 01); and releases or spills of materials that would lower the quality of groundwater (ARM 17.30.1045) must be reported to MDEQ/MDES.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Montana counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.10 State of Ohio

Ohio requires reporting to the **Ohio Environmental Protection Agency (OEPA) at 1-800-282-9378** of any release of extremely hazardous substances or CERCLA hazardous substances exceeding their reportable quantities; a release of oil causing a visible sheen or film upon the surface of a navigable water; a release of 25 gallons or more of oil (excepting crude oil) into the environment; or a release of 210 gallons or more of crude oil from an oil and gas extraction storage facility into the environment. Releases on land that are confined to MPL owned or controlled property are not reportable. Releases subject to reporting (oil releases or hazardous substance/H_2S releases over 100 pounds) are required to be telephoned to the OEPA, the LEPC, and the local jurisdictional fire department within 30 minutes Emergency response agencies can be contacted through the Ohio Director of Disaster services. Written reports are required to be submitted within 30 days to the OEPA and to the LEPC. When calling OEPA or the LEPC, the information will be required.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Ohio counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.11 Commonwealth of Pennsylvania

The Commonwealth of Pennsylvania requires immediate reporting to the Pennsylvania Department of Environmental Protection (PDEP) at for any pollutant discharged into surface or groundwater, including sewers, drains, and ditches; for any hazardous waste affecting surface water or groundwater (regardless of amount), and for quantities spilled in excess or reportable quantities not affecting water; and for any releases from regulated USTs or ASTs. PDEP prefers that the notifications be made to the appropriate regional office. For **Beaver County which is within the Southwest Region, the 24-hour number is 412-442-4000**. In addition, the **PDEP statewide number, 800-541-2050** serves as a backup to the regional numbers.

When making the verbal notice to PDEP, the following information should be provided.

- Name of the person reporting the incident.
- Installation's name and location.
- Phone number at which the person reporting the spill can be reached.
- Incident's date, time, and location.
- A brief description of the incident. Include type of oil that spilled, extent of injuries (if applicable), and possible hazards to humans and the environment.
- Estimated quantity that spilled.
- Amount of land and/or water impacted.

In addition, a written report must be submitted to the Operations Chief of Water Quality Management Program at the appropriate PDEP regional office. It must be submitted within 15 days of the incident and shall include the following information:

- Name, address, and telephone number of the person reporting the incident.
- Installation's name, location, and telephone number.
- A brief description to the circumstances causing the incident.
- Description and estimated quantity by weight or volume of materials or wastes involved.
- An assessment of the land and/or water contaminated by the incident.
- Estimated quantity and disposition of recovered materials or wastes that resulted from the incident.
- A description of the actions the spilling facility has taken (or will take) to prevent a similar occurrence in the future.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Pennsylvania counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.12 State of Tennessee

The State of Tennessee requires that any spill of oil or oil product into waters of the state must be reported to the **Tennessee Emergency Management Agency (TEMA) at 1-800-258-3300**. Releases of reportable quantities of hazardous materials must be reported immediately to the NRC, TEMC, and LEPC and written notification must be submitted to the agency as compliance with CERCLA and SARA Title III requirements. In addition, petroleum spills greater than or equal to 25 gallons from USTs systems must be cleaned up and reported to the **Tennessee Department of Environmental Conservation (TDEC) at 615-532-0780 within 72 hours**. Spills of less than 25 gallons must also be reported if they cannot be cleaned up within 72 hours. In addition, if groundwater that is a potable drinking water source becomes contaminated with chemical constituents above drinking water standards, the contamination must be reported to TDEC in accordance with Rule 1200-4-3-07-12.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Tennessee counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.13 State of Texas

There are several Texas agencies which have oil spill prevention and response responsibilities and requirements. The Texas Commission of Environmental Quality (TCEQ) is the lead agency in responding to spills of hazardous substances, including refined petroleum products from pipelines, releases of crude oil being transported over the roadway, and discharges of other substances, including air releases that may cause pollution. **The State of Texas Spill-Reporting Hotline (TCEQ Emergency Response) must be contacted immediately at 800-832-8224 (24-hour number),** for reporting TCEQ reportable spills or releases. TCEQ can also be contacted at 512-239-1000.

The General Land Office (GLO) is the lead agency for oil spills that enter, or threaten to enter, coastal waters. To report an oil spll that has entered or threatened to enter coastal numbers, the **GLO must be contacted within 1-hour of spill discovery using the 24-hour number, 800-832-8224**. The Texas Oil Spill Prevention and Response Act of 1991 applies to Texas coastal waters, or any area where a spill could, within 12 hours, affect the coastal zone. This covers the Texas City to Pasadena system. All oil spills (including refined products) must be reported to the GLO, unless they are entirely contained within the facility, and do not pose a threat to the coastal waters.

The Deer Park Police Dispatch must be notified of any pressure drop that would indicate a possible emergency within the corporate city limits of Deer Park, TX.

In addition, the Railroad Commission of Texas (RRC) is the lead agency in responding to spills or discharges from activities associated with the exploration, development, or production, including storage or pipeline transportation (excluding highway transport and refined product spills), of oil and gas resources. **The 24-hour phone number for reporting spills and pollution events regulated by RCC is the State of Texas Spill reporting Hotline: 800-832-8224**. Breaks or leaks from pipelines resulting in a loss of crude or product oil in quantities of 5 barrels (bbl) or more on land or any amount on water or gas leaks from pipelines must also be immediately reported in writing to the appropriate RRC District Office by completing and submitting the RRC Oil and Gas Division, Crude Oil, Gas Well Liquids, or Associated Products Loss Report (Form H-8).

For accidents occurring on the intrastate crude oil system in Texas, a copy of DOT FORM 7000-1 must be sent to the Texas Railroad Commission, Gas Utilities Division,
Pipeline Safety Section at P. O. Drawer 12967, Austin, TX 78711-2967

Releases of reportable quantities of hazardous materials must be reported immediately to the NRC, TECQ, and LEPC and written notification must be submitted to the agency as compliance with CERCLA and SARA Title III requirements. The definition of a "Facility" is interpreted as including pipeline right of ways and pipeline stations except, where the public may be affected by a release in these areas.

Oil Spills on Texas Waters

For oils spills on Texas Waters, the NRC must be notified "immediately." In addition, for spills of one barrel or more, courtesy notifications should be made to the USCG's Marine Safety Unit

When contacting WDEQ, be prepared to provide the type, quantity and location of the release, and of the response, containment and cleanup actions which have been taken or are proposed to be taken. In addition, within seven days of the release, a complete written report must be submitted to WDEQ describing the reportable release and steps taken to prevent a reoccurrence. Written reports of reportable spills in the Big Horn Basin (Park, Big Horn, Washakie and Hot Springs Counties) are to be submitted to the Lander DEQ office. All other reports should be directed to the Cheyenne office.

Releases of less than ten barrels that do not threaten waters of the state are not reportable to the WDEQ.

In addition, the BLM must be notified if a produced fluid containing more than 10 mg/L oil or having a sheen, or produced water with a total dissolved solid (TDS) greater than 5,000mg/L enters a sensitive area (i.e., parks, recreation sites, wildlife refuges, urban or suburban areas, or navigable waterways) or if 100 or more barrels of hydrocarbon of produced water with a TDS of greater than 5,000mg/L spill outside of containment dikes. See Section 2.3.1.3 for further information on BLM reporting requirements and contact information.

The **Wyoming Game and Fish Department should be notified at 1-307-777-4600** if the spill affects fish and wildlife. If the spill affects endangered or threatened species or migratory birds, both the **Wyoming Game and Fish Department and the USFWS- Wyoming Field Office (1-307-772-2374)** should be contacted.

The State of Wyoming Contingency Plan requires that WDEQ give prior approval for any burning associated with spill cleanup (i.e., grant an emergency burn permit) and for disposal of any spill debris. See Section 3.8 for further discussion on requirements and procedures related to in-situ burning and Section 3.11 for further discussion on requirements and procedures related to waste management associated with spill recovery and cleanup operations.

Releases of reportable quantities of hazardous materials in Wyoming must be reported immediately to the NRC, WDEQ, and LEPC and written notification must be submitted to the agency as compliance with CERCLA and SARA Title III requirements. The definition of a "Facility" is interpreted as including pipeline right of ways and pipeline stations except, where the public may be affected by a release in these areas.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Wyoming counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

over the geographic area. All of MPL's Gulf Coast Facilities fall under District 8 of the USCG. Contact information for District 8 USCG Marine Safety Units is found in Figure2.1 located in Section 2.0 of the plan. For an oil spill or potential oil spill that could warrant response action, the USCG On-Scene Coordinator (OSC) should be notified.

Any oil spill that contacts State Waters and spills on land greater than 5 bbls must be reported to the TCEQ as described previously. If the release is to coastal waters, notification should be made to the GLO, the state's lead agency for response to actual or threatened releases of hydrocarbons to coastal waters. The Commissioner of the GLO is the state OSC for oil spill response. In addition to contacting the **GLO at the 24-hour number, 800-832-8224, the GLO Deputy Commissioner should be notified immediately at 1-512-463-8764** of any federal or state unauthorized discharge of oil that threatens coastal waters or tidal waters.

Courtesy notifications for major oil spills should be made to the USFWS at the following addresses:

Texas:
USF&WL
17629 El Camino Real, Suite 211
Houston, TX 77058-3051

Region 2 Headquarters
P. O. Box 1306
Albuquerque, NM 87103
(505)248-6282

Any release that is an apparent threat to fish and wildlife or on any wildlife management area must be reported to the Texas Parks and Wildlife Department at 1-512-389-4800 or 1-800-792-1112.

Emergency numbers for local fire, police, sheriff, ambulance, and power companies for each Station are located in Appendix A organized by Response Zone. LEPC contact information for the Texas counties in which MPL operates is provided in Figure 2.1 found in Section 2.0 of the plan.

2.3.2.14 State of Wyoming

Crude oil, petroleum condensate, produced water, or hazardous substance releases that meet one or more of the following criteria are to be immediately reported to the **Wyoming Department of Environmental Quality (WDEQ) by calling 307-777-7781 (24 hour)**:

1. Any release that enters waters of the state (defined as all surface and groundwater, including waters associated with wetlands, within Wyoming).
2. A release that is determined to be a threat to waters of the state and is a hazardous substance or is an amount greater than either 10 barrels of crude oil/petroleum condensate/produced water or 25 gallons of refined crude oil products.
3. A suspected release from ASTs or USTs regulated by Chapter 17 of the Wyoming Water Quality Rules and Regulations.

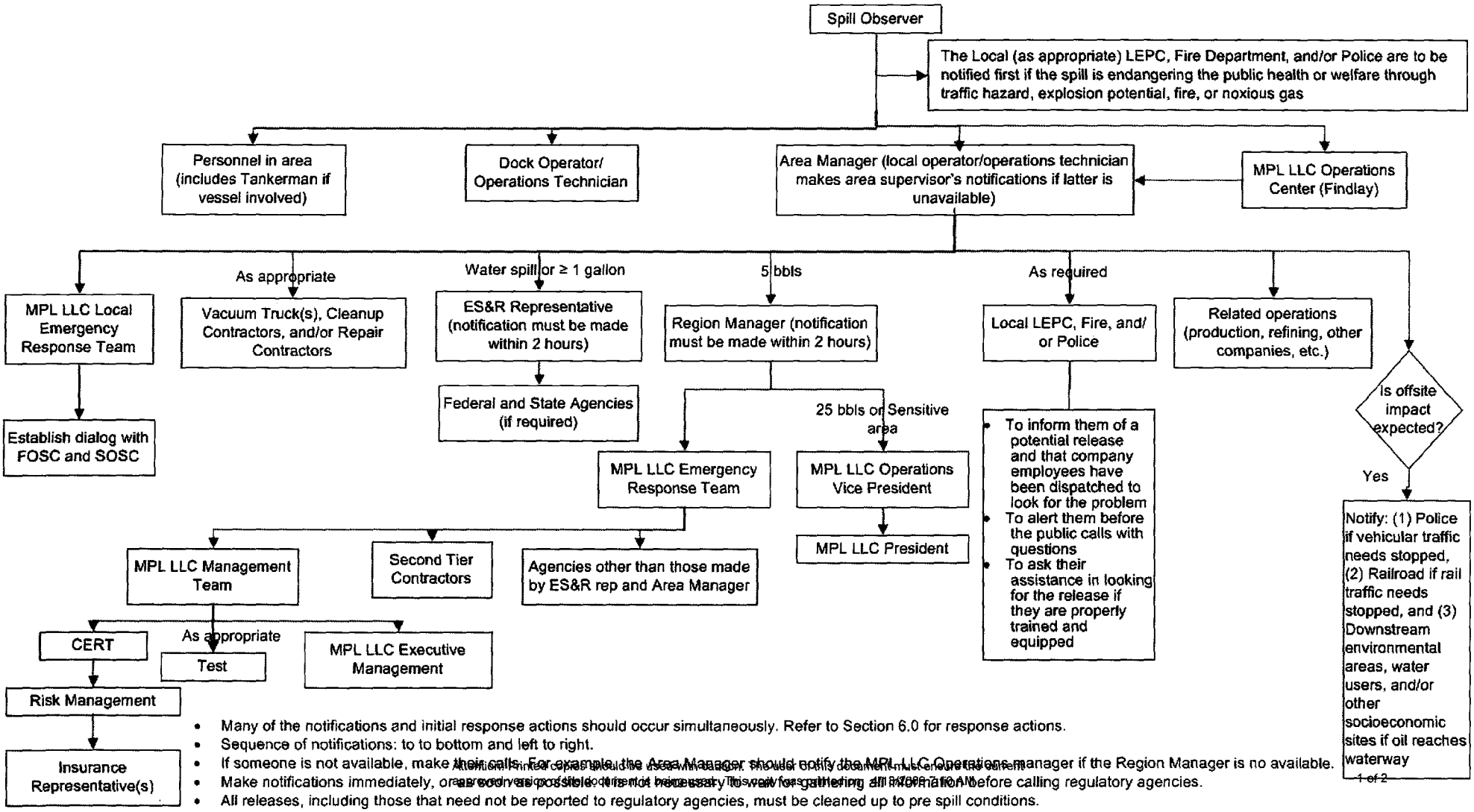
2.4 EMERGENCY REPORTING GUIDELINES

The following are general guidelines to be used when reporting a spill, incident, or emergency:

- Never include information that has not been verified.
- Never speculate as to the cause of an incident or any potential liability.
- Gather as much information as possible in the ALIRTS system (Appendix C).
- Document:
  - agency notified;
  - date and time agency notified;
  - person notified;
  - (if appropriate) case number(s); and
  - content of message given.

Figure 2.1 Notification Flowchart

See subsequent pages for regulatory notifications and telephone numbers



- Many of the notifications and initial response actions should occur simultaneously. Refer to Section 6.0 for response actions.
- Sequence of notifications: to to bottom and left to right.
- If someone is not available, make their calls. For example, the Area Manager should notify the MPL LLC Operations manager if the Region Manager is no available.
- Make notifications immediately, or as soon as possible. It is not necessary to wait for gathering all information before calling regulatory agencies.
- All releases, including those that need not be reported to regulatory agencies, must be cleaned up to pre spill conditions.

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Federal

BLM Montana Field Office	24/7 Phone		Email	blm_mt_billings_fo@blm.gov
	Day Phone	406-896-5013	Website	http://www.blm.gov/mt/st/en/fo/billings_field.office.html
	Night Phone			
BLM Northeastern States Field Office (Includes IL, IN, Michigan, OH, and Penn)	24/7 Phone		Email	mfo_web_general@blm.gov
	Day Phone	414-297-4400	Website	http://www.blm/es/st/en/fo/milwaukeefo_html.html
	Night Phone			
BLM Oklahoma Field Office (Includes Texas)	24/7 Phone		Email	blm_nm_comments@blm.gov
	Day Phone	918-621-4100	Website	http://www.blm/nm/st/en/fol/oklahoma_field_office.html
	Night Phone			
BLM Southeastern States Field Office (Includes Kentucky, Louisiana, Mississippi, and Tennessee)	24/7 Phone		Email	jfo_web_general@blm.gov
	Day Phone	601-977-5400	Website	http://www.blm.gov/es/st/en/fo/jackson_home_page.html
	Night Phone			
BLM Wyoming, Casper Field Office	24/7 Phone		Email	casper_wymail@blm.gov
	Day Phone	307-261-7600	Website	http://www.blm.gov/wy/st/en/field_offices/casper.html
	Night Phone			
BLM Wyoming, Cody Field Office	24/7 Phone		Email	cody_wymail@blm.gov
	Day Phone	307-578-5900	Website	http://www.blm.gov/wy/st/en/field_offices/cody.html
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

BLM Wyoming, Lander Field Office	24/7 Phone		Email	lander_wymail@blm.gov
	Day Phone	307-332-8400	Website	http://www.blm.gov/wy/st/en/field_offices/lander.html
	Night Phone			
BLM Wyoming, Pinedale Field Office	24/7 Phone		Email	pinedale_wymail@blm.gov
	Day Phone	307-367-5300	Website	http://www.blm.gov/wy/st/en/field_offices/pinedale.html
	Night Phone			
BLM Wyoming, Rock Springs Field Office	24/7 Phone		Email	rock_springs_wymail@blm.gov
	Day Phone	307-352-0256	Website	http://www.blm.gov/wy/st/en/field_offices/rock_springs.html
	Night Phone			
BLM Wyoming, Worland Field Office	24/7 Phone		Email	worland_wymail@blm.gov
	Day Phone	307-347-5100	Website	http://www.blm.gov/wy/st/en/field_offices/worland.html
	Night Phone			
National Response Center (NRC)	24/7 Phone	800-424-8802	Email	hqs-dg-lst-nrcinfo@uscg.mil
	Day Phone		Website	http://www.nrc.uscg.mil
	Night Phone			
Occupational Safety & Health Administration (OSHA)	24/7 Phone	800-321-6742	Email	
	Day Phone		Website	http://www.osha.gov
	Night Phone			
Region IV Headquarters U. S. Fish and Wildlife Service Division of Ecological Services Contamination Specialist	24/7 Phone	404-679-4000	Email	
	Day Phone	404-679-7119	Website	http://www.fws.gov/endangered/regions/index.html
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Region VI (Texas-Louisiana) U. S. Department of Interior Bureau of Safety and Environmental Enforcement - Gulf of Mexico OCS Region and Atlantic Activities	24/7 Phone Day Phone Night Phone	 504-736-5760 800-200-4853	Email Website	 http://www.bsee.gov/
United States Coast Guard Baton Rouge, LA Marine Safety Unit	24/7 Phone Day Phone Night Phone	 225-298-5400	Email Website	 http://www.uscg.mil/d8/d8units.asp
United States Coast Guard Corpus Christi, TX On-Scene Coordinator	24/7 Phone Day Phone Night Phone	 361-939-6393, 361-939-6349	Email Website	 http://homeport.uscg.mil/corpuschristi
United States Coast Guard Galveston, TX On-Scene Coordinator	24/7 Phone Day Phone Night Phone	 713-671-5100, 713-671-5113	Email Website	 http://homeport.uscg.mil/houstongalveston
United States Coast Guard Miami, FL Response Division	24/7 Phone Day Phone Night Phone	305-415-6800 305-415-6820	Email Website	 http://www.uscg.mil/d7/
United States Coast Guard Mobile, AL USCG On-Scene Coordinator	24/7 Phone Day Phone Night Phone	 251-441-5720, 251-441-6211	Email Website	 http://homeport.uscg.mil/mobile

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

United States Coast Guard Morgan City, LA On-Scene Coordinator	24/7 Phone		Email	
	Day Phone	985-380-5320	Website	http://homeport.uscg.mil/morgancity
	Night Phone			
United States Coast Guard New Orleans, LA On-Scene Coordinator	24/7 Phone	504-365-2544	Email	
	Day Phone	504-365-2200	Website	http://www.uscg.mil/d8/sectnola
	Night Phone			
United States Coast Guard Port Arthur, TX On-Scene Coordinator	24/7 Phone		Email	
	Day Phone	409-723-6500, 409-719-5000	Website	http://www.uscg.mil/d8/d8units.asp
	Night Phone			
United States Coast Guard St. Louis, MO Marine Safety Office	24/7 Phone	314-269-2332	Email	
	Day Phone		Website	http://www.uscg.mil/d8/sectumr/
	Night Phone			
United States Coast Guard Tampa, FL USCG On-Scene Coordinator	24/7 Phone	305-415-6800	Email	
	Day Phone		Website	http://www.uscg.mil/d7/
	Night Phone			
United States Coast Guard Texas City, TX Marine Safety Unit	24/7 Phone		Email	
	Day Phone	409-978-2718, 409-978-2706	Website	http://www.uscg.mil/d8/d8units.asp
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

United States Fish and Wildlife Service (FWS)	24/7 Phone	800-344-9453	Email	
	Day Phone		Website	http://www.fws.gov
	Night Phone			
United States Fish and Wildlife Service Division of Ecological Services - Field Supervisor	24/7 Phone		Email	
	Day Phone	337-291-3100	Website	http://www.fws.gov/southeast/es/
	Night Phone	337-280-1157		
United States National Parks Service (NPS)	24/7 Phone		Email	
	Day Phone	404-507-5600	Website	http://www.nps.gov/state/la/list.htm?program=all
	Night Phone			
Arkansas				
Arkansas Department of Emergency Management Staff Duty Officers	24/7 Phone	501-683-6700	Email	adem@adem.arkansas.gov
	Day Phone		Website	http://www.adem.arkansas.gov
	Night Phone			
Arkansas Department of Pollution Control and Ecology	24/7 Phone		Email	
	Day Phone	501-682-7890	Website	http://www.adeq.state.ar.us/commission
	Night Phone			
Arkansas Oil and Gas Commission Fort Smith Regional Office (North Arkansas)	24/7 Phone		Email	spud@aogc.state.ar.us
	Day Phone	479-646-6611	Website	http://www.aogc.state.ar.us
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Arkansas Oil and Gas Commission Fort Smith Regional Office (South Arkansas)	24/7 Phone Day Phone Night Phone	 870-862-4965	Email Website	spudsouth@aogc.state.ar.us http://www.aogc.state.ar.us
Chicot County				
Lake Village City Jail Chicot County Emergency Management Chicot County LEPC Coordinator	24/7 Phone Day Phone Night Phone	870-265-5055	Email Website	 http://www.adem.arkansas.gov/adem/divisions/preparedness/hazmatrep/lepc.aspx
Illinois				
Illinois Emergency Management Agency (IEMA)	24/7 Phone Day Phone Night Phone	217-782-2700	Email Website	 http://www.state.il.us/iema
Bond County				
Bond/Greenville County ESDA/EMA	24/7 Phone Day Phone Night Phone	618-267-9110 618-664-1911	Email Website	bond911@sbcglobal.net http://www.state.il.us/iema/contacts/contacts.htm
Champaign County				
Champaign County EMA	24/7 Phone Day Phone Night Phone	 217-384-3826	Email Website	ema@co.champaign.il.us http://www.state.il.us/iema/contacts/contacts.htm
Christian County				
Christian County EMA/ESDA Coordinator	24/7 Phone Day Phone Night Phone	217-287-7227 217-820-0912	Email Website	 http://www.state.il.us/iema/contacts/contacts.htm

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Clark County				
Clark County EMA	24/7 Phone		Email	ccemamail@gmail.com
	Day Phone	217-826-6393	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Clay County				
Clay County EMA/ESDA	24/7 Phone		Email	
	Day Phone	618-662-8211	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Clinton County				
Clinton County EMA/ESDA	24/7 Phone		Email	
	Day Phone	618-594-4455	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Coles County				
Coles County EMA	24/7 Phone		Email	densign@co.coles.il.us
	Day Phone	217-348-9481	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Cook County				
Cook County EMA	24/7 Phone	312-603-8180	Email	
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Crawford County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Crawford County EMA	24/7 Phone	618-546-1515	Email	
	Day Phone	618-546-1258	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone	618-562-0402		
Cumberland County				
Cumberland County EMA	24/7 Phone	217-849-2571	Email	timms@ruralcommail.com
	Day Phone	217-849-3757	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Douglas County				
Douglas County EMA	24/7 Phone	217-253-9538	Email	joe.victor@douglascountyil.com
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Edgar County				
Edgar County EMA	24/7 Phone		Email	esdaparis@midwestfirst.com
	Day Phone	217-466-3180	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Edwards County				
Edwards County EMA	24/7 Phone	618-445-2721	Email	
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Effingham County				
Effingham County EMA	24/7 Phone	217-342-2101	Email	
	Day Phone	217-536-6169	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Fayette County				
Fayette County EMA	24/7 Phone	618-283-4292	Email	
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Ford County				
Ford County EMA	24/7 Phone	217-379-2324	Email	
	Day Phone	217-379-2741	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Franklin County				
Franklin County EMA	24/7 Phone	618-438-4841	Email	
	Day Phone	618-439-4362	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Hamilton County				
Hamilton County EMA	24/7 Phone	618-643-2011	Email	harrefuneralhome@yahoo.com
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Iroquois County				
Iroquois County EMA/ESDA	24/7 Phone	815-432-4918	Email	
	Day Phone	815-432-6997	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Jasper County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Jasper County EMA	24/7 Phone	618-783-8477	Email	
	Day Phone	618-554-2285	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Johnson County				
Johnson County ESDA	24/7 Phone	618-658-8264	Email	
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Kankakee County				
Kankakee County ESDA	24/7 Phone	815-933-3321	Email	dzinanni@k3county.net
	Day Phone	815-802-7174	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Lawrence County				
Lawrence County EMA	24/7 Phone	618-562-5800	Email	
	Day Phone	618-945-9500	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Macon County				
Macon County EMA	24/7 Phone	217-424-1311	Email	jroot@maconcountyema.org
	Day Phone	217-424-1327	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Macoupin County				
Macoupin County EMA	24/7 Phone		Email	
	Day Phone	217-854-3352	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone	217-248-2548		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Madison County				
Madison County EMA	24/7 Phone	618-692-0537	Email	llringering@co.madison.il.us
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone	618-920-8361		
Marion County				
Marion County EMA/ESDA	24/7 Phone	618-548-2141	Email	drb64@sbcglobal.net
	Day Phone	618-267-0066	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone	618-267-0066		
Massac County				
Massac County EMA	24/7 Phone	618-524-2912	Email	doug2@djklink.net
	Day Phone	618-524-2002	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone	618-309-3993		
Montgomery County				
Montgomery County EMA	24/7 Phone	217-532-9564	Email	mcesda99@yahoo.com
	Day Phone	217-532-9560	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Moultrie County				
Moultrie County ESDA	24/7 Phone	217-728-4386	Email	mocoplan@yahoo.com
	Day Phone	217-728-8841	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone	217-273-7922		
Piatt County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Piatt County EMA	24/7 Phone	217-762-2626	Email	
	Day Phone	217-762-9482	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Richland County				
Richland County EMA	24/7 Phone	618-395-7481	Email	
	Day Phone	618-839-7605	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Shelby County				
Shelby County EMA	24/7 Phone	217-774-3941	Email	scema@consolidated.net
	Day Phone	217-774-1499	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
St. Clair County				
St. Clair County EMA	24/7 Phone	618-277-3500	Email	ema@co.st-clair.il.us
	Day Phone	618-825-2682	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Wabash County				
Wabash County EMA	24/7 Phone		Email	
	Day Phone	618-263-3111	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Wayne County				
Wayne County EMA	24/7 Phone	618-599-3043	Email	waynecountyema@frontier.com
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

White County				
White County EMA	24/7 Phone	618-382-4633	Email	
	Day Phone		Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Will County				
Will County EMA	24/7 Phone		Email	ema@willcountyillinois.com
	Day Phone	815-740-8351	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone	815-740-0911		
Williamson County				
Williamson County EMA	24/7 Phone		Email	
	Day Phone	618-998-2123	Website	http://www.state.il.us/iema/contacts/contacts.htm
	Night Phone			
Indiana				
Indiana Department of Environmental Management (IDEM) IDEM Emergency Response	24/7 Phone	888-233-7745	Email	
	Day Phone		Website	http://www.in.gov/idem
	Night Phone			
Indiana Department of Homeland Security (IDHS)	24/7 Phone	800-669-7362	Email	
	Day Phone	317-232-3980	Website	http://www.in.gov/dhs
	Night Phone			
Blackford County				
Blackford County EMA/LEPC	24/7 Phone	765-331-9200	Email	ema@blackforcounty.com
	Day Phone	765-348-7210	Website	http://www.in.gov/dhs/files/07contact.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Boone County				
Boone County Civil Defense	24/7 Phone	765-482-1412	Email	wmartin@co.boone.in.us
	Day Phone		Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Boone County LEPC/EMA	24/7 Phone	765-482-1412	Email	
	Day Phone	765-483-4428	Website	http://bccn.boone.in.us/ema/index.htm
	Night Phone	765-482-1412		
Clay County				
Clay County LEPC/EMA	24/7 Phone		Email	
	Day Phone	812-448-9048 Ext. 156	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone	812-446-2535 Ext. 5		
Daviess County				
Daviess County EMA/LEPC	24/7 Phone		Email	
	Day Phone	812-486-5268	Website	http://www.jodaviess.org/index.asp?type=b_basic&sec={0911ea0b-a919-4e90-b0c8-eb050c062dc3}
	Night Phone			
Delaware County				
Delaware County EMA/LEPC	24/7 Phone	765-747-4870	Email	jrogers@co.delaware.in.us
	Day Phone	765-747-7719	Website	http://co.delaware.in.us/department/?fdd=44-0
	Night Phone			
Floyd County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Floyd County EMA	24/7 Phone		Email	ema@floydcounty.in.gov
	Day Phone	812-948-5454	Website	http://www.floydcounty.in.gov/county%20offices/ema.htm
	Night Phone	812-948-5400		
Gibson County				
Gibson County EMA	24/7 Phone		Email	ema@gibsoncounty-in.gov
	Day Phone	812-386-9630	Website	http://www.gibsoncounty-in.gov/departments/ema/default.aspx
	Night Phone			
Grant County				
Grant County LEPC/EMA	24/7 Phone	765-669-2595	Email	bbender@grantcounty.net
	Day Phone	765-651-2410	Website	http://ema.grantcounty27.us/cgi.exe?pageid=0014
	Night Phone			
Hamilton County				
Hamilton County EMA/LEPC Emergency Community Coordinor	24/7 Phone	317-770-3384	Email	carl.ericson@hamiltoncounty.in.gov
	Day Phone		Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone	317-716-1957		
Harrison County				
Harrison County EMA/LEPC	24/7 Phone		Email	greas@hirrsoncounty.in.gov
	Day Phone	812-738-8949	Website	http://www.harrisoncountyema.org/
	Night Phone			
Hendricks County				
Brownsburg Fire Department	24/7 Phone	317-852-1190	Email	administration@brownsburgfire.org
	Day Phone		Website	http://www.brownsburgfire.org
	Night Phone	317-838-3712		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Jay County				
Jay County LEPC/EMA	24/7 Phone		Email	rfrazee@co.jay.in.us
	Day Phone	260-726-6909	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Knox County				
Knox County EMA	24/7 Phone		Email	
	Day Phone	812-882-7660	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone	812-291-0458		
Lake County				
Lake County EMA/LEPC	24/7 Phone	219-755-3333	Email	lcemajodi@yahoo.com
	Day Phone	219-755-3549	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
LaPorte County				
LaPorte County EMA	24/7 Phone	219-608-5768	Email	ftibbot@laportecounty.org
	Day Phone	219-362-7210	Website	http://www.laportecounty.org/health/emergency_management.html
	Night Phone	219-608-5768		
Madison County				
Madison County EMA/LEPC	24/7 Phone		Email	
	Day Phone	765-642-8727	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Marion County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Marion County LEPC/EMA Hazardous Materials Specialist	24/7 Phone		Email	jdoerfle@hhcorp.org
	Day Phone	317-221-2266	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Martin County				
Martin County EMA/LEPC	24/7 Phone	812-295-3901	Email	andy.ringwald@frontier.com
	Day Phone	812-854-2429	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Montgomery County				
Montgomery County EMA	24/7 Phone	765-364-5154	Email	
	Day Phone		Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone	765-364-5154		
Orange County Washington City				
Washington City EMA	24/7 Phone	812-883-5999	Email	
	Day Phone	812-883-7523	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Parke County				
Parke County LEPC/EMA	24/7 Phone	812-246-7475 Ext. 2, 812-246-5538	Email	clark.ema@insightbb.com
	Day Phone		Website	http://parkecounty-in.gov/?q=emo
	Night Phone			
Porter County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Porter County EMA/LEPC	24/7 Phone		Email	pcema@yahoo.com
	Day Phone	219-465-3593	Website	http://www2.porterco.org/home/departments/environmental/lepc/
	Night Phone			
Posey County				
Posey County LEPC	24/7 Phone	812-838 1320	Email	pclepc@evansville.net
	Day Phone	812-838-1333	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Putnam County				
Putnam County EMA	24/7 Phone		Email	
	Day Phone	765-653-5049	Website	http://www.co.putnam.in.us/emergencymanagement.html
	Night Phone			
Spencer County				
Spencer County EMA	24/7 Phone		Email	ema@specercounty.in.gov
	Day Phone	812-649-6020	Website	http://spencercounty.in.gov/pages.cfm?departmentid=401
	Night Phone			
St. Joseph County				
St. Joseph County EMA/LEPC	24/7 Phone	574-272-3877	Email	bill@sjcema.com
	Day Phone	574-235-9234	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Sullivan County				
Sullivan County LEPC/EMA	24/7 Phone		Email	scema@joink.com
	Day Phone	812-268-6257	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			

MARATHON rIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Tipton County				
Tipton County LEPC/EMA	24/7 Phone	765-675-2111	Email	
	Day Phone		Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Vanderburgh County				
Vanderburgh County EMA	24/7 Phone		Email	ema@evansvillegov.org
	Day Phone	812-435-6020	Website	http://www.vanderburghgov.org/index.aspx?page=51
	Night Phone			
Vermillion County				
Vermillion County EMA	24/7 Phone		Email	mpoheir@vermilliongov.us
	Day Phone	765-832-5500	Website	http://www.in.gov/dhs/files/10contact.pdf
	Night Phone			
Vigo County				
Vigo County LEPC/EMA	24/7 Phone		Email	vcema@vigocounty.in.gov
	Day Phone	812-462-3217	Website	http://www.vigocountylepc.com/
	Night Phone			
Warrick County				
Warrick County EMA	24/7 Phone		Email	wcema@warrickcounty.gov
	Day Phone	812-897-6178	Website	http://www.warrickcounty.gov/ema/ or http://www.warrickcounty.gov/lepc/index.htm
	Night Phone			
Washington County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Washington County EMA	24/7 Phone		Email	ema@washingtoncounty.in.gov
	Day Phone	812-883-4962	Website	http://www.washingtoncounty.in.gov/emergencymanagement.html
	Night Phone			
Kentucky				
Kentucky Department of Environmental Protection (KDEP) Environment Response Team (ERT)	24/7 Phone	800-928-2380	Email	
	Day Phone	502-564-2150	Website	http://dep.ky.gov
	Night Phone			
Kentucky Emergency Management (KYEM)	24/7 Phone	800-255-2587	Email	
	Day Phone		Website	http://kyem.ky.gov
	Night Phone			
Kentucky Public Service Commission (Kentucky PSC)	24/7 Phone	800-772-4636	Email	
	Day Phone	502-564-3940	Website	http://psc.ky.gov
	Night Phone			
Anderson County				
Anderson County LEPC/EMA	24/7 Phone	502-839-7378, 502-839-7642	Email	gpass@ykksnap-america.com, bart.powell@roadrunner.com, john2290p@gmail.com
	Day Phone		Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Ballard County				
Ballard County LEPC	24/7 Phone	270-665-9928	Email	bclepc@brtc.net
	Day Phone		Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Bath County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Bath County LEPC	24/7 Phone	606-674-2006	Email	bcem@windstream.net
	Day Phone	606-336-4282	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Boyd County				
Boyd County LEPC	24/7 Phone	606-329-0800	Email	bwebster@boydcoem.net
	Day Phone	606-739-0127	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Breckinridge County				
Breckinridge County LEPC	24/7 Phone		Email	
	Day Phone	270-580-4766	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Bullitt County				
Bullitt County LEPC	24/7 Phone	302-543-2514	Email	mikedphillips@windstream.net
	Day Phone	502-543-2000	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Carlisle County				
Carlisle County LEPC	24/7 Phone		Email	
	Day Phone	270-628-3355	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Carter County				
Carter County LEPC/EMA	24/7 Phone	606-474-9827	Email	cartercoema@hotmail.com
	Day Phone		Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Clark County				
Clark County LEPC	24/7 Phone	859-744-2111	Email	stuart.joynt@sylvania.com
	Day Phone	859-749-8014, 859-749-4360	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Daviess County				
Daviess County LEPC	24/7 Phone	270-685-8448	Email	rpayne@daviessky.org
	Day Phone		Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Elliott County				
Elliott County LEPC	24/7 Phone	606-738-6000	Email	ejudge@mrtc.com
	Day Phone	606-738-6011	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Fayette County				
Fayette County LEPC	24/7 Phone		Email	rwright@lexingtonky.gov
	Day Phone	859-258-3784	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Fulton County				
Fulton County LEPC	24/7 Phone	270-236-2529	Email	davidhugh@bellsouth.net
	Day Phone	270-236-3480	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone	270-994-7440		
Hancock County				

MARATHON rIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Hancock County LEPC	24/7 Phone	270-927-1310	Email	
	Day Phone		Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Hardin County				
Hardin County LEPC/ES	24/7 Phone	270-765-5978	Email	esadministrator@hardin.com
	Day Phone		Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Hickman County				
Hickman County LEPC/EMA	24/7 Phone	270-653-9933	Email	hcrd@ken-tennwireless.com
	Day Phone	270-653-8338	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone	270-254-0306		
Jefferson County				
Jefferson County LEPC	24/7 Phone	502-574-2117	Email	
	Day Phone	502-572-3459	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Jessamine County				
Jessamine County LEPC	24/7 Phone	859-887-5447	Email	jcema@mikrotec.com
	Day Phone	859-887-2922	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
McCracken County				
McCracken County LEPC	24/7 Phone	270-444-8550	Email	pcarter@co.mccracken.ky.us
	Day Phone	270-448-1530	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone	270-994-0353		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Mercer County				
Mercer County LEPC	24/7 Phone	859-734-3311	Email	mcema@mercerky.com
	Day Phone	859-734-6333	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone	859-613-3256		
Montgomery County				
Montgomery County LEPC	24/7 Phone	859-498-8720	Email	wesleye.delk@ky.gov
	Day Phone	859-498-3825	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Nelson County				
Nelson County LEPC	24/7 Phone	502-348-3600	Email	
	Day Phone	502-348-4929	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Rowan County				
Rowan County LEPC	24/7 Phone		Email	lepc103@yahoo.com
	Day Phone	606-784-4333	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Shelby County				
Shelby County LEPC	24/7 Phone	502-633-4324	Email	mike.armstrong@shelbycountykentucky.com
	Day Phone		Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Spencer County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Spencer County LEPC	24/7 Phone	502-477-5533	Email	jeffcoulter@spencercountyky.gov
	Day Phone	502-477-3244	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone	502-817-0237		
Woodford County				
Woodford County LEPC	24/7 Phone		Email	eoc@woodfordem.com
	Day Phone	859-873-3170	Website	http://kyem.ky.gov/teams/pages/lepc.aspx
	Night Phone			
Louisiana				
24-hour Louisiana Emergency Hazardous Materials Hotline	24/7 Phone	877-925-6595	Email	
	Day Phone		Website	http://www.losco.state.la.us/ps_oilspillresponse.htm
	Night Phone			
LA Department of Natural Resources (DNR) Office of Conservation	24/7 Phone	225-342-5505	Email	
	Day Phone		Website	http://dnr.louisiana.gov/
	Night Phone			
LA Department of Public Safety (DPS) Louisiana Oil Spill Coordinator's Office	24/7 Phone	225-200-1921	Email	
	Day Phone	225-925-6606	Website	http://www.dps.state.la.us/contact.html
	Night Phone			
LA Department of Wildlife and Fisheries	24/7 Phone	800-442-2511	Email	
	Day Phone		Website	http://www.wlf.louisiana.gov/
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Louisiana Department of Environmental Quality (LA DEQ) Administrator Surveillance Section	24/7 Phone		Email	
	Day Phone	225-219-3640	Website	http://www.deq.state.la.us/
	Night Phone	225-342-1234		
Louisiana Department of Environmental Quality (LA DEQ) Office of Environmental Compliance	24/7 Phone	225-219-3640	Email	
	Day Phone	225-219-3710	Website	http://www.deq.louisiana.gov/portal/about/officeofenvironmentalcompliance.aspx
	Night Phone			
Ascension Parish				
Ascension Parish LEPC	24/7 Phone	225-621-8300	Email	rwebre@apgov.us
	Day Phone	225-621-8360	Website	http://www.lsp.org/pdf/rtk_lepclist.pdf
	Night Phone	225-620-2020		
Beauregard Parish				
Beauregard Parish LEPC c/o Office of Homeland Security and Emergency Preparedness	24/7 Phone	337-463-3281, 337-463-3282 Ext. 1142	Email	bpoep@beau.org, glen139@centurytel.net
	Day Phone		Website	http://www.lsp.org/pdf/rtk_lepclist.pdf
	Night Phone			
Caldwell Parish				
Caldwell Parish LEPC	24/7 Phone	318-649-2345	Email	caldwellohsep@bellsouth.net
	Day Phone	318-649-3764	Website	http://www.lsp.org/pdf/rtk_lepclist.pdf
	Night Phone			
East Baton Rouge Parish				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

East Baton Rouge Parish LEPC c/o EBRP Office of Homeland Security and Emergency Preparedness	24/7 Phone Day Phone Night Phone	225-389-2121 225-389-5100	Email Website	jcarpenter@brgov.com http://www.brgov.com
East Feliciana Parish				
East Feliciana Parish LEPC c/o East Feliciana Office of Homeland Security and Emergency Preparedness	24/7 Phone Day Phone Night Phone	225-224-5881, 225-683-5459 225-683-1014, 225-224-5881	Email Website	efoepdir@bellsouth.net, hweigand@efso-ohsep.org http://www.lsp.org/pdf/rtk_lepclist.pdf
Grant Parish				
Grant Parish LEPC c/o Grant Parish Office of Homeland Security and Emergency Preparedness	24/7 Phone Day Phone Night Phone	318-627-3261 318-627-3041	Email Website	bmeeker@bellsouth.net http://www.lsp.org/pdf/rtk_lepclist.pdf
La Salle Parish				
La Salle Parish LEPC	24/7 Phone Day Phone Night Phone	 318-992-0673, 318-992-3643	Email Website	jpsoep@centurytel.net http://www.lsp.org/pdf/rtk_lepclist.pdf
Plaquemines Parish				
Plaquemines Parish LEPC c/o Plaquemines Parish Office of Homeland Security and Emergency Preparedness	24/7 Phone Day Phone Night Phone	504-297-5660 504-297-2477	Email Website	 http://www.plaqueminesparish.com
Rapides Parish				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Rapides Parish LEPC c/o Rapides Parish Office of Homeland Security and Emergency Preparedness	24/7 Phone	318-445-5141, 318-729-7948	Email	rapides911oep@suddenlinkmail.com, swiley@rapides911.org
	Day Phone		Website	http://www.lsp.org/pdf/rtk_lepclist.pdf
	Night Phone			
Richland Parish				
Richland Parish LEPC c/o Richland Parish Office of Homeland Security and Emergency Preparedness	24/7 Phone		Email	rppj3@emaxcess.com, rppj@emaxcess.com, rmyers31@bellsouth.net
	Day Phone	318-728-0453, 318-728-2061	Website	http://www.lsp.org/pdf/rtk_lepclist.pdf
	Night Phone			
St. James Parish				
St. James Parish LEPC c/o St. James Parish Office of Homeland Security and Emergency Preparedness	24/7 Phone	225-562-2346	Email	
	Day Phone		Website	http://www.stjamesla.com
	Night Phone			
St. John the Baptist Parish				
St. John the Baptist Parish LEPC c/o Dept. of Public Safety, Office of Emergency Preparedness and Homeland Security	24/7 Phone	985-652-6338	Email	k.gilmore@sjbparish.com
	Day Phone	985-652-2222	Website	http://www.sjbparish.com
	Night Phone			
Vernon Parish				
Vernon Parish LEPC	24/7 Phone	337-238-1331	Email	
	Day Phone	337-238-0218	Website	http://www.lsp.org/pdf/rtk_lepclist.pdf
	Night Phone			
West Carroll Parish				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

West Carroll Parish LEPC c/o West Carroll Parish Office of Homeland Security and Emergency Preparedness	24/7 Phone Day Phone Night Phone	318-428-2331 318-428-8020, 318-376-4783	Email Website	wcpoep@bellsouth.net, wcpoep2@att.net http://www.lsp.org/pdf/rtk_lepclist.pdf
Michigan				
Department of Energy, Labor and Economic Growth Bureau of Fire Services	24/7 Phone Day Phone Night Phone	517-241-8847	Email Website	http://www.michigan.gov/lara
Michigan Department of Natural Resources and Environmental (MDNR&E) Pollution Emergency Alerting System (PEAS)	24/7 Phone Day Phone Night Phone	800-292-4706	Email Website	http://www.michigan.gov/deq
Allegan County				
Allegan County Emergency Management/Homeland Security	24/7 Phone Day Phone Night Phone	269-673-3899 office: 269-673-0571	Email Website	scorbin@allegancounty.org http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
Barry County				
Barry County LEPC	24/7 Phone Day Phone Night Phone	269-945-1412	Email Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
Berrien County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Berrien County EMA	24/7 Phone		Email	
	Day Phone	269-945-1412	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Calhoun County				
Calhoun County EMA	24/7 Phone		Email	
	Day Phone	269-969-6430	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Cass County				
Cass County EMA	24/7 Phone		Email	
	Day Phone	269-445-1460	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Hillsdale County				
Hillsdale County Emergency Services Department	24/7 Phone		Email	
	Day Phone	517-437-7384	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Jackson County				
Jackson County EMA	24/7 Phone		Email	
	Day Phone	517-768-7946	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Kalamazoo County				
Kalamazoo County EMA	24/7 Phone		Email	
	Day Phone	269-383-8712	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Kent County				
Kent County LEPC	24/7 Phone		Email	sue.barthels@kentcountymi.gov
	Day Phone	616-632-6256	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Lenawee County				
Lenawee County EMA	24/7 Phone		Email	curtis.parsons@lenawee.mi.us
	Day Phone	517-264-4759	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Livingston County				
Livingston County LEPC	24/7 Phone	517-546-4620	Email	
	Day Phone		Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Monroe County				
Monroe County EMD	24/7 Phone		Email	mark_hammond@monroemi.org
	Day Phone	734-240-3135	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Muskegon County				
Muskegon County EMA	24/7 Phone		Email	daniel.stout@muskegonsheriff.com
	Day Phone	231-724-6341	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Ottawa County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Ottawa County LEPC	24/7 Phone		Email	
	Day Phone	616-738-4051	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Van Buren County				
Van Buren County LEPC	24/7 Phone	269-657-3101	Email	
	Day Phone	269-657-7786	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Washtenaw County				
Washtenaw County LEPC	24/7 Phone	734-973-4911	Email	
	Day Phone	734-222-3848, 734-973-4900	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Wayne County				
Wayne County LEPC	24/7 Phone		Email	ldirado@co.wayne.mi.us
	Day Phone	734-942-5289	Website	http://www.michigan.gov/documents/deq/deq-ess-sara-lepcroster_269474_7.pdf
	Night Phone			
Mississippi				
Mississippi Department of Environmental Quality (MS DEQ) Underground Storage Tank Branch (UST Branch)	24/7 Phone	800-222-6362	Email	
	Day Phone	601-352-9100, 601-961-5282	Website	http://www.deq.state.ms.us/
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Mississippi Emergency Management Agency (MEMA) State Warning Point	24/7 Phone Day Phone Night Phone	800-222-6362	Email Website	sperkins@mema.ms.gov http://msema.org
Bolivar County				
Bolivar County LEPC	24/7 Phone Day Phone Night Phone	 662-588-3708	Email Website	 http://msema.org/about/local.html
DeSoto County				
DeSoto County LEPC/EMA	24/7 Phone Day Phone Night Phone	 662-429-1382	Email Website	 http://msema.org/about/local.html
Marshall County				
Marshall County LEPC/EMA	24/7 Phone Day Phone Night Phone	662-252-1204 662-544-0760	Email Website	 http://msema.org/about/local.html
Panola County				
Panola County LEPC/EMA	24/7 Phone Day Phone Night Phone	 662-563-6245 662-801-8536	Email Website	 http://msema.org/about/local.html
Quitman County				
Quitman County LEPC	24/7 Phone Day Phone Night Phone	 662-326-7909	Email Website	emaquitman@hotmail.com http://msema.org/about/local.html

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Sunflower County				
Sunflower County LEPC/EMA	24/7 Phone		Email	
	Day Phone	662-887-6253	Website	http://msema.org/about/local.html
	Night Phone	662-887-6253		
Tallahatchie County				
Tallahatchie County LEPC	24/7 Phone	662-647-5511	Email	jsrcharolaisfarm@netscape.net
	Day Phone	662-647-2540	Website	http://msema.org/about/local.html
	Night Phone			
Tate County				
Tate County LEPC	24/7 Phone		Email	
	Day Phone	662-562-5012	Website	http://msema.org/about/local.html
	Night Phone			
Washington County				
Washington County LEPC/EMA	24/7 Phone		Email	
	Day Phone	662-335-1945	Website	http://msema.org/about/local.html
	Night Phone			
Montana				
Department of Fish, Wildlife, and Parks	24/7 Phone		Email	
	Day Phone	406-444-2535	Website	http://fwp.mt.gov/
	Night Phone			
Montana Department of Environmental Quality (MDEQ)	24/7 Phone	880-457-0568	Email	
	Day Phone	406-444-2544	Website	http://svc.mt.gov/deq/mail/contactusform.asp
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Montana Disaster and Emergency Services (MDES)	24/7 Phone	406-324-4777	Email	
	Day Phone		Website	http://montanadma.org/disaster-and-emergency-services
	Night Phone			
Montana Public Water Supply Security and Emergency Preparedness Public Water Supply Program	24/7 Phone	406-324-4777	Email	
	Day Phone	406-444-4400	Website	http://securewater.mt.gov/
	Night Phone			
Carbon County				
Carbon County LEPC	24/7 Phone	406-446-1234	Email	dkrum@co.carbon.mt.us
	Day Phone	406-446-1038	Website	http://www.co.carbon.mt.us/content/view/18/47/
	Night Phone	406-425-0121		
Ohio				
Ohio Emergency Management Agency	24/7 Phone		Email	
	Day Phone	614-889-7150	Website	http://ema.ohio.gov/
	Night Phone			
Ohio Environmental Protection Agency (OEPA)	24/7 Phone	800-282-9378	Email	
	Day Phone	614-644-3020	Website	http://www.epa.state.oh.us/
	Night Phone			
Allen County				
Allen County LEPC/EMA Emergency Coordinator	24/7 Phone	419-227-3535	Email	rdecker@allencountyohio.com
	Day Phone	419-993-1404	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Allen County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	419-993-1404	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Ashland County				
Ashland County LEPC Ashland City Fire Chief Emergency Coordinator	24/7 Phone	419-289-2911	Email	mrafeld@ashlandcounty.org
	Day Phone	419-282-4272	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Ashland County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	419-282-4272	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Auglaize County				
Auglaize County LEPC/EMA Emergency Coordinator	24/7 Phone	419-733-3857	Email	
	Day Phone	419-739-6725	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Auglaize County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	419-739-6725	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Carroll County				
Carroll County LEPC/EMA Emergency Coordinator	24/7 Phone	330-627-2141	Email	
	Day Phone	330-627-0003	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Carroll County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	330-627-0003	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Clark County				
Clark County LEPC/EMA Emergency Coordinator	24/7 Phone	937-324-7615	Email	ema@clarkcountyohio.gov
	Day Phone	937-521-2175	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Clark County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	937-521-2175	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Columbiana County				
Columbiana County LEPC Information Coordinator	24/7 Phone		Email	
	Day Phone	330-424-0861	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Columbiana County LEPC/EMA Emergency Coordinator	24/7 Phone	330-424-7255	Email	
	Day Phone	330-424-9725	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Coshocton County				
Coshocton County LEPC/EMA Emergency Coordinator	24/7 Phone	740-622-2411	Email	
	Day Phone	740-622-1984	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Coshocton County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	740-622-1984	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Crawford County				
Crawford County LEPC/EMA Emergency Coordinator	24/7 Phone	419-562-7906	Email	
	Day Phone	419-562-6009	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Crawford County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	419-562-6009	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Cuyahoga County				
Cuyahoga County LEPC Emergency Coordinator	24/7 Phone	216-771-1363	Email	
	Day Phone	216-443-5472	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Cuyahoga County LEPC Information Coordinator	24/7 Phone		Email	
	Day Phone	216-443-3197	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Delaware County				
Delaware County LEPC/EMA Emergency Coordinator	24/7 Phone	740-368-1912	Email	
	Day Phone	740-833-2182	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Delaware County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	740-833-2182	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Erie County				
Erie County LEPC Information Coordinator	24/7 Phone		Email	
	Day Phone	419-627-7617	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Erie County LEPC/EMA Emergency Coordinator	24/7 Phone	419-627-7668	Email	
	Day Phone	419-627-7617	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Fairfield County				
Fairfield County LEPC/EMA Emergency Coordinator	24/7 Phone	740-438-5304	Email	
	Day Phone	740-654-4357	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Fairfield County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	740-654-4357	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Franklin County				
Franklin County LEPC Columbus Public Health Information Coordinator	24/7 Phone		Email	
	Day Phone	614-645-6275	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Franklin County LEPC/EMA Emergency Coordinator	24/7 Phone	614-794-0213	Email	
	Day Phone	614-794-0213	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Gallia County				
Gallia County LEPC/EMA Emergency Coordinator	24/7 Phone	740-446-1221	Email	
	Day Phone	740-441-2036	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Gallia County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	740-441-2036	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Greene County				
Greene/Montgomery County LEPC Emergency Coordinator	24/7 Phone	937-901-5112	Email	
	Day Phone		Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Greene/Montgomery County LEPC Information Coordinator	24/7 Phone		Email	
	Day Phone	937-531-6548	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Hancock County				
Hancock County LEPC/EMA Emergency Coordinator	24/7 Phone	419-422-2424	Email	
	Day Phone	419-424-7092	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Hancock County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	419-424-7092	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Hardin County				
Hardin County LEPC/EMA Emergency Coordinator	24/7 Phone	419-674-7171	Email	
	Day Phone	419-674-2276	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Hardin County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	419-674-2392	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Hocking County				
Hocking County LEPC/EMA Emergency Coordinator	24/7 Phone	740-385-3000	Email	
	Day Phone	740-385-6168	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Hocking County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	740-385-6168	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Holmes County				
Holmes County LEPC/EMA Emergency Coordinator	24/7 Phone	330-674-1936	Email	
	Day Phone	330-674-0989	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Holmes County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	330-674-0989	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Huron County				
Huron County LEPC/EMA Emergency Coordinator	24/7 Phone	419-663-2828	Email	
	Day Phone	419-663-5772	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Huron County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	419-663-5772	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Jackson County				
Jackson County LEPC/EMA Emergency Coordinator	24/7 Phone	740-286-6464	Email	jacksoncoema@hotmail.com
	Day Phone	740-286-5630	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Jackson County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	740-286-5630	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Jefferson County				
Jefferson County LEPC Information Coordinator	24/7 Phone	740-266-4150	Email	
	Day Phone	740-264-4685	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON rIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Jefferson County LEPC/EMA Emergency Coordinator	24/7 Phone	740-266-4150	Email	
	Day Phone		Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Lawrence County				
Lawrence County LEPC/EMA Emergency Coordinator	24/7 Phone	740-534-1911	Email	lepc@cloh.net
	Day Phone	740-533-4375	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Lawrence County LEPC/EMA Information Coordinator	24/7 Phone		Email	lepc@cloh.net
	Day Phone	740-533-4375	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Licking County				
Licking County LEPC/EMA Emergency Coordinator	24/7 Phone	740-345-2345	Email	
	Day Phone	740-670-5577	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Licking County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	740-670-5576	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Lucas County				
Lucas County LEPC Information Coordinator	24/7 Phone		Email	
	Day Phone	419-213-6503	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone	419-213-4502		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Lucas County LEPC/EMA Emergency Coordinator	24/7 Phone	419-936-3550	Email	lepc@co.lucas.oh.us
	Day Phone	419-213-6527	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Madison County				
Madison County LEPC/EMA Emergency Coordinator	24/7 Phone	740-852-1212	Email	rroberts@co.madison.oh.us
	Day Phone	740-852-4200	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Madison County LEPC/EMA Information Coordinator	24/7 Phone		Email	rroberts@co.madison.oh.us
	Day Phone	740-852-4200	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Mahoning County				
Mahoning County LEPC/EMA Emergency Coordinator	24/7 Phone	330-744-4161	Email	cljones@mahoningcountyoh.gov
	Day Phone	330-740-2200	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Mahoning County LEPC/EMA Information Coordinator	24/7 Phone		Email	cljones@mahoningcountyoh.gov
	Day Phone	330-740-2200	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Marion County				
Marion County LEPC/EMA Emergency Coordinator	24/7 Phone	740-382-8244	Email	disaster.marion@frontier.com
	Day Phone	740-494-9911	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Marion County LEPC/EMA Information Coordinator	24/7 Phone		Email	disaster.marion@frontier.com
	Day Phone	740-494-9911	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Medina County				
Medina County LEPC/EMA Emergency Coordinator	24/7 Phone	330-725-6631	Email	sroth410@aol.com
	Day Phone	330-722-9240	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Medina County LEPC/EMA Information Coordinator	24/7 Phone		Email	sroth410@aol.com
	Day Phone	330-722-9240	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Mercer County				
Mercer County LEPC/EMA Emergency Coordinator	24/7 Phone	419-586-6455	Email	ema@mercercountyohio.org
	Day Phone	419-586-6468	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Mercer County LEPC/EMA Information Coordinator	24/7 Phone		Email	ema@mercercountyohio.org
	Day Phone	419-586-6468	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Montgomery County				
Montgomery/Greene County LEPC Emergency Coordinator	24/7 Phone	937-901-5112	Email	
	Day Phone		Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Montgomery/Greene County LEPC Information Coordinator	24/7 Phone		Email	
	Day Phone	937-531-6548	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Morrow County				
Morrow County LEPC/EMA Emergency Coordinator	24/7 Phone	419-946-7055	Email	mcema@rrohio.com
	Day Phone	419-947-4041	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Morrow County LEPC/EMA Information Coordinator	24/7 Phone		Email	mcema@rrohio.com
	Day Phone	419-947-4041	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Pickaway County				
Pickaway County LEPC/EMA Emergency Coordinator	24/7 Phone	740-207-6865	Email	ema@pickaway.org
	Day Phone	740-477-1165	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Pickaway County LEPC/EMA Information Coordinator	24/7 Phone		Email	ema@pickaway.org
	Day Phone	740-477-1165	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Richland County				
Richland County LEPC Emergency Coordinator	24/7 Phone	419-524-2412	Email	jsouthward@richlandcountyoh.us
	Day Phone	419-774-5886	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Richland County LEPC Information Coordinator	24/7 Phone		Email	jsouthward@richlandcountyoh.us
	Day Phone	419-774-5886	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Stark County				
Stark County LEPC Information Coordinator	24/7 Phone		Email	sclepc@co.stark.oh.us
	Day Phone	330-451-3907	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Stark County LEPC/EMA Emergency Coordinator	24/7 Phone	330-451-3911	Email	sclepc@co.stark.oh.us
	Day Phone	330-451-3900	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Summit County				
Summit County LEPC/EMA Emergency Coordinator	24/7 Phone	330-643-2522	Email	
	Day Phone	330-643-2558	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Summit County LEPC/EMA Information Coordinator	24/7 Phone		Email	
	Day Phone	330-643-2558	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Tuscarawas County				
Tuscarawas County LEPC/EMA Emergency Coordinator	24/7 Phone	330-343-2642	Email	levengoodp@co.tuscarawas.oh.us
	Day Phone	330-308-6670	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Tuscarawas County LEPC/EMA Information Coordinator	24/7 Phone		Email	levengoodp@co.tuscarawas.oh.us
	Day Phone	330-308-6670	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Vinton County				
Vinton County LEPC/EMA Emergency Coordinator	24/7 Phone	740-596-3524	Email	ema@vintonco.com
	Day Phone		Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Vinton County LEPC/EMA Information Coordinator	24/7 Phone	740-596-3524	Email	ema@vintonco.com
	Day Phone		Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Wayne County				
Wayne County LEPC/EMA Emergency Coordinator	24/7 Phone	330-287-5700	Email	ema@wcjustice-center.org
	Day Phone	330-262-9817	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Wayne County LEPC/EMA Information Coordinator	24/7 Phone		Email	ema@wcjustice-center.org
	Day Phone	330-262-9817	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			
Wyandot County				
Wyandot County LEPC County Sheriff Emergency Coordinator	24/7 Phone	419-294-2362	Email	
	Day Phone	419-294-6406	Website	http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
	Night Phone			

MARATHON rIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Wyandot County LEPC/EMA Information Coordinator	24/7 Phone Day Phone Night Phone	 419-294-6406	Email Website	 http://www.epa.state.oh.us/portals/27/serc/lepc_list.pdf
Pennsylvania				
Pennsylvania Department of Environmental Protection (PDEP)	24/7 Phone Day Phone Night Phone	800-541-2050 717-783-2300	Email Website	ra-epcontactus@pa.gov http://www.depweb.state.pa.us/
Beaver County				
Beaver County EMA	24/7 Phone Day Phone Night Phone	724-775-0880 724-775-1700	Email Website	whill@beavercountypa.gov http://www.beavercountypa.gov/department-list
Tennessee				
Tennessee Department of Environmental and Conservation (TDEC) Water Programs	24/7 Phone Day Phone Night Phone	 888-891-8332	Email Website	ask.tdec@tn.gov http://www.tn.gov/environment/
Tennessee Emergency Management Agency (TEMA)	24/7 Phone Day Phone Night Phone	800-262-3300 615-741-0001	Email Website	ops@tnema.org http://www.tnema.org/
Crockett County				
Crockett County LEPC	24/7 Phone Day Phone Night Phone	731-663-7383 731-696-2459	Email Website	crockettema@crockettnet.com http://www.calldon.com/cema2.htm

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Dyer County				
Dyer County LEPC	24/7 Phone		Email	
	Day Phone	731-286-7831	Website	http://www.tnema.org/ema/regions/west/documents/lepc-west.pdf
	Night Phone			
Fayette County				
Fayette County LEPC	24/7 Phone	901-465-3456	Email	bmartin@fayettetn.us
	Day Phone	901-465-5239	Website	http://www.tnema.org/ema/regions/west/documents/lepc-west.pdf
	Night Phone			
Haywood County				
Haywood County LEPC	24/7 Phone	731-772-1215	Email	
	Day Phone	731-772-7065	Website	http://www.tnema.org/ema/regions/west/documents/lepc-west.pdf
	Night Phone			
Obion County				
Obion County LEPC	24/7 Phone	731-885-3316	Email	
	Day Phone	731-885-5832	Website	http://www.tnema.org/ema/regions/west/documents/lepc-west.pdf
	Night Phone			
Tipton County				
Tipton County LEPC	24/7 Phone		Email	
	Day Phone	901-476-2578, 901-476-0222	Website	http://www.tnema.org/ema/regions/west/documents/lepc-west.pdf
	Night Phone	901-490-1833		

Texas

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

General Land Office (GLO)	24/7 Phone	800-832-8224	Email	
	Day Phone	512-475-1575	Website	http://www.glo.texas.gov/
	Night Phone			
General Land Office (GLO) Director of Oil Spill Prevention & Response	24/7 Phone	800-832-8224	Email	
	Day Phone		Website	http://www.glo.texas.gov/
	Night Phone			
Railroad Commission of Texas (RRC)	24/7 Phone		Email	
	Day Phone	512-463-7158	Website	http://www.rrc.state.tx.us/
	Night Phone			
Railroad Commission of Texas Gas Utilities Division, Pipeline Safety Section	24/7 Phone		Email	
	Day Phone	512-463-7158	Website	http://www.rrc.state.tx.us/
	Night Phone			
State Emergency Response Commission (SERC)	24/7 Phone	1-800-832-8224	Email	oce@tceq.texas.gov
	Day Phone		Website	
	Night Phone			
State Fire Marshal	24/7 Phone		Email	fire.marshal@tdi.texas.gov
	Day Phone	800-578-4677, 512-305-7900	Website	http://www.tdi.texas.gov/fire
	Night Phone			
State Office of Emergency Management	24/7 Phone	512-424-2000	Email	
	Day Phone	512-424-2138	Website	
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Texas Commission of Environmental Quality (TCEQ)	24/7 Phone	800-832-8224	Email	
	Day Phone		Website	http://www.tceq.state.tx.us/
	Night Phone			
Texas Commission of Environmental Quality (TCEQ) Texas Emergency Oil Spill and Hazardous Substance Reporting	24/7 Phone	800-832-8224	Email	
	Day Phone		Website	http://www.tceq.state.tx.us/
	Night Phone			
Texas Department of Public Safety, District 2A	24/7 Phone		Email	
	Day Phone	281-642-0312, 832-401-3467	Website	
	Night Phone			
Texas Department of Public Safety, District 2B	24/7 Phone		Email	
	Day Phone	409-504-0390, 936-208-3270	Website	
	Night Phone			
Texas Department of Transportation (TxDOT)	24/7 Phone		Email	
	Day Phone	512-463-8588, 800-558-9368	Website	http://www.txdot.gov
	Night Phone			
Texas Department of Transportation (TxDOT) Beaumont District	24/7 Phone		Email	
	Day Phone	409-898-5731	Website	http://www.txdot.gov
	Night Phone			

MARATHON rIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Texas Department of Transportation (TxDOT) Houston District	24/7 Phone Day Phone Night Phone	 713-802-5000	Email Website	 http://www.txdot.gov
Texas Parks and Wildlife	24/7 Phone Day Phone Night Phone	 800-792-1112	Email Website	 http://www.tpwd.state.tx.us/
USCG Classified OSRO's Clean Harbors, Houston, TX	24/7 Phone Day Phone Night Phone	 800-645-8265	Email Website	
USCG Classified OSRO's Garner, Deer Park, TX	24/7 Phone Day Phone Night Phone	 800-424-1716	Email Website	
USCG Classified OSRO's Oil Mop, Pasadena, TX	24/7 Phone Day Phone Night Phone	 800-645-6671	Email Website	
USCG Classified OSRO's T & T Marine, Pasadena, TX	24/7 Phone Day Phone Night Phone	 409-744-1222	Email Website	
Brazoria County				
Brazoria County LEPC	24/7 Phone Day Phone Night Phone	911 979-864-1201	Email Website	

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Brazoria Fire Department	24/7 Phone		Email
	Day Phone	979-849-1265	Website
	Night Phone		
Brazoria Sheriff Department	24/7 Phone		Email
	Day Phone	979-265-9310, 281-756-2392	Website
	Night Phone		
Alvin			
Alvin Fire Department	24/7 Phone		Email
	Day Phone	281-331-7688	Website
	Night Phone		
Alvin Police Department	24/7 Phone		Email
	Day Phone	281-388-4370	Website
	Night Phone		
Angleton			
Angleton Fire Department	24/7 Phone		Email
	Day Phone	979-849-1265	Website
	Night Phone		
Angleton Police Department	24/7 Phone		Email
	Day Phone	979-849-2383	Website
	Night Phone		
Clute			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Clute Fire Department	24/7 Phone		Email
	Day Phone	979-265-4741	Website
	Night Phone		
Clute Police Department	24/7 Phone		Email
	Day Phone	979-265-6194	Website
	Night Phone		
Danbury			
Danbury Fire Department	24/7 Phone		Email
	Day Phone	979-922-1176	Website
	Night Phone		
Danbury Police Department	24/7 Phone		Email
	Day Phone	979-922-1551	Website
	Night Phone		
East Columbia			
East Columbia Fire Department	24/7 Phone		Email
	Day Phone	979-345-3311	Website
	Night Phone		
East Columbia Police Department	24/7 Phone		Email
	Day Phone	979-864-2672	Website
	Night Phone		
Freeport			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Freeport Fire Department	24/7 Phone		Email
	Day Phone	979-239-1211	Website
	Night Phone		
Freeport Police Department	24/7 Phone		Email
	Day Phone	979-239-1211	Website
	Night Phone		
Lake Jackson			
Lake Jackson Fire Department	24/7 Phone		Email
	Day Phone	979-297-1101	Website
	Night Phone		
Lake Jackson Police Department	24/7 Phone		Email
	Day Phone	979-297-1101	Website
	Night Phone		
Liverpool			
Liverpool Fire Department	24/7 Phone		Email
	Day Phone	281-581-2100	Website
	Night Phone		
Liverpool Police Department	24/7 Phone		Email
	Day Phone	281-393-1381	Website
	Night Phone		
Manvel			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Manvel Fire Department	24/7 Phone		Email
	Day Phone	281-489-8141	Website
	Night Phone		
Manvel Police Department	24/7 Phone		Email
	Day Phone	281-489-1212	Website
	Night Phone		
Pearland			
Pearland Fire Department	24/7 Phone		Email
	Day Phone	281-652-1950	Website
	Night Phone		
Pearland Police Department	24/7 Phone		Email
	Day Phone	281-652-1100	Website
	Night Phone		
Surfside			
Surfside Beach LEPC	24/7 Phone		Email
	Day Phone	979-233-1531	Website
	Night Phone		
Sweeny			
Sweeny Fire Department	24/7 Phone		Email
	Day Phone	979-548-3320	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Sweeny Police Department	24/7 Phone		Email
	Day Phone	979-548-3111, 979-345-5121	Website
	Night Phone		
West Columbia			
West Columbia Fire Department	24/7 Phone		Email
	Day Phone	979-345-3311	Website
	Night Phone		
West Columbia Police Department	24/7 Phone		Email
	Day Phone	979-345-5121	Website
	Night Phone		
Chambers County			
Chambers County LEPC	24/7 Phone	911	Email
	Day Phone	409-267-8343	Website
	Night Phone		
Chambers County Sheriff Department	24/7 Phone		Email
	Day Phone	409-267-8318	Website
	Night Phone		
Anahuac			
Anahuac Police Jury	24/7 Phone		Email
	Day Phone	409-267-6681, 409-267-6620	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Barber's Hill			
Barber's Hill Fire Department	24/7 Phone		Email
	Day Phone	281-576-2417	Website
	Night Phone		
Barber's Hill Police Department	24/7 Phone		Email
	Day Phone	281-576-6066	Website
	Night Phone		
Mt. Belview			
Mt. Belview Fire Department	24/7 Phone		Email
	Day Phone	281-576-2021	Website
	Night Phone		
Mt. Belview Police Department	24/7 Phone		Email
	Day Phone	409-267-8231, 281-576-2021	Website
	Night Phone		
Winnie			
Winnie Police Department	24/7 Phone		Email
	Day Phone	409-267-8231	Website
	Night Phone		
Galveston County			
Galveston Bay Foundation LEPC	24/7 Phone		Email
	Day Phone	281-332-3381	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Galveston County EM	24/7 Phone	888-384-2000	Email	
	Day Phone	281-309-5002	Website	http://www.gcoem.org/content/view/34/148/
	Night Phone			
Galveston County LEPC	24/7 Phone	911	Email	
	Day Phone	281-534-8442	Website	
	Night Phone			
Bacliff				
Bacliff Police Department	24/7 Phone		Email	
	Day Phone	409-766-2300	Website	
	Night Phone			
Clear				
Clear Lakes Shores LEPC	24/7 Phone		Email	
	Day Phone	281-334-1034, 281-334-2799	Website	
	Night Phone			
Dickinson				
Dickinson Fire Department	24/7 Phone		Email	
	Day Phone	281-534-3031	Website	
	Night Phone			
Dickinson LEPC	24/7 Phone		Email	
	Day Phone	281-337-3100	Website	
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Dickinson Police Department	24/7 Phone		Email	
	Day Phone	281-534-3515	Website	
	Night Phone			
Galveston				
Galveston LEPC	24/7 Phone		Email	
	Day Phone	409-797-3710, 409-797-3709	Website	
	Night Phone			
High Island				
High Island Police Department	24/7 Phone		Email	
	Day Phone	409-286-5459	Website	
	Night Phone			
Highland Island				
Highland Island Fire Department	24/7 Phone		Email	
	Day Phone	409-286-5459	Website	
	Night Phone			
Hitchcock				
Hitchcock Fire Department	24/7 Phone		Email	
	Day Phone	409-986-7131	Website	
	Night Phone			
Hitchcock LEPC	24/7 Phone	409-986-5559	Email	
	Day Phone		Website	http://www.gcoem.org/index.php?option=com_content&task=view&id=32&itemid=199
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Hitchcock Police Department	24/7 Phone		Email
	Day Phone	409-986-5559	Website
	Night Phone		
Jamaica Beach			
Jamaica Beach LEPC	24/7 Phone		Email
	Day Phone	409-737-1142	Website
	Night Phone		
Kemah			
Kemah Fire Department	24/7 Phone		Email
	Day Phone	281-334-5414	Website
	Night Phone		
Kemah Police Department	24/7 Phone		Email
	Day Phone	281-334-5414	Website
	Night Phone		
La Marque			
La Marque Fire Department	24/7 Phone		Email
	Day Phone	409-938-9260	Website
	Night Phone		
La Marque Police Department	24/7 Phone		Email
	Day Phone	409-938-9269	Website
	Night Phone		
LaMarque			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

LaMarque LEPC	24/7 Phone	409-938-9260	Email	
	Day Phone		Website	http://www.gcoem.org/index.php?option=com_content&task=view&id=32&itemid=199
	Night Phone			
San Leon				
San Leon Police Department	24/7 Phone		Email	
	Day Phone	281-534-3515	Website	
	Night Phone			
Santa Fe, Algoa Alta Loma, Arcadia				
Santa Fe, Algoa Alta Loma, Arcadia Fire Department	24/7 Phone		Email	
	Day Phone	409-925-7331	Website	
	Night Phone			
Santa Fe, Algoa Alta Loma, Arcadia LEPC	24/7 Phone		Email	
	Day Phone	409-925-6412	Website	
	Night Phone			
Santa Fe, Algoa Alta Loma, Arcadia Police Department	24/7 Phone		Email	
	Day Phone	409-925-2000	Website	
	Night Phone			
Texas City				
Texas City LEPC	24/7 Phone	409-948-2525	Email	bclawson@texas-city-tx.org
	Day Phone	409-643-5840	Website	http://www.gcoem.org/index.php?option=com_content&task=view&id=32&itemid=199
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Texas City LEPC	24/7 Phone		Email
	Day Phone	409-643-5840, 409-948-3111	Website
	Night Phone		
Texas City Police Department	24/7 Phone		Email
	Day Phone	409-643-5700	Website
	Night Phone		
Village of Tiki Island			
Village of Tiki Island LEPC	24/7 Phone		Email
	Day Phone	409-935-1427	Website
	Night Phone		
Village of Tiki Island Police Department	24/7 Phone		Email
	Day Phone	409-935-6579	Website
	Night Phone		
Harris County			
Harris County LEPC	24/7 Phone	911	Email
	Day Phone	713-473-7646	Website
	Night Phone		
Harris County Sheriff Department	24/7 Phone		Email
	Day Phone	713-221-6000	Website
	Night Phone		
Aldine			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Aldine Fire Department	24/7 Phone		Email
	Day Phone	281-590-8184	Website
	Night Phone		
Aldine Police Department	24/7 Phone		Email
	Day Phone	281-446-9155	Website
	Night Phone		
Baytown			
Baytown Fire Department	24/7 Phone		Email
	Day Phone	281-427-8511	Website
	Night Phone		
Baytown LEPC	24/7 Phone		Email
	Day Phone	281-420-6556, 281-420-6558	Website
	Night Phone		
Baytown Police Department	24/7 Phone		Email
	Day Phone	281-420-6600, 281-422-8371, 281-424-3499	Website
	Night Phone		
Channelview			
Channelview Fire Department	24/7 Phone		Email
	Day Phone	281-847-3362	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Channelview Police Department	24/7 Phone		Email
	Day Phone	713-221-6000	Website
	Night Phone		
Crosby			
Crosby Fire Department	24/7 Phone		Email
	Day Phone	281-328-5980	Website
	Night Phone		
Crosby Police Department	24/7 Phone		Email
	Day Phone	713-221-6000	Website
	Night Phone		
Deer Park			
Deer Park Fire Department	24/7 Phone		Email
	Day Phone	281-479-1511	Website
	Night Phone		
Deer Park LEPC	24/7 Phone		Email
	Day Phone	281-478-7298, 281-479-2394	Website
	Night Phone		
Deer Park Police Department	24/7 Phone		Email
	Day Phone	281-479-1511	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Deer Park Police Dispatch	24/7 Phone	281-479-1511	Email	spipkin@deerparktx.org
Deer Park LEPC	Day Phone	281-478-7281	Website	http://www.hcoem.org/default.aspx?p=lepccontacts
	Night Phone			
El Lago				
El Lago Fire Department	24/7 Phone		Email	
	Day Phone	281-291-5610	Website	
	Night Phone			
El Lago Police Department	24/7 Phone		Email	
	Day Phone	281-326-5900	Website	
	Night Phone			
Galena				
Galena Park Fire Department	24/7 Phone		Email	
	Day Phone	713-674-5311	Website	
	Night Phone			
Galena Park LEPC	24/7 Phone		Email	
	Day Phone	713-675-3471, 713-672-2556	Website	
	Night Phone			
Galena Park Police Department	24/7 Phone		Email	
	Day Phone	713-675-3471	Website	
	Night Phone			
Highlands				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Highlands Police Department	24/7 Phone		Email
	Day Phone	713-221-6000	Website
	Night Phone		
Houston			
Houston Fire Department	24/7 Phone		Email
	Day Phone	713-247-5000	Website
	Night Phone		
Houston LEPC	24/7 Phone		Email
	Day Phone	713-881-3100, 713-881-3073, 713-881-3083, 713-881-3333/3045	Website
	Night Phone		
Houston Police Department	24/7 Phone		Email
	Day Phone	713-222-3131, 713-681-1761	Website
	Night Phone		
Jacinto			
Jacinto City Fire Department	24/7 Phone		Email
	Day Phone	713-674-1841	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Jacinto City Police Department	24/7 Phone		Email
	Day Phone	713-672-2455	Website
	Night Phone		
Jersey Village			
Jersey Village Fire Department	24/7 Phone		Email
	Day Phone	713-466-2100	Website
	Night Phone		
Jersey Village LEPC	24/7 Phone		Email
	Day Phone	713-466-2100	Website
	Night Phone		
Jersey Village Police Department	24/7 Phone		Email
	Day Phone	713-466-2100	Website
	Night Phone		
La Porte			
La Porte Fire Department	24/7 Phone		Email
	Day Phone	281-471-3607	Website
	Night Phone		
La Porte LEPC	24/7 Phone		Email
	Day Phone	281-471-3607	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

La Porte Police Department	24/7 Phone		Email	
	Day Phone	281-471-2141	Website	
	Night Phone			
LaPorte				
Morgan's Point, and Shoreacres LEPC	24/7 Phone		Email	lepc@laportetetx.gov
	Day Phone	281-470-0010	Website	http://www.hcoem.org/default.aspx?p=lepccontacts
	Night Phone			
League City				
League City Fire Department	24/7 Phone		Email	
	Day Phone	281-332-1311	Website	
	Night Phone			
League City LEPC	24/7 Phone		Email	
	Day Phone	281-332-0440	Website	
	Night Phone			
League City Police Department	24/7 Phone		Email	
	Day Phone	281-332-2566	Website	
	Night Phone			
Morgan's Point				
Morgan's Point LEPC	24/7 Phone		Email	
	Day Phone	281-471-2171	Website	
	Night Phone			
Nassau Bay				

MARATHON rIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Nassau Bay Fire Department	24/7 Phone		Email	
	Day Phone	281-333-4200	Website	
	Night Phone			
Nassau Bay LEPC	24/7 Phone		Email	
	Day Phone	281-333-4200	Website	
	Night Phone			
Nassau Bay Police Department	24/7 Phone		Email	
	Day Phone	281-333-4200	Website	
	Night Phone			
North Channel				
North Channel LEPC	24/7 Phone		Email	nclepc@verizon.net
	Day Phone	713-455-5372	Website	http://nclepc.org/
	Night Phone			
Pasadena				
Pasadena Fire Department	24/7 Phone		Email	
	Day Phone	713-475-5554	Website	
	Night Phone			
Pasadena LEPC	24/7 Phone		Email	
	Day Phone	713-475-7088, 713-473-2273	Website	http://www.serlepc.org/
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Pasadena LEPC	24/7 Phone		Email
	Day Phone	713-475-5588, 713-477-1511	Website
	Night Phone		
Pasadena Police Department	24/7 Phone		Email
	Day Phone	713-477-1221, 713-221-6000	Website
	Night Phone		
Seabrook			
Seabrook Fire Department	24/7 Phone		Email
	Day Phone	281-474-3434	Website
	Night Phone		
Seabrook LEPC	24/7 Phone		Email
	Day Phone	281-291-5610, 281-291-5615	Website
	Night Phone		
Seabrook Police Department	24/7 Phone		Email
	Day Phone	281-291-5611	Website
	Night Phone		
South Houston			
South Houston Fire Department	24/7 Phone		Email
	Day Phone	713-944-1910	Website
	Night Phone		

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

South Houston LEPC	24/7 Phone		Email	
	Day Phone	713-941-8500	Website	
	Night Phone			
South Houston Police Department	24/7 Phone		Email	
	Day Phone	713-944-1910	Website	
	Night Phone			
Webster				
Webster Fire Department	24/7 Phone		Email	
	Day Phone	281-332-2711	Website	
	Night Phone			
Webster LEPC	24/7 Phone		Email	
	Day Phone	281-332-8110	Website	
	Night Phone			
Webster Police Department	24/7 Phone		Email	
	Day Phone	281-332-2426	Website	
	Night Phone			
Jefferson County				
Jefferson County LEPC	24/7 Phone	911, 409-835-8411	Email	
	Day Phone	409-835-8757	Website	http://jeffcolepc.org/
	Night Phone			
Newton County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Newton County LEPC	24/7 Phone		Email	truman.dougharty@co.newton.tx.us
	Day Phone	409-379-3636	Website	http://co.newton.tx.us/ips/cms/
	Night Phone			
Orange County				
Orange County LEPC	24/7 Phone	409-883-2617	Email	jkelley@co.orange.tx.us
	Day Phone	409-882-7895	Website	http://www.co.orange.tx.us/
	Night Phone			
West Virginia				
Wayne County				
Wayne County ESDA	24/7 Phone		Email	
	Day Phone	304-526-9800	Website	http://waynecountywv.org/
	Night Phone			
Wyoming				
WDEQ, Lander Office	24/7 Phone		Email	
	Day Phone	307-332-3144	Website	http://deq.state.wy.us/wqd/
	Night Phone			
Wyoming Department of Environmental Quality (WDEQ)	24/7 Phone		Email	
	Day Phone	307-777-7781	Website	http://deq.state.wy.us/
	Night Phone			
Wyoming Department of Environmental Quality (WDEQ) Solid Waste Management Division	24/7 Phone	307-777-7781	Email	
	Day Phone	307-777-7752	Website	https://deq.state.wy.us/spl/
	Night Phone			

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Wyoming Emergency Management Agency (WEMA) Wyoming SARA Notifications	24/7 Phone Day Phone Night Phone	307-777-4321 307-777-4663	Email Website	http://wyohomelandsecurity.state.wy.us/main.aspx
Wyoming Game and Fish	24/7 Phone Day Phone Night Phone	307-777-4600	Email Website	http://wgfd.wyo.gov/
Wyoming Highway Patrol Wyoming SARA Notifications	24/7 Phone Day Phone Night Phone	800-442-9090 307-777-4321	Email Website	http://www.whp.dot.state.wy.us/wydot/
Big Horn County				
Big Horn County EMA/LEPC	24/7 Phone Day Phone Night Phone	307-548-2516	Email Website	bhcemc@tctwest.net http://www.bighorncountywy.gov/dep-emergency-management-about-us.htm
Fremont County				
Fremont County EMA/LEPC	24/7 Phone Day Phone Night Phone	307-856-2374	Email Website	fcema@wyoming.com http://fremontcountywy.org/emergency-management-agency/
Hot Springs County				
Hot Springs County ESA/EMA/LEPC	24/7 Phone Day Phone Night Phone	307-864-4649	Email Website	bgordon@hscounty.com http://www.hscounty.com/departments/emergency_management/default.aspx
Natrona County				

MARATHON PIPE LINE
FIGURE 2.1
FEDERAL, STATE, AND LOCAL EMERGENCY RESPONSE AGENCIES

Natrona County EMA/LEPC	24/7 Phone		Email	citizencorps@natronacounty-wy.gov
	Day Phone	307-235-9205	Website	http://www.natronacounty-wy.gov/index.aspx?nid=122
	Night Phone			
Park County				
Park County Homeland Security EM/LEPC	24/7 Phone		Email	mknapp@parkcounty.us
	Day Phone	307-527-1860	Website	http://www.parkcounty.us/ohs/homelandsecurity.html
	Night Phone			
Washakie County				
Washakie County Homeland Security EM/LEPC	24/7 Phone		Email	ema.ohs@washakiecounty.net
	Day Phone	307-347-3331	Website	http://www.washakiecounty.net/homeland-security
	Night Phone	307-431-0346		

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	▪ is cleaned up promptly.				
	Emergency Planning and Community Right-To-Know Act (EPCRA)				

Endnotes

[1] 49 CFR § 195.58 at http://ecfr.gpoaccess.gov (January, 7, 2007).

[2] 49 CFR §§ 195.50 and 195.52 at http://ecfr.gpoaccess.gov (January, 7, 2007).

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Federal Requirements for Interstate Pipelines
Reporting of Hazardous Liquid Releases

Marathon Pipe Line

Revision: January 11, 2007

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	Accident reports: An accident report is required for each failure in a pipeline system subject to this part in which there is a release of the hazardous liquid or carbon dioxide transported resulting in any of the following: ▪ an explosion or fire not intentionally set by the operator. ▪ a release of 5 gallons or more of hazardous liquid or carbon dioxide ▪ the death of any person; ▪ a personal injury necessitating hospitalization; or ▪ estimated property damage, including cost of clean-up and recovery, value of lost product, and damage to the property	U.S. Pipeline and Hazardous Materials Safety Administration	**Verbal report:** "earliest practicable moment following discovery of a release" **Written report:** Within 30 days	**Verbal report:** Telephone the National Response enter at **800–424–8802** **Written Report** **Form:** DOT Form 7000–1, or a facsimile **Address:** Information Resources Manager, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Room 7128, 400 Seventh Street, SW., Washington, DC 20590[1]	(1) Name and address of the operator. (2) Name and telephone number of the reporter. (3) The location of the failure. (4) The time of the failure. (5) The fatalities and personal injuries, if any. (6) All other significant facts

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	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	of the operator or others, or both, exceeding $50,000. **Maintenance exemption:** A report is not required if the release: ▪ is less than 5 barrels ▪ resulted from a pipeline maintenance activity ▪ it did not result in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines ▪ is not otherwise reportable (e.g., it did not result in a death or an injury necessitating hospitalization, etc.) ▪ is confined to company property or pipeline right-of-way; and			**Copies of DOT Form 7000-1** can be obtained from PHMSA online at: http://ops.dot.gov/library/forms/forms.htm	known by the operator that are relevant to the cause of the failure or extent of the damages.[2]

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State Arkansas
Reporting of Hazardous Liquid Releases

Marathon Pipe Line

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	Hazardous and toxic material incident or accident[1] in which a fixed facility operator or transporter (specifically defined to include pipelines but not natural gas pipelines) is involved which results in any of the following: (1) Involves a fatality due to fire, explosion, or exposure to any hazardous and toxic materials; (2) Results in the hospitalization of any person due to fire, explosion, or exposure to any hazardous and toxic materials; (3) Results in a continuing danger to life, health, or property at the place of the accident or incident; and (4) Results in the release of hazardous and toxic materials, in any amount, by any transporter onto public or private property,	Arkansas Department of Emergency Management P. O. Box 758 Conway, AR 72033-0758 Web site: http://www.adem.arkansas.gov/ADEM/index.aspx	**Verbal report:** "immediately, by telephone, radio, or the most expeditious means available" **Written Report:** Not required for notification purposes.	State Emergency Management Agency's State Emergency Operations Center [3] at **800-322-4012.** The Arkansas Department of Environmental Quality's Web site states that ADEM is the emergency contact for petroleum product and hazardous material spills. [4] http://www.adeq.state.ar.us/Default.htm	Not specified.

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	including roads, highways, or thoroughfares maintained by local, state, and federal government entities and upon regulated commerce rights-of-way.[2]				

ENDNOTES

[1] *Hazardous and toxic materials* means:

"(A) Those substances, except natural gas, manufactured, refined, or found in their natural state which, when released into the environment, by any means, have an immediate or potential threat to human, animal, or plant life and meet other criteria established under federal regulations, guidelines, or laws defining hazardous and toxic substances in a quantity and form which may pose an unreasonable risk to health and safety or property when transported in commerce, and which is designated as "hazardous material" in regulations prescribed by the United States Secretary of Transportation under Title 49 of the Code of Federal Regulations; and

(B) Any other substance or pollutant designated by regulations of the director promulgated under this chapter." Ark. Stats. 12-79-103. http://www.arkleg.state.ar.us/

Incident or accident "means the spilling, leaking, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of hazardous and toxic materials into the environment." Ark. Stats. 12-79-103. http://www.arkleg.state.ar.us/

[2] A.C.A. § 12-79-105 (Westlaw) - Arkansas Hazardous and Toxic Materials Emergency Notification Act

[3] A.C.A. § 12-79-105 (Westlaw).

[4] "Notification of a spill or release is normally made to the Arkansas Department of Emergency Management (ADEM) in Conway **(800-322-4012)**, which is staffed 24 hours a day, seven days a week. When the ADEM receives information about an petroleum product or hazardous material release, it notifies one of the [ADEQ Emergency Response Division] section members, one of whom is always on call. The manager and coordinator are both skilled in emergency response procedures, and immediately initiate actions to mitigate the effects of pollution and secure assistance from other agencies at all governmental levels and/or from private sources to control releases of contaminants."

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State - Illinois
Reporting of Hazardous Liquid Releases

Marathon Pipe Line

Rev.: February 23, 2007

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	• A member of the general public is killed; • A member of the general public receives injuries requiring hospitalization; • An authorized official of an emergency agency recommends evacuation of an area by the general public; • A motor vehicle has overturned on a public highway. • Fire, breakage, release or suspected contamination occurs involving an etiologic agent. • Any release of oil which meets the reporting requirements in the U.S. Environmental Protection Agency regulations 40 CFR 110.[1]	▪ Illinois Emergency Management Agency (which is the State Emergency Response Commission or SERC) ▪ the Local Emergency Planning Committee (LEPC) of any county / area affected by the spill.	**Verbal Report:** Immediately to IEMA and the LEPC(s) **Written Report:** "As soon as practicable after [the] release ..."	**IEMA Hotline:** 1-800-782-7860 or 1-217-782-7860 **LEPC Telephone Numbers:** **See attached list.** The list is also posted: :http://www.state.il.us/iema/contacts/contacts_esda.htm Also: "Telephone numbers for LEPCs and other SERCs may be obtained from the Illinois SERC (524-6887 or 782-4694). " **Written Report:** Illinois Emergency Management Agency 110 East Adams Street Springfield, Illinois 62701	See Endnote [2] for information required in the telephoned report. See Endnote [3]

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ENDNOTES

[1] 29 Ill. Admin. Code 430.30 (Ill. JCARR).

[2] 29 Ill. Admin. Code 430.40 lists the following:

- the chemical name or identity of any substance involved in the release;
- an indication of whether the substance is on the list of extremely hazardous substances;
- an estimate of the quantity in pounds of any such substance that was released into the environment;
- the time and duration of the release;
- specific location of the release;
- the medium or media (air, water, land) into which the release occurred;
- proper precautions to take as a result of the release, including evacuation (unless such information is readily available to the community emergency coordinator pursuant to the emergency plan);
- any known or anticipated acute or chronic health risks or public safety risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals;
- name of the reporter and phone number where the reporter may be contacted, as well as the name and telephone numbers of persons or persons to be contacted for further information.

[3] 29 Ill. Admin. Code 430.70 states that the written report must update the telephoned report and contain the following additional information:

- actions taken to respond to and contain the release;
- any known or anticipated acute or chronic health risks associated with the release, and
- where appropriate, advice regarding medical attention necessary for exposed individuals.

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State: **Indiana**

Marathon Pipe Line

Reporting of Hazardous Liquid Releases

Revision: December 4, 2006

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	SPILLS FROM A "MODE OF TRANSPORTATION" – defined to include pipelines [1] **Spills[2] to water:** [3] • Spill that damages the waters of the state so as to cause death or acute injury or illness to humans or animals. •Spills that damage surface waters. **Spills to soil:** • Spills of hazardous substances or extremely hazardous substances when the amount spilled exceeds one hundred (100) pounds or the reportable quantity, whichever is	Indiana Department of Environmental Management Web page: http://www.ai.org/idem/programs/land/er/index.html	As soon as practicable, but within **two hours** after discovery.	**Telephoned Report:** "Area Code **1-888-233-7745** for in-state calls (toll free), **(317) 233-7745** for out-of-state calls. If new or updated spill report information becomes known that indicates a significant increase in the likelihood of damage to the waters of the state, the responsible party shall notify the department as soon as possible but	See the list in Endnote [7]

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	less; • spills of petroleum when the amount spilled exceeds **fifty-five (55) gallons** • spills of objectionable substances as defined in section 4(11) of this rule (327 IAC 2-6.1-4). [See Endnote [4]] **Any spill for which a spill response has not been done:** • Any spill for which a spill response has not been done.[5]			within two (2) hours of the time the new or updated information becomes known."[6]	
				Written Report (if requested by IDEM): "Submit to the Indiana Department of Environmental Management, Office of Land Quality, 100 North Senate Avenue, Indianapolis, Indiana, 46204,	

				Attention: Emergency Response a written copy of the spill report **if requested in writing by the department**."[8]	

ENDNOTES

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[1] "Mode of transportation" includes, but is not limited to, carriage by:

(A) rail and motor vehicles;

(B) aircraft;

(C) watercraft;

(D) pipelines; or

(E) other means of transportation;

in commerce. This definition excludes carriage within a facility by transportation equipment owned, operated, or controlled by that facility.

Source: Ind. Admin. Code tit. 327, r. 2-6.1-4

[2] "Spill" means "any unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impermeable surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil." Source: Ind. Admin. Code tit. 327, r. 2-6.1-4

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[3] Water "means the accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof, that are wholly or partially within, flow through, or border upon this state. The term does not include any private pond or any off-stream pond, reservoir, or facility built for reduction or control of pollution or cooling of water prior to discharge unless the discharge from the pond, reservoir, or facility causes or threatens to cause water pollution." Source: Ind. Admin. Code tit. 327, r. 2-6.1-4.

[4] Ind. Admin. Code tit. 327, r. 2-6.1-4

(11) "Objectionable substances" means substances that are:

(A) of a quantity and a type; and

(B) present for a duration and in a location;

so as to damage waters of the state. This definition excludes hazardous substances, extremely hazardous substances, petroleum, and mixtures thereof.

[5] Source: Ind. Admin. Code tit. 327, r. 2-6.1-6 (Westlaw)

[6] Source: Ind. Admin. Code tit. 327, r. 2-6.1-7 (Westlaw)

[7] "Spill report" means "an oral report that includes the following information about a spill, to the extent that the information is known at the time of the report"

(A) The name, address, and telephone number of the person making the spill report.

(B) The name, address, and telephone number of a contact person if different from clause (A).

(C) The location of the spill.

(D) The time of the spill.

(E) The identification of the substance spilled.

(F) The approximate quantity of the substance that has been or may further be spilled.

(G) The duration of the spill.

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(H) The source of the spill.

(I) Name and location of the waters damaged.

(J) The identity of any response organization responding to the spill.

(K) What measures have been or will be undertaken to perform a spill response.

(L) Any other information that may be significant to the response action.

Source: Ind. Admin. Code tit. 327, r. 2-6.1-4

[8] Source: Ind. Admin. Code tit. 327, r. 2-6.1-7 (Westlaw)

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State Kentucky

Marathon Pipe Line

Reporting of Hazardous Liquid Releases

Revision: November 16, 2006

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	▪ Release of 25 gallons or more of a petroleum product, other than diesel, to the land ▪ Release of 75 gallons or more of diesel to the land ▪ Release of a petroleum product in an amount which causes a sheen on navigable water or upon the shorelines or which cause sludge or emulsion to be deposited beneath the water or which violates water quality standards. ▪ Release of a CERCLA / Superfund hazardous substance to the environment in an amount greater than the reportable quantity listed in 40 CFR Part 302. ▪ Release of an EPCRA / SARA Title III extremely hazardous substance off-site / "beyond the fenceline" in an amount	Kentucky Department for Environmental Protection	**Verbal Report:** Immediately. **Written Report:** The Cabinet may require that a written report be submitted. If it is requested, the deadline for submitting it is seven calendar days.	**Verbal Report:** (502) 564-2380 or 1-800-928-2380 **Written Report:** Kentucky Department for Environmental Protection 14 Reilly Road Frankfort, KY 40601	See Endnote [1]

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	greater than the reportable quantity listed in 40 CFR Part 355.				

ENDNOTES

[1] The law states: "The report shall identify the following:

(a) The precise location of the release or threatened release;

(b) The name, address, and phone number of the person possessing or controlling the material at the time of the release or threatened release;

(c) The name, address, and phone number of persons having actual knowledge of the facts surrounding the release or threatened release;

(d) The specific pollutant or contaminant or hazardous substance released or threatened to be released;

(e) The concentration and quantity of the pollutant or contaminant or hazardous substance in the release or threatened release;

(f) The circumstances and cause of the release or threatened release;

(g) Efforts taken by the person to control or mitigate the release or threatened release;

(h) To the extent known, the harmful effects of the release or threatened release;

(i) The transportation characteristics of the medium or matrix into which the material was released or threatened to be released;

(j) Any present or proposed remedial action by the person at the site of the release or threatened release;

(k) The name, address, and phone number of the person who can be contacted for additional information concerning the release or threatened release; and

(l) Any other information that may facilitate remediation of the site."

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State LOUISIANA

Marathon Pipe Line

Reporting of Hazardous Liquid Releases

Louisiana's "Single Point of Contact" Web Page: http://www.deq.louisiana.gov/portal/Default.aspx?tabid=279

Attachment jaws

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	• **Unauthorized Discharge which results in an Emergency Condition** ▪ *Emergency condition* is defined as "any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property"[1] **Reportable Quantity:** "Notification .... will be made **regardless of the amount of discharge**."[2]	Louisiana Department of Environmental Quality	**Verbal Report: Immediately**, which is defined as, "a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances." The regulation also states: "but in no case later than **one hour** after learning of the discharge."[3] **Written Report:**	**Verbal:** The Hotline is **225-925-6595.** **Written Report:** Louisiana Department of Environmental Quality Post Office Box 4312 Baton Rouge, LA 70821-4312 ATTENTION: EMEREGENCY AND RADIOLOGICAL SERVICES DIVISION - SPOC "UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"	Not specified for Emergency Conditions.

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
			Within **seven calendar days**[4]		
	• **Unauthorized Discharge which does not result in an Emergency Condition** The Reportable Quantity for Oil is one barrel.. For other Reportable Quantities, see 33 La. Admin. Code § 3931 the table beginning on table 44 of the attached.	Louisiana Department of Environmental Quality	**"Prompt Notification" within 24 hours**[5] **Written Report: seven calendar days**[6]	**Verbal:** Any of the following: 1. **Online reporting form** at http://www.deq.louisiana.gov/portal/tabid/66/Default.aspx 2. **Email** to the Single Point of Contact at spoc@LA.GOV or **3. Telephone** 225-219-3640 during business hours or 225-342-1234 after hours, on weekends, and on holidays Note: **Radiation** incidents must be reported to 225-765-0160. ***** **Written Report:** Louisiana Department of Environmental Quality Post Office Box 4312 Baton Rouge, LA 70821-4312 ATTENTION: EMEREGENCY AND	**Verbal Report:** See Endnote [7]. **Written Report:** See Endnote [8]

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
				RADIOLOGICAL SERVICES DIVISION - SPOC "UNAUTHORIZED DISCHARGE NOTIFICATION REPORT	
	• **Unauthorized Discharge with Groundwater Contamination Impact**	If the event does not constitute an Emergency Condition, see the requirements for "prompt" notification, described in the section immediately above.			

ENDNOTES

[1] 33 La. Admin. Code § 3905

[2] 33 La. Admin. Code § 3915 A 1.

[3] 33 La. Admin. Code § 3915 A 1.

[4] 33 La. Admin. Code § 3925 A.

[5] 33 La. Admin. Code § 3923 A.

[6] 33 La. Admin. Code § 3917 B.

[7] The regulations list these items:

1. the name of the person making the notification and the telephone number where any return calls from response agencies can be placed;

2. the name and location of the facility or site where the unauthorized discharge is imminent or has occurred, using common landmarks. In the event of an incident involving transport, include the name and address of the

transporter and generator;

3. the date and time the incident began and ended, or the estimated time of continuation if the discharge is continuing;

4. the extent of any injuries and identification of any known personnel hazards that response agencies may face;

5. the common or scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate of amounts of any or all discharged pollutants;

6. a brief description of the incident sufficient to allow response agencies to formulate their level and extent of response activity; and

7. for unauthorized emissions of toxic air pollutants listed in LAC 33:III.5112, Table 51.2 or 51.3 or radioactive material, the following supplemental information:

a. the location of the source facility or stack;
b. the time at onset of the emission;
c. the prevailing local wind direction and estimated wind velocity at the time of onset; and
d. the duration of the emission if stopped at the time of notification.

[8] The regulations list these items:

1. the name, address, telephone number, Agency Interest (AI) number (number assigned by the department) if applicable, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by this Section;

2. the time and date of prompt notification, the state official contacted when reporting, the name of the person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred;

3. date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;

4. details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit:

a. the current permitted limit for the pollutant(s) released;
b. the permitted release point/outfall ID; and
c. which limits were exceeded (SO2 limit, mass emission limit, opacity limit, etc.) for air releases;

5. the common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate of amounts of any or all released pollutants (total amount of each compound expressed in pounds, including calculations);

6. a statement of the actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted;

7. remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation;

8. procedures or measures which have or will be adopted to prevent recurrence of the incident or similar incidents, including incidents of loss of sources of radiation;

9. if an unpermitted or unlicensed site or facility is involved in the unauthorized discharge, a schedule for submitting a permit or license application to the department, or rationale for not requiring a permit or license;

10. the reporting party's status (former or present owner, operator, disposer, etc.);

11. for discharges to the ground or groundwater, the following information shall also be included: all information of which the reporting party is aware that indicates pollutants are migrating, including, but not limited to, monitoring well data; possible routes of migrations; and all information of which the reporting party is aware regarding any public or private wells in the area of the migration used for drinking, stock watering, or irrigation;

12. what other agencies were notified;

13. the names of all other responsible parties of which the reporting party is aware;

14. a determination by the discharger of whether or not the discharge was preventable, or if not, an explanation of why the discharge was not preventable;

15. the extent of injuries, if any; and

16. the estimated quantity, identification, and disposition of recovered materials, if any.

State: Michigan

Marathon Pipe Line

Reporting of Hazardous Liquid Releases

Revision: January 12, 2009

THIS APPLIES TO FACILITIES THAT ARE REGULATED BY U.S. DOT

Important

►MDEQ also has regulations which apply to spills that occur at "oil storage facilities" and "on land facilities."

"Oil storage facilities" and "on land facilities" are defined to **exclude** "any transportation-related facility, as defined in 40 C.F.R. part 112."[1]

► If your facility is not under the jurisdiction of the Coast Guard, that is, if it is a "non-transportation-related facility" and it falls in the category of oil storage facility or on-land facility, follow the reporting procedures in MDEQ's regulations beginning at Michigan Administrative Code R 324.2001. See Endnote [1] for the definitions.

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	• **NREPA 201:** "Unpermitted release into the environment over a 24-hour period of a hazardous substance (2001 version of the CERCLA list, 40 CFR 302, Table 302.4].	Michigan Department of Environmental Quality	Within 24 hours after obtaining knowledge of the release.[2]	MDEQ advises: **Environmental Emergency Contacts**	

[1] Mich. Admin. Code R. 324.2001 (Westlaw).

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	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	MDEQ defines "hazardous substance" to include gasoline. • **How to calculate the reportable quantity:** The Michigan Natural Resources and Environmental Protection Act (NREPA) define "hazardous substance" to include gasoline. **MDEQ does not recognize"petroleum exclusion."** Therefore, in order to determine whether you have had a reportable release, you must calculate whether the reportable quantities of the CERCLA hazardous substances in the spill have been reached. MDEQ provides a calculator on its Web site at: http://www.deq.state.mi.us/documents/deq-ess-sara-releasecalcs.pdf Attached is a copy.			If you need to report an environmental emergency situation, please dial the 24 hour Pollution Emergency Alert System (PEAS) - at: **1-800-292-4706 (within Michigan) or 1-517-373-7660 (outside Michigan)** During daytime hours, you may also contact the appropriate district office directly. [3] **Written Report:** Upon request by MDEQ.[4]	
	• **Fire Code:** "A fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material[5] by a firm, person, or vehicle." [6]	Michigan Fire Marshal and the "the organized fire department of the area in which the incident occurred."	Not specified.	**1.** Notify the Fire Services Bureau[7] at **(517)241-8847** Fax: (517)335-4061	

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
				www.michigan.gov/bea." Source: http://www.michigan.gov/deq/0,1607,7-135-3311_4109_4212-58109--,00.html	

- **MDEQ's Release Reporting Web Site** http://www.michigan.gov/deq/0,1607,7-135-3307_29894_5959---,00.html

Endnotes

[1] Definitions of on-land facility and oil storage facility:

'Oil storage facility' means a temporary or permanent land-based industry, plant, establishment, firm, or other facility which receives, processes, manufactures, uses, stores, or ships oil, and at which there is present an amount of oil equal to or more than the threshold management quantity and which is so situated that oil could directly or indirectly reach the surface or groundwaters of this state, including any facility that discharges through a public sewer system. 'Oil-storage facility' **does not include** an oil field petroleum or brine storage facility, a recreational marina, installations of oil-containing electrical equipment, or any **transportation-related facility, as defined in 40 C.F.R. part 112.**

'On-land facility' means a temporary or permanent land-based industry, plant, establishment, firm, storage site, or other facility, which receives, processes, manufactures, uses, stores or ships polluting materials and at which there is present an amount of any polluting material equal to or more than its threshold management quantity and which is so situated that loss of polluting materials could directly or indirectly reach the surface or groundwaters of this state, including any facility which discharges through a public sewer system. 'On-land facility' **does not include** an oil storage facility, an oil field petroleum or brine storage facility, a recreational marina, installations of oil containing electrical equipment, or a **transportation-related facility as defined in 40 C.F.R. part 112.**

Source: Mich. Admin. Code R. 324.2001 (Westlaw)

[2] MCLA 324.2-114(1)(b)((http://www.legislature.mi.gov).

[3] **MDEQ District Offices:**

Upper Peninsula District Office
420 5th Street
Gwinn, MI 49841
phone: (906) 346-8300

Cadillac District Office

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
				Postal address is: Fire Services P.O. Box 30700 Lansing, MI 48909 **2.** Notify the local fire department for the area where the incident took place. **Written report:** Not required.	
	• **Migration of Contamination Notification Law** Where there is reason to believe that migration of "hazardous substances" (defined under Michigan law to include petroleum) in excess of residential cleanup standards has occurred.	MDEQ and any affected neighboring landowner	The rule states: "The notice required by this rule shall be made, **in writing**, to the department and to owner of any property affected by migrating contamination within **45 days** of the time that a person who is subject to section 20114 of the act has reason to believe that there is a condition that is subject to the notice provision	See attached form, which states: "This notice must be sent to the **DEQ office that serves the county in which the property is located.** A list of DEQ offices is available at www.michigan.gov/bea or by calling the Remediation and Redevelopment's Lansing office at 517-373-9837. The DEQ will not prepare acknowledgement of receipt of these notices. The sender is responsible for sending the report using a method that provides proof of delivery if such proof is desired. **Please label the outside of the envelope "Migration Notice."** Additional guidelines for the compliance with the requirements of R 200.51017(1) or R 299.5522 are available at	

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120 W. Chapin St
Cadillac, MI 49601-2158
phone: (231) 775-3960
fax: (231) 775-1511 or (231) 775-4050 (second floor)

Gaylord Field Office
2100 West M-32
Gaylord, MI 49735-9282
phone: 989-731-4920
fax: 989-731-6181

Saginaw Bay District Office
503 N. Euclid Ave, Ste 1
Bay City, MI 48706-2965
phone: (989) 686-8025
fax: (989) 684-9799 or (989) 686-0727

Grand Rapids District Office
4460 44th Street SE, Suite E
Kentwood, MI 49512-4096
phone: (616) 356-0500
fax: (616) 356-0202

Kalamazoo District Office
7953 Adobe Rd
Kalamazoo, MI 49009-5026
phone: (269) 567-3500
fax: (269) 567-9440 Remediation and Redevelopment Division, Water Bureau, Environmental Science and Services Division, Land and Water Management Division, and Waste and Hazardous Materials Division
fax: (269) 567-3555 Air Quality Division

Lansing District Office
525 W. Allegan (Constitution Hall, 4th Floor, North)
P.O. Box 30242
Lansing, MI 48909-7742
phone: (517) 335-6010
fax: (517) 241-3571

Jackson District Office
301 E Louis Glick Hwy

Jackson, MI 49201-1556
phone: (517) 780-7690
fax: (517) 780-7855

SE Michigan District Office
27700 Donald Court
Warren, MI 48092-2793
phone: (586) 753-3700
fax: (586) 751-4690

Detroit Field Office
Cadillac Place
3058 West Grand Boulevard, Suite 2-300
Detroit, MI 48202-6058
phone: (313) 456-4700
2nd floor fax: (313) 456-4692
9th floor fax: (313) 456-4662

Source: http://www.michigan.gov/deq/0,1607,7-135-3306_3329-12306--,00.html

[4] MDEQ's Release Reporting Table at http://www.deq.state.mi.us/documents/deq-ead-sara-releasetable.pdf

[5] **Definition of Hazardous Material:** Hazardous material is defined as "explosives, pyrotechnics, flammable gas, flammable compressed gas, nonflammable compressed gas, flammable liquid, combustible liquid, oxidizing material, poisonous gas, poisonous liquid, irritating material, etiologic material, radioactive material, corrosive material, or liquefied petroleum gas." Michigan Compiled Laws Annotated 29.1 (Westlaw).

[6] **Fire Prevention Code:** "Immediately following a fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material by a firm, person, or vehicle, the owner of the firm or vehicle or the person and the chief of the first police department or organized fire department upon the scene of the incident shall notify the bureau and the organized fire department of the area in which the incident occurred of the known details regarding the incident." Michigan Statutes. Fire Prevention Code M.C.L.A. 29.5g (Westlaw).

[7] **Fire Services Bureau Web Site:** http://www.michigan.gov/cis/0,1607,7-154-28077_42271---,00.html

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State Michigan – NON-TRANSPORTATION-RELATED FACILITIES **Marathon Pipe Line**
Reporting of Hazardous Liquid Releases

Revision: January 16, 2009

THIS APPLIES TO MPL FACILITIES, OR PARTS OF FACILITIES, THAT ARE NOT UNDER THE JURISDICTION OF U.S. DOT

"Oil Storage Facilities" and "On-land Facilities"

MDEQ defines them as follows:[1]

Oil storage facility "means a temporary or permanent land-based industry, plant, establishment, firm, or other facility which receives, processes, manufactures, uses, stores, or ships **oil**, and at which there is present an amount of **oil** equal to or more than the threshold management quantity and which is so situated that **oil** could directly or indirectly reach the surface or groundwaters of this state, including any facility that discharges through a public sewer system. "Oil-storage facility" **does not include** an oil field petroleum or brine storage facility, a recreational marina, installations of oil-containing electrical equipment, or any **transportation-related facility, as defined in 40 C.F.R. part 112**."

On-land facility "means a temporary or permanent land-based industry, plant, establishment, firm, storage site, or other facility, which receives, processes, manufactures, uses, stores or ships **polluting materials** and at which there is present an amount of any **polluting material** equal to or more than its threshold management quantity and which is so situated that loss of **polluting materials** could directly or indirectly reach the surface or ground-waters of this state, including any facility which discharges through a public sewer system. "On-land facility" **does not include** an oil storage facility, an oil field petroleum or brine storage facility, a recreational marina, installations of oil containing electrical equipment, or a **transportation-related facility as defined in 40 C.F.R. part 112.**"

[1] Mich. Admin. Code R 324.2001 (2007)

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Definition of Polluting Material: (1) oil (2) salt. (3) the materials on the **attached table** or (4) any compound or product that contains 1%, or more, by weight, of any material listed in (1) through (3) based on material safety data sheet formulation information for the compounds or products.

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	• **Releases from "oil storage facilities" or "on-land facilities"** "Release" is defined to exclude "1000 gallons of a polluting material into a secondary containment structure that complies with these rules, if recovery of the material spilled, leaked, or discharged is initiated within 24 hours of detection, is completed as soon as practicable, but not more than 72 hours after detection, and if no polluting materials are released directly or indirectly to any public sewer system or to	**1.** Michigan DEQ and **2.** The local health agencies.[1]	As soon as practicable	Michigan Department of Environmental Quality's **hotline**: **1-800-292-4706** or 517-373-7660 (if calling from outside of Michigan) **Written Report:** within **10 days**, addressed to the Chief of MDEQ's Waste Management Division Michigan Department of Environmental Quality Waste Management Division John Hannah Building,	For written report: "The cause of the release, discovery of the release, and the response measures taken or a schedule for completion of measures to be taken, or both, to prevent recurrence of similar releases"

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	the surface waters or groundwaters of this state."[2] "Threshold reporting quantities": 1. **To ground surface**: 50 pounds of oil. 2. **To waters of the state:** Sheen			First Floor 608 West Allegan Street Lansing, Michigan 48933	
	• **Fire Code:** "A fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material[2] by a firm, person, or vehicle."[3]	Michigan Fire Marshal and "the organized fire department of the area in which the incident occurred."	Not specified.	**1.** Notify the Fire Services Bureau[4] at **(517)241-8847** Fax: (517)335-4061 Postal address is: Fire Services P.O. Box 30700 Lansing, MI 48909 **2.** Notify the local fire department for the	Not specified.

[2] Mich. Admin. Code R 324.2001 (MDEQ).

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
				area where the incident took place. **Written report:** Not required.	
	• **Migration of Contamination Notification Law** Where there is reason to believe that migration of "hazardous substances" (defined under Michigan law to include petroleum) in excess of residential cleanup standards has occurred.	MDEQ and any affected neighboring landowner	The rule states: "The notice required by this rule shall be made, **in writing**, to the department and to owner of any property affected by migrating contamination within **45 days** of the time that a person who is subject to section 20114 of the act has reason to believe that there is a condition that is subject to the notice provision.[5]	See attached form, which states: "This notice must be sent to the **DEQ office that serves the county in which the property is located.** A list of DEQ offices is available at www.michigan.gov/bea or by calling the Remediation and Redevelopment's Lansing office at 517-373-9837. The DEQ will not prepare acknowledgement of receipt of these notices. The sender is responsible for sending the report using a method that provides proof of delivery if such proof is desired. **Please label the outside of the envelope "Migration Notice."** Additional guidelines for the compliance with the requirements of R 200.51017(1) or R 299.5522 are available at www.michigan.gov/bea ." Form: http://www.michigan.gov/documents/deq/deq-rrd-NoticeofMigration_249487_7.doc Guidance from MDEQ: http://www.michigan.gov/deq/0,1607,7-135-3311_4109_4212-58109--,00.html	

Endnotes

[1] NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)

Act 451 of 1994

324.3111b Release required to be reported under R 324.2001 to R 324.2009.
Sec. 3111b.
(1) If a person is required to report a release to the department under part 5 of the water resources protection rules, R 324.2001 to R 324.2009 of the Michigan administrative code, the person, via a 9-1-1 call, shall at the same time report the release to the primary public safety answering point serving the jurisdiction where the release occurred.

(2) If a person described in subsection (1) is required to subsequently submit to the department a written report on the release under part 5 of the water resources protection rules, R 324.2001 to R 324.2009 of the Michigan administrative code, the person shall at the same time submit a copy of the report to the local health department serving the jurisdiction where the release occurred.

[2] **Definition of Hazardous Material:** Hazardous material is defined as "explosives, pyrotechnics, flammable gas, flammable compressed gas, nonflammable compressed gas, flammable liquid, combustible liquid, oxidizing material, poisonous gas, poisonous liquid, irritating material, etiologic material, radioactive material, corrosive material, or liquefied petroleum gas." Michigan Compiled Laws Annotated 29.1 (Westlaw).

[3] **Fire Prevention Code:** "Immediately following a fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material by a firm, person, or vehicle, the owner of the firm or vehicle or the person and the chief of the first police department or organized fire department upon the scene of the incident shall notify the bureau and the organized fire department of the area in which the incident occurred of the known details regarding the incident." Michigan Statutes. Fire Prevention Code M.C.L.A. 29.5g (Westlaw).

[4] **Fire Services Bureau Web Site:** http://www.michigan.gov/cis/0,1607,7-154-28077_42271---,00.html

[5] MICHIGAN ADMINISTRATIVE CODE

DEPARTMENT OF ENVIRONMENTAL QUALITY (R 299.5501 THROUGH R 299.5542)
ENVIRONMENTAL RESPONSE DIVISION
ENVIRONMENTAL CONTAMINATION RESPONSE ACTIVITY
PART 5. RESPONSE ACTIVITIES

R 299.5522 Notice to department and neighboring property owners; special conditions for notice required of permittees under part 615 of the act and by easement holders; community outreach.

Rule 522. (1) A person who is subject to section 20107a of the act shall provide notice to the department as provided in R 299.51017.

(2) A person who is subject to section 20114 of the act and who has reason to believe that 1 or more hazardous substances is emanating from, or has emanated from, and is present beyond a boundary of his or her property at a concentration in excess of criteria developed by the department under section 20120a(1)(a) and (17) of the act shall provide notice to the department and affected property owners as provided in this rule, unless the release in question is a permitted release. Notice shall also be made if hazardous substances emanating from his or her property enter any surface waters of the state in concentrations that exceed generic GSI criteria established under R 299.5716. The requirement to notify shall be based on reasonable inferences that can be made from available data about the facility, including, but not limited to, data gathered through investigation undertaken to comply with section 20114(1)(a) of the act. If, during the course of a remedial investigation or other response activity, information is gained which shows that additional properties have been affected, or are likely to be affected, by migrating contamination at a concentration in excess of a cleanup criterion developed by the department under section 20120a(1)(a) of the act, then notice shall be provided to the department and the affected property owner about each affected property. A single notice to the department may be provided to address multiple affected properties.

(3) If a person who is subject to this rule has provided notice under R 299.51017(1) or section 21309a of the act, then notice does not have to be made under this rule for the same affected property.

(4) **The notice required by this rule shall be made, in writing, to the department and to owner of any property affected by migrating contamination within 45 days of the time that a person who is subject to section 20114 of the act has reason to believe that there is a condition that is subject to the notice provision, or within 9 months of the effective date of this rule, whichever is later. The notice shall include all of the following, as appropriate to the circumstances in question:**

(a) The name and location of the property that is the source of the release at the facility.

(b) The name, address, and telephone number of a contact person for the facility.

(c) The address and property tax identification number, if available, or other location information for each property onto which contamination has migrated or is likely to have migrated.

(d) A summary of the information which shows that contamination is emanating from, or has emanated from, and is present beyond the boundary of the source property at a concentration which exceeds that allowed by section 20120a(1)(a) of the act. This summary shall identify the environmental media affected, specific hazardous substances, and the concentrations of those hazardous substances in all affected environmental media at the property boundary and in any sample locations beyond the property boundary. The summary shall also describe the basis for the conclusion

that the contamination is emanating, has emanated, or is present beyond the boundary of the source property, including whether the conclusion is based on groundwater analytical data or fate and transport modeling, both, or neither.

(e) If the person making notice has reason to believe that a migrating hazardous substance has affected, or is likely to affect, a private or public water supply, then that water supply shall be identified in the notice.

(5) A person who holds a permit for an oil and gas well under part 615 of the act and is subject to section 20114 of the act shall give notice, as called for in subrules (2) and (4) of this rule, to the department and to the owner of the surface rights of the property if a release from the oil and gas exploration or production activities results in hazardous substance concentrations in excess of criteria developed by the department under section 20120a(1)(a) or (17) of the act on property where a well or related surface activity exists. Such notice shall be in addition to notice, as called for in subrule (2) of this rule, about migration of contamination beyond the boundary of property where the well or related surface activity is located.

(6) A person who holds an easement and is subject to section 20114 of the act shall provide notice, as called for in subrules (2) and (4) of this rule, to the department and to the grantor of the easement, or the grantor's successor in interest, if any, if there is a release from the easement holder's activities that results in hazardous substance concentrations in excess of criteria developed by the department under section 20120a(1)(a) or (17) of the act on property where the easement exists. Such notice shall be in addition to notice, as called for in subrule (2) of this rule, about migration of contamination beyond the boundary of the property where the easement exists.

(7) In making a determination whether there is significant public interest in a remedial action under section 20120d(3) of the act or in any other response activity being conducted with department knowledge, the department shall consider at least all of the following:

(a) Whether the response activity addresses a bioaccumulative chemical of concern, as that term is defined in R 323.1043(l).

(b) Whether hazardous substances migrated beyond the boundaries of the source property before or during response activities to address the facility.

(c) Whether the remedial action being proposed potentially impacts surrounding properties or residents in the area.

(d) Whether a neighboring property owner or resident or a local government official has communicated to the department that the category of response activity proposed or land use upon which the remedial action was based is inconsistent with local zoning, other local ordinance, or, in the case of property that is not zoned, the proposed reasonably foreseeable use is inconsistent or incompatible with surrounding land uses.

(8) Nothing in these rules prevents the department from conducting community outreach efforts at any time during a response activity or in any way more extensively than that required by section 20120d of the act.

(By authority conferred on the department of environmental quality by section 20104 of 1994 PA 451, MCL 324.20104 and Executive Order No. 1995- 18, MCL 324.99903)

Mich. Admin. Code R. 299.5522, MI ADC R. 299.5522

State: Mississippi **Marathon Pipe Line**

Reporting of Hazardous Liquid Releases

Revision: December 5, 2006

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	The Mississippi legislature and the state environmental & emergency response agencies have not issued spill reporting regulations (other than those applicable to underground storage tanks). [1]	Mississippi Emergency Management Agency P.O Box 5644 Pearl, MS 39208 Phone: 601-933-MEMA Fax: 601-933-6800 The Mississippi Department of Environmental Quality's Web site states, "Report spills to the 24-hour State Warning Point at the Mississippi Emergency Management Agency (601) 352-9100 or **(800) 222-6362**."[2]		MEMA's 24-hr Emergency Hotline: **1-800-222-MEMA(6362)**	

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[1] The Morgan Lewis & Bockius lawfirm writes:

"1. Mississippi has not enacted any statute or promulgated any regulations requiring reporting of non-permitted discharges, spills, or leaks other than releases from USTs and has generally adopted the federal hazardous waste regulations. However, you should notify the MDEQ by telephone about any spills that may affect state waters, land, air or public health. It is the practice in Mississippi to notify the MDEQ of an incident if federal guidelines would require notification to federal authorities.

2. There are no quantitative "thresholds" or reportable quantities for determining when certain spilled, leaked or discharged substances must be reported. Informal guidance from MDEQ indicates that any spill, leak or discharge which (1) adversely impacts or otherwise contaminates the environment or (2) has migrated beyond the boundaries of the discharger's property should be reported to the MDEQ immediately. Any questions regarding spills or releases can be directed to the Emergency Services Division." Morgan Lewis & Bockius, Environmental Spill Reporting Handbook s. 36:2 Step-by-Step Guide (Westlaw)(2005)

[2] http://www.deq.state.ms.us/MDEQ.nsf/page/Main_Assistance#e

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State Montana
Reporting of Hazardous Liquid Releases

Marathon Pipe Line

Revision: February 22, 2007

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	▪ **Release of a CERCLA hazardous substance:** CERCLA releases required to be reported to the National Response Center are to be reported to the division of disaster and emergency services in the department of military affairs.[1]	State of Montana Department of Military Affairs Disaster and Emergency Services P.O. Box 4789 - 1900 Williams Street Helena, Montana 59604-4789 PHONE: 841-3911 - FAX: 841-3965 Web Page: http://dma.mt.gov/des/	**Verbal Report: "as soon as practicable** after obtaining the knowledge of a required reportable release" [1]	The telephone number is 841-3911.	Not specified.
	• **Release of Hazardous Waste During Transportation[2]**	Department of Environmental Quality Montana Department of Environmental Quality P.O. Box 200901 Helena, Montana 59620-0901 Tel.: (406) 444-0379	**Verbal Report: Immediately**	Montana hazardous materials emergency response system **(406) 841-3911**	Not specified.

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▪ **Montana Department of Environmental Quality's Spill Reporting Policy**	The policy may be found at http://www.deq.state.mt.us/enf/spillpol.asp The policy states (high-lighting added): ► The following types of spills ***must*** be reported: ▪ Releases or spills of hazardous substances in amounts that meet or exceed reportable quantities as set out in 40 CFR Part 302. Notification to the DES and NRC is required. ▪ Spills, overfills, and suspected releases from underground storage tanks and petroleum storage tanks. ARM 17.56.501, et seq. ▪ Releases or spills of any materials that would lower the quality of groundwater below water quality standards. ARM 17.30.1045. ► The following types of spills ***should*** be reported: ▪ Spills that enter or may enter state water or a drainage that leads directly to surface water; ▪ Spills that cause sludge or emulsion beneath the surface of the water, streambanks or shorelines, ▪ Spills that cause a film, "sheen", or change the color of the water, streambanks or shorelines; or ▪ All other spills except as noted in C.

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(4) Any person who does not make notification in accordance with the provisions of this section is liable for a civil penalty not to exceed $10,000 for each day the violation continues to a maximum of $100,000. These penalties are in addition to any other penalties imposed by law. All penalties collected must be deposited in the environmental contingency account provided for in 75-1-1101.

(5) Compliance with the reporting requirements of this section does not relieve any person of the obligation to report the same incident under any other applicable state or federal law, regulation, or other requirement.

History: En. Sec. 9, Ch. 270, L. 1995.

[2] "In addition to the notices and reports required by 40 CFR 263.30 in the event of discharges of hazardous waste during transportation, the transporter shall also notify the department [Department of Environmental Quality] by immediately contacting the Montana hazardous materials emergency response system ((406) 841-3911)." Mont.Admin.R. 17.53.702 (Westlaw).

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		► The following types of spills are **not required to be reported** provided they do not enter surface water or a drainage that leads directly to surface water: ▪ Spills of ten barrels (420 gallons) or less of crude oil, produced water, injection water, or combination thereof that occur on property leased for the purpose of oil and gas exploration; or **▪ Spills of twenty-five (25) gallons or less of refined crude oil products, including but not limited to gasoline, diesel fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil, and derivatives of mineral, animal, or vegetable oils.**

ENDNOTES

[1] **MONTANA CODE ANNOTATED**
TITLE 10. MILITARY AFFAIRS AND DISASTER AND EMERGENCY SERVICES
CHAPTER 3. DISASTER AND EMERGENCY SERVICES
PART 12. RESPONSE TO HAZARDOUS MATERIAL INCIDENTS

10-3-1211. Notification of release

(1) A person responsible for reporting a release under the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9603, shall, as soon as practicable after obtaining the knowledge of a required reportable release, other than a permitted release, notify the division of the release.

(2) The division shall notify the commission of releases or threatened releases as defined in the plan.

(3) The division shall immediately notify the department of environmental quality of any release reported and who will respond according to the plan.

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State: OHIO

Marathon Pipe Line

Reporting of Hazardous Liquid Releases

Revision: November 16, 2006
Attach lepc list

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	Spill to Water: Spill of a hazardous substance, extremely hazardous substance or a discharge of oil into "navigable" water. The water does not actually have to be navigable. It includes most surface water such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands. Tributaries to those waters are also included.[1] If you have questions, contact an MPC environmental attorney. **Spill of oil to the environment, other than to navigable water:** The Reportable Quantity is 25 gallons.[2] "Oil" is defined as "oil of any kind or in any form including, without limitation, petroleum, fuel oil, sludge, oil refuse, and	**For Verbal Notifications:** ▪ Ohio EPA ▪ Local Emergency Planning Committee ▪ Local fire department **For Written Reports:** ▪ Ohio EPA ▪ Local Emergency Planning Committee	**Verbal Notification:** 30 minutes, "unless notification within that time is impracticable under the circumstances." [5] **Written Report:** "As soon as practicable but no later than thirty days after the release" [6]	**Verbal Notification:** 1. Ohio EPA at 800-282-9378 or 614-224-0946. 2. Local Emergency Planning Committee of the county in which the release occurred and the LEPCs of any county likely to be affected. **Attached is a copy Ohio EPA's LEPC list.** 3. The local fire department having jurisdiction over the	**Verbal Notification:** See Endnote [7] for list. **Written Report:** See Endnote [8] for list. **Potential Requirement for Second Written Report:** Also see Endnote 8 for possible requirement for a second written report. If significant new information becomes available in the year after the release, a

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	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	oil mixed with wastes other than dredged spoil."[3] **Release of CERCLA hazardous substances to the environment (including navigable water):** Releases of hazardous substances in amounts equal to or greater than the final reportable quantity (RQ) listed in Code of Federal Regulations at 40 CFR 302.4. The RQ for unlisted hazardous substances is 100 pounds. "Unlisted hazardous wastes which exhibit TCLP toxicity have the reportable quantities listed in 40 C.F.R. Part 302 Table 302.4 for the contaminant on which the characteristic of TCLP toxicity is based. If an unlisted hazardous waste exhibits the characteristic of TCLP toxicity and one or more of the other characteristics referenced in 40 C.F.R. Table 302.4(b), the reportable quantity for that waste shall be the lowest of the applicable reportable quantities." [4]			area where the release occurred. **Written Report:** Both of the following: 1. Ohio EPA at Ohio EPA, DERR-ER 122 South Front Street P.O. Box 1049 Columbus, OH 43215-1049 ATTN: ER Records Mgmt. - SERC Report 2. Local Emergency Planning Committee of the county in which the release occurred and the LEPCs of any county likely to be affected.	second written report is required.

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ENDNOTES

[1] Ohio Admin. Code §§ 3750-1-01 and 3750-25-25 (Anderson)(2006).
[2] Ohio Admin. Code § 3750-25-20 (Anderson)(2006).
[3] Ohio Admin. Code § 3750-1-01(Anderson)(2006).
[4] Ohio Admin. Code § 3750-25-10 (Anderson)(2006).
[5] Ohio Admin. Code § 3750-25-25 (Anderson)(2006).
[6] Ohio Admin. Code § 3750-25-25(A)(2)(Anderson)(2006).

[7] **Verbal Notification**

- The location and source(s) of the release or discharge;
- The chemical name or identity of any substance involved in the release or discharge and whether the substance is an extremely hazardous substance;
- An estimate of the quantity (in gallons or pounds) of any substance released or discharged into the environment;
- The time and duration of the release or discharge;
- The environmental medium or media into which the substance was released or discharged and the extent of the release or discharge;
- Any known or anticipated acute or chronic health risks associated with the release or discharge and, if known to the informant, advice regarding medical attention necessary for individuals exposed to the substance released or discharge;
- Proper precautions to take as a result of the release or discharge, including evacuation and other proposed response actions, unless that information is readily available to the community emergency coordinator pursuant to the plan of the district prepared under section 3750.04 of the Revised Code; and
- The name and telephone number of the person or persons to be contacted for further information.

[8] "Mandatory" Requirements:

- Updates, if any, to the information provided in the verbal notification;
- Complete name, mailing address, and telephone number of the owner or operator of the facility from which the release occurred.

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- Actual time, date and duration of the release or discharge;
- Actual time and date of discovery of the release or discharge;
- Actions taken to respond to and contain the release or discharge;
- Indicate the Ohio EPA spill number and the National response center case number on submitted information;
- Location of the facility from which the release or discharge occurred (street or mailing address);
- Location of the release or discharge (street(s) county, township, city);
- Longitude and latitude, if known, or distance and direction from the nearest intersection or milepost if transportation related release or discharge.
- Chemical name (common name or technical name) and Chemical abstracts service (CAS) registry number of the substance involved in the release or discharge;
- Specifically identify the environmental medium or media impacted and the extent of impact;
- Name of waterway and length of area affected.
- If no water was affected then indicate surface area in square feet or yards.
- If the release or discharge was monitored, indicate the method of detection, concentrations, and wind direction and speed if the release was airborne.
- Amount recovered or neutralized. If neutralized, describe the method of neutralization.
- Describe any actions taken to reduce the impact of the release or discharge.

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- Provide a chronological summary of the incident. Include a chronology of communications with state and local government agencies.
- Provide manifest, bills of lading, laboratory analyses which were generated by the owner and operator of the facility and are germane to the incident.
- Describe any extenuating circumstances which caused the release or discharge.
- Describe any known or anticipated acute or chronic health risks associated with the release or discharge.
- Where appropriate, advice regarding medical attention necessary for individuals exposed to the substance released or discharged.
- A summary of all actions taken by the owner or operator to prevent a recurrence of the release or discharge.

"Voluntary" Information

- "An owner or operator of a facility or vessel from which a release or discharge occurred **may** submit the following additional information **(voluntary information)** in the written follow up emergency notice ..."
- Indicate any air, water or other permit numbers which may be pertinent to this incident and to the efficient/emission limitations which may apply.
- To the extent information is available; identify damage to wildlife and/or vegetation.
- To the extent information is available, identify impact to human health and safety (evacuations, human exposure, death, or seen as injuries).
- Economic impact.
- Estimate the dollar value, if any, of the released or discharged product.
- Estimate the replacement or repair cost of the equipment replacement or repair.

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- Estimate the costs of cleanup.

Second Written Report Potentially Required: The regulation reads, "If significant additional information regarding the mandatory or voluntary information submitted about a release or discharge becomes known during the period between submission of the written report required by this section and one year after the release or discharge, the owner or operator shall submit to the committee and the Ohio EPA an updated written notice within three days after learning of the additional information." Ohio Admin. Code § 3750-25-25 (Anderson)(2006).

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State: Pennsylvania

Marathon Pipe Line

Reporting of Hazardous Liquid Releases

Revision: December 5, 2006

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	Regulations implementing the Clean Streams Law: ▪ Incidents in which "a toxic substance or another substance which would endanger downstream users of the waters of this Commonwealth, would otherwise result in pollution or create a danger of pollution of the waters, or would damage property" is spilled into waters of the Commonwealth. It also applies to circumstances in which the waters are threatened by the placement of the substance "so that it might discharge, flow, be washed or fall into them."[1] For the definitions of *pollution* and *waters of the Commonwealth*, see Endnote [2]	Pennsylvania Department of Environmental Protection The DEP contact for Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, and Westmoreland counties is: Pa. Dept. of Environmental Protection 400 Waterfront Drive Pittsburgh, PA 15222-4745 Phone: 412-442-4187	**Verbal Report:** Immediately **Written Report:** None required.	1. Immediately call the DEP at **412-442-4000** 2. " ... if reasonably possible to do so, to notify known downstream users of the waters." See attached DEP phone number list.	"location and nature of the danger"[3]

		Hotline: 412-442-4000			
	Aboveground Storage Tank Note: The Pennsylvania regulations applicable to notifications required for releases from Aboveground Storage Tanks do **not** apply to: "A **pipeline facility**, including gathering lines, regulated under: (A) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C.A. App. §§ 1671--1687). (B) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C.A. §§ 2001--2015). (C) An interstate or intrastate pipeline facility regulated under State laws comparable to the provisions of law referred to in clause (A) or (B)." 25 Pa. Code § 245.1 (Westlaw).				

[1] 25 Pa. Code § 91.33 (Westlaw).

[2] *Pollution* "shall be construed to mean contamination of any waters of the Commonwealth such as will create or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. The department shall determine when a discharge constitutes pollution, as herein defined, and shall establish standards whereby and wherefrom it can be ascertained and determined whether any such discharge does or does not constitute pollution as herein defined." 35 P.S. § 691.1 (Westlaw).

Waters of the Commonwealth "shall be construed to include any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth." 35 P.S. § 691.1 (Westlaw).
25 Pa. Code § 91.33 (Westlaw).

State TENNESSEE
Reporting of Hazardous Liquid Releases

Marathon Pipe Line

TEMA Web site: http://www.tnema.org/index.htm

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	Hazardous material accident[1]	**Tennessee Emergency Management Agency** 3041 Sidco Drive Nashville, TN 37204	"as soon as practicable"	TEMA Operations Office Hotline **(1-800-258-3300)**	Not specified in the law.

ENDNOTES

[1] The law states: "Notwithstanding any provision of the law to the contrary, in addition to any reports required by law, any person who is transporting hazardous materials and placarded as carrying such materials as required by regulations of the department of safety and/or department of transportation shall report any accident or incident in which such materials are released from the container in which such materials are being transported to the Tennessee emergency management agency as soon as practicable after such accident or incident. Any other person having knowledge of such accident or incident shall also report such accident or incident to the Tennessee emergency management agency." T. C. A. § 58-2-601 (Westlaw)(2006).

State: Texas
Reporting of Hazardous Liquid Releases

Marathon Pipe Line

Revision: January 14, 2009

AGENCY JURISDICTION

Facility or Geographic Area	Agency	Law
Crude pipelines	Railroad Commission of Texas	V.T.C.A., Natural Resources Code § 81.051 (Westlaw)
Hazardous liquid pipelines regulated by U.S. DOT at 49 U.S.C. Section 60101 et seq.	Railroad Commission of Texas	V.T.C.A., Natural Resources Code § 117.011 (Westlaw).
Coastal waters and adjacent shorelines	General Land Office	V.T.C.A., Natural Resources Code § 40.002 (Westlaw)
Protection of Water	Texas Commission on Environmental Quality[1]	Texas Water Code §5.103 (General Jurisdiction of the Commission) Texas Water Code §26.039 (Permits) Texas Health and Safety Code, Solid Waste Disposal Act, § 361.024 (Rulemaking authority)

[1] Source: 21 Tex. Reg. 12175, 1996 WL 739506 (Tex.Reg.).

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SPILL REPORTING

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	Discovery of Contamination ▪ Discovery of petroleum-based contamination in soil or water while placing, repairing, replacing, or maintaining a pipeline if : (1) hydrocarbons are present on the surface of the water; (2) at least five linear yards of soil have been affected by hydrocarbons; **or** (3) soil affected by hydrocarbons extends beyond the face of the excavation in which the contamination is observed or detected. Endnote [1]	**Railroad Commission of Texas**	Within **24 hours** after discovery	▪ Report by telephone, facsimile, or electronic mail to: 1. Railroad Commission 2. Owner of the land on which the pipeline is located	Not specified, except that "must include the global positioning satellite coordinates of the location of the contamination."
	Crude oil accidents which are reportable to U.S. DOT under 49 CFR Part 195	**Railroad Commission of Texas**	**Telephoned Report:** "As soon as practicable (two hours)"	▪ **Telephoned Report:** Call Hotline at (512) 463-6788 as soon as practicable	▪ company/operator name; ▪ location of leak or

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	Event	Agency / Group	Timing	Method	Information the Agency Will Need
			Written Report: Within 30 days	▪ **Written Report**: "Within 30 days of discovery of the incident, submit a completed Form H-8 to the Oil and Gas Division of the Commission. In situations specified in the 49 CFR Part 195, the operator shall also file duplicate copies of the required Department of Transportation form with the Division"	incident; ▪ time and date of accident/incident; ▪ fatalities and/or personal injuries; ▪ phone number of operator; ▪ other significant facts relevant to the accident or incident.
	Accidents involving hazardous liquids other than crude oil and carbon dioxide which are reportable to U.S. DOT under 49 CFR Part 195	**Railroad Commission of Texas**	**Telephoned Report:** "earliest practicable moment following discovery (within two hours)" **Written Report:** Within 30 days	**Telephoned Report:** (512) 463-6788 **Written Report:** "Within 30 days of discovery of the incident, file in duplicate with the Division a written report using the	Not specified.

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
				appropriate [U.S.] Department of Transportation form (as required by 49 CFR Part 195) or a facsimile"	
	Discharge or spill of **oil, petroleum product, used oil, hazardous substances, industrial solid waste, or other substances** into the environment in a quantity equal to or greater than the reportable quantity.[2] Reportable quantities: See Endnote [3]	1.**Texas Commission on Environmental Quality** 2. "**Notification of local governmental authorities.** If the discharge or spill creates an imminent health threat, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshal, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as	Notify TCEQ "as soon as possible but not later than 24 hours after the discovery of the spill or discharge"	State Emergency Response Center at 1-800-832-8224 or during normal business hours the TCEQ Regional Office with jurisdiction over the area in which the spill occurred or TCEQ's 24-hour hotline. Endnote [4]	See Endnote [5]

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
		appropriate). The responsible party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons. In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the imminent health threat."			

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
		3. "**Notification to property owner and residents**. As soon as possible, but no later than two weeks after discovery of the spill or discharge, the responsible person shall reasonably attempt to notify the owner (if identifiable) or occupant of the property upon which the discharge or spill occurred as well as the occupants of any property that the responsible person reasonably believes is adversely affected."			
	Unauthorized discharge into coastal waters See Endnote [6] for definition of "unauthorized discharge." Essentially it is oil in an amount that creates sheen. It does not include permitted or naturally occurring releases.	1. **Texas General Land Office** 2. **Owners** whose property is damaged or threatened by the unauthorized discharge. A	1. Immediately This means "within **one hour** of the time the discharge is discovered. In determining immediate notification	GLO's hotline: **1-800-832-8224** http://www.glo.state.tx.us/oilspill/ Completion of Response Report (within 60 days).	(1) the substance and quantity actually discharged or potentially dischargeable and the rate of discharge; (2) the time, location

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	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	Applies to Facilities: Facility--Any waterfront or offshore **pipeline**, structure, equipment, or device used for the purposes of drilling for, pumping, storing, handling, or transferring oil and operating where a discharge of oil from the facility could threaten coastal waters, including but not limited to any such facility owned or operated by a public utility or a governmental or quasi-governmental body, but does not include any temporary storage facilities used only in connection with the containment and cleanup of unauthorized discharges of oil. 31 TAC 19.2.	reasonable effort must be made to contact them. See Endnote [7]for description of reasonable effort.	the GLO will consider the need for initial abatement, containment, and response actions, the accessibility of communication devices and the reasonableness of the person's efforts to immediately report, and whether the discharge could reasonably have been discovered earlier." 2. Written Completion of Response Report (within 60 days)	See Endnote [8] Texas General Land Office PO Box 12873 Austin, TX 78711-2873 Fax: 512-463-5233 1-800-998-4GLO or 512-475-0773	by latitude and longitude, N.A.D. 27 or N.A.D. 83, or by state plane coordinates indicating zone or by Universal Transverse Mercator coordinates indicating zone, if known, and the apparent cause of the actual or potential discharge; (3) the size of the area actually impacted by the discharge and the area potentially impacted and whether or not any environmentally sensitive areas will be affected; (4) the nature of any response actions undertaken and the identity of the person or discharge cleanup organization engaged or engaging in

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
					response activities; (5) the name and title of the responsible person, the person in charge, and the person reporting the discharge; and (6) The manner in which the responsible person and the facility or vessel involved in the actual or threatened discharge may be contacted.

ENDNOTES

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[1] **Railroad Commission**

(b) If in the process of placing, repairing, replacing, or maintaining a pipeline a common carrier or an owner or operator of a pipeline observes or detects any petroleum-based contamination of soil or water in proximity to the pipeline, the common carrier or pipeline owner or operator shall report the contamination to the commission and the owner of the land on which the pipeline is located. Petroleum-based contamination of soil or water that is observed or detected is required to be reported under this subsection if:

(1) hydrocarbons are present on the surface of the water;

(2) at least five linear yards of soil have been affected by hydrocarbons; or

(3) soil affected by hydrocarbons extends beyond the face of the excavation in which the contamination is observed or detected.

(c) The contamination report:

(1) must be made not later than **24 hours** after the common carrier or pipeline owner or operator observes or detects the contamination;

(2) must include the global positioning satellite coordinates of the location of the contamination; and

(3) may be made by telephone, facsimile, or electronic mail.

Source: V.T.C.A., Natural Resources Code § 81.056 (Westlaw)

16 TAC § 8.301

Tex. Admin. Code tit. 16, § 8.301

§ 8.301. Required Records and Reporting

(a) Accident reports. In the event of any failure or accident involving an intrastate pipeline facility from which any **hazardous liquid** or carbon dioxide is **released**, if the failure or accident is required to be **reported** by 49 CFR Part 195, the operator shall report to the Commission as follows.

(1) **Incidents involving crude oil**. In the event of an accident involving crude oil, the operator shall:

(A) notify the Division, which shall notify the Commission's appropriate Oil and Gas district office, by telephone to the Commission's emergency line at (512) 463-6788 at the **earliest practicable moment** following discovery of the incident (within two hours) and include the following information:

(i) company/operator name;

(ii) location of leak or incident;

(iii) time and date of accident/incident;

(iv) fatalities and/or personal injuries;

(v) phone number of operator;

(vi) other significant facts relevant to the accident or incident.

(B) within **30 days of discovery** of the incident, submit a completed **Form H-8 to the Oil and Gas Division of the Commission**. In situations specified in the 49 CFR Part 195, the operator shall also file duplicate copies of the required Department of Transportation form with the Division.

(2) **Hazardous liquids, other than crude oil**, and carbon dioxide. For incidents involving hazardous liquids, other than crude oil, and carbon dioxide, the operator shall:

(A) notify the Division of such incident by telephone at the **earliest practicable moment** following discovery (within two hours); and

(B) within **30 days of discovery of the incident**, file in duplicate with the Division a written report using the appropriate Department of Transportation form (as required by 49 CFR Part 195) or a facsimile.

[2] 30 Texas Admin. Code 327.3.

[3] Reportable quantities

(a) Hazardous substances. The reportable quantities for hazardous substances shall be:

(1) for spills or discharges onto land--the quantity designated as the Final Reportable Quantity (RQ) in Table 302.4 in 40 CFR §302.4; or

(2) for spills or discharges into waters in the state--the quantity designated as the Final RQ in Table 302.4 in 40 CFR §302.4, except where the Final RQ is greater than 100 pounds in which case the RQ shall be 100 pounds.

(b) Oil, petroleum product, and used oil.

(1) The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:

(A) for spills or discharges onto land--210 gallons (five barrels); or

(B) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

(2) The RQ for petroleum product and used oil shall be:

(A) except as noted in subparagraph (B) of this paragraph, for spills or discharges onto land--25 gallons;

(B) for spills or discharges to land from PST exempted facilities--210 gallons (five barrels); or

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(C) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

(c) Industrial solid waste or other substances. The RQ for spills or discharges into water in the state shall be 100 pounds.

Source: 30 Texas Admin. Code 327.4.

[4] 30 Texas Admin. Code 327.3.

[5] **Required Information:**

The regulation (30 TAC 327.3) states: "Information required in initial notification. The initial notification shall provide, to the extent known, the information in the following list. Copies of spill reports prepared for other governmental agencies shall satisfy this requirement if they contain, or are supplemented to contain, all the information required by this subsection. The initial notification shall contain:

(1) the name, address and telephone number of the person making the telephone report;

(2) the date, time, and location of the spill or discharge;

(3) a specific description or identification of the oil, petroleum product, hazardous substances or other substances discharged or spilled;

(4) an estimate of the quantity discharged or spilled;

(5) the duration of the incident;

(6) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;

(7) the source of the discharge or spill;

(8) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;

(9) if different from paragraph (1) of this subsection, the names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;

(10) a description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;

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(11) any known or anticipated health risks;

(12) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and

(13) any other information that may be significant to the response action.

Update notification. The responsible person shall notify the agency as soon as possible whenever necessary to provide information that would trigger a change in the response to the spill or discharge.

Correction of records. Notifying the agency that a reportable discharge or spill has occurred shall not be construed as an admission that pollution has occurred. Furthermore, if the responsible person determines, after notification, that a reportable discharge or spill did not occur, the responsible person may send a letter to the agency documenting that determination. If the executive director agrees with that determination, the executive director will note the determination in commission records. If the executive director disagrees with that determination, the executive director will notify the responsible person within 30 days."

[6] **GLO Unauthorized Discharge:** Unauthorized discharge--Discharges excluding those authorized by and in compliance with a government permit, seepage from the earth solely from natural causes, and unavoidable, minute discharges of oil from a properly functioning engine, of a harmful quantity of oil from a vessel or facility either:

(A) into coastal waters; or

(B) on any waters or land adjacent to coastal waters where harmful quantities of oil may enter coastal waters or threaten to enter coastal waters if the discharge is not abated nor contained and the oil is not removed.

Source: 31 Tex. Admin. Code 19.32.

[7] **GLO Reasonable Effort:** "If an unauthorized discharge threatens to damage or pollute property other than that of the owner or operator or responsible person, the person in charge and the responsible person must make reasonable efforts to notify the owners of property threatened by the discharge. A reasonable effort to notify includes taking steps to identify and contact such owners within a time period that allows them to take measures to minimize damage to their property. In determining compliance with this requirement, the location of the discharge and the accessibility of ownership information will be considered." 31 Tex. Admin. Code § 19.32.

[8] **GLO Completion of Response Report:** Completion of Response

(a) The General Land Office (GLO) will consider the opinions of the designated trustees in determining whether response actions are complete

(b) In addition to reporting an unauthorized discharge immediately after it occurs, the responsible person must file a written report with the GLO. A reporting form will be provided to the responsible person by the state on-scene coordinator. The report is due 60 days after being directed by the state on-scene coordinator to complete the report or 60 days after the response actions have been declared complete by the state on-scene coordinator, whichever date is earlier. The report must contain the following information:

(1) incident date;

(2) amount of oil spilled;

(3) product spilled;

(4) areas that were impacted by the spill;

(5) description of incident;

(6) summary of response activity;

(7) a description of the following actions which will be taken to prevent spills of a similar nature, including their effective implementation date:

(A) conducting an analysis of the cause of the unauthorized discharge;

(B) training to be implemented;

(C) equipment operation and maintenance;

(D) revised procedures;

(E) revised inspection schedules; and

(F) organizational changes.

Source: 31 Tex. Admin. Code 19.37.

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State: West Virginia
Reporting of Hazardous Liquid Releases

Marathon Pipe Line

Revision: December 4, 2006

	Event	Agency / Group	Timing	Method	Information the Agency Will Need
	"Each and every person who may cause or be responsible for any **spill or accidental discharges of pollutants into the waters of the state** shall give immediate notification to the **Office of Water Resources**' Emergency Notification Number 1-800-642-3074." [1] *Pollutant* is not defined in the regulations, but is very broadly defined in the state's Water Pollution Control Act. [2]	West Virginia Department of Environmental Protection Office of Water Resources 601 - 57th Street, Charleston, WV 25304 http://www.dep.state.wv.us/item.cfm?ssid=13&ss1id=927	**Verbal Report:** Immediately. **Written Report:** The deadline is not stated.	**Verbal Report:** **Hotline** **1-800-642-3074** **Written Report:** A written report is required **if requested** by the WV DEP.	See Endnote [3]

ENDNOTES

[1] W. Va. Code St. R. § 47-11-2 (Westlaw).

[2] *Pollutant* "means industrial wastes, sewage or other wastes as defined in this section." W. Va. Code, § 22-11-3 (Westlaw).

Also, *Industrial wastes* "means any liquid, gaseous, solid or other waste substance, or a combination thereof, resulting from or incidental to any process of industry, manufacturing, trade or business, or from or incidental to the development, processing or recovery of any natural resources; and the admixture with such industrial wastes of sewage or other wastes, as hereinafter defined, is also "industrial waste" within the meaning of this article." W. Va. Code, § 22-11-3 (Westlaw).

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And, *Other wastes* "means garbage, refuse, decayed wood, sawdust, shavings, bark and other wood debris and residues resulting from secondary processing; sand, lime, cinders, ashes, offal, night soil, silt, oil, tar, dyestuffs, acids, chemicals, heat or all other materials and substances not sewage or industrial wastes which may cause or might reasonably be expected to cause or to contribute to the pollution of any of the waters of the state." W. Va. Code, § 22-11-3 (Westlaw).

[3] **Verbal Report:** The telephoned report will include:

- the time and place of the spill or discharge
- type or types of substance(s)
- quantity or quantities of the material or materials
- action or actions taken to stop the spill or discharge and to minimize its polluting effect
- the measures or measures taken or to be taken in order to prevent a recurrence of a similar spill
- "such additional information as may be requested by the" DEP .

Written Report: If the DEP requests a written report, the report will simply restate the information given in the telephoned report.

The regulation also requires the spiller to have available "the following information pertaining to those substances that are employed or handled in its operation in sufficiently large amounts as to constitute a hazard in case of an accidental spill and discharge into a public stream.

- Potential toxicity in water to man, animals and aquatic life;
- Details on analytical procedures for the quantitative estimation of such substances in water; and
- Suggestions on safeguards or other precautionary measures to nullify the toxic effects of a substance once it has gotten into a stream."

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PRIVILEGED & CONFIDENTIAL
ATTORNEY-CLIENT COMMUNICATION

MARATHON ASHLAND PETROLEUM LLC

SPILL REPORTING REQUIREMENTS

WYOMING AND FEDERAL LAW

NOTICE:

This reporting guidance may exceed the minimum requirements of the Clean Water Act.

All citations to the Code of Federal Regulations are to the Government Printing Office's E-CFR.

National Response Center Hotline: 800-424-8802

NRC's Web page: http://www.nrc.uscg.mil/nrchp.html

Wyoming Department of Environmental Quality's Hotline: **307-777-7781** 24 hours a day, 7 days a week (See http://deq.state.wy.us/out/spills.htm .)

Jurisdiction	Question	Answer
Federal & Wyoming	Are spills reportable if they are to "dry arroyos / intermittent streams where it can be cleaned up before the dry arroyo/stream	**Federal:** Yes, U.S. EPA's "Discharge of Oil" regulations may be found in 40 CFR Part 110. The definition of "navigable water" includes "intermittent stream."[i]

	is wet"?	Unless the discharge falls under one of the four exclusions, it is reportable.[ii] The regulations do not exempt from the notification requirement spills which have been cleaned up.[iii] The regulations implement Clean Water Act § 311(b)(3), [iv] Section 311 does not exempt discharges with are cleaned up. **WASTE NEWS ARTICLE:** See Endnote [v] for a copy of the recent article from the magazine, Waste News, describing the agency's fining of an oil company which had failed to report such a spill.: EPA Fines Oil Firm Operating On Navajo Land, Waste News.com, http://www.wastenews.com/headlines2.html?id=1116271614 **Wyoming:** The Wyoming regulations are quite clear. The person having control over the oil or hazardous substance is required both to clean up the spill ***and*** report it.[vi] But there are exceptions for certain releases which do not physically enter waters of the state. See Endnote [vii] If a release enters or threatens to enter "waters of the state" and it does not qualify as one of the exceptions under Wyo. Admin. Code § 4-4, it is reportable. Immediate reporting to the Wyoming Department of Environmental Quality is required. A written follow-up report is also required: "Within

		seven (7) days following a release, submit a complete written report to the division describing the reportable release and steps taken to prevent a recurrence."
Wyoming	Are spills reportable if they are "greater than 10 bbls (any amount)" and they do **not** threaten water Wyoming's "waters of the state."	No. The Wyoming Oil "oil spill" (oil spills and spills of other listed material) regulations are contained in the "Water Quality" title and in a chapter called "Regulations for Releases of Oil and Hazardous Substances Into the Waters of the State." The regulations state that their purpose is to protect waters of the state.[viii] Note: While reporting may not be technically required, reporting is recommended due to the subjective nature of the "threaten water" qualification.
Federal & Wyoming	Is a spill reportable "if the spill affects the bank of a reportable water body (which has water) where the oil does not actually contact the water."	**Federal:** Yes. The federal "Discharge of Oil" regulations specifically address this issue. Discharges of oil [ix] to "adjoining shorelines" of navigable water are reportable. [x] **Wyoming:** Wyoming's "waters of the state" are not defined to include shorelines. They do include wetlands. See Endnote 11. Note, as in the case above, reporting is recommended due to the subjective nature of the "threaten water" qualification and the potential that it could be found that a spill on a bank could threaten water.
Federal & Wyoming	What is the reportability of: • Spills to natural ponds	**Federal:** The definition of *navigable water* includes "All waters that are currently used, were used in the past, or

	• Spills to ponds which have been built ("man-made")	may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide." And those waters include "wetlands" which are "adjacent to [the listed examples of navigable water]." Wetlands "generally include ..... Natural ponds." "Wetlands mean those areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and **natural ponds**." 40 CFR 110.1. **Federal / "Man Made":** The federal definition does not include "manmade" ponds. Note that navigable water includes "impoundments of waters otherwise defined as navigable waters under this section." Caution: Is the manmade pond connected to *navigable water*? This needs to be [xi]examined on a case-by-case basis. See Endnote **Wyoming:** Wyoming's definition is very broad, and (unlike some states' definitions) does not include exclusion for, e.g., private ponds, artificial ponds, etc. Therefore, these are reportable. See Endnote [xii]

ENDNOTES

[i] Navigable waters mean the waters of the United States, including the territorial seas. The term includes:

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

(b) Interstate waters, including interstate wetlands;

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

(1) That are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;

(3) That are used or could be used for industrial purposes by industries in interstate commerce;

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

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

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

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

Source: 40 CFR 110.1.

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[ii] The four exclusions are stated in Clean Water Act § 311's definition of "discharge":

Discharge "includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping, but excludes (A) discharges in compliance with a permit under section 1342 of this title, (B) discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 1342 of this title, and subject to a condition in such permit,, [FN1] (C) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 1342 of this title, which are caused by events occurring within the scope of relevant operating or treatment systems, and (D) discharges incidental to mechanical removal authorized by the President under subsection (c) of this section." 33USC 1321(a)(Westlaw).

[iii] 40 CFR Part 110.

[iv] 40 CFR § 110.2.

[v] EPA fines oil firm operating on Navajo land

May 16 -- Federal regulators have fined an oil production company $40,000 for oil spill prevention violations at three facilities on Navajo lands near Bloomfield, N.M.

Elm Ridge Resources failed to develop a plan for preventing oil discharges at three of its facilities near intermittent streams or dry washes that carry flows to the San Juan River during heavy rains, according to the U.S. Environmental Protection Agency.
The facilities each have aboveground storage tanks that store 1,320 gallons or more of oil or oil products, according to the EPA.

The agency discovered the violations during a July 2002 inspection. Since then, Elm Ridge Resources has reviewed its spill prevention compliance at other facilities in the Navajo Nation, and submitted plans for 34 facilities, including the three cited by the EPA.

Spill prevention regulations require nontransportation-related facilities that store large amounts of oil to have a spill prevention plan, including countermeasures to control, contain and clean up any spill that might occur.
Although the Elm Ridge Resources facilities are located near dry washes rather than perennial streams, federal regulations require spill prevention plans because a spill occurring during a storm could result in oil being carried to surface waters, according to the EPA.

The administrative complaint is undergoing a 30-day public review comment period before being finalized, according to the EPA.

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Source: WasteNews.com at http://www.wastenews.com/headlines2.html?id=1116271614 May 16, 2005

[vi] "Any person owning or having control over **oil** or a hazardous substance which, after release, enters, or threatens to enter, waters of the state shall:

(i) immediately take appropriate action to stop and contain the release.

(ii) Immediately notify the division of the type, quantity, and location of the release, and of the response, containment, and cleanup actions which have been taken or are proposed to be taken." Wyo. Admin. Code WQ 4-4 (Westlaw).

[vii] (A) The following releases are not required to be reported to the division provided the release does not physically enter waters of the state, and it is immediately contained, removed, and disposed of in accordance with departmental regulations:

(I) Ten barrels (420 gallons) or less of crude oil, petroleum condensate, produced water, or a combination thereof;

(II) Twenty-five (25) gallons or less of refined crude oil products, including but not limited to, gasoline, diesel motor fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil, and derivatives of mineral, animal, or vegetable oils.

(iii) Immediately proceed to correct the cause of the release.

(iv) Within seven (7) days following a release, submit a complete written report to the division describing the reportable release and steps taken to prevent a recurrence. WY ADC ENV WQ Ch 4 § 2 (Westlaw).

[viii] "The purpose of these regulations is to regulate the containment, cleanup, and disposal of oil or hazardous substances which have been released and which enter, or threaten to enter, waters of the state and to require notification to the Water Quality Division of such releases. These regulations do not apply to intentional discharges of oil or hazardous substances

which would be regulated by the National Pollutant Discharge Elimination System permits issued in accordance with Chapter II, Wyoming Water Quality Rules and Regulations." WY ADC ENV WQ Ch 4 § 2 (Westlaw).

[ix] Part 110 incorporates the definitions found in CWA 311. CWA 311 defines oil as "oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil."

[x] "40 CFR § 110.3 Discharge of oil in such quantities as "may be harmful" pursuant to section 311(b) (4) of the Act. For purposes of section 311(b)(4) of the Act, discharges of oil in such quantities that the Administrator has determined may be harmful to the public health or welfare or the environment of the United States include discharges of oil that:

(a) Violate applicable water quality standards; or

(b) Cause a film or sheen upon or discoloration of the surface of the water or **adjoining shorelines** or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines."

[xi] Caselaw:

"Manmade ponds did not constitute 'navigable waters' within meaning of Clean Water Act (CWA); Environmental Protection Agency's (EPA's) definition of navigable waters included only "natural" ponds. Federal Water Pollution Control Act Amendments of 1972, § 502(7), as amended, 33 U.S.C.A. § 1362(7)." Washington Wilderness Coalition v. Hecla Min. Co., 870 F.Supp. 983, E.D.Wash., 1994.

Six-acre artificial retention pond built in conjunction with construction of warehouse was not part of "waters of the United States" within coverage of Clean Water Act, even if pond drained into groundwaters. Federal Water Pollution Control Act Amendments of 1972, § 502(7), as amended, 33 U.S.C.A. § 1362(7). Village of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962, C.A.7.Wis., 1994.

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[xii] Statutory Definition: "Waters of the state" means all surface and groundwater, including waters associated with wetlands, within Wyoming. WY ST § 35-11-103 (Westlaw).

Regulatory Definition: "Waters of the state" means all surface and groundwater, including waters associated with wetlands, within Wyoming. WY Rules and Regulations ENV WQ Ch 1 s 2 (Westlaw).

"Groundwater" means subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure. WY Rules and Regulations ENV WQ Ch 8 s 2 (Westlaw).

"Groundwaters of the State" are all bodies of underground water which are wholly or partially within the boundaries of the State; Groundwaters of the State is synonymous with Groundwaters of Wyoming. WY Rules and Regulations ENV WQ Ch 8 s 2 (Westlaw).

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Response Zones	Areas	Incident Commander	Deputy IC	Operations	Planning	Documentation	Safety	Environmental	Liaison	Comm Affairs	
Ohio Valley	E. Sparta	Steve Willis***	Ryan Dennison	Greg Parson	Matt Greenawalt Scott Croft	Andrea Pendolino Julie Wise	Scott O'Dell	Matt Baumgart***	Kent Johnson Al Lowry	Greg Newman Jim Reneau	
	Heath	Steve Willis***	Brian Duggan***	Aaron Clark***	Matt Greenawalt Russ Palmer	Amanda Farmer Julie Wise	Scott O'Dell	Matt Baumgart***	Kent Johnson Al Lowry	Greg Newman Jim Reneau	
	Lima	Steve Willis***	Pat Thompson***	Travis Unverferth***	Matt Greenawalt Dave McCullough	Michelle Klausing Julie Wise	Eric Sponaugle***	Matt Baumgart***	Kent Johnson Al Lowry	Greg Newman Jim Reneau	
	Northeast	Steve Willis***	Ray Price***	Miranda Steinberger	Matt Greenawalt Steve Crandall	Suzanne Kersten Julie Wise	Eric Sponaugle***	Matt Baumgart***	Kent Johnson Al Lowry	Jim Reneau Greg Newman	
	Owensboro	Steve Willis***	Randy Eakins**	Danny Conley	Matt Greenawalt Claude Gordon	Maria Smith Julie Wise	Jason Underhill	Matt Baumgart***	Kent Johnson Al Lowry	Jeff Erwin Greg Newman	
		Legal	Public Affairs	Logistics	Finance	GIS	Repair (SIL)	Deputy Repair (M&TE)	Agency Notification	ETS	FSUL
	Additional Regional Resources	John Staler (Ops) Greg Smith (Env) Sherry Hesselbein (Env) John Maguire (Litigation) John Califf (Litigation)	Jeff Kemp Nicole Hall Cam Thoroughman	Craig Kuhlman Kevin Geise	Lauren Stuck Brian Kreuz Tanner Krauth	Josh Beard Melissa Tarka Matt Gallant Dan Horn Matthew Fearrington	Jeff Haferd	Ryan Stechschulte Aaron Kruse	Renee Hermiller Danni Wyse	Brice Birkhofer Dawn Stufft	Andy McMaster Scott Turner

Response Zones	Areas	Incident Commander	Deputy IC	Operations	Planning	Documentation	Safety	Environmental	Liaison	Comm Affairs	
Martinsville	Clermont	Greg Amburgey***	Mark Ritter	Scott Burnett	Kevin Johnson*** Travis Hamilton	Renee Buchanan Jennifer Ellington	Levi Edwards	Wyatt Kintner***	Al Lowry Kent Johnson	Austin Guyer Andrew Oswalt	
	Griffith	Greg Amburgey***	Gary Grubb	Tom Hobson	Kevin Johnson*** Ken Wireman	Joyce Kennedy Jennifer Ellington	Levi Edwards	Wyatt Kintner***	Al Lowry Kent Johnson	Austin Guyer Andrew Oswalt	
	Martinsville	Greg Amburgey***		Brandon Mobley	Kevin Johnson*** David Daughhetee***	Jennifer Ellington	Chad Hunter***	Wyatt Kintner***	Al Lowry Kent Johnson	Andrew Oswalt Austin Guyer	
	Patoka	Greg Amburgey***	Steve Hawkins***	Derek Sheets*** Johnathan Kocher	Kevin Johnson*** Mark Landreth	Kristy Waner Jennifer Ellington	Johnathan Scott	Wyatt Kintner***	Al Lowry Kent Johnson	Andrew Oswalt Austin Guyer	
	Stoy	Greg Amburgey***	Michael Howard***	Mark Stone	Kevin Johnson*** Chad Tuttle***	Danielle Watson Jennifer Ellington	Chad Hunter***	Wyatt Kintner***	Al Lowry Kent Johnson	Jeff Erwin Andrew Oswalt	
	Wood River	Greg Amburgey***	Bill Coulter***	Steve Sidwell	Kevin Johnson*** Clint Teel	Shelley Graham Jennifer Ellington	Johnathan Scott	Wyatt Kintner***	Al Lowry Kent Johnson	Andrew Oswalt Jeff Erwin	
		Legal	Public Affairs	Logistics	Finance	GIS	Repair (SIL)	Deputy Repair (M&TE)	Agency Notification	ETS	FSUL
	Additional Regional Resources	John Staler (Ops) Greg Smith (Env) Sherry Hesselbein (Env) John Maguire (Litigation) John Califf (Litigation)	Cam Thoroughman Jeff Kemp Nicole Hall	Craig Kuhlman Kevin Geise	Brian Kreuz Lauren Stuck Tanner Krauth	Josh Beard Melissa Tarka Matt Gallant Dan Horn Matthew Fearrington	Jeff Donnelly	Matt Heft Aaron Kruse	Renee Hermiller Danni Wyse	Mark Ehrman	Andy McMaster Scott Turner

Response Zones	Areas	Incident Commander	Deputy IC	Operations	Planning	Documentation	Safety	Environmental	Liaison	Comm Affairs	
Houston	Garyville		Tara Hensley	Ryan Cole***	Jeremy Jaquillard	Roxanna Bartholomew Evelyn Capalad	Patrick Williams		Kent Johnson Al Lowry	Jeff Erwin Jim Reneau	
	Mid-South		Brad Burson	Jeff Steele	Jeremy Jaquillard Doug Swales	Evelyn Bussenger Evelyn Capalad	John King		Kent Johnson Al Lowry	Jeff Erwin Jim Reneau	
	Pasadena		Steve Taggart	Derrick Rankin	Jeremy Jaquillard Matthew Nugent	Stephanie Curry Evelyn Capalad	Patrick Williams	Earl Dauterive	Kent Johnson Al Lowry	Jeff Erwin Jim Reneau	
	St. James		Paul Witte	Jeremy Moore	Jeremy Jaquillard	Cristy Laiche Evelyn Capalad	John King		Kent Johnson Al Lowry	Jeff Erwin Jim Reneau	
		Legal	Public Affairs	Logistics	Finance	GIS	Repair (SIL)	Deputy Repair (M&TE)	Agency Notification	ETS	FSUL
	Additional Regional Resources	John Staler (Ops) Greg Smith (Env) Sherry Hesselbein (Env) John Maguire (Litigation) John Califf (Litigation)	Nicole Hall Jeff Kemp Cam Thoroughman	Craig Kuhlman Kevin Geise	Tanner Krauth Lauren Stuck Brian Kreuz	Josh Beard Melissa Tarka Matt Gallant Dan Horn Matthew Fearrington	Scott Baumgarnder	Jeff Iten Andy Schulze	Renee Hermiller Danni Wyse	Tressa Benedetti	Andy McMaster Scott Turner

Response Zones	Areas	Incident Commander	Deputy IC	Operations	Planning	Documentation	Safety	Environmental	Liaison	Comm Affairs	
Cody	Cody		Steve Roehr	Frank Gonsalez*** Thaddues Paul Charlie Sullivan	Jeremy Jaquillard Gordon Deromedi	Susan House Rebecca Cedel Evelyn Capalad	Steve Clegg	Earl Dauterive	Kent Johnson Al Lowry	Terry Thompson Jeff Erwin	
		Legal	Public Affairs	Logistics	Finance	GIS	Repair (SIL)	Deputy Repair (M&TE)	Agency Notification	ETS	FSUL
	Additional	John Staler (Ops)	Nicole Hall	Craig Kuhlman	Angie Whitaker	Josh Beard	Scott Baumgarnder	Jeff Iten	Renee Hermiller	Tressa Benedetti	Andy McMaster
		Greg Smith (Env)	Jeff Kemp	Kevin Geise	Brian Kreuz	Melissa Tarka		Andy Schulze	Danni Wyse		Scott Turner

3.0

MARATHON PIPE LINE
SECTION 3.0 RESPONSE ACTIONS

This section is a guide for response actions to be taken when a spill is first reported or observed. As mentioned previously, **nothing contained herein replaces good judgment or prudent operating practices**.

The first MPL individual who suspects a spill has occurred will be responsible for initiating response procedures. The "Spill Response Checklist," shown in Figure 3.1, provides guidance for ensuring appropriate response procedures are adequately completed by first responders.

3.1 INITIAL RESPONSE STEPS

Many notifications and initial response actions should occur simultaneously. Refer to Section 2.0 of this Plan for notification procedures.

The following are the initial response steps to be taken by the on-scene personnel.

- Make a preliminary assessment of the situation using the following as guidance.

Cautions

- ❑ Approach the spill area from an upwind and uphill direction if possible, using personal protective equipment appropriate for the situation.
- ❑ Until confirmed otherwise, the spill environment must be presumed to be hazardous. That presumption remains until the characteristics of the spilled material have been determined and the area has been monitored and evaluated.
- ❑ If the first MPL person at the site of a spill does not have information and equipment to make the determination, an immediate request for assistance should be made.

Objectives

- ❑ Account for all personnel and their condition.
- ❑ Provide medical assistance if necessary.
- ❑ Perform a site characterization and analysis to ensure personnel safety.
- ❑ Gather information and preserve scene of the incident.
  - ❑ Document and photograph failure
- ❑ Determine condition of the pipeline and/or facility.
- ❑ Report information

Factors to be Considered	❑ Location of personnel and their condition. ❑ Location of incident/source
Use ALIRTS as a guide. (Appendix C)	❑ Nature of incident/source ❑ Size of incident ❑ Type(s) of oil or product involved ❑ Threat of fire and explosion ❑ Availability of personal protective equipment ❑ Availability of monitoring equipment ❑ Location of safe briefing area(s) ❑ Source control options ❑ Proximity of surrounding population to incident ❑ Response options ❑ Sources of equipment and labor ❑ Reporting requirements

- *Eliminate sources of ignition.* Shut off motors, electric pumps, electrical power, open flames, etc. in the area.
- *Notify personnel in the area, Area Manager, and MPL Operations Center.* If the Area Manager is not available, notify the Operator/Operations Technician.
- *Secure the source if it is safe to do so* using the following as guidance.

Pipe Rupture	❑ If the source originates from a low or high pressure pipeline; shut down pumps, close remote operated block valves in accordance to the Operations Center procedures, and close manual block valves per guidance provided by local operations. Then construct or obtain temporary containment and bleed pressure from line into containment.
Transfer Equipment	❑ If manifold fails, shut down upstream pumps, close valves in accordance to developed procedures and guidance provided by local operations. ❑ If a hose fails, shut down upstream pumps, close valves in accordance to developed procedures and guidance provided by local operations. Then drain hose into catch basin, if feasible.
Tank Overflow	❑ If the source of the oil spill is identified as a leaking or overflowing tank; divert oil to an alternate tank or shut down an upstream pump, close the line valve and overflow valve (if possible). ❑ Try to contain the spill and thereby limit affected area.

Tank Failure/Leak	❑ If the source of the spill is identified as a tank failure and safety conditions permit, divert oil to an alternate tank and shut in all valves associated with the tank in accordance with developed procedures and guidance provided by local operations. ❑ Try to contain the spill, prevent contamination of removable objects, and limit affected area.
Explosion or Fire	❑ Liquids - ❑ Control or disperse vapors. ❑ Cool heated structures. ❑ Divert/control runoff. ❑ Recover products. ❑ Gases ❑ Disperse vapors. ❑ Isolate gas source. ❑ Protect exposures. ❑ **If practical**, allow fire to burn its self out. **NOTE: It is MPL's policy that fires beyond the incipient stage not be fought by MPL personnel; rather the Person-In-Charge should proceed to have the facility evacuated by all personnel in accordance with the proper emergency procedures.**
Explosion or Fire (Contd.)	**"Incipient Stage Fire" means a fire that is in the initial or beginning stage that can be controlled or extinguished by portable fire extinguishers, Class II standpipe (1 1/2" fire hose system) or small hose systems without the need for protective clothing or breathing apparatus.**
Equipment Failure	For all equipment failures, close valves in accordance with developed procedures and guidance provided by local operations. Then drain lines or, if pressurized, will be bled down into containment structures. For land spills, try to contain the spill so as to limit the affected areas.

3.2 GENERAL SPILL RESPONSE CONSIDERATIONS

When responding to an oil spill, the following factors need to be evaluated immediately:

- Fire and explosion potentials always exist. Monitoring for the presence of unsafe conditions, including explosive atmospheres, inadequate oxygen levels, and

dangerous levels of H_2S is important to aid in determining the safety level of the impacted area.

- If uncertain about the safety of an area, approach the area wearing protective gear, including breathing apparatus.
- Approach spilled material from an upwind direction, if possible.
- Keep unauthorized personnel away from the scene.
  - Scene preservation is a key to the Incident Investigation. Actions shall be taken to document the failure prior to any work/repairs being completed at the scene of the incident. Approval from the appropriate SMEs (Incident Commander, Process SMEs, and Legal as appropriate) must be received prior to any work, repairs, or disposal of equipment is completed at the scene of the incident.
- Toxic gases may be released by some spills.
  - Examples: Hydrogen Sulfide (H2S), Ethyl Mercaptan & Sulfur Dioxide (WoodHaven Specific)
- Do not walk into or touch any spilled material. Avoid inhaling fumes, smoke, and vapors, even if no hazardous materials are involved.
- Do not assume that gases or vapors are harmless because of lack of an odor.
- Check the Material Safety Data Sheet (MSDS) to determine the flammable and toxic characteristics of the spilled material.
- Speed is essential in recovery efforts, especially during the initial response.
- Determine strategic objectives at the beginning of a spill. Critical/sensitive areas require immediate response consideration in order to provide protection from the effects of a release.

3.3 MSDS INFORMATION ON OIL TRANSPORTED IN PIPELINE

MSDSs for crude oil and oil products transported via pipeline operated by MPL are maintained on the following MPL website link: www.marathonpetroleum.com/brand/products/MSDS. In the event of a spill or release, the MSDS for the applicable crude oil or oil product should be obtained via the above link and reviewed to obtain information on the physical and chemical characteristics, health and safety hazards, and initial spill-handling and firefighting methods to aid in spill response.

The following crude oil grades (POLARIS) are transported via pipeline operated by MPL and can be found on the MPL MSDS website

Symbol	Description
A17	Arabian Light (70%) / Segregation 17 (30%) Blend
ABL	Arabian Light

MARATHON PIPE LINE
SECTION 3.0 RESPONSE ACTIONS

ACS	Alberta Common Synthetic
AHS	Albian Heavy Synthetic
AMH	Albian Muskeg River Heavy
ARB	Albian Resid Blend
ARM	Arkansas Sour
ASP	Asphalt
AWB	Access Western Blend
AXL	Arab Extra Light
BNL	Bonnie Light
BNR	Bonita Sour
CAB	Cabinda
CLK	Cold Lake
CON	Condensate
CRW	Platte Light Sweet
Symbol	Description
E57	Eagle Ford API 57 Blend
EIC	Eugene Island
EKS	East Kentucky Sweet
EMS	East Mississippi Sour
ESC	Escravos
ETR	East Texas Sour
ETS	East Texas Sweet
FNR	Foreign Sour
FST	Fosterton
GCL	Gulf Coast Light
GIR	Girassol
GNR	Wyoming General Sour
GUS	Gulf Sweet
HLS	Heavy Louisiana Sweet
HNP	Heavy Naphtha
HRC	Horican - Northern Michigan
HRZ	Horizon
HSB	Husky Syncrude
HUN	Hungo
HVB	Cold Lake or Western Canadian Select/West Texas Intermediate 50/50 Blend
ILB	Illinois Basin
KCB	Keystone Conoco Blend
KIS	Kissanje Blend
KRK	Kirkuk
KUW	Kuwait
LCC	Light Cat Cycle Oil (High Sulfur .3%)
LEF	Lube Extracted Feedstock
LLB	Lloydminster Hardisty
LLK	Lloydminster K
LLS	Light Louisiana Sweet
LMP	Louisiana Mississippi Sweet (60%) / Poseidon (40%)
LMS	Louisiana Mississippi Sweet
LSA	Valero Blend (65% LLS/35% Saharan Blend)
LSB	Light Sour Blend
MID	Midale
MIS	Michigan Sweet
MND	Mondo
MRQ	Mars Blend
MSW	Mixed Blend Sweet

MTH	Thunder Horse/Mars 75/25 Blend
MYA	Maya
MYM	Maya/Mars 80/20 Blend
NAP	Naphtha
NDL	North Dakota Light
NDS	North Dakota Sweet
NIT	Nitrogen
OSA	Suncor Blend A
PAS	Premium Albian Synthetic
PLU	Plutonio
PSD	Poseidon
QIB	Qua Iboe
RNH	Roncador Heavy
RNL	Roncador Light

Symbol	Description
S17	Segregation 17
SAH	Saharan Blend
SGC	Southern Green Canyon
SHB	Surmont Heavy Blend
SHV	Seal Heavy
SLE	Sour Low Edmonton
SRB	Sour Blend (80% heavy / 20% sweet)
SSX	Shell Synthetic Blend
SYN	Syncrude - Canadian
THC	Thunder Horse
TMX	Transmix
URL	Urals
WAS	Wyoming Asphaltic Sour
WBH	Wasbasca Heavy
WCS	Western Canadian Select
WTI	West Texas Intermediate
WTR	West Texas Sour
WYS	Wyoming Sweet
YOH	Yoho
ZTM	Zuata Medium

The following Product Oil Grades (POLARIS) are transported via MPL pipeline and can be found on the MPL MSDS website link:

Symbol	Description
AGO	Atmospheric Gas Oil
ALK	Alkylate
BCA	Blend grade Conventional (Non Oxygenate) / 7.0 VOC Cont. Low RVP Dest. Non RFG Area
BCD	Blend grade Conventional (Non Oxygenate) / 7.8 VOC Cont. Non RFG Area
BCF	Blend grade Conventional (Non Oxygenate) / 9.0 VOC Cont. Non RFG Area
BCG	Blend grade Conventional (Non Oxygenate) / 10.0 Non VOC Cont.
BCH	Blend grade Conventional (Non Oxygenate) / 11.5 Non VOC Cont.
BCI	Blend grade Conventional (Non Oxygenate) / 13.5 Non VOC Cont.
BCJ	Blend grade Conventional (Non Oxygenate) / 15.0 Non VOC Cont.
BGA	Blend grade Conventional (Ultra-low Sulfur) / 7.0 VOC Cont. Low RVP Dest. Non RFG Area
BGF	Blend grade Conventional (Ultra-low Sulfur) / 9.0 VOC Cont. Low RVP Dest. Non RFG Are
BGH	Blend grade Conventional (Ultra-low Sulfur) / 11.5 VOC Cont. Low RVP Dest.
BGI	Blend grade Conventional (Ultra-low Sulfur) / 13.5 VOC Cont. Low RVP Dest.

DIB	Distillate Blendstock (High Sulfur)
FCC	FCC Gasoline
GSO	Gas Oil
HNP	Heavy Naphtha
HUH	High Sulfur (>500ppm, undyed) Home Heating Oil
HUJ	High Sulfur Jet (>500 ppm, Undyed)
ISO	Iso Butane
LCC	Light Cat Cycle Oil (High Sulfur .3%)
LSR	Light Straight Run Gas
LUJ	Low Sulfur Jet (<500 ppm, Undyed))
LUK	Low Sulfur Kerosene (<400 ppm, Undyed)
NAP	Naphtha
NAT	Natural Gasoline

Symbol	Description
NIT	Nitrogen
NOR	Normal Butane
PRO	Propane
QCA	Prem 91 Conventional (Non Oxygenate)/7.0 VOC Cont. Low RVP Dest Non RFG Area
QCD	Premium 91 Conventional (Non Oxygenate) / 7.8 VOC Cont. Non RFG Area
QCF	Prem 91 Conventional (Non Oxygenate)/9.0 VOC Cont. Non RFG Area
QCH	Prem 91 Conventional (Non Oxygenate)/11.5 Non VOC Cont.
QCI	Prem 91 Conventional (Non Oxygenate)/13.5 Non VOC Cont.
QCJ	Prem 91 Conventional (Non Oxygenate)/15.0 Non VOC Cont.
QGA	Premium 91 Conventional (Ultra-low Sulfur) / 7.0 VOC Cont. Low RVP Dest. Non RFG Area
QGF	Premium 91 Conventional (Ultra-low Sulfur) / 9.0 VOC Cont. Low RVP Dest. Non RFG Area
QGH	Premium 91 Conventional (Ultra-low Sulfur) / 11.5 VOC Cont. Low RVP Dest.
QGI	Premium 91 Conventional (Ultra-low Sulfur) / 13.5 VOC Cont. Low RVP Dest.
RAF	Raffinate
RCD	Regular Conventional (Non Oxygenate) / 7.8 VOC Cont. Non RFG Area
RCF	Regular Conventional (Non Oxygenate) / 9.0 VOC Cont. Non RFG Area
RCH	Regular Conventional (Non Oxygenate) / 11.5 Non VOC Cont.
RCI	Regular Conventional (Non Oxygenate) / 13.5 Non VOC Cont.
RCJ	Regular Conventional (Non Oxygenate) / 15.0 Non VOC Cont.
REF	Reformate
RWC	Regular Min 10% Ethanol (Specific) / R-1 VOC Emission Reduction >= 25%
RWE	Regular Min 10% Ethanol (Specific) / R-2 VOC Emission Reduction >= 23.4%
RWG	Regular Min 10% Ethanol (Specific) / 10.0 Non VOC Cont.
RWH	Regular Min 10% Ethanol (Specific) / 11.5 Non VOC Cont.
RWI	Regular Min 10% Ethanol (Specific) / 13.5 Non VOC Cont.
RWJ	Regular Min 10% Ethanol (Specific) / 15.0 Non VOC Cont.
RWK	Regular Min 10% Ethanol (Specific) / Adjusted R-2 VOC Emission Reduction >= 21.4%
RWM	Regular Min 10% Ethanol (Specific) / 9.0 Non VOC Cont.
RWN	Regular Min 10% Ethanol (Specific) / 11.5 Non VOC Cont. - R1 Cert.
RWO	Regular Min 10% Ethanol (Specific) / 13.5 Non VOC Cont. - R1 Cert.
RWQ	Regular Min 10% Ethanol (Specific) / 9.0 Non VOC Cont. - R1 Cert.
SNG	Sweet Natural Gasoline (<25 ppm sulfur)
STX	Special Transmix
TMX	Transmix
UCD	Premium 93 Conventional (Non Oxygenate) / 7.8 VOC Cont. Non RFG Area
UCF	Premium 93 Conventional (Non Oxygenate) / 9.0 VOC Cont. Non RFG Area
UCH	Premium 93 Conventional (Non Oxygenate) / 11.5 Non VOC Cont.
UCI	Premium 93 Conventional (Non Oxygenate) / 13.5 Non VOC Cont.
UCJ	Premium 93 Conventional (Non Oxygenate) / 15.0 Non VOC Cont.

UWC	Premium 93 Min 10% Ethanol (Specific) / R-1 VOC Emission Reduction >= 25%
UWE	Premium 93 Min 10% Ethanol (Specific) / R-2 VOC Emission Reduction >= 23.4%
UWH	Premium 93 Min 10% Ethanol (Specific) / 11.5 Non VOC Cont.
UWI	Premium 93 Min 10% Ethanol (Specific) / 13.5 Non VOC Cont.
UWJ	Premium 93 Min 10% Ethanol (Specific) / 15.0 Non VOC Cont.
UWK	Premium 93 Min 10% Ethanol (Specific) / Adjusted R-2 VOC Emission Reduction >= 21.4%
UWM	Premium 93 Min 10% Ethanol (Specific) / 9.0 Non VOC Cont.
XDN	Ultra-low Sulfur No. 2 NR (<=15 ppm, Dyed)
XU5	Ultra-low Sulfur No. 2 Motor Vehicle (<=15 ppm, Undyed)/may contain up to 5% Biodiesel
XUC	Ultra-Low Sulfur <=15 ppm, Undyed, No. 2 Motor Vehicle, w/Catlettsburgs conductivity additive
XUD	Ultra-low Sulfur No. 2 Motor Vehicle (<=15 ppm, Undyed)
XUJ	Ultra-low Sulfur Jet (<=15 ppm, Undyed)
XUK	Ultra-low Sulfur Kerosene (<=15 ppm, Undyed)

Symbol	Description
XUT	Ultra-low Jet, Ultra-low Sulfur Kerosene & No. 1 MV15 (<=15ppm, Undyed) - (EPA=Jet)
XUU	Ultra-low Sulfur Kerosene & No. 1 MV15 (<=15ppm, Undyed) - (EPA=#1 MV15)
XUW	Ultra-low Sulfur Kerosene & No. 1 MV15 (<=15ppm, Undyed) - (EPA=Kero)

3.4 TACTICAL RESPONSE PLANS

Tactical Response Plans maintained in Appendix F have been completed for several areas along the pipeline routes. Of particular interest are areas of high potential consequences, if a release were to occur, such as; populated areas, river and water body crossings, environmentally sensitive areas, drinking water sources and navigable waterways.

The purpose of the Tactical Response Plans is to provide a response strategy that details response actions to be performed when responding to a release. The plans also serve as a training or refresher tool for area MPL employees of varying levels of experience, as well as for the Local and Regional Response Contractors.

3.5 DETERMINATION OF SPILL VOLUME AND EXTENT

The volume of spilled oil should be determined as soon as possible to facilitate planning and initiate response operations. The reportable volume of spilled oil should be determined by using tank gauges and/or pumping rates or other means, if possible. Additional guidance for determining the spilled volume is given below. The Findlay Operations Center can assist in determining the released volume on systems they monitor. **Spill volume, when determined, will be reported by MPL Management.**

The following are guidelines for reporting spill volumes.

Definitions	**Drain-down**	Intentional **release** associated with planned construction or maintenance activities, or a repair following a **failure**. A **drain-down** will only be done in a manner that will prohibit all **hazardous liquid** from contacting the earth.
	Failure	Unintentional **release** associated with the rupture of a **pipeline system**, or any component of the system subject to line pressure.
	Hazardous liquids	a. Crude oil b. Refined products c. HVLs [i.e., propane and butane]
	Pipeline system	All parts of a pipeline facility through which a **hazardous liquid** or carbon dioxide (CO_2) moves in transportation. This includes, but is not limited to, line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies therein and breakout tanks. (per 49 CFR §195.2)
	Recovery	The retrieval of a **hazardous liquid** either intentionally or unintentionally discharged from a **pipeline system**.
	Release	The escape of a **hazardous liquid** or carbon dioxide (CO_2) from the **pipeline system** through which it is being transported.

Releases Due to a Pipeline System Failure	Accounting for the volume of **hazardous liquid** or CO_2 **released** from a **pipeline system** due to a **failure**. Volumes reportable on DOT Form 7000-1 (PHSMA Accident Report Form): ❑ Spilled - The total volume of **hazardous liquid** or CO_2 **released** from a **pipeline system** in an uncontrolled manner. Volumes not reportable on the DOT PHMSA Form 7000-1: ❑ **Drain-down** - The volume of **hazardous liquid** released in a controlled manner, so as not to contact the ground, which is subsequently returned to the pipeline system. The **drain-down** volume is not included in either the "spilled" or "recovered" volumes of the DOT report. Note: **Recovered** - The portion of the spill that was subsequently **recovered** and returned to the **pipeline system**.
Releases Due to Construction or Maintenance	Accounting for the volume of **hazardous liquid** or CO_2 **released** from a pipeline system due to construction or maintenance activities. When a pipeline system is **drained-down**, in a controlled manner, in preparation for construction or maintenance activities and the **hazardous liquid** is removed so as not to contact the ground, the release of the liquid is not subject to the DOT PHSMA Form 7000-1 reporting requirements of 49 CFR §195.50. However, if during the process of **drain-down** a **hazardous liquid** or CO_2 is **released** to the ground then the **release** would be subject to the reporting requirements of 49 CFR §195.50.

3.6 FLOW OF SPILL RESPONSE EVENTS

The "Spill Response Activities Flowchart" presented in Figure 3.2 provides a decision tree for MPL responders to reference in determining necessary response activities. The "Daily Flow of Events" diagram presented in Figure 3.3 illustrates response activities associated with the Incident Command System (ICS). A "Cleanup Methods For Areas Along Shoreline" decision tree is presented in Figure 3.4 and provides guidance for limiting environmental impacts in sensitive areas typically associated with shoreline areas. The 3-step emergency response process is summarized below.

3.6.1 Step 1: Emergency Response

First Priority	Safely respond to the incident	
Objective	**Field**	❑ Assess the situation ❑ Protect personnel, property, and environment ❑ Respond to the situation rapidly and decisively ❑ Gather facts and ensure site evidence is preserved
	Command Center/Post	❑ Support field ❑ Restore normal operations ❑ Handle press/public relations ❑ Establish agency contacts
Activities	**Field**	❑ Initial incident assessment ❑ Account for personnel ❑ First aid, where required ❑ Perform site characterization and analysis ❑ Set up site security ❑ Notify appropriate parties ❑ Initiate slick surveillance ❑ Identify/isolate/control the source ❑ Activate/deploy response resources ❑ Provide regular situation status reports

3.6.2 Step 2: Plan Development

First Priority	Moving from reactive to proactive mode of operations	
Objective	**Field**	❑ Protect personnel, property, and environment ❑ Site Evidence Preservation ❑ Continue to respond to the situation in a decisive manner ❑ Provide information to assessment team/Command Post ❑ Request resources
	Command Center/Post	❑ Support field ❑ Identify activities for *Incident Action Plan* ❑ Identify milestones for *Incident Action Plan* ❑ Identify resources for *Incident Action Plan* ❑ Prepare Incident Action Plan ❑ Organize field operations ❑ Provide resources for anticipated response ❑ Coordinate with OSC

3.6.3 Step 3: Plan Implementation

First Priority	Maintaining proactive response mode	
Objective	**Field**	❑ Protect personnel ❑ Maintain proactive mode of operation ❑ Provide Command Post regular situation status reports ❑ Implement Incident Action Plan ❑ Request resources
	Command Center/Post	❑ Focus on the situation in the field ❑ Support operations in the field ❑ Define daily strategic objectives for the next operational period ❑ Develop tactical plans to meet objectives ❑ Provide necessary support to implement tactical plans ❑ Quickly transmit plans to field

3.7 USE OF DISPERSANTS

Dispersants are a group of chemicals designed to be sprayed onto oil slicks to accelerate the process of natural dispersion. When used appropriately, dispersants can be an effective method of response to an oil spill impacting surface water. In certain situations, dispersants may provide the only means of removing significant quantities of surface oil quickly, thereby minimizing or preventing damage to sensitive resources. The decision to use dispersants must take into account oil characteristics, surface water and weather conditions, surrounding environmental sensitivities, and local, state, and federal regulations governing the use of dispersants.

The use of dispersants is restricted under the NCP. Dispersants used must be on the NCP Product Schedule maintained by the EPA, and federal and state agencies have agreements establishing areas where rapid or expedited decisions on dispersants may be made by the Federal On-Scene Coordinators. Areas outside those with designated agreements are required to get additional approval from agencies identified in the NCP.

The determination to use dispersants in response to an oil spill must be made by the MPL Incident Commander, and only with the approval of the Regional Response Team (comprised of Federal and State Agency representatives that coordinate oil spill responses). All required Federal and/or State permissions as identified in the NCP and/or applicable State or Regional Contingency Plan will be obtained prior to use of dispersants in an oil response.

3.8 IN-SITU BURNING

In-situ burning is the process of burning oil slicks on the open water, in wetlands, or inland environments at or close to the site of an oil spill. In-situ burning of an oil spill must be authorized by an On-scene Coordinator from the appropriate state and/or federal agency (USCG or EPA). Only burning agents listed in Subpart J of the NCP (40 CFR 300.910) will be used. In addition, EPA Regional Response Team guidelines and policies for response regions in which MPL operates pipelines (Regions 3, 4, 5, 6, and 8) will be reviewed and followed regarding use of in-situ burning.

All required Federal and/or State permissions (as identified in the NCP and/or applicable State or Regional Contingency Plan and as required by federal or state regulations will be obtained prior to use of in-situ burning in an MPL oil response. States with specific requirements pertaining to in-situ burning include Illinois and Wyoming.

In Illinois, the Illinois Emergency Management Agency must be notified at 217-782-7860 or 1-800-782-7860 and an incident number obtained for contaminated soils or debris from a release to land or water which MPL is planning to burn as part of spill cleanup activities.

The State of Wyoming Contingency Plan requires that WDEQ give prior approval for any burning associated with spill cleanup (i.e. grant an emergency burn permit) and for disposal of any spill debris. Emergency burn permits require submission of a written report within two weeks following the in-situ burning activities.

3.9 HIGHLY VOLATILE LIQUID (HVL) RESPONSE ACTIONS

Important safety considerations exist when responding to a HVL or liquefied petroleum gas (LPG) incident. In MPL's case, these terms (HVL and LPG) are considered the same and usually refer to propanes and butanes, or a mixture of the two. The definition of HVL found in 49 CFR §195.2 is "a hazardous liquid (petroleum, petroleum products, or anhydrous ammonia) which will form a vapor cloud when released to the atmosphere and which has a vapor pressure exceeding 276 kPa (40 psia) at 37.8° C (100° F).

The characteristic of HVLs that makes them much more dangerous in the case of a release is their high volatility or vapor pressure, when compared with other liquid hydrocarbons (crude oil, gasoline, fuel oil, etc.). HVLs will produce a much larger vapor cloud that will drift faster and farther in a shorter time than will gasoline vapor. Also, since the resulting HVL vapor cloud is heavier than air, it will remain close to the ground and fill low spots such as ditches and cellars.

Public safety is the first response consideration during an HVL release. Once the release size and direction of travel are determined, evacuation of downwind, occupied structures must be considered. Initiation of evacuation procedures is accomplished through notification of local agencies as outlined in Section 2.0 of the Emergency Response Plan.

With a HVL fire, letting the fire burn out under control is usually the safest procedure, since a cloud of unburned vapor can accumulate if the fire is extinguished and the source is not shut off. If re-ignited, the flash fire may injure firefighters and others in the area. If confined indoors, an explosion can result. It is important that cooling water is applied to piping and vessels exposed to flame contact during the interim of the burn period.

In addition to vapor clouds, a Boiling Liquid Expanding Vapor Explosion (BLEVE) can occur if flames are in direct contact with a pressurized storage tank, process vessel or tank trailer and it contains Liquefied Petroleum Gas. While tanks are often designed to withstand great pressure, constant heating can cause the metal to weaken and eventually fail. If the tank is being heated in an area where there is no liquid, it may rupture faster without the liquid to absorb the heat. Gas containers are usually equipped with relief valves that vent off excess pressure, but the tank can still fail if the pressure is not released at the correct rate. Refer to the Emergency Action Plan Section "K" for evacuation procedures.

A "Considerations for Handling HVL (LPG) Releases" guidance document is provided in Figure 3.5.

MPL has conducted Facility Siting Studies at stations that store and handle HVLs. Key elements of the studies were to assess building damage levels and occupant vulnerabilities for accidental release / explosion scenarios, to characterize vulnerability for buildings occupants and outdoor populations for flammable impacts, and to evaluate impacts of potential fire scenarios. Dispersion modeling of these facilities can be viewed at the links below.

Princeton – Robinson 4" LPG
Lima Metering
Robinson – Lima 10" Products (Anthony/Reno/Westfield Stations)
Robinson Wabash – Robinson RIO

Woodhaven

Dispersion modeling for pipelines segments transporting HVL product can be obtained from the GIS group.

3.10 TOXIC GAS RESPONSE ACTIONS

In the event of a release of a gas with toxic properties (H2S, Sulfur dioxide, ethyl mercaptan), it is important to eliminate all ignition sources and immediately get upwind of the release. Prompt notification to local responders is critical for public safety.

Hydrogen Sulfide, Sulfur Dioxide, and Ethyl Mercaptan are extremely hazardous when inhaled or absorbed through the skin. If exposure occurs to either of the gases at a high enough concentration, it can be fatal. In the event of a Hydrogen Sulfide, Sulfur Dioxide, or Ethyl Mercaptan release, please refer to the WoodHaven Emergency Action Plan Section "K" for evacuation procedures. For public safety information, please refer to the Emergency Response Guidebook guide 117 (Hydrogen Sulfide), guide 125 (Sulfur Dioxide) or guide 129 (Ethyl Mercaptan)

3.11 WASTE MANAGEMENT

Spill recovery and cleanup operations will generate large quantities of recovered oil or product, oily debris and other materials that will require proper handling, storage, and transportation for recycling or disposal. The management of recovered oil and oily wastes generally includes:

- Waste handling.
- Interim storage.
- Waste characterization.
- Transportation.
- Treatment / disposal / recycling.

The Environment and Safety Officer is responsible for all waste management activities and will ensure compliance with standards set forth in relevant state and federal regulations. To ensure pertinent regulatory standards and MPL expectations are met, all activities dealing with recovered oil/product or waste will be conducted as described in MPLHES020, Waste Management Plan contained in Appendix D.

Waste management must also be conducted with the overall objective of ensuring:

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

- Proper treatment/recycling/disposal.
- Minimization of present and future environmental liability.

In Wyoming, the State Contingency Plan requires that WDEQ give prior approval for disposal of any spill debris. The WDEQ Solid Waste Management Division has reserved the right to review each spill debris disposal episode on a case-by-case basis. Usually it allows the disposal of spill debris into permitted oil field industrial landfills or municipal landfills if no industrial sites are within a reasonable distance. In the Big Horn Basin, Marathon Oil Company has three permitted industrial landfills that may be used for the disposal of spill debris contingent on the approval of the appropriate Production Supervisors. Contact the Operations Manager at 307-527-2125.

3.12 WILDLIFE PROTECTION AND RESCUE

When responding to a release, responders should take all necessary measures to ensure the protection of known wildlife areas near the scene. Area maps showing the locations of sensitive areas in relation to pipeline sections and facilities should be developed or obtained by MPL as soon as possible after a release occurs that could potentially impact natural resources.

Measures taken to protect areas that contain indicated wildlife populations may include SCAT tactics to relocate wildlife residents to protected or unaffected areas. If deemed necessary through consultation with the responding natural resource agency representatives, other arrangements should be made for the temporary removal and relocation of wildlife. Equipment needed for removal or relocation of wildlife should be available through wildlife rehabilitation contractors and/or government agencies.

In the event that any form of wildlife is contaminated due to a release, the appropriate state agency responsible for the natural resources at risk and the USFWS will be **immediately** notified. MPL will work with the federal and state agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary.

Capture of small numbers of various forms of wildlife should be coordinated through the appropriate state and/or federal agency representatives and performed **by trained personnel only**. Should large numbers of wildlife be affected by a release, a permitted wildlife rehabilitation organization should be contacted to help coordinate capture and rehabilitation efforts. Telephone numbers and contact names for wildlife rehabilitation organizations are listed in Appendix A of this Plan, organized by Response Zone. A Wildlife and Domestic Animals Management Plan template that should be used in release responses impacting wildlife and domestic animals is found in Appendix D.

The following are items that should be considered for wildlife rescue and rehabilitation during a spill response.

- Bird relocation can be accomplished using a variety of deterrents to encourage birds to avoid areas of spilled oil. They include:

- visual methods such as floating figures of humans, owls, raptors, etc., stationary figures; or helium balloons;
- auditory methods such as propane cannons, playback of recorded sounds of alarmed birds, or shell crackers;
- herding with aircraft or boats; and
- capture and relocation.

- Contact a wildlife rehabilitation organization to supervise oiled bird rehabilitation centers; consult with contractors, and federal and state agencies; and Tri-State Bird and Rescue and assist in training and development of rescue techniques.

NOTE: The wildlife rehabilitation organization contacted **must** be permitted by the USFWS to operate in the state(s) requiring their services.

3.13 NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA)

Following a spill, the government seeks to restore the environment and public to pre-spill conditions concerning injuries to or loss of natural resources and services. They achieve this through: (1) ensuring the restoration, rehabilitation, replacement, or acquisition of equivalent natural resources and/or services, and (2) charging the company (Responsible Party or RP) responsible for the spill (for same and interim losses). The National Oceanic and Atmospheric Administration (NOAA) has promulgated NRDA regulations that provide an approach, whereby federal and state agencies responsible for public land (referred to as Natural Resource Trustees, or Trustees) may:

- identify injuries to natural resources and services resulting from a spill;
- provide for the return of injured natural resources and services to baseline conditions and compensation for interim lost services; and,
- encourage and facilitate public involvement in the restoration process.

This approach uses the following three phases.

Pre-assessment Phase

In this phase, the Trustees establish whether the spill justifies further assessment. They do this through determining whether their respective agencies have jurisdiction and whether restoration is needed.

Note: Active and early involvement of MPL's NRDA Team in this phase may eliminate future problems. In addition, a joint Trustee/RP NRDA may be more cost effective through the elimination of duplicate studies.

Regulations require the Trustees to invite the RP to participate in a NRDA. This must be done before the delivery of the "Notice of Intent to Conduct Restoration Planning." The scope of the RP's participation will be determined by the Trustees.

To maximize cost effectiveness and cooperation, the Trustees and the RP should quickly develop a set of agreed upon NRDA protocols. Examples include:

- Types of natural resources and services injured.
- Extent of injury or most appropriate assessment procedures to determine injury and/or restoration needs.
- How the results of the procedures used will be interpreted.

Restoration Planning Phase

In this phase, the Trustees evaluate potential injuries to natural resources and services, and use that information to determine the need for and scale of restoration actions. This determination provides the link between injury and restoration, and consequently has two basic components: injury assessment and restoration selection. The former consists of determining and quantifying the injury. The latter consists of:

- Developing a reasonable range of restoration alternatives.
- Scaling restoration alternatives.
- Selecting preferred restoration alternatives.
- Developing a restoration plan.

The NRDA Response Team (comprised of the Trustee agency representatives and, in a cooperative NRDA, the RP) will vary depending on the size, type, and location of the spill, along with the resources at risk. They should maintain good communications with the RP's spill response or NRDA team(s) and provide advice regarding containment, protection, and cleanup activities that reduce immediate injury to natural resources and do not restrict future restoration options.

Restoration Implementation Phase	In the final phase, the Trustees carry out restoration and present a damage claim to the RP. Should the RP decline the claim, OPA 90 authorizes the Trustees to bring a civil action for damages in federal court or to seek an appropriation from the Oil Spill Liability Trust Fund for said damages.

Throughout these phases, MPL's NRDA Team should consider the following:

- Involve the Trustee and other natural resource agencies in pre-spill planning activities. MPL should consider providing the Trustees and other natural resource agencies any written plans, inventories, maps, etc. that document the natural resources at risk and their uses, if applicable, that could potentially be impacted by a release from their current operations.
- In an effort to reduce NRDA related costs; it is vital that a complete background survey be performed prior to an area being impacted by oil. Surveying areas ahead of spreading oil requires that a NRDA assessment team be contacted, formed, and deployed quickly. As organizing an NRDA assessment team quickly is usually difficult, MPL should consider making the survey unilaterally or by an independent NRDA contractor.
- Identify the Trustees as soon as possible after the spill occurs.
- Maintain frequent communication with the Trustees.

- Provide support and assistance to the Trustees. Examples include facilitating meetings, providing logistic support for NRDA activities, and making MPL's technical experts available.
- Obtain copies of baseline (commonly referred to as "control" or "reference") studies and other relevant data on the distribution, abundance, uses, value, and sensitivity of natural resources potentially affected by the release as soon as possible.
- Document all communications and interactions between MPL, the Trustees, and other pertinent natural resource agencies.
- Pursue interactions with the Trustees through other avenues, especially while the cleanup activities are occurring. These include the Federal On-Scene Coordinator (FOSC), State On-Scene Coordinator (SOSC), federal Scientific Support Coordinator (SSC), other parts of the federal and state response teams, and MPL's spill response Team.
- MPL personnel should be on the alert for every opportunity to initiate, establish, and maintain cooperative relations with the Trustees and other pertinent natural resource agencies.

3.14 PUBLIC RELATIONS

A measure of success of the effectiveness of any spill response is the public's perception of the RP's actions and the timeliness of those actions. The public's opinion of an oil spill cleanup effort is not always based upon what action has been taken, but upon what information they have received; therefore, the media's receipt of information is a critical component of any spill response. Early and accurate news releases serve to reduce public apprehension and enhance the public's confidence in the RP's ability to respond to an oil or hazardous materials spill event.

Spill response activities are highly visible and make good news copy. The news report on the spill incident will usually make the press whether or not the RP cooperates. However, an aggressive public affairs campaign for the RP improves the chance of getting "their" news reports published by developing a cooperative relationship with the media.

All requests from the media for information should be directed to MPL's Public Affairs Office or the Joint Information Center, if it has been established as part of the Unified Command structure, discussed in Section 11.0 of this Plan.

Be advised that no MPC employee is permitted to talk directly to the news media without express permission or guidance from MPC's Public Affairs department. If you are approached by the media, follow this guidance:

- Politely decline the request for an interview or a statement. Remember, the media can print any comment, even if it was provided "off the record."
- Provide the media with the contact information for someone in the Public Affairs department.
- The media are legally allowed to take pictures or record video from public spaces (like roads or sidewalks or adjacent properties), provided they are not interfering with

operations. If the media is in the way or interfering, politely redirect them to a safer location off the property and contact Public Affairs for further direction.

- Above all, keep calm and maintain a positive attitude. Even if pressured by the media for a statement, stand firm in your instructions to redirect them to your Public Affairs department. Take note that it is against company policy to talk to the media without permission from Public Affairs.

If you have any other questions, please contact Public Affairs directly.

MPL "Designated Spokespersons" should consider the following guidelines:

SEVEN GUIDELINES FOR MEETING THE PRESS

1. BE PREPARED
   - Before the interview, develop the points (3-4) you want to make.
   - Anticipate reporters' questions.
   - Rehearse with co-workers (if time permits).
2. TAKE/KEEP CONTROL
   - You decide where to be interviewed.
   - "Bridge" to your points as often as possible.
   - Turn negative questions into positive responses.
   - Do not repeat negatives.
   - Know when to exit the interview.
3. MAKE YOUR POINTS
   - Bring your own agenda to the interview.
   - Stress positive aspects of your operation (safety record, programs, precautions, etc.).
4. KEEP YOUR COMPOSURE/WATCH BODY LANGUAGE
   - Look/sound like you "want to be there."
   - Be cooperative, not combative.
   - Avoid defensive appearance.
5. DO NOT SPECULATE
   - If you do not have an answer, say so.
   - Do not answer hypothetical (what if) questions.
   - Keep in mind that all questions need not be answered immediately.
6. NEVER SAY "NO COMMENT"
   - Give sound reasons why you will not or cannot answer a question (e.g., proprietary information, lack of authority, etc.).
7. NEVER GO "OFF THE RECORD"
   - Remember that everything you say may be reported.
   - Do not be tricked into answering questions when a reporter says he has turned off the microphone or camera.

3.15 COMMUNITY RELATIONS

MPL may want to contact key community leaders by telephone as quickly as possible so they can have the facts. Communications with persons in the community who are affected by the spill incident should be conducted on an individual basis by designated MPL personnel. Depending on the severity of the incident, community leaders should receive follow-up material through the mail. They will thus be kept apprised of the situation.

3.16 RESPONSE TERMINATION

The Unified Command structure will determine when response activities have, as nearly as possible, returned the environment to its pre-spill condition. Once oiled areas have been cleaned, a joint evaluation will be made by a Sign Off Team (SOFT) who make the final determination of how "clean is clean." The SOFT team will assess cleanup in general accordance with the protocols established by NOAA Shoreline Assessment Manual provided in Appendix H (see Section 5.9 of the NOAA Manual) of this Plan. This team may be composed of representatives of the FOSC, SOSC, Trustees, and MPL.

During this joint final evaluation, any concerns as to the overall cleanliness of the impacted area will be addressed. Once a consensus has been achieved among the SOFT, the area will be declared clean and no further cleanup operations will be undertaken unless the area is subjected to reoccurrence of oiling. Areas requiring long term remediation will be specified and further response actions identified.

The response termination process should begin when an area is believed to be clean. In this manner, MPL can demobilize resources sooner than if they waited for oiled areas to be checked in total.

MPL personnel should keep the following in mind when the response begins to wind down.

- Demobilization should begin as early as possible. For example, returning resources called out early in the response, but not used may be possible.
- Equipment may need both maintenance and decontamination before being demobilized.
- A careful analysis should be made to determine which resources have the best benefit/cost ratio. Those with the lower rating should be released first. For example, berthing expenses can be curtailed by releasing outlying contractors before local ones.
- Determine what documentation should be maintained, where, and for how long.
- Notify the local citizenry about how MPL can be contacted regarding spill matters after the spill response activities have ended.
- The Command Center, Command Post(s), docks, ports, and staging areas must be returned to their pre-spill state before stopping operations.
- Demobilization plans must provide methodology for ensuring lent assets are returned and accounted for.

- As contract personnel approach termination, they may be more susceptible to "suffering" slips, trips, and falls.
- Some activities will continue after the cleanup ends. Examples include NRDA studies, bioremediation, claims, legal actions, and a post spill debriefing which is detailed in the Critical Self Analysis of Oil Spill Response Form presented in Appendix C of this Plan.
- Consideration should be given to revising this Plan based upon lessons learned during the response.
- The media reporting on the spill may not stop with the end of MPL's response. One of the most important opportunities for company public relations comes after the crisis is over. Release to the news media, as soon as possible, company decisions relating to special employee or community relief, facility reconstruction, etc. Also express gratitude to the community, police, fire departments, emergency crews, and employees for their help

3.17 DOCUMENTATION OF INCIDENT AND RESPONSE ACTIONS

Documentation is an important task during all spill response activities and cleanup to ensure accurate details of the history of the oil spill are recorded. Documentation is useful in recording events, monitoring expenses, and creating a log that may be used for critiquing the response. In addition documentation allows for thorough incident investigation and determination of the incident cause. Maintaining records on the extent and degree of oiling, orders that were received from the Unified Command, major orders given to others, and an assessment of the cleanup activities are other important forms of documentation. Documenting field activities with numerous photographs and videos, collecting multiple environmental samples, and keeping copious notes are all necessary forms of record keeping, as one does not know what will be important later. Response actions and objectives for a particular incident should be documented on the Response Objectives Form in Appendix E.

3.17.1 Daily Log

Depending on the size and severity of the release, MPL responders should keep a daily log to document the events and communications that occur during a spill response on a daily basis. Use good judgment when recording information, since this documentation may potentially be used in legal proceedings. Therefore, observe the following:

- Record only facts, not speculation. If you do not know, do not guess.
- Do not criticize other peoples' efforts and/or methods.
- Do not speculate on the cause of the spill.
- Do not relate opinions.

- Do not skip lines between entries or make erasures. If you make an error, draw a single line through it, add the correct entry above or below it, and initial the change.

Any information that could be important should be recorded while the spill is in progress. Small, portable tape recorders allow one to document operations easily. Tapes should be transcribed daily into the responder's log. Each responder should provide a copy of the log entries for each day to be consolidated and recorded in the main log. Information should be as complete as possible.

Some points to document include:

- Limits of the spill (extent and degree of oiling.
- Damages resulting from the spill and a notation on known warnings issued to:
  - property, including personal, real estate, and other.
  - life. This includes human injury or death (record names, addresses, and extent of injuries); drinking water intakes; birds (record number collected, cleaned, and surviving); indigenous wildlife, and fish or other aquatic biota.
- Prior condition of the area and property, if known.
- Clean-up operations; including equipment and labor available, actions taken, equipment and personnel employed, chemicals used, etc., and assessment of effectiveness/recommendations.
- Other observations regarding site safety, weather conditions, points of interest or concern photographed, names of Team members and task description, etc.
- Date and time of entries.

Responders should record all orders and directions from the representatives of regulatory agencies, along with any actions taken by the same, in the log. This can be particularly important when a representative of regulatory agencies approves a clean-up area, but another agency or representative overrides the subordinate's decision.

Contractors and MPL personnel should be required to submit time sheets each day that list labor, equipment, and materials used. Representatives of MPL and the contractors should sign these documents after the close of each working day. The contractors should understand that only charges verified and authorized will be accepted for payment. This helps avoid disagreements at the completion of a spill response.

3.17.2 Photographic Documentation

The use of a digital camera is recommended for photographic documentation. Color photographs should be taken to record the source and the extent of the spill and clean-up effort. Photos should be labeled and/or numbered to facilitate log referencing and photograph identification. The following information should be recorded at the time each picture is taken.

- Name and location of the facility or site.
- Date and time the photograph was taken.

- Names of the photographer and witnesses.
- Description of what is photographed.
- Reference of outstanding landmarks.

3.17.3 Sampling

Sampling is an important part of documenting a spill. There are a variety of materials (e.g., petroleum hydrocarbons, organic and inorganic chemicals, and mixtures of hazardous substances) that could be released during an oil spill. These materials could potentially affect a variety of substances and matrices (e.g., water, soil, sediments, and plant or animal tissue)

Trained sampling personnel representing the FOSC or SOSC will sample the oil spilled, and may choose to sample or require that environmental samples (substances and matrices) be taken as well. The RP will want to verify the analysis by also taking samples. Often times, there will a cooperative whereby the sampling event(s) will be jointly conducted by all parties (typically the FOSC and SOSC are represented by the Trustees, and RP) and samples split for independent laboratory analysis. An oil spill can result in a lawsuit, so all the facts relating to sampling should be available.

Measurement techniques for chemicals and toxicity are constantly being advanced and test methods can quickly become outdated. Prior to collecting environmental samples, MPL should contact a preferred laboratory (meeting the approval of the FOSC, SOSC and/or the Trustees) to determine media to be sampled, targeted analytes, laboratory analytical methods, detection limits, and sample volumes required; and obtain pertinent information on holding times, preservatives, chain-of-custody (COC), and shipping requirements. Samples collected by MPL should be documented on the MPL Sampling Documentation form found in Appendix C.

The objectives of sampling are to:

- Obtain a quantity of oil or sampled media that makes identification or analysis possible.
- Obtain a true representation of the oil or sampled media.
- Handle samples properly to avoid cross-contamination or alteration in any way.
- Protect the legal validity of the sample identity and subsequent analyses.

General guidelines for collecting samples include the following:

- Use standard or approved methods for sampling and analyzing samples.
- Avoid cross-contamination of samples by carefully cleaning sampling equipment and/or by using disposable equipment (where appropriate). Latex gloves (or nitrile gloves if needed for personal protection) should be worn to avoid cross-contamination, and changed between each sampling location.
- Store and ship oil samples in separate coolers from the environmental samples to avoid possible contamination.

- Collect an appropriate volume of sample in pre-cleaned sample containers.
- Samples should be preserved, as necessary, using the appropriate preservatives (e.g., hydrochloric acid, 10% formalin, ethanol, ice, etc.).
- Document the time, location, and methods for sample collection using sample labels and field logs.
- Document and maintain sample custody using COC forms. Include remarks regarding which samples are to be analyzed immediately, and which samples are to be held or analyzed at a later date. All analyses **must** be completed within the prescribed holding times for the samples and analytical techniques specified. Other remarks may specify preservatives used, sample container deviations, or special contact information.
- Implement additional Quality Assurance/Quality Control (QA/QC) procedures including collection of representative samples, calibration of field instruments, use of field blanks, replicate analyses, calibrating laboratory instruments, analysis of spiked samples, analysis of standards and reference test materials.

3.17.3.1 Source Oil Samples

Source oil (commonly referred to as product or neat oil) is oil which has had no contact with the environment, and should therefore, be sampled directly out of the pipeline. However, it may not always be possible or practical to collect source oil. For example, a fire at the source of the pipeline leak will hinder collection of source oil. Personal protection is always of highest priority and proper personal protective equipment (PPE) such as respirators and gloves should be worn while collecting source oil. In addition, air monitoring should be considered prior to sampling to ensure hazardous atmospheric conditions (oxygen-deficient, explosive, and toxic atmospheres) do not exist.

3.17.3.2 Fresh Oil Samples

Fresh oil is oil which has recently spilled into the environment (aquatic or terrestrial) and has had limited opportunity for degradation (weathering). Fresh oil is typically found and collected in the oil slick, near the source. Proper PPE should be worn while sampling fresh oil.

3.17.3.3 Weathered Oil Samples

Weathered oil is oil which has spilled from the source into the environment and has remained in the environment long enough for degradation/change (weathering) of the oil to occur. Oil weathers over time, therefore, "weathered oil" is a generic term to describe many stages of degradation. To properly document the degradation of the oil over time, several samples of weathered oil are usually needed. Weathered oil samples may consist of the floating oil slick, mousse (emulsified oil), tarballs or oil droplets on the shoreline. Sampling locations should be well documented. Proper PPE should be worn while sampling weathered oil.

Sampling a slick is a simple procedure, but care must be taken to get a true representation of the spill. When the oil is several inches thick the person taking the sample can skim a sufficient amount from the top. However, when the oil is thin, this is not possible. If a sufficient quantity

exists, several samples should be taken and the excess should be stored as duplicates. Keeping samples cold to prevent biological and chemical degradation is best.

To obtain a large enough sample from a thin layer of oil, first skim as much oil into a jar as possible. Then turn the bottle upside-down (with the cap screwed on) and slowly unscrew the cap. Let the water run from the jar, but tighten the cap before the oil escapes. Repeat the procedure several times until a reasonable oil sample size is obtained.

When oil layers are so thin (rainbow/silver sheen) that a sample cannot be obtained using the upside-down method, absorbent pads may be used. Oil on rocks or debris can be scraped into containers with a spatula or scraper.

3.17.3.4 Environmental Samples

Important protocols for collecting initial environmental samples for potential NRDA purposes must be fully understood by MPL's NRDA Response Team. Time sensitive "ephemeral" data requires an immediate NRDA response for the collection of samples with highly volatile chemical parameters such as Total Petroleum Hydrocarbon (TPH), Polycyclic Aromatic Hydrocarbons (PAHs), Benzene, Toluene, Ethylene, Xylene (BTEX), and for toxicity analysis.

It should be noted that, whenever possible, approved methods should be used in obtaining environmental samples and to conduct the various chemical and toxicity tests that may be required during a NRDA. In many cases, however, modifications to the approved methods may be required, particularly when lower detection limits are required.

3.17.3.5 Reference Samples

Reference samples are important because oil identification is accomplished by matching the RP's oil sample with reference sample(s) taken to determine the origin of the oil. Reference samples should be taken from every possible spill source in the area even though some are not involved with the spill. The references should be properly labeled and described in a log as to location, nature, and when they were selected. All facts about the reference samples must be in writing and witnessed to be legally valid.

3.18 RESPONSE EVALUATION FOLLOWING A WORST CASE DISCHARGE

Following a worst case discharge, an evaluation of the response will be completed in accordance with the procedures provided in the MPL Critical Self Analysis of Oil Spill Response Form, found in Appendix C. This evaluation will be documented on the MPL Critical Self Analysis of Oil Spill Response Form. Based on the results of this evaluation, the Response Plan will be reviewed and amended.

Figure 3.1: Spill Response Checklist

Response Action **Position does not represent priority of response actions. They vary depending on the circumstances of the spill.**	Person Taking Action (Initials)	Date/Time Action Taken
Initial Response Steps - Do concurrent with notifications		
Ensure personnel safety - Sound alarm, evacuate if necessary, account for all personnel, secure release area, and call for medical assistance if injury occurred.		
Quickly assess incident and safety hazard – Size, rate, type, cause, movements, fire/explosion hazard, and health risk.		
Eliminate ignition sources - Shut off motors, electrical pumps, electrical power, open flames, etc. in release area.		
Establish hot zones - If water spill in navigable waters, request USCG establish vessel traffic control and appropriate advisory.		
If safe, control source - Shut down pumps, close valves according to procedures, etc. (Section 3.0)		
Initiate spill control (land) - Block storm drains (if present), construct containment/diversion berms, apply sorbents, etc. For low flash oil (≤ 100 F): (1) use non-sparking systems, (2) have fire trucks and/or firefighting equipment ready, (3) warn all involved of the oil's flammability, and (4) consider putting protective foam over it.		
Initiate spill control (water) - Deploy boom, deploy skimmer, track spill movements, etc. If low flash oil; do not boom to contain oil, just to protect sensitive areas.		
Plan for Secondary and Tertiary Spill Control Actions – Plan for secondary boom placement on a stream/river response that is located downstream of the primary boom location to assure containment; Develop tertiary plans for potential events that could overcome primary and secondary response actions (i.e. Plan for additional containment strategies for heavy rains).		
If HVL release, see Section 3.0 of the Emergency Response Plan for guidelines.		
Notification/Documentation - Do concurrent with initial response steps.		
Notify personnel in area, Area Manager, and MPL LLC Operations Center.		
Notify appropriate company personnel, neighbors, other operators, etc.		
Notify appropriate regulatory agencies - National Response Center, state environmental/ emergency response, and others as necessary. Establish dialog with FOSC and SOSC.		
Notify downstream threatened sensitive areas (Uncontained water spills only).		
Notify/activate response contractors. **It is better to over react when ordering resources.** • Note: If there is expected excavation, an Emergency One Call must be placed by the excavator **prior** to any excavation. Instruct the excavation contractor to immediately place the Emergency One Call as soon as the approximate excavation site(s) is/are identified.		
Activate natural resources damage assessment (NRDA) studies, if required. (Section 3.0)		

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Figure 3.1: Spill Response Checklist, continued
Page 2 of 3

Response Action **Position does not represent priority of response actions. They vary depending on the circumstances of the spill.**	Person Taking Action (Initials)	Date/Time Action Taken
Initiate documentation and sampling procedures - Document all response actions taken, including notifications. (Section 3.0)		
Supplemental Response Actions		
Re-assess incident parameters and response – Estimate discharge volume/rate, effectiveness of source/spill control operations, movements, safety/environmental concerns, weather/hydrographic conditions, etc. Consider requesting FAA (via FOSC) to restrict air space over response area.		
Establish communications among company, contractor, and government personnel.		
Determine ownership of property impacted by oil and property through which responders will transit. Secure same's permission for MPL LLC to conduct activities therein. (Land Agents can assist with this task. See Appendix A for telephone numbers.)		
Continue containment actions, initiate recovery and disposal actions. (See Section 3.0 and Appendix G.)		
Major Spill Response Actions		
Establish (as appropriate) Command Post(s), Command Center, and staging area(s).		
Initiate tracking and surveillance operations – Helicopters, fixed-wing aircraft, vehicle, or vessel (if safe).		
Initiate SCAT (see Appendix H).		
Identify protection measures for threatened downstream sensitive areas.		
Identify equipment, personnel, and logistical support requirements for spill operations – Containment, protection, recovery, and cleanup. **Determine means to give personnel adequate relief.**		
Develop an "Incident Action Plan" – Maximize utilization of available equipment, personnel, and logistics to limit the area affected by the spill and the associated impacts. Prioritize actions. Plan for the effective utilization of additional equipment and supplies as they arrive. (Section 3.0 and App. E)		

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Figure 3.1: Spill Response Checklist, continued
Page 3 of 3

Response Action **Position does not represent priority of response actions. They vary depending on the circumstances of the spill.**	Person Taking Action (Initials)	Date/Time Action Taken
Implement "Incident Action Plan" - In order of priority.		
Recover oil and affected land if not low flash - If on land, be careful for underground cables and water bearing formations. If ground is permeable, line and dike a temporary stage location.		
Estimate waste handling and interim storage requirements - Based on quantity released, recovery capacity, areas affected, degree of impact, etc.		
Arrange for interim solid and liquid waste handling and storage - Pumps, barges, portable tanks, available tankage at facility, debris boxes, interim waste storage cells, heavy equipment, permits, etc.		
Initiate logistical support for response operations - Transportation, lodging, meals, supplies, portable toilets, communications equipment, additional office space, etc.		
If appropriate, arrange for wildlife rehabilitation.		
Arrange for transportation, treatment, and/or disposal of recovered oil and oily wastes – Determine characterization, and transportation requirements for the candidate treatment/disposal facilities.		
Complete cleanup operations and obtain clearance from regulatory agencies - Obtain written agency clearance for each section as cleanup is completed. (Section 3.0)		
Terminate response (Section 3.0)		
Incident Preservation Actions		
Ensure preservation of the Incident Scene. Actions shall be taken to document the failure and evidence prior to any work or repairs be completed at the scene.		
1. *Obtain clear photographs of locations and discovery of evidence*		
2. *Ensure no equipment or components are disassembled or removed without thorough documentation of conditions and approval from appropriate SMEs (Incident Commander, Process SMEs, and Legal as appropriate)*		
3. *Do not allow the pressures of re-start to compromise evidence collection*		

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Spill Response Activities Flowchart

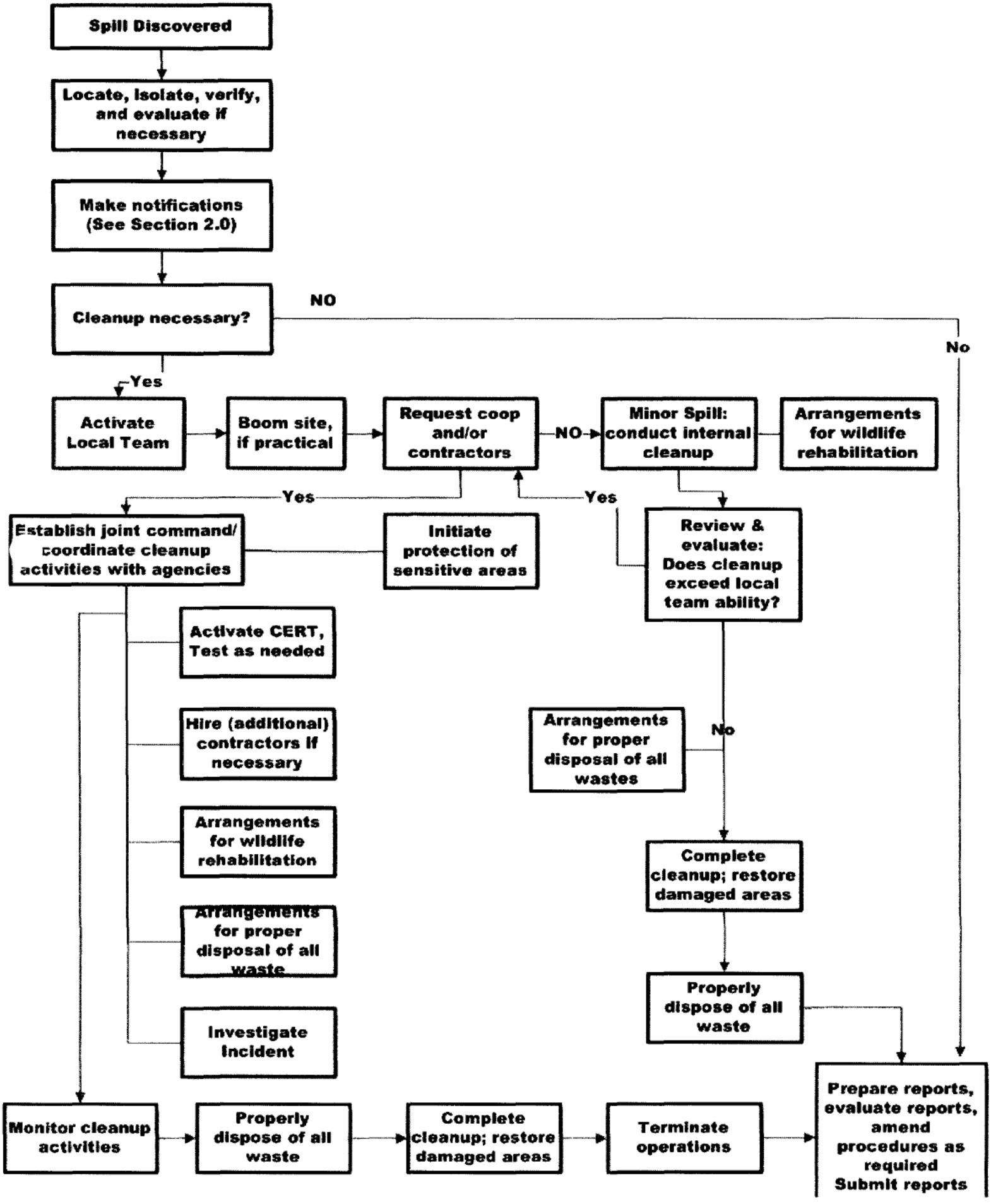
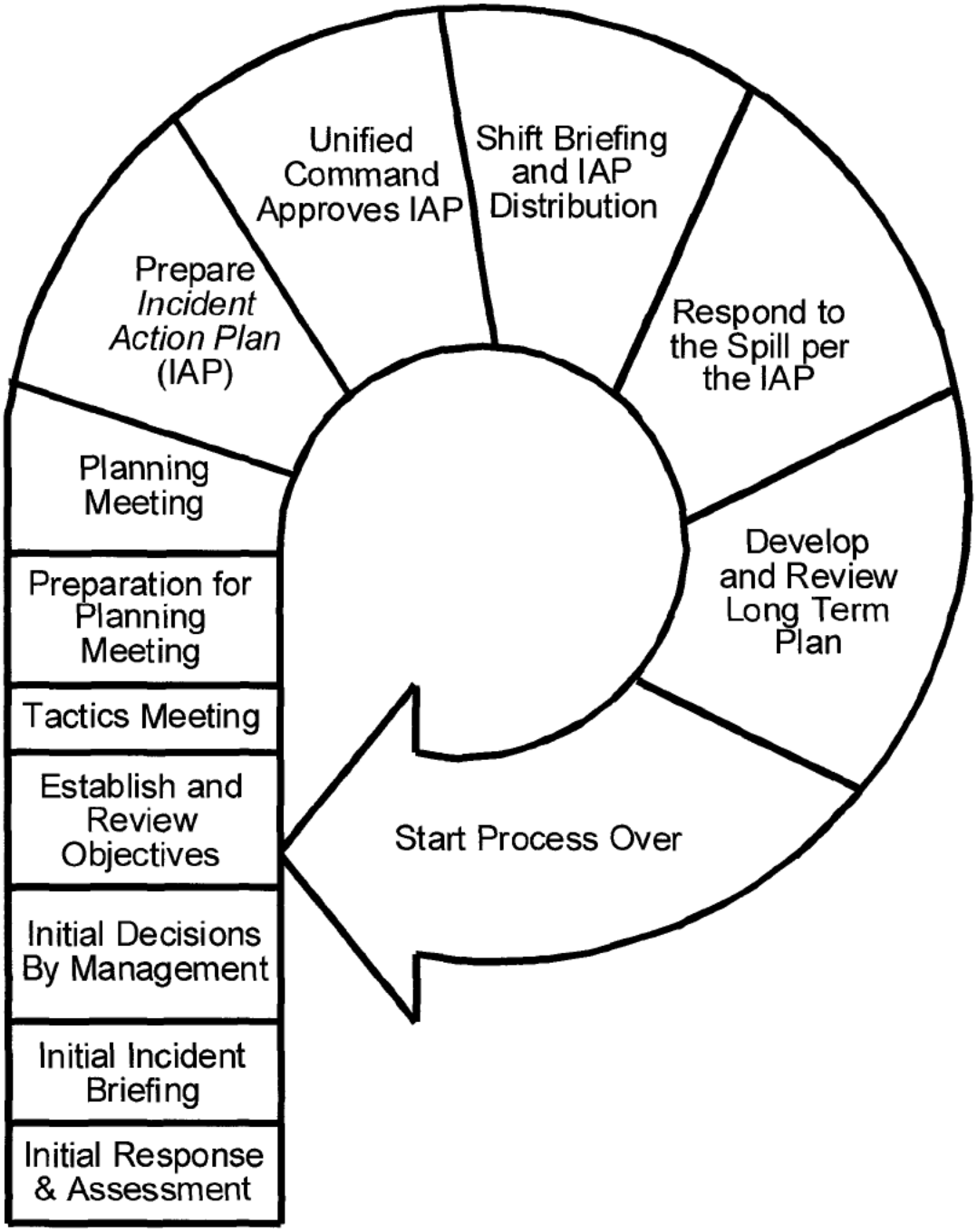


FIGURE 3.3

DAILY FLOW OF EVENTS



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FIGURE 3.4

CLEAN-UP METHODS FOR AREAS ALONG SHORELINE

LIMIT ACCESS AND PLAN APPROACHES TO REDUCE FURTHER DAMAGE AND CONTAMINATION

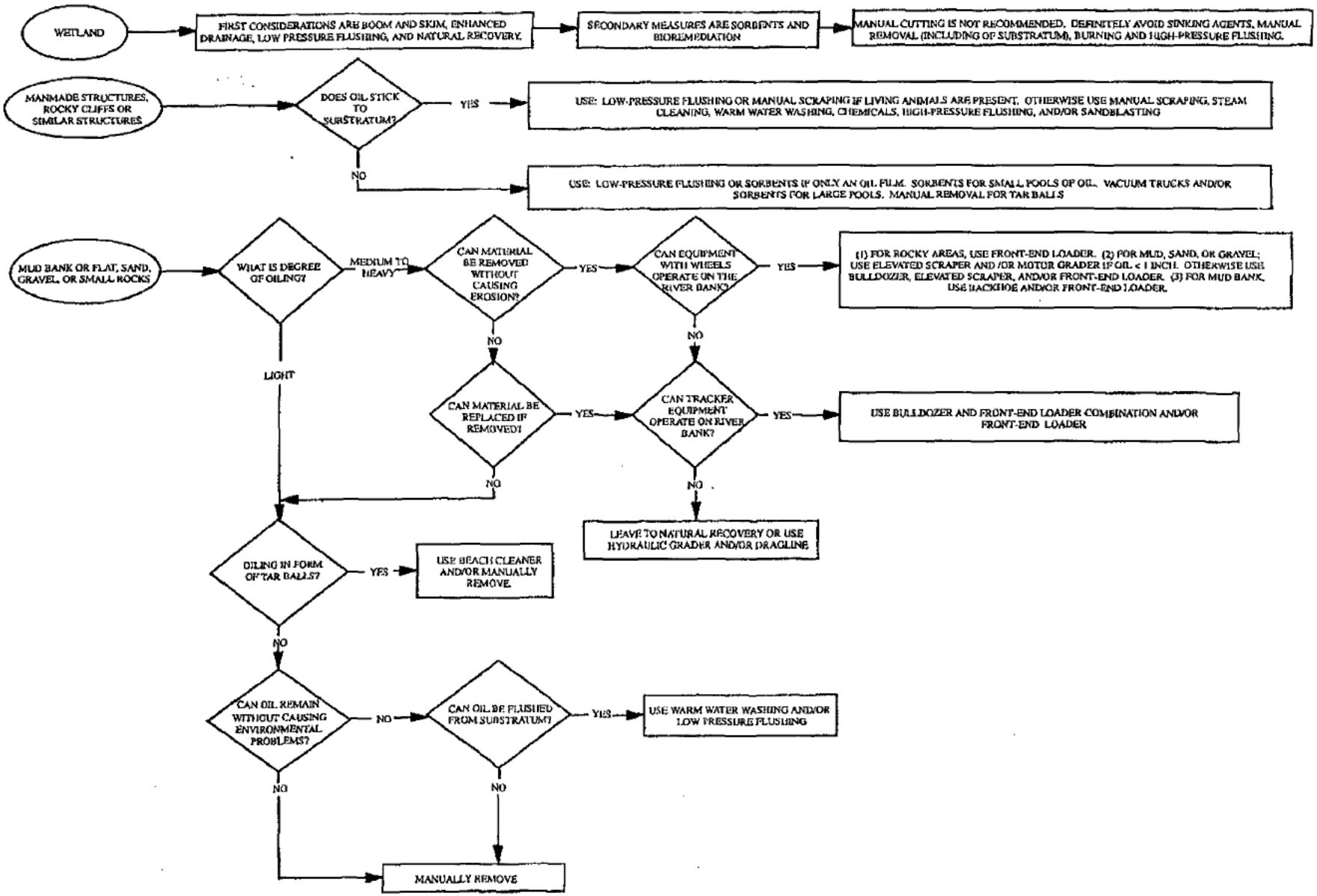


Figure 3.4

FIGURE 3.5

CONSIDERATIONS FOR HANDLING HVL (LPG) RELEASES

NOTE: Personnel safety is the primary consideration in any emergency. Avoid excessive exposure to liquid and vapors. These procedures are considerations only. Actual circumstances may dictate that procedures followed may differ from those listed below.

HVL's extremely volatile and the standard rule is not to try to extinguish a HVL fire unless the fuel supply is shut off first.

1. Assess the Situation
    a. Approach with caution from upwind/crosswind location
        i. Do not walk or drive into a vapor cloud or puddle of liquid
        ii. Don't park over manhole or storm drain
    b. Use air-monitoring equipment
    c. Determine size and direction of release
    d. Note conditions of hazard, weather, surrounding community and available resources.

2. Protect People, Property and the Environment
    a. Inform local authorities of the release and the need of possible public evacuation
        i. Refer to the stations Emergency Action Plan(EAP) Section "K" for evacuation procedures.
        ii. For public safety information, please refer to the Emergency Response Guidebook (guide 115).

3. Identify the source and eliminate discharge but only if the valve is not in the immediate area of the release.
    a. Immediately eliminate all ignition sources in the involved area and downwind.
    b. Don appropriate personal protective equipment (PPE) and use air sampling equipment to assess area (pay special attention to low spots).
    c. Establish a hot and cold zone with barricade tape to secure area.
        i. All persons except response personnel must be removed from the emergency site.
    d. Approach any leak area from upwind/uphill, if possible.
        i. If release ignites, the fire should not be extinguished unless the leak may be immediately shut off.
        ii. If the leak can't be shut off, cooling water streams must be applied to those areas where there is flame impingement.
        iii. Intentional ignition of a release that can't be isolated may be advisable with controlled burning if the piping can be quenched with cooling water.

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4.0

4.1 CORPORATE POLICY

It is the corporate policy of MPL to provide a safe workplace for all workers. All employees and contractors are responsible for maintaining the safety and health of all personnel within MPL facilities.

Before engaging in **any** emergency response activity, the following must be undertaken.

- All employees/contractors must have received orientation on MPL's Site Safety and Health Plan.
- All contractor response personnel must meet OSHA training requirements.
- All personnel must have completed appropriate training for their position.
- No employee/contractor shall engage in activities that place them at risk.
- Appropriate protective equipment will be used for personnel protection when required.

4.2 GENERAL RESPONSE SAFETY

All MPL and contract personnel are expected to comply with the *Site Safety and Health Plan* for each spill incident. A generic *Site Safety and Health Plan* is provided in Appendix D of this Plan.

- Any concern regarding health or safety issues should be immediately addressed.
- The first responder must consider the spill site as dangerous and consider the local atmosphere explosive until air-monitoring procedures prove that the area is safe.
- The first responder must exit the area against or across the wind, if possible, and must also evacuate others who are working in the area.
- All injuries, no matter how minor, must be reported to a MPL Supervisor in a timely manner.
- Before entering a spill area, a qualified person must perform an initial health and safety evaluation of the site.
- Prior to individuals performing assigned work in a spill area, a site Safety Briefing must be performed and documented on the Site Safety Briefing Documentation form in Appendix D.
- When appropriate, all workers must observe and follow their Respiratory Protection Program in accordance with the *Site Safety and Health Plan.*
- Material Safety Data Sheets contain safety, health and environmental information for crude oil and oil products transported via pipeline operated by MPL and are available

on Teamview at the following link:
http://www.marathonpetroleum.com/brand/products/MSDS for review and printing during emergencies.

4.3 TEMPERATURE/HEALTH CONCERNS

Ambient temperatures can substantially affect work conditions and worker safety. All personnel should remain alert to changing conditions affecting their safety. Some temperature concerns are outlined below:

4.3.1 Heat Stress

During rest periods, remove/open protective clothing to facilitate body cooling.

- Adjust work/rest regimens as required.
- Force fluids! **Sense of thirst is not an adequate indicator of the need for fluids!**
- Electrolyte replacing fluids (for example, Gatorade®) should be provided to personnel conducting operations in protective clothing. Excessive water can cause heat cramps!
- Further guidelines for managing heat stress are found in Appendix D, Heat Stress Guidelines.

4.3.2 Hypothermia

Persons exposed to wet conditions or immersion may have an increased risk of hypothermia.

- Layered clothing generally protects against cold better than single "heavy" garments.
- An affected person should be moved to a warm area and provided with dry clothing.
- Be aware of the mobility restraints when wearing multiple layers of clothing.
- Further information on cold stress and hypothermia is provided in Appendix D, Cold Stress and Hypothermia Information.

4.4 SITE CONTROL/DECONTAMINATION

- MPL personnel should establish site control as soon as possible. Establish "Hot," "Warm," and "Support" zones as required. Prevent the removal of contaminants from the oiled areas and unauthorized entry into control zones.
- Establish entry and exit logs to reflect personnel movement. Attempt to establish a single point entry/exit to facilitate personnel safety.
- Regardless of the decontamination facilities available, all efforts to reduce personnel exposure should be taken.

- Decontamination facilities/operations should be positioned before employee/ contractor entrance to areas where potential for exposure to contamination exists in accordance with the Decon Procedures and Layout document found in Appendix D. A separate emergency decontamination area should be established to allow for decontamination of personnel requiring life saving medical attention. The appropriate MSDS should always be available to aid health professionals treating the injured parties.

- Decontamination facilities should be designed to prevent further contamination of the environment and should have a temporary storage area for items that will be reused in the contaminated area.

- Particular attention should be paid to personal hygiene before eating, drinking, or smoking.

4.5 EMERGENCY MEDICAL TREATMENT

On-site emergency medical response requires the same rapid assessment of the patient as any other situation, but requires the responders to be aware of other considerations that may affect the way they handle the patient. These considerations include the following.

- The potential for contamination of the patient, responders, and equipment should be addressed. Responders should arrange to treat all patients after the injured party has been decontaminated according to the *Site Safety and Health Plan.*

- Site personnel should make the initial assessment of the patient and determine the severity of the injury/illness.

- If the treatment needed is critical care or "life saving" treatment, rapid decontamination of the injured/ill party should be started. Refer to the *Site Safety and Health Plan, Decon Procedures and Layout in Appendix D* for steps to be taken in an "abbreviated" decontamination for medical treatment.

- The need for full decontamination should be carefully weighed against the need for prompt medical treatment.

- The paramedics responding to medical emergencies shall be contacted as soon as possible, and instructed exactly where to respond when needed and the nature of the contaminant.

- MSDS information should be provided to medical personnel to alert them of decontamination requirements.

4.6 SITE SECURITY AND CONTROL

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

[redacted]

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



4.7 WATER SAFETY

All personnel conducting tasks on a dock, pier, boat, or where the potential for falling in the water exists, must wear a USCG-approved personal flotation device (PFD) for the duration of those tasks.

Spill response operations on the water can present many opportunities for injury. Caution must be exercised. Spill response operations using small boats should be conducted in accordance with the Small Boat Safety Guidelines in Appendix D. Important factors to consider include:

- Ensuring that all vessels have appropriate safety equipment.
- Not overloading boats (see vessel ID plate for capacity).
- Properly wearing all flotation devices.

4.8 WATER RESCUE

Water rescue operations can be hazardous for both the rescuer and the person being rescued. Rescue in cold water should be accomplished as soon as possible, but not at the expense of safety. Should any person fall into the water, consider the following points.

- Stop the operation and sound the "man overboard" alarm.
- Throw the person a lifesaving device if available.
- Approach the person from downstream or downwind.
- If safe to do so, shut off the boat engine when close.
- To recover the person, use a boarding ladder if possible. If no ladder is available, use the area of lowest freeboard.
- Keep the boat balanced.
- Do not go into the water to assist unless the victim is unconscious.

4.9 BOOM DEPLOYMENT

During boom deployment, the following practices should be considered.

- Effective communication must be maintained between the boat operator and personnel at the boom deployment site.
- All personnel must stay clear of tow lines. Attach tow lines so that they may be cast loose if necessary. A knife should be onboard in case the boom needs to be freed rapidly.
- Avoid attaching a tow line to an "off center" cleat as this can cause difficult steering and/or taking on water.
- Never hold a tow line during boom deployment.
- Deploy the boom at a reasonable, steady speed.
- Ensure that the boat has adequate power for existing conditions and quantity of boom to be deployed.

5.0

MARATHON PIPE LINE
5.0 RESPONSE TEAMS

5.1 EMERGENCY RESPONSE LEVELS

Spill emergency incidents within MPL are classified into the three categories as listed below. (See Section 8.0 for a description of emergency response tiers based on response times by which certain unspecified equipment must be present at the discharge site.)

Level I Emergency: typically a hydrocarbon release; typically away from critical/sensitive areas requiring response operations utilizing MPL operation and local contractor resources; and/or any incident involving minimal public impact.

Level II Emergency: typically a hydrocarbon release; typically on a public body of water with minimal critical/sensitive area impact potential; handled by a regional response using regional contractor resources; the CERT would likely be notified with minimal use of their resources; and/or any incident involving significant public impact.

Level III Emergency: typically a hydrocarbon release; typically on a major body of water; significant critical/sensitive area impact potential; involving large spill response contractor resources besides local, regional, CERT, and Emergency Strike Team (EST) resources; and/or any incident involving significant and substantial public impact.

5.2 EMERGENCY RESPONSE TEAM

MPL fills positions on the ERT with qualified company personnel. In the event individual ERT members or the ERT as a whole are mobilized for an oil discharge, responding to the spill will supersede normal operating responsibilities. The number of people required to effectively respond to any incident will depend on the area(s) contaminated. For example, during a minor discharge, personnel who are initially mobilized may be able to efficiently perform the work necessary while maintaining their normal job functions. However, a major release may require one or more individuals for each position of responsibility. In the latter case, these employees may be scheduled on a "shift basis."

Personnel on the ERT have the authority to commit the necessary resources and make appropriate expenditures to implement this Plan.

Details on the Response Organization for Level I, II, and III Emergencies can be found in the document titled "Team Level I, II, and III" under section 5.0. Please note that a Level I team is referred to as a Local Emergency Response Team, whereas, Level II and Level III teams are referred to as an Emergency Response Team. Teams are modular, depending on the size and scope of an incident. Response Team positions will be filled by personnel on an as needed basis, depending on the circumstances of the situation. The"Activation Decision Tree" document, also found in Section 5.0 of this plan, is used in determining spill response levels and actions.

If the primary designee for each ERT position is unavailable, the alternate should be notified to assume his/her responsibilities.

The following summarizes key Emergency Response Team positions. Complete job descriptions are available in Section 11.0 of this Plan. **A prerequisite for a successful response operation**

is that each ERT member be familiar with their primary responsibilities, as well as each alternate position of responsibility they may be assigned to serve.

Deputy Incident Commander – Responsible for assisting the Incident Commander in the development and implementation of strategic objectives and response priorities. Responsible for coordinating the activities of the various Section Chiefs (Operations, Planning, Logistics, and Finance), supervising implementation of the *Incident Action Plan* (IAP) prepared daily by the Planning Section, conducting planning meetings, and conducting field investigations.

Environmental Unit Leader – Responsible for managing all environmental matters associated with emergency response operations and for providing advice on the potential environmental impacts of response operations. Collects information on environmentally sensitive areas and assists in the prioritization of the areas identified for protection and/or cleanup measures. Responsible for continuously assessing damage or potential damage to the environment.

Federal On-Scene Coordinator (FOSC) – The FOSC is a federal official designated by the EPA (inland zone) or the USCG (coastal zone) to coordinate response resources during an oil or hazmat incident. The FOSC coordinates all federal containment, removal, and disposal efforts and resources during an incident under the NCP or the Federal Response Plan. The FOSC is responsible for providing access to federal resources and technical assistance; coordinates all federal containment, removal, and disposal efforts with the local response community; and coordinates, monitors, or directs response efforts. The FOSC must direct responses to discharges of oil that pose a substantial threat to the public health or welfare of the United States. Responsibilities and coordination procedures of the FOSC during an oil incident are described further in Sections 5.6 and 5.7.

Finance Section Chief – Responsible for managing and supervising all financial and administrative aspects of emergency response operations, including cost analysis for procurement of resources, development of a project budget, accounting, clerical support, contracts, and data processing. Expected to protect MPL's interests in financial dealings and to provide sound business management practices with accurate and complete obligation documents for the duration of the incident. Provides input on financial and costs analysis matters in all planning sessions. Ensures the conduct of all required accounting, insurance, compensation, and claims functions and activities of the Finance Section, including adequate documentation and record keeping.

Incident Commander – Responsible for all phases of the spill response, including the development of strategic objectives that provide for the safe and efficient conduct of emergency response operations. In addition, the Incident Commander is the individual responsible for coordinating actions with the FOSC during an oil or Hazmat incident under the NCP or the Federal Response Plan. Coordination procedures include working with the FOSC to determine if the FOSC chooses to direct response actions (required if the oil discharge poses a substantial threat to the public health or welfare of the United States) or monitor the actions of the ERT and/or local and state governments and provide support and advice where appropriate (see Section 5.6 and 5.7 for more information on FOSC responsibilities and coordination).

Legal Officer – Provides legal advice on all aspects of emergency response operations. Responsible for all legal matters and, therefore, is expected to be thoroughly familiar with all of the legal ramifications of emergency response operations. This includes the liabilities involved and the legal precedents that have been set in previous incidents. Advises the Finance Section Chief and staff with respect to the legitimacy of claims, contracts, etc.

Liaison Officer – Responsible for communicating with local, state, and federal government agencies. Works with regulatory agency representatives to relieve the Incident Commander of as much routine government liaison work as possible.

Logistics Section Chief – Responsible for obtaining the labor, equipment, facilities, food, communication systems, and other material needed to support emergency response operations.

Operations Section Chief – Responsible for the management of all operations directly related to the evacuation of personnel; medical services; the control of fires; and/or the control, containment, and cleanup of any spilled or emitted material. Activates and supervises Operations Section personnel, oversees the development and implementation of tactical operations plans, and directs efforts to implement daily IAPs .

Planning Section Chief – Responsible for supervising the collection, evaluation, dissemination, and use of information to support emergency response operations. Utilizes this information, input from other Section Chiefs, and the strategic objectives defined by the Incident Commander as a framework for the preparation of the daily IAP. (A generic IAP is provided in Appendix E of this Plan. The objectives of an IAP are to define specific response strategies, and to coordinate and mobilize resources effectively during emergency response operations.) Responsible for coordinating the development of Situation Status Reports (an Incident Status Summary form is also provided in Appendix E) and other incident specific plans, providing technical services in support of emergency response operations, and handling environmentally-related matters during emergency response operations. Coordinates the documentation of all aspects of emergency response operations, including demobilization.

Public Affairs Officer – Responsible for the formulation and release of information about an incident to the news media, non-responding government agencies, and other stakeholders. Responsible for ensuring that media and community concerns are clearly and accurately identified and addressed during emergency response operations.

Qualified Individual – Responsible for the initial activation and commitment of response resources, proper notification of regulatory agencies, and establishing response resources. **Following initial activation, the QI quickly transfers responsibilities to the Emergency Response Team and the position is discontinued.** The person the QI's or ERT's responsibilities are transferred to (likely the Incident Commander) is responsible for implementing procedures to coordinate actions of the ERT with the OSC responsible for monitoring or directing those actions. While the QI has full authority to implement removal activities and direct cleanup activities, the ERT accomplishes these tasks.

Safety Officer – Responsible for monitoring and assessing hazardous and unsafe situations and developing measures to avoid or mitigate such situations. Works to correct unsafe acts or conditions through regular lines of authority, although emergency authority may be exercised to

prevent or stop unsafe acts or conditions when immediate action is required. Maintains awareness of active and developing situations, and includes safety messages in the daily IAP. Is thoroughly versed in safe operating practices and safety-related training requirements.

Senior Manager – Serves as the primary senior management contact for the Incident Commander. Has access to senior management who establish company policies. Also ensures that the Incident Commander has the resources and support necessary to mount and sustain emergency response operations.

5.3 CORPORATE EMERGENCY RESPONSE TEAM

The Corporate Emergency Response Team (CERT):

- Is activated by dialing CERT's telephone number (1-877-MAPLINE). (NOTE: The Senior Manager, or his designee in the ICS organization structure for the identified level of response, is responsible for the CERT call.)
- Provides support to local management in handling major emergencies.
- Provides instruction and advice to Executive Management concerning a major emergency. This includes taking command of the response operations when necessary.

5.4 EMERGENCY STRIKE TEAM

The Emergency Strike Team (EST):

- Is a fully trained and prepared, stand-alone response management team; capable of supplementing, relieving, or taking command of a major emergency.
- Is comprised of individuals from operating, as well as corporate organizations to provide a fully capable team.
- Will report directly to Local, Line, or Executive Management consistent with the incident's magnitude.
- Is trained in the Incident Command System (ICS), and all members of the EST are responsible for understanding their respective roles and responsibilities as members of the strike team.
- Is activated by dialing CERT's telephone number (877-MAPLINE) and requesting the EST through the CERT Leader.
- Will be activated to respond to MPL Level III events (major spills).
- Is responsible for conducting water quality evaluations.

5.5 CONTRACTORS

When contractors are used for an emergency response, MPL will oversee their work by providing objectives and goals for the task to be performed. Contractors will normally have a representative interfacing with the MPL Emergency Response Team at the level of the Operations Section Chief.

5.6 GOVERNMENT AGENCIES

The FOSC serves as the steward of the federal government's involvement with a spill response. Their responsibilities and authorities are as follows.

- Evaluate size of discharge or potential.
- Make appropriate notifications to Trustees of impacted and other areas.
- Ensure safety of the public and responders.
- Evaluate the threat to natural resources.
- Determine the feasibility of removal.
- Direct the response, as outlined in Section 5.7 (Unified Command) of this Plan.
- Assume control of all or part of cleanup operations when removal efforts of the RP are not adequate.
- Determine when the cleanup is complete.
- Initiate enforcement action.

FOSCs are usually familiar with the spill area. They also will have access to a variety of experts and information, such as current charts, tidal data, environmental sensitivity maps, spill trajectory models, and weather information.

The USCG National Strike Force (NSF) is a highly trained unit responsible for maintaining and rapidly deploying, specialized response equipment. Their expertise and equipment is available to an FOSC preparing for or responding to a spill emergency in order to prevent adverse impact to the public and reduce environmental damage during major spills. Of the three responding units comprising the NSF (Atlantic, Gulf, and Pacific Strike Teams), the FOSC may request assistance directly from the Gulf Strike Team for a spill incident involving the Centennial pipeline. The Gulf Strike Team is located in Mobile, Alabama, and can be contacted by an FOSC at (251)441-6601.

States have pre-designated SOSC for spills occurring within their jurisdiction. In this role, they represent all state agencies and the interests of the state and its citizens.

Subject to the organization and duties outlined in NCP, 40 CFR, Part 300, key responsibilities of SOSCs are to:

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- Provide emergency first response to reported oil and hazardous spill incidents.
- Determine the source, cause, and responsible party.
- Ensure that containment, cleanup, and disposal are carried out quickly and adequately.
- Initiate enforcement actions as appropriate.
- Coordinate spill response efforts with federal, local, and other state agencies.
- Establish joint information management system with the responsible party and federal, state, and local agencies.

Local agencies, including LEPCs, local fire departments, and police departments have responsibilities related to spill response. According to the NRP, the initial response to an emergency incident or disaster is by local officials, including fire departments and police departments. The role of the LEPC is to anticipate and plan the initial response for foreseeable disasters in their jurisdiction. The LEPCs are responsible for identifying and cataloging potential hazards, identifying available resources, mitigating hazards, and writing emergency plans. When an actual incident occurs, these resources are made available to the Incident Commander.

5.7 UNIFIED COMMAND

A question frequently asked during the *Exxon Valdez* spill was "who is in charge?" Conflict among the RP, and state and federal government left the impression that there was no one with both the responsibility and authority to ensure a well-coordinated response. The OPA 90 answered this concern. It says the President may, and where a significant threat exists, must "direct all Federal, State, and private (response) actions..."This authority was delegated to the FOSC.

The NCP complicates matters by stating that "the goal of the (spill response management) structure is to reach a consensus whenever possible...." Furthermore, many FOSCs prefer to let the RP take the lead, directing by exception where a consensus is not present or cannot be reached. The NCP clearly makes the point:

Except in cases when the (federal) OSC is required to direct the response to a discharge that may pose a substantial threat to the public health or welfare of the United States... the OSC may allow the responsible party to voluntarily and promptly perform removal actions, provided the OSC determines such actions will ensure an effective and immediate removal of the discharge or mitigation or prevention of a substantial threat of a discharge. If the responsible party does conduct the removal, the OSC shall ensure adequate surveillance over whatever actions are initiated. If effective actions are not being taken to eliminate the threat, or if the removal is not being properly done, the OSC should, to the extent practicable under the circumstances, so advise the responsible party. If the responsible party does not respond properly, the OSC shall take appropriate response actions.

MARATHON PIPE LINE
5.0 RESPONSE TEAMS

Extensive efforts have been made to develop a more standard organizational structure for all members of the response community to work together and thereby, manage the spill response effort more effectively. The result is a Unified Command structure patterned after the ICS used for managing response operations during wildfires. However, there are differences between managing the two events. Namely:

- A private organization (the RP) pays for the response to spills.
- Spills may cross several jurisdictional boundaries, yet individual agency responsibility and authority are normally confined to a single jurisdiction. Many different public agencies have the desire and statutory responsibility to act at all levels of government in some manner, and participate in decisions which affect their jurisdiction.
- Spill response typically takes longer than those for fires, requiring several shifts of personnel and/or equipment.
- A spill may cover a wide area, calling for such disciplines as surveillance and extensive communications.

Unified Command's goal is to integrate the various parties (FOSC, SOSC, and RP) involved in the response to permit direct coordination of each functional element at all command levels. The authorities have expressed a willingness to adapt to and integrate with the RP's organization. However, acting according to the approved response plans and having an effective spill response management organization are prerequisites for this to occur.

Under Unified Command, the FOSC, SOSC, and RP's representatives meet and:

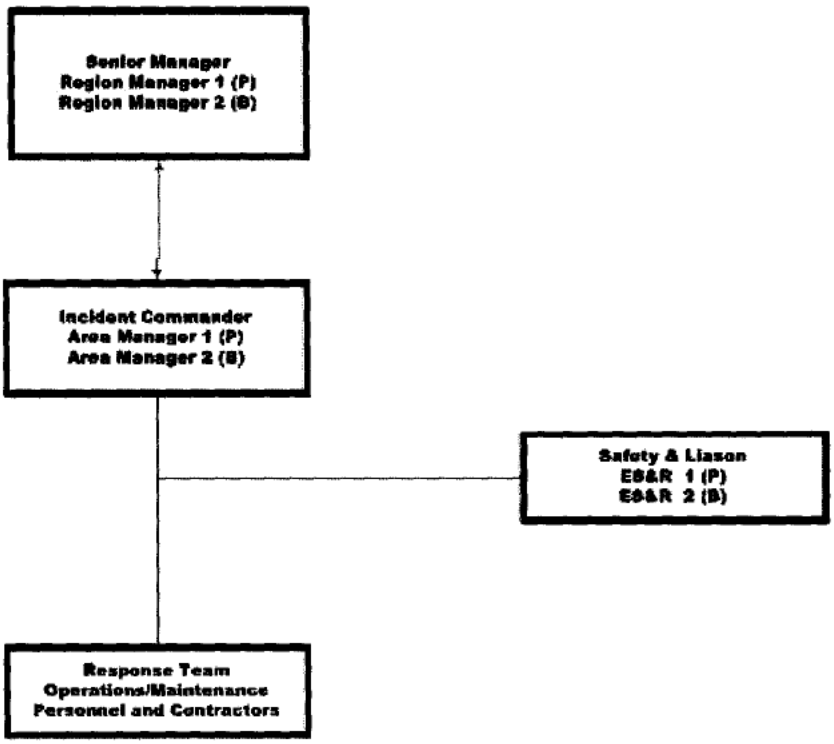
- Agree on objectives.
- Agree on response priorities.
- Review strategies.
- Engage in joint planning.
- Integrate all responders' operations.
- Resolve conflicts.

Unified Command also involves the media representatives (Public Information Officers) of the FOSC, SOSC, and RP working together at a Joint Information Center (JIC). This group handles all communications with the media, public, and non-responding governmental agencies.

The Unified Command system generates enormous demands on the RP to provide information. The agency officials need many details to perform their responsibilities and to satisfy political authorities' and the public's demands for facts. This is achieved through the creation of an IAP. Each IAP should be signed by both the FOSC and SOSC.

If it is necessary to deviate from the response described in an IAP signed by the FOSC and SOSC, they must be contacted before the alternate actions are undertaken.

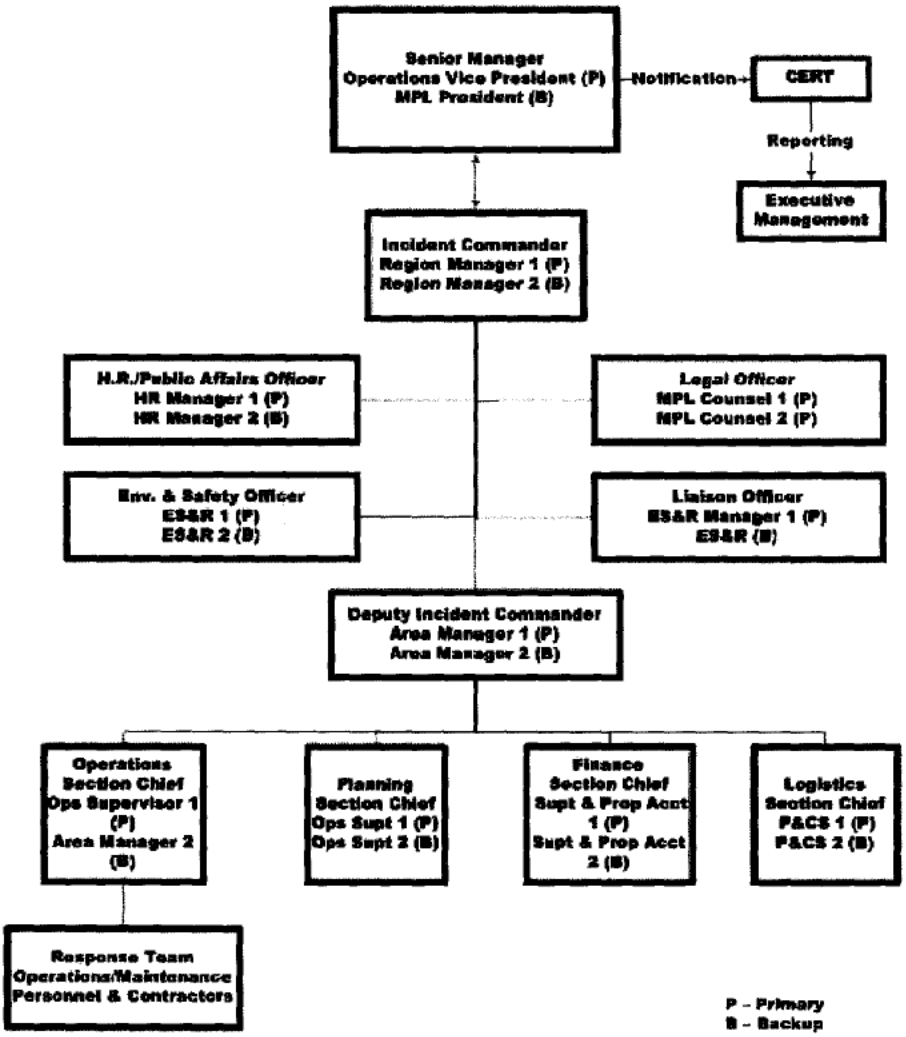
Local Emergency Response Team
Level I Response – Minor Spills



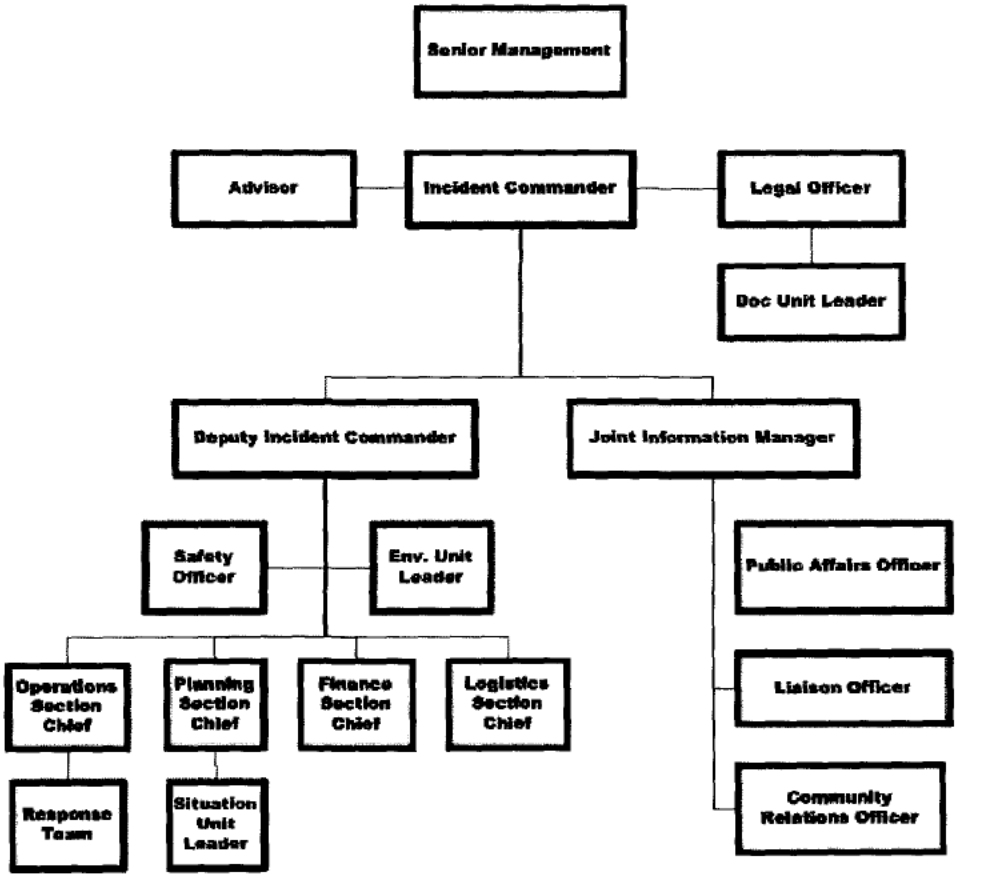
P – Primary
B – Backup

P – Primary
B – Backup

Regional Emergency Response Team
Level II Response – Moderate Spills



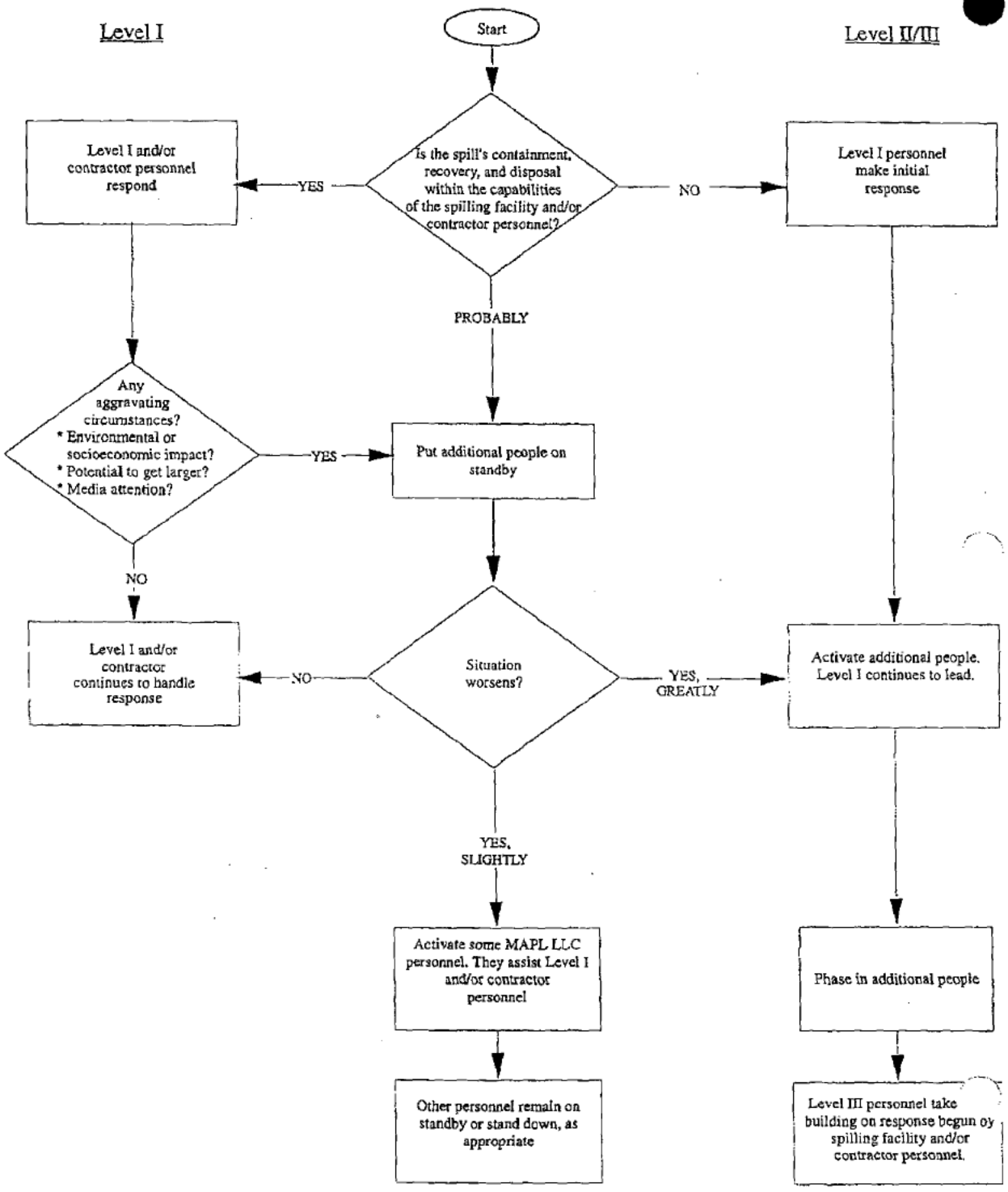
Corporate Emergency Response Team
Level III Response – Major Spills



Positions are staffed with members of the Corporate Emergency Response Team (CERT)

MARATHON PIPE LINE
5.0 RESPONSE TEAMS

FIGURE 5.4
ACTIVATION DECISION TREE



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6.0

MARATHON PIPE LINE
6.0 COMMAND POSTS/STAGING AREAS

6.1 LOCATION

Response Team activities will be conducted from a command post (CP). The CP will provide:

- A central location for ERT Team members that are not directly involved in the on-site cleanup activities.
- Ample accessibility by automobile.
- Ample space for all response personnel and equipment. This includes MPL personnel, government agency representatives, and contractors. The news media will be accommodated at a separate location.

Access/Staging areas for personnel and equipment will be established at appropriate locations. Access/staging areas should:

- Be readily accessible to large trucks and trailers which may be used to transfer equipment and be located near the cleanup site.
- Be in a large open area in order to provide storage for equipment and not interfere with equipment loading and offloading operations.
- Have a dock and/or boat ramp for deploying equipment if water response is required.

6.2 EQUIPMENT

Equipment that may be needed at the CP includes:

- Several conference tables.
- Phones with separate lines for emergency use.

Portable radios and smartphones/cellular phones with Wi-Fi data access, mobile broadband, Global Positioning System (GPS) navigation units, etc.

- Video projectors, interactive whiteboards, and computer projection system.
- Copying machine, facsimile machine, and image scanner.
- Digital video camera, pocket video camera, camcorder, and webcams.
- Digital cameras.
- Additional conference rooms, if needed.
- Personal computer(s).
- Office supplies and other materials that may be needed for clerical support.
- Status boards.

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- IAP wall charts.

Reference materials accessible at the CP should include the following items, and other material as needed:

- Chart(s)/map(s) of response zone(s).
- Facility/operation plan(s).
- MPL *Emergency Response Plan.*
- CERT Plan.
- Vendor/Contractor phone numbers.
- Phone directories.

7.0

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MARATHON PIPE LINE
7.0 COMMUNICATIONS

7.1 LINES OF COMMUNICATION

Lines of communication between the Incident Commander and response team members are shown in the Emergency Response Team organization charts, located in section 5.0 of this plan.

Overall response and planning communications between MPL personnel and responsible government agencies on the Federal Response Team (FRT) will occur formally between the MPL Incident Commander and the FOSC.

7.2 COMMUNICATIONS EQUIPMENT

7.2.1 General Information

MPL uses a wide variety of communications equipment including, hardwire telephones, mobile telephones, smartphones, radios, and pagers for communication during normal, abnormal, and emergency operations. Many personnel, including field personnel, are equipped with mobile telephones/smartphones. In some cases however, radios are used in lieu of mobile telephones/smartphones.

Additional company communications equipment , such as radio towers, antennas, local area network (LAN) servers, and key switches(see CERT Communications Equipment) may also be used during an emergency response. Also, when deemed necessary, communications equipment may be purchased from commercial electronics retailers.

7.2.2 Telephone Communications

Telephones, both hardwire and mobile, are the primary means of communication during normal, abnormal, and emergency operations.

Listings of personnel and their associated telephone numbers are maintained in the *Marathon PipeLine LLC Communications Directory.*

7.2.3 Radio Communications

Radio units are also a means to communicate during normal, abnormal, and emergency operations. User instructions and listings of base station numbers and mobile call signs are maintained in the *Marathon Pipe Line LLC Communications Directory.*

7.2.4 Communications With The Public

Pipeline rights-of-way are marked with DOT signs listing a toll-free number for problem reporting by the general public, landowners, contractors, and public officials. This is the primary means by which the public will make notification of unauthorized releases or other emergencies. This telephone number connects the caller with MPL's Operations Center in Findlay from where the pipelines are controlled. Thus, corrective actions can be made most expediently from a notification to this location.

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7.3 EMERGENCY OPERATIONS

The following information is to be used as a guide only. In all cases the specific needs of the response should be considered and the appropriate actions taken as deemed necessary.

7.3.1 Telephone Communications

In the event of an emergency requiring the installation of hardwire telephones in addition to what is already available in the command center, the local telephone company will be asked to provide at least 20 telephone lines for both voice and data. A key switch will provide a main switchboard telephone and the necessary extensions.

7.3.2 Radio Communications

In the event of an emergency requiring the need to implement radio communications, a licensed oil spill frequency provided by the FCC (UHF – 454 MHz transmit 459 MHz receive, VFH – 150.980 MHz transmit 154.585 receive) will be used with company radios. Antennas and repeaters will be placed to provide the needed coverage.

8.0

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MARATHON PIPE LINE
8.0 RESOURCES

8.1 EMERGENCY RESPONSE TIERS

In accordance with 49 CFR Part 194, operators must respond to a worst case discharge "in a tiered system." The tiers are defined as specific times by which certain unspecified equipment must be present at the discharge site. For the purposes of this Plan, the following tier definitions apply. (See Section 5.0 of this plan for definitions of MPL's three emergency response levels.)

Tier 1: Tier 1 is the time frame during a major response in which resources must arrive on scene to address the immediate requirements of controlling and minimizing the discharge. The activities include pump shutdown and line isolation via block valve closure. The activated resources will include first responders, initial safety and communications equipment, containment equipment. This time frame is from confirmed discovery of the release location and source to:

(a) Six (6) hours after discovery for high volume areas, or

(b) Twelve (12) hours after discovery for all other areas.

Tier 2: Tier 2 is the time frame during a major response in which resources must arrive on scene to address containment, protection, and recovery. The activities include sensitive and critical area exclusion booming, containment booming, and set-up of additional recovery resources. The activated resources include personnel, boom, boom deployment equipment, spotting aircraft, sorbent materials, removal equipment, and temporary storage. Tier 2 ends:

(a) Thirty (30) hours after discovery for high volume areas, **or**

(b) Thirty-six (36) hours after discovery for all other areas.

Tier 3: Tier 3 is the time frame during a major response in which resources must arrive to concentrate on cleanup, temporary storage, and removal of the discharge. The activities include open water and shoreline cleanup, containerization of debris, and disposal. Additional containment, removal, and storage resources are deployed to supplement those acquired in Tier 1&2. Tier 3 ends:

(a) Fifty-four (54) hours after discovery for high volume areas, **or**

(b) Sixty (60) hours after discovery for all other areas.

8.2 RESPONSE EQUIPMENT/PERSONNEL CERTIFICATION

MPL certifies that it has obtained, through contract or other approved means, the personnel and equipment to respond to a worst case discharge for each of the designated response zones.

MPL has response equipment available in each of the response zones that can be mobilized rapidly in the event of a spill incident. A typical inventory list of available equipment supplied in MPL's oil spill response trailers is detailed in Figure 8.1).

The Response Zone Manager will ensure that a representative sample of this equipment is tested yearly in conjunction with the annual equipment deployment drills performed in each designated

response zone. Emergency response equipment owned by MPL will be inventoried to ensure the equipment lists are complete and the equipment is functional. Boats and other equipment owned by MPL and used in the drill will be deployed for a minimum of one-half (½) hour, during which time seaworthiness and proper operation will be verified. Boom used in the drill will be strung and visually inspected for defects and signs of deterioration. These equipment inspection and testing activities will be recorded and maintained with the deployment drill documentation.

Additional labor and equipment are available from local and regional emergency response and cleanup contractors as described in Section 8.3 below.

8.3 RESPONSE CONTRACTORS

MPL will initially rely on its company-owned spill response resources and local OSRO contractors for labor and equipment during an emergency spill response. Local spill response contractors are those OSROs located within each of the designated response zones and available for rapid deployment. A current list of local OSROs and equipment available from these sources can be found in Appendices A and F of this Plan maintained by response zone. MPL will utilize only USCG-certified and MPL-approved (in locations where required) cooperatives and contractors to provide equipment and labor to assist in the containment and cleanup of a spill. Contract agreements for all OSROs contracted by MPL are produced by the Purchasing and Commercial Services Department and filed within the Law – Title & Contract Department in the Findlay Office. The Logistics Section Chief for a response has access to these contracts as necessary.

If the magnitude of the oil spill or other conditions warrant, additional resources can be mobilized using regional OSROs. These regional OSROs are located within the system and have available substantial resources for responding to oil spill emergencies and cleanups. The regional OSROs have ensured MPL via contract that they will respond to an incident within their area of travel and within the tiered time set forth by the applicable regulations. These response organizations maintain adequate testing, maintenance, and inspection programs for their response equipment. Regional OSROs with which MPL has contracts are identified in Appendix A by response zone.

8.4 VOLUNTEERS

MPL will not normally hire and/or train volunteers for work on an emergency response incident. Instead, MPL will refer volunteers to appropriate state and/or local agencies or organizations that are set up to handle volunteers.

8.5 OTHER RESOURCES

As emergencies vary in spilled volume, proximity to sensitive environmental areas, and distance from equipment and labor, responses will also vary. Initially, responders will utilize the resources in the immediate area. If local resources are inadequate to handle the situation, then regional resources will be mobilized. Ultimately, national and worldwide resources may be required for a major emergency.

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Figure 8.1
List of Typical Equipment in Oil Spill Response Trailers

600'	Acme 6" float x 6" skirted boom in 50' sections with quick couplers on each end
12	Boom Tow Bridles
600'	E-810 Absorbent Boom. The boom has an 8" diameter Flotation x 10' long x 4 boom/bundle
1	Spare Tire (20.5 x 8:00 x 10)
1	First Aid Kit
2	Lanterns
2	Flashlights
1	12' Jon Boat (12' long x 54" beam x 18" side depth, made with .063" marine aluminum and weighing approximately 141 lbs.)
2	Oars and locks
3	Life Jackets (OSHA approved)
1	15 lb. Anchor
1	18 oz Gojo Hand Cleaner
2	30# Fire Extinguishers "Purple K" hand portable, Model #I-K-30-E w/ fill cap and pressure indicator, #17990
2	Pair Boots, size 12, 16" over the foot, steel toes, Cat. #18801
1	Pair Waders, size 12, 16" over the foot, steel toes, Cat. #11202
3	Nomex Fire Retardant Coveralls - Red (1 pair XL, 2 pair L)
1	6 ft. Heavy Duty Step Ladder
1	Axe
2	Shovels
1	Sledge Hammer (8#)
1	Machete (with sheath)
500'	3/8" Poly Rope (1 roll)
250'	1/2" Poly Rope (1 roll)
6	Pair Edmont Monkey Gloves (Cat. #23-193)
1	Bundle of Wooden Laths (50 per bundle)
12	Steel T-posts (6' long)
2	Claw Hammers
2	Spades (1 round point, 1 square point)
2	"Men Working" signs (24" x 24" with stand)
4	Wooden Barricades with 6 volt flashing yellow caution lights
1	50# Plastic Pail of "Purple K" Dry Chemical (Cat. #9335)
6	30# Ansul CO_2 Dry Chemical Extinguisher Actuation Cylinders (Part #4615)
2	144 Pull Power (1 ton)
1	Roll #9 Wire
1	Pair Fence Builders Pliers
1	Roll of Flagging material
1	10 lb. box of rags
	Writing materials
1	Roll of paper towels
1	Box of 8d common nails
1	Box of 16d common nails
1	Box of 20d common nails

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9.0

MARATHON PIPE LINE
9.0 TRAINING AND EXERCISES

9.1 REQUIREMENTS

OPA 90 requires response training and exercises for all personnel involved in an oil spill response operation in accordance with specific response training requirements.

Facility owners and/or operators are responsible for ensuring that personnel are trained to meet all OSHA Safety Requirements, including the Hazardous Waste Operations Standard (29 CFR 1910.120). These requirements, commonly called the Hazardous Waste Operations Standard (HAZWOPER) regulations, were established to ensure the health and safety of personnel engaged in hazardous substance response and cleanup operations. Besides HAZWOPER regulations, employers must comply with federal regulations contained in 49 CFR Parts 172 and 176 regarding providing training for employees handling hazardous materials.

9.2 NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM

The National Preparedness for Response Exercise Program (PREP) was developed to establish a workable exercise and training program. The key elements of a PREP exercise that meet the intent of OPA 90 are listed in Figure 9.1 provided at the end of this section. MPL participates in the PREP.

The PREP is a unified federal effort. It satisfies the exercise requirements of the USCG, EPA, DOT PHMSA, and the Minerals Management Service (MMS). Completion of PREP exercises will satisfy all OPA 90-mandated federal oil pollution response exercise requirements when properly documented.

PREP exercises should be viewed as an opportunity for continuous improvement of response plans and response systems. Holders of this OPA 90 Plan are responsible for addressing any issues that arise from the evaluation of a PREP exercise in which MPL participated, and for making necessary changes to this Plan to ensure MPL's highest level of preparedness.

PREP is a voluntary program. Plan holders are not required to follow the PREP guidelines and, if they choose not to, may develop their own exercise program that complies with the regulatory exercise requirements.

All Plan holders, whether participating in the PREP or following the exercise mandates of relevant agency regulations, will be subject to government initiated unannounced exercises, which are mandated by OPA 90.

The PREP guidelines became effective January 1, 1994, and follow the calendar year. The exercise year is, therefore, January 1 to December 31.

9.3 TRAINING PROGRAM

MPL provides a continuous and comprehensive employee training program to address the needs of both emergency response activities and normal pipeline operations. This training program includes the use of employee safety meetings, computer based training (CBT), formalized classroom instruction, on-the-job training, and contractor/vendor provided training. In addition,

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key personnel are sent to commercial training facilities and provided with specialized in-house training that covers a variety of topics.

The training program integrates industry practices, company policies, regulatory requirements, and experiences by utilizing experienced personnel, company documents and manuals, and applicable federal regulations in developing training agendas.

Employees are required to complete a preset training agenda each year that is based on their job function, and at intervals not exceeding 15 months, but at least once each calendar year, MPL shall: (1) Review with personnel their performance in meeting the objectives of the emergency response training program set forth in 49 CFR 195.403(a) and (2) Make appropriate changes to the emergency response training program as necessary to ensure that it is effective.

Figures 9.2 and 9.3 provide a description of training and competency requirements for First Responders at the Awareness and Operational Levels, respectively. Figures 9.4 and 9.5 provide a description of the training and competency requirements for Hazardous Material Technicians and the On Scene-Incident Commander, respectively.

9.3.1 New Employee Safety/Operational Training

MPL employee training begins with the start of employment. All new employees are provided "New Employee Safety/Operational Awareness Training" that provides information on responsibilities of both the company and employees, pipeline operations, safety practices and policies, use of PPE, environmental concerns, training practices, and use of the CBTs. Employees are also provided with the twenty-four (24) hour, toll free number that should be used to notify the Findlay Operations Center of emergencies, which is also provided to the public as part of the Public Education program. Upon completing this training, the employee has been introduced to the major environmental and safety issues, and provided the details on how and where to obtain additional information. New Employee Safety/Operational Awareness training is documented and maintained in MaraLearn.

Computer Based Training

The use of CBT is an integral part of the continuous training process for MPL. CBT permits each employee to complete the required training at their own pace and review topics on an "as needed" basis. The CBT covers operational, safety and regulatory requirements for both normal and emergency conditions. Computer Based Training completed by MPL employees is documented and maintained in Maralearn. The following list of CBTs includes those that would be applicable to emergency responses under this Plan:

Benzene	Provides information on the hazards of benzene exposures (acute and chronic), protective measures, methods of monitoring (personal and area) for benzene, and the medical surveillance program procedures.
DOT (49 CFR 195) Codes and Regulations	Discusses the history of DOT pipeline regulations, makes clear the function of DOT, and explains the major sections of 49 CFR Part 195.
DOT (49 CFR 195 Safety Reporting Requirements	Provides instruction on DOT procedures for reporting accidents, spills, and safety-related conditions. Information is also provided on how and when to report events including verbal and electronic notification requirements, DOT 7000-1 form written submittal requirements.
Emergency Equipment PPE and Containment	Provides information on chemical protective clothing used in emergency responses to hazardous materials, the components of Level A through Level D protection, measures to contain and control released materials, and equipment necessary to maintain a safe work environment.
Emergency Response Pre-planning and Site Control	Defines personnel roles for Incident Commanders, First Responders (Awareness and Operational), and Technicians and Specialist, as defined by 29 CFR 1910.120. Explains site characterization, hazard assessment, security perimeters, escape routes, communications, and pre-planning activities.
Hazard Recognition and Evaluation	Provides information on RCRA, CERCLA, SARA and HAZWOPER regulations. Discusses the components of a site safety plan. Provides an exercise on the use of the DOT *Emergency Response Guidebook* (ERG). Discusses concepts of flash point, vapor pressure, vapor density, and elements of an emergency response plan.
Nature and Properties of Petroleum Products	Explains the refining process of petroleum products, principles of distillation, properties of petroleum products, specific and API gravities, temperature and its effects on product volume, viscosity, and pressure and its relationship to temperature. Defines terminology related to gasoline and distillates such as: end point, cloud point, flash point, pour point, American Petroleum Institute (API) gravity ranges, and visual features.
Nature of Crude Oil	Discusses the origin of crude oil, formation of hydrocarbons, components and characteristics of crude oil, types of crude oil (sweet and sour), contaminants of crude oil, and safe work practices involving hydrogen sulfide (H_2S) and benzene.
Personal Protection in the Workplace (OSHA)	Provides information on the use, care, and selection of PPE in the workplace. Topics include head protection, eye and face protection, hand protection, foot protection, and protective clothing.

Respirators – Fundamentals of Air Supply and Cartridge	Explains the function of air purifying respirators, the differences between air purifying and air supplied respirators, capabilities and limitations of respiratory protection, criteria for selecting respirators, and Grade "D" air and cartridge types.
Safe Handling of LPG	Introduces the characteristics of LPGs, including specific gravity, vapor pressure, and combustion. Discusses the effects of temperature, pressure, and air/vapor mixtures in the combustion process. Explains how to recognize unsafe conditions, steps to take if there is a leak, the use of ethyl mercaptan (odorant), and transfer hazards.
Safe Handling of Petroleum Products	Discusses the hazards of vapors, combustion, and static electricity. Reviews the importance of flash point, ignition temperature, flammability range, and toxic properties of petroleum products.
Safety Equipment: Extinguishers and Practices	Deals with use of monitoring equipment, respiratory protection, portable fire extinguishers, and causes of hazards.
Worker Right-to-Know: Hazards and Toxicology	Provides an introduction to the Hazard Communication Standard (29 CFR 1910.1200) and major requirements. Discusses health hazards; physical hazards; and classification of combustible liquids, flammable liquids, compressed gas, toxics, corrosives, and irritants.
Worker Right-to-Know: Procedures and Practices	Deals with warning labels, MSDSs, engineering controls, administrative controls, and PPE.

9.3.2 Fire Training

MPL provides hands-on fire training once every three (3) years to all field employees who are likely to perform work tasks in areas where petroleum hydrocarbons are handled. Supervisors and other office staff who on occasion would also be in these areas are also provided with this training.

The training includes information on fire prevention, alarms and notification procedures, chemistry of fire, properties of flammable liquids and gases, and the use and maintenance of portable extinguishers. Employees are provided actual flammable liquid fires to extinguish and are required to complete this training every three years.

Employees are required to complete the CBT entitled "Safety Equipment: Extinguishers and Practices" during the two (2) alternate years to ensure the principles of fire extinguishing are reviewed. Fire Training completed by MPL employees is documented and maintained in MaraLearn.

9.3.3 HAZWOPER Training

HAZWOPER training to meet the requirements of 29 CFR 1910.120 is provided to all employees who are expected to respond to emergencies. Employees are trained using course materials developed by a consultant that is delivered in-house by individuals who have completed a Train-the-Trainer course.

The course materials are organized into several modules (HAZWOPER Training Modules) that permit flexibility in conducting the training while ensuring the consistency of the information presented. The module approach also permits portions of the training materials to be used as stand-alone training to meet other needs and regulations.

The HAZWOPER Training Modules listed and summarized below comply with the different training levels and requirements defined in 29 CFR 1910.120. Figures 9.2 to 9.5 contained at the end of this section outline the training requirements for First Responders, Hazardous Material Technicians, and the Incident Commander. HAZWOPER training completed by MPL employees is documented and maintained in MaraLearn.

Introduction To HAZWOPER	Introduces the requirements of 29 CFR 1910.120 and provides background information on regulations such as the Clean Air Act, Clean Water Act, SARA, CERCLA, and related OSHA and DOT regulations. The different definitions of hazardous substances are also reviewed. The various levels of training under 29 CFR 1910.120 are presented and employee's responsibilities are reviewed.
Hazard Communications	Reviews MPL's Hazard Communication/Worker Right-to-Know Program, including labeling practices, use of MSDSs, physical and health hazards, and protection from hazards. Terminology review includes permissible exposure limits (PEL); threshold limit value (TLV); time weighted average (TWA); short-term exposure limits (STEL); immediately dangerous to life and health (IDLH); routes of entry; and chronic, acute, systemic and local effects.
Sources of Information	Provides knowledge on where and how to obtain information about a chemical or hazardous material that is involved in a spill or leak. Sources to be discussed include the DOT *Emergency Response Guidebook* (ERG), manufacturer's MSDS, the Chemical Transportation Emergency Center (CHEMTREC), and governmental agencies.
Notifications	Presents information on how and to whom notifications should be made for all types of emergencies. Includes information on contacting the NRC, notification of public emergency response agencies (local agencies), notification of the QI, notifying internal and external MPL response resources, and contacting contractors (OSROs) with oil spill cleanup equipment.
Responding to an Emergency	Includes information on how emergency notifications are received and handled, who should be notified, general response procedures,

	the emergency site control plan, and area specific response procedures. Sections 2.0, 3.0, and 4.0, and the Informational Summary from this Plan are used in this training.
Site Risk Assessment	Provides knowledge and competency to identify hazards, along with select worker protection for working at a spill or leak site. Includes instructions on offsite assessment, perimeter reconnaissance, protection of entry personnel, on-site assessment, determining changing conditions that could increase hazards, and documenting the assessment.
Monitoring Equipment and Methods	Provides knowledge and competency in the selection and use of field monitoring devices. Topics include reasons for monitoring, types of monitoring equipment, capabilities and limitations of monitoring equipment, monitoring results interpretation, and documentation.
Personal Protective Equipment	Includes instructions on the proper selection, care, and use of PPE. Specific equipment topics include the proper selection of head protection, eye and face protection, protective clothing, gloves and hand protection, and protective footwear; capabilities and limitations of PPE; and care, selection, maintenance, and storage of PPE. The different EPA-recognized levels of protection (Level A through Level D) are also discussed.
Respiratory Protection	Provides knowledge and competency in the purpose, selection, maintenance, and use of respiratory protection devices. Includes instructions on OSHA requirements per 29 CFR 1910.120, MPL's written respiratory protection program; conditions requiring respirators; recognition of hazardous atmospheres; types of respirators available; how to select the appropriate respirator; capabilities and limitations of respirators; and, inspection, care, maintenance, and storage procedures. Also includes information on the use of air purifying and supplied air (SCBA) respirators.
Controlling Spills and Cleanup	Provides instructions on how to use engineering controls to reduce exposure to hazards in the work area, prevent releases, and limit the extent of the release. Information is provided on how to control, confine, and contain release materials to reduce the effects of a spill or release. Procedures are provided for determining the extent of a spill. Spills on water, containment dams and barriers, use of booms and skimmers, burning, and cleanup procedures are also described. Waste handling issues are discussed, including container filling, opening, sampling, handling, inspecting, labeling, and preparing for shipment.
Decontamination Procedures	Decontamination procedures are provided for the various substances encountered as a result of a release of petroleum hydrocarbons. Training is provided on procedures for decontamination, establishing entry and exit points, setting up a decontamination area, selecting the decontamination agent, and

	disposal of decontamination materials.
Incident Command System	Instructions are provided for implementing and using the ICS at the scene of a release or other emergency. Provides knowledge and competency regarding employee roles and responsibilities, establishing the chain of command, delegation of duties, and the role of communications in an incident.
Leak Detection / Emergency Shut Down	Employees involved in the operation of the pipeline are provided written information in the form of the *Operations Manual* and receive on the job training (OJT) under the guidance of experienced personnel for identifying potential leaks and other abnormal operating conditions. The OJT includes evaluation of system alarms, field alarms, and adjustable parameter settings for initiating proper emergency shutdown of the pipeline system.

9.3.4 Refresher/Retraining

MPL believes that an effective training program must be a continuous and ongoing process. In addition, federal regulations require that "refresher/retraining" be conducted at defined intervals. The tracking of required "refresher/retraining" dates is accomplished through the use of the MPL training database. Annual refresher training for HAZWOPER personnel is achieved through the completion of CBTs described in Section 9.3.2.

9.3.5 Instructors/Training Facilities

MPL employees who perform training duties complete a Train-the-Trainer course. These employees are knowledgeable in pipeline operations and often have extensive training in specialized areas. Non-MPL personnel who serve as instructors will provide a statement of their qualifications for courses they conduct. A summary of instructor qualifications is maintained in the MPL training database.

MPL has used outside training institutes that are well recognized in the area of oil spill and emergency response. MPL has relied on the national reputation of these schools to provide quality training to employees. Employees who complete training at these institutes submit a copy of the completion certificate that is then entered in the MPL training database indicating the training institute facility as the instructor.

9.3.6 Contractor Training

Under conditions of the contract, contractors working for MPL will ensure that their employees have appropriate training to perform the expected duties. The contractor is responsible for maintaining all training records of their employees. Compliance is affirmed during contract review procedures and periodic auditing of records by MPL. Audit documentation will be filed in the appropriate MPL Response Zone Drill and Exercise file.

9.4 EXERCISES

MPL Team members, various agencies, and contractors will participate in exercises as required by federal, state, and local regulations. MPL will be responsible for ensuring that the exercises outlined in this Plan are conducted and documented. The Manager, Health, Environment & Safety is responsible for designing and implementing MPL's exercise program.

MPL will use "tabletop" simulations, notification exercises, equipment deployment exercises and/or combinations to ensure that all OPA 90 Plan components are exercised. During each triennial cycle, all components of this Plan will be exercised at least once. MPL will identify those components that are applicable for a particular exercise.

Note: The words "exercise" and "drill" are used interchangeably throughout Section 9.0.

9.4.1 Exercise Schedule

MPL will conduct exercises to ensure that its response organization and structure are operating according to this Plan. Announced and unannounced exercises will be conducted according to the schedule described below in Section 9.4.2.

9.4.2 Quarterly QI Notification Drills

Each MPL response zone will conduct a quarterly exercise to test QI notification procedures. Personnel receiving this notification will respond to the individual initiating the drill. Verification of receipt of the notification will be documented. If equipment failure or problems resulted in notification being delayed or prevented, these problems will be identified and corrected before the next exercise. **One of these notification drills per year will be done during non-business hours.** Notification response will be logged on a notification exercise form similar to the Notification Drill Record Transcription provided in Appendix C.

The procedures for quarterly QI notification drills are provided below.

Purpose	Outline the basic objectives and requirements of the quarterly notification drills, and describe the procedures for performing, evaluating, and documenting the drill.
Objectives	Basic objectives of a notification drill are as follows: • Demonstrate that the Qualified Individual (QI), or Alternate Qualified Individual (AQI), can be contacted. • Demonstrate that someone responsible for and familiar with notifications can be contacted.
Procedures	1) Notification procedures must be drilled once per quarter in all response zones. The quarterly notification drills may be performed with any other type or magnitude of drill. 2) The Region Manager, or designee, will provide a different drill scenario for each quarterly notification drill. At least once annually the drill should be held during non-business hours to provide a broader test of the emergency notification procedures. The Region Manager, Area Manager or other designee will act as the Drill Leader. The drill scenario should identify the line section,

time and date, state, county, and nearest body of water. Weather conditions, liquid type released, or other details are optional for notification drills.

3) The Drill Leader will begin the drill by recording the initial information on the "Notification Drill Record Transcription" form (transcription form) presented in Appendix C. Note that the *Drill Leader / Call Back Phone Number* may be either a telephone number monitored by the Drill Leader for immediate documentation of the telephone calls, or a dedicated phone line and automated answering system used for call transcription at a later time.

   The first item on the transcription form is the *Scenario Title*. This drill name may be a combination of the response zone name and the year/quarter. For example: –Findlay 11/2 is the name identifying a drill in the Findlay Response Zone in the second quarter of Year 2011.

   Note: The "Notification Drill Record Transcription" form should be completed even when notification drills are included as part of a tabletop or deployment drill.

4) The Drill Leader will begin the notification process by contacting the "witness" and explaining the essentials of the drill scenario. The witness will most likely be a MPL operator responsible for the subject area of the drill scenario location, or a random employee. Contact can be made by any of the normal means of communication (phone, radio, in person).

5) The witness will make whatever notifications are deemed necessary, then call the designated call back phone number to relay the specifics of the notification(s) (time, person notified, concerns, comments). Note that scenario details need not be part of the notification call back documentation.

6) Person(s) notified by the witness will subsequently notify whomever they deem necessary, then report their actions to the call back phone number as well. The Drill Leader may or may not be involved in the notification process, depending on that individual's specific job responsibilities. The Drill Leader is responsible for documenting the information relayed by the drill participants if an automated recording system is not in use.

7) If notifications to emergency and/or regulatory agencies (see Note below) is an objective of the drill, the person normally responsible for said notification(s) during an actual spill incident should complete and fax the appropriate form (similar to that provided in Appendix C) to the Drill Leader. The form should indicate all appropriate agencies and telephone numbers (in actuality), noting the time of start and finish of the telephone number identification process.

Note: Only MPL Team members and contractors may be called during a notification drill. **EMERGENCY AND REGULATORY AGENCIES AND THE OPERATIONS CENTER MUST NOT BE CALLED DURING A NOTIFICATION DRILL.**

8) Notifications and reporting to the call back phone number continue until all participants have responded and/or the Drill Leader sees fit to close the proceedings.

Documentation

1) Once the transcription form is completed (either by the Drill Leader or clerically transcribed off the automated answering system) the Drill Leader solicits and documents comments and/or suggestions from the Area Manager on the form, and signs the form. The completed and signed transcription form is stand-alone documentation that the notification drill took place. No other documentation forms are required.
2) The Drill Leader then sends or faxes the transcription form to the QI (usually the Region Manager) for that individual's review, comment, and approval.
3) The QI then signs and files the transcription form in the MPL Response Zone Drill and Exercise file for the subject area (with a copy sent to the ERP Coordinator). The retention period for these documents is five (5) years.
4) The Area Manager is responsible for implementing any improvements for future notification drills required by the Region Manager in writing on the transcription form.

9.4.3 Equipment Deployment Exercises

MPL will conduct annual equipment deployment exercises of MPL-owned equipment for each response zone. During these exercises, the company's response equipment will be deployed to simulate local response to an oil discharge. Deployment will include strategies in this response Plan for protecting adjacent interests and areas. MPL will deploy a representative sample of response equipment annually. Records of the equipment deployed, personnel involved, and other information regarding the exercise will be documented on the Drill Deployment Form or similar form provided in Appendix C. Equipment deployment exercise records will be maintained for at least five (5) years.

At least once every three (3) years, the equipment deployment must be unannounced. At least once **each year, either the equipment deployment or the team table top must be unannounced.**

Annual equipment deployment drills are required for OSRO contractors. The MPL ES&R Manager will ensure that the OSROs named in this Plan meet these requirements.

The procedures for equipment deployment exercises are provided below.

MARATHON PIPE LINE
9.0 TRAINING AND EXERCISES

Purpose	To outline the basic objectives and requirements of the annual equipment deployment drills, and describe the procedures for performing, evaluating, and documenting these drills.
Objectives	Basic objectives of an equipment deployment drill are as follows: • Re-familiarize Team members with the company-owned equipment. • Familiarize Team members with the geographic, social, economic and environmental characteristics of the scenario location. • Practice equipment deployment planning and strategies. • Practice equipment deployment. • Test a representative sample of the company-owned equipment. • Perform a site assessment prior to deployment activities to identify hazards and communicate findings prior to conducting deployment activities at the chosen location to assure safety of personnel. NOTE: The above objectives are standard for each deployment drill, therefore they need not be listed with the more specific objectives on the "Drill Evaluation Documentation" form provided in Appendix C. Other objectives for equipment deployment drills should be identified by the Drill Leader and the acting Incident Commander. The objectives should be created to both test and teach the participants in particular areas of equipment deployment and emergency response. The objectives must be obtainable and easily evaluated, either by objective or subjective means.

Procedures

1) The Region Manager should designate a Drill Leader for the equipment deployment drill. This individual may be the Area Manager, an Area Operator, or anyone else familiar with the drill procedures. The Region Manager should specify the incident scenario, or delegate this responsibility to the Drill Leader. The scenario can be a worst case discharge scenario, or a scenario of lesser magnitude. It must entail some kind of water impact. The scenario details should include the line section, state, county, water body impacted, water course speed (not applicable for lakes), spilled liquid type, spilled volume, date and time, and any other details required to help accomplish the objectives of the drill. The drill leader should conduct a site assessment prior to deployment activities to identify any potential hazards at the chosen location. Note: The scenario should be provided to the Area Manager at least a week in advance for "announced drills" so that individual can collect the necessary information in advance. The scenario should be faxed or handed to the Area Manager just before the scheduled drill time for "unannounced drills" to test the subject zone's response preparedness.
2) The Area Manager will schedule the drill so that as many of the Team members can participate as possible. Weather may affect the scheduling of the drill for safety reasons, though inclement weather should not deter the Team from practicing under these conditions.
3) The response team membership should include those individuals who are necessary to accomplish the objectives of the drill. The drills should be planned and scheduled so that all potential first responders can participate in an equipment deployment drill at least once every three (3) years.
4) The drill should commence at a predetermined staging area, with a location available to meet and discuss the objectives of the drill and characteristics of the scenario. The Drill Leader should lead this discussion and present a discussion on any site hazards identified at the location during the site assessment. The focus should be on how to prevent any personnel injuries related to identified hazards.
5) The response Team should then proceed to the scenario location and perform the deployment. Response times may be kept and documented by the Drill Leader, if required by the scenario. Response activities should be documented by the Drill Leader. Simulated crude/product (such as cottonseed hulls) may be used in the drill. (Use of simulation material may require prior approval.)
6) The drill is complete when the objectives have been met, or the allotted drill time period is over.

Documentation

1) The Drill Leader should begin the drill documentation process by collecting the names and signatures of the drill participants (See "Report of Safety/Operational Training Meeting" [PLTRAIN] form in Appendix C of the Plan).
2) The Drill Leader should complete the "Triennial Credit Documentation" and "Drill Documentation Summary" forms presented in Appendix C of this Plan.
3) The Drill Leader should then complete the "Drill Deployment Form" presented in Appendix C of this Plan.
4) The Drill Leader must then complete the final "Drill Evaluation Documentation" form presented in Appendix C. The information in this form is critical to the success of the drill. It is imperative that the Drill Leader is discerning and practical in the evaluation of the performance of the response Team. Determining areas of required improvement is critical to the future preparedness of the response Team members. Specific action-oriented comments and suggestions are required for the improvement of the Team, response tools, and procedures. It is possible that the response met the objectives of the drill without failure, thus requiring no further improvement on the particular scenario or objectives. The Drill Leader should consult with the acting Incident Commander in completion of the evaluation form.
5) The Drill Leader must sign and date the "Drill Evaluation Documentation" form, and send all drill documentation to the acting QI (usually the Region Manager) for his review, comment and approval. The QI should note specific action items and delegate responsibility for accomplishing them by the specified action date. Ensuring action items are accomplished before the intended date is critical to the success of the drill, pipeline operations, and the entire company.
6) The QI should file the original drill documents in the MPL Response Zone Drill and Exercise file for the subject zone, and send a copy of them to the ERP Coordinator for review. The retention period of this documentation is five years.

9.4.4 Spill Response Team Tabletop Exercise

MPL will conduct a spill management team tabletop exercise annually for parts or all of the response Team listed in this Plan. **Over a three year cycle one exercise must involve a worst case discharge scenario and one exercise must involve an unannounced scenario.** Records of the Spill Response Team Tabletop Exercise, personnel involved, and other information regarding the exercise will be documented on the Drill Evaluation Documentation Form (or similar form) provided in Appendix C. Documentation records will be maintained for at least five years).

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9.0 TRAINING AND EXERCISES

MPL will conduct one annual unannounced drill of either the spill management team tabletop exercise or an equipment deployment exercise in each response zone.

The procedures for tabletop exercises are provided below.

Purpose	To outline the basic objectives and requirements of the annual tabletop drills, and describe the procedures for planning, performance, evaluation, and documentation.
Objectives	Basic objectives of a tabletop drill include the following: • Demonstrate the leadership and command qualities of the acting Incident Commander. • Demonstrate familiarity with this Plan. • Demonstrate familiarity with the Incident Command System (ICS). • Demonstrate an understanding of incident response strategic objectives. NOTE: The above-described objectives are standard for each tabletop drill; therefore, they need not be listed with the more specific objectives on the "Drill Evaluation Documentation" form (Appendix C). Other objectives for tabletop drills must be identified by the Drill Leader and the acting Incident Commander. Objectives should be created to both test and teach the participants in areas of response importance. Further objectives that concentrate on familiarizing the response Team with a particular geographic location within the response zone are also suggested. (For example: Identify support resources or critical and sensitive areas surrounding a particular river.) Objectives must be obtainable and easily evaluated, either by objective or subjective means. Each tabletop drill should address one or more of the *Response Plan Elements* as listed on the "Triennial Credit Documentation" form (Appendix C). Each of the *Response Plan Elements* must be drilled within the triennial cycle within all response zones. One of the annual tabletop drills in each response zone within the triennial cycle must be a worst case discharge scenario. The drill objectives should be listed on the first page the "Drill Evaluation Documentation" form (Appendix C) before the drill begins.

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Level I Procedures	1) The Region Manager should designate a Drill Leader for the Level I tabletop drill (refer to Figure 5.1, Local Emergency Response Team Level I Response – Minor Spills). This individual may be the Area Manager, an Area Operator, or anyone else familiar with the drill procedures. The Region Manager should specify the incident scenario, or delegate this responsibility to the Drill Leader (typically, an event that is approximately 50 bbls and has little or no public impact). Scenario details should include the line section, state, county, water body impacted, water course speed, spilled liquid type, spilled volume, weather conditions, date and time, and any other details required to help accomplish the objectives of the drill. 2) Minimum activities of a Level I tabletop drill include the selection of a credible scenario, Plan review, and identification of labor and resources. 3) The scenario should be given to the Area Manager at least a week before the drill for "announced drills" so that individual can collect the necessary information in advance. The scenario should be faxed or handed to the Area Manager just before the scheduled drill time for "unannounced drills" to test the subject zone's response preparedness. 4) The Area Manager will schedule the drill so that as many of the response team members can participate as possible. Response team members can participate in person or via teleconference. An appropriate work area should be provided for the team members to spread information and converse with minimal interruptions. The drill should take between two (2) and three (3) hours to complete. 3) The drill begins with the Drill Leader giving details of the scenario to the team. 4) The team members then complete or discuss the actions that would be taken to mitigate the scenario.
Level II Procedures	The Level II exercise will require a higher level of involvement that includes the Region Manager acting as the Incident Commander (typically, a scenario that occurs off company property that impacts the public). The drill objectives should cover elements required by the particular response zone to accomplish most of their triennial cycle credits and will aggregately test the entire response Plan for each response zone. 1) The Emergency Response Plan coordinator will schedule the drill so that as many of the response Team members can participate as possible. The drill should take between three (3) and six (6) hours to complete. 2) The response Team membership should be comprised of those individuals who are required to accomplish the objectives of

	the drill. A representative sample of those who may be involved is as follows. • Region Manager • Area Manager(s) • Area Operations Supervisors • ES&R Representative(s) • Operations Superintendent • Human Resources Representatives • Land Agent(s) • Area Operator(s) • Operations Specialist • P&CS • Corrosion Technicians • Accountants 3) The Incident Commander will assign particular ICS responsibilities to the appropriate attendees. 4) The Incident Commander, with input from the response team should establish a command and control environment, and at a minimum establish strategic objectives and a Command Post information center (Refer to the Response Objectives document in Appendix E). 5) The drill begins with the Drill Leader giving details of the scenario to the team. 6) The team members then complete or discuss the actions that would be taken to mitigate the scenario.
Level III Procedures	The Level III exercise requires an even higher level of involvement and should include members of the Level III MPL Emergency Response Team and a scenario developed by the corporate emergency preparedness group. In addition to those objectives of Level I and Level II drills, the Level III events should include the completion of an *Incident Action Plan* (provided in Appendix E) and the development of the long-range plan. The time allotted for this magnitude of drill should extend to eight (8) hours. NOTE: The Drill Leader is responsible for directing the interaction of the team members and keeping the drill progressing toward completion within the allotted time frame. The Drill Leader is also responsible for ensuring that the proper documentation is kept, and that the drill focuses on the scenario and the objectives.

Documentation

1) The Drill Leader (normally the ERP coordinator) should begin the drill documentation process by collecting the names and signatures (if the individual is present in person) of the drill participants (See "Report of Safety/Operational Training Meeting" (PLTRAIN) form in Appendix C).
2) The Drill Leader should then complete the "Triennial Credit Documentation" and "Drill Documentation Summary" forms (Appendix C).
3) The final form the Drill Leader must complete is the "Drill Evaluation Documentation" form (Appendix C). The information in this form is critical to the success of the drill. It is imperative that the Drill Leader is discerning and practical in the evaluation of the performance of the response Team. Determining areas of required improvement are critical to the future preparedness of the response Team members. Specific action-oriented comments and suggestions are required for the improvement of the Team, response tools, and procedures. It is possible that the Team's response met the objective of the drill without failure, thus requiring no further improvement on the particular scenario or objectives.
4) The Drill Leader must sign and date the "Drill Evaluation Documentation" form, and send all drill documentation to the acting Qualified Individual (usually the Region Manager) for their review, comment, and approval. The acting Qualified Individual should note the specific action items and delegate the responsibility for accomplishing them by the specified action date. Ensuring that action items are accomplished before the intended date is critical to the success of the drill, pipeline operations, and the entire company.
5) The acting Qualified Individual should send a copy of the drill documentation to the ERP Coordinator for review, and file the original in the MPL Response Zone Drill and Exercise file for the subject zone. The retention period of the original documentation is five (5) years

9.4.5 Agency Exercises

MPL will participate in agency sponsored/mandated drills, as required. These drills may be announced or unannounced. The regulatory agencies will also be invited to participate in the MPL equipment deployment drills and/or spill management team tabletop exercises as appropriate.

9.4.6 Texas General Land Office Drill Requirements

In order for facilities that could affect coastal waters in a release situation to comply with the Texas General Land Office requirements, the following tasks must be accomplished on an annual basis, when conducting emergency response drills:

- Notification must be made to the National Response Center (800-424-8802) AND the Texas General Land Office (800-998-4456) when the drill is conducted (a drill/incident number will be assigned upon notification – this number must be documented with the drill information);
- Notification of an Oil Spill Response Organization must be made at the time of the drill and verification must be made that they would be able to respond the day of the drill;
- Deployment of a representative portion of oil spill response equipment must take place at the facility (appropriate to a likely discharge amount for the facility); and
- Documentation of when the drill was conducted and what facility personnel were present must be completed (refer to Appendix C for drill documentation forms)

9.4.7 Exercise Self-Certification

All internal exercises will be self-certified by MPL on the forms provided in Appendix C (or on similar forms). MPL will take credit for actual spill resources used for exercising notifications, equipment, and the spill management team. In the event of a response to an actual or suspected release, or emergency, all activities related to response actions (notifications, deployment, etc.) should be documented and critiqued to receive credit toward drill requirements.

Critiques will be scheduled by the Emergency Response Plan (ERP) Coordinator to get participation from the key personnel involved in the incident. The critique should include at least the Incident Commander, Executive Management, Operations Section Chief, Planning Section Chief, and Environmental and Safety Officer.

The *Critical Self Analysis of Oil Spill Response* document (located in Appendix C) should be used to document the critique.

Lessons learned from the incident should be communicated to the affected personnel by direct e-mail and all personnel by posting on the MPL ES&R website.

MARATHON PIPE LINE
9.0 TRAINING AND EXERCISES

Figure 9.1: PREP Suggested Training Elements

Training Element	Qualified Individual (QI)	Response Team Members
Agency regions in which the facility is located.	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
Communication system used for the notifications.	X	X
Information on the products, stored, used, or transferred, by the facility. This includes familiarity with the material safety data sheets, special handling procedures, health and safety hazards, and spill and fire fighting procedures.	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 which may be available to mitigate or prevent an oil discharge.	X	X
Operational capabilities of the contracted OSROs to respond to the following. • Small discharge. • Medium discharge. • Worst case discharge	X	X
Responsibilities and authority of the Qualified Individual.	X	X
The organizational 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; and • finance.	X	X
The responsibilities and duties of each team member within the organizational structure.	X	
The drill and exercise program to meet federal and state regulations as required under OPA.	X	X
The role of the Qualified Individual in the post discharge review of the plan to evaluate and validate its effectiveness.	X	
The applicable Area Contingency Plans.	X	X
The National Contingency Plan (NCP).	X	X
Procedures for contacting pipeline operator on a 24-hour basis.	X	X
Plan's contents.	X	X
Procedures for reporting spill to regulatory agencies including NRC.	X	X

Figure 9.1: PREP Suggested Training Elements, continued

Training Element	Qualified Individual (QI)	Response Team Members
Roles and responsibilities of federal and state agencies in pollution response.	X	X
Available response resources.	X	
Contracting and ordering procedures to acquire oil spill removal organization resources identified in the response plan.	X	
OSHA requirements for worker health and safety (29 CFR 1910.120).	X	X
Incident Command System/Unified Command System.	X	
Public affairs.	X	
Crisis management.	X	
Oil spill trajectory analyses.	X	
Sensitive biological areas.	X	
Specific procedures to shut down affected operations.		X
Procedures to follow in the event of discharge, potential discharge, or emergency involving the following equipment or scenarios. • Tank overfill. • Tank rupture. • Piping or pipeline rupture. • Piping or pipeline leak, both under pressure and not under pressure, if applicable. • Explosion or fire. • Equipment failure. • Failure of secondary containment system.		X
Name of the Qualified Individual and how to contact same.		X
Conditions likely to worsen situation and corrective actions.	X	X
Proper PPE.	X	X

Figure 9.2: Marathon Pipe Line LLC – First Responder Awareness Level

WHO THEY ARE:

The first responder awareness level are people who are likely to witness or discover a spill or leak

ACTION:

Recognize the problem
Identify Hazardous Materials (if possible)
Notify more qualified responders

TRAINING REQUIREMENTS:

Sufficient training or experience to objectively demonstrate competency in items below.

COMPETENT IN:

Understanding what Hazardous Materials are and the risk associated with them.
Understanding potential outcome of a Hazardous Materials emergency.
Recognize the presence of Hazardous Materials in an emergency.
Identify the hazardous material (if possible).
Understanding the First Responder's role in response plan (including site security and control and U.S. DOT Emergency Response Guide).
Realize the need for additional resources.
Make the appropriate notifications to the Communications Center 24 hour number.

LIMITATIONS:

No action allowed beyond notification.

SUGGESTED TRAINING REQUIREMENTS:

Introduction to HAZWOPER
Hazard Communications
Sources of Information Module
Notifications Module
Responding to an Emergency Module

Figure 9.3: Marathon Pipe Line LLC – First Responder Operational Level

WHO THEY ARE:

Persons who respond to spills or leaks (actual or potential) for the purpose of protecting persons, property, or the environment.

ACTION:

Contain spill (diking)
Minimize harm (evacuations, water fogs, protection in place)

TRAINING REQUIREMENTS:

At least 8 hours of training or sufficient experience to objectively demonstrate competency in the following (in addition to those listed in the Awareness Level).

COMPETENT IN:

Basic Hazard and Risk Assessment
How to select and use PPE
Understanding Basic Hazardous Material Terms
Perform basic control, containment and/or confinement
Basic decontamination procedures
Relevant Standard Operating Procedures
Termination Procedures

LIMITATIONS:

Not allowed to actually try and stop release.

SUGGESTED TRAINING REQUIREMENTS:

Introduction to HAZWOPER
Hazard Communications
Sources of Information Module
Personal Protective Equipment Module
Notification Procedures Module
Responding to an Emergency Module
Controlling Spills and Clean-up Module
Decontamination Procedures Module

Figure 9.4: Marathon Pipe Line LLC – Hazardous Material Technician

WHO THEY ARE:

Persons who respond to spills or leaks for the purpose of stopping the release. They approach the point of release to patch, plug, or otherwise stop the release of a hazardous substance.

ACTION:

Control the spill
Stop the release (plugging and patching)

TRAINING REQUIREMENTS:

At least 24 hours of training equal to the First Responder Operations Level PLUS competency in the items below.

COMPETENT IN:

Implementing employer's emergency response plan.
Use instruments to classify, identify, and verify.
Hazardous Materials.
Function in assigned role under Incident Command System.
Understand hazard and risk assessment.
Perform advanced control, containment, and confinement.
Understand and implement decontamination procedures.
Understand termination procedures.
Understand basic chemical and toxicological terminology.

LIMITATIONS:

Not used for post emergency cleanup if not part of initial response.

SUGGESTED TRAINING REQUIREMENTS:

Introduction to HAZWOPER
Hazard Communications
Sources of Information Module
Notifications Module
Site Risk Assessment Module
Monitoring Equipment and Methods Module
Personal Protective Equipment Module
Respiratory Protection Module
Controlling Spills & Clean-up Module
Decontamination Procedures Module
Incident Command System Module

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Figure 9.5: Marathon Pipe Line LLC – On Scene – Incident Commander

WHO THEY ARE:

Persons who assume control of the incident beyond the First Responder Awareness Level.

ACTION:

Directs operations at the scene.

TRAINING REQUIREMENTS:

At least 24 hours of training equal to the First Responder Operational Level PLUS have competency in the following areas.

COMPETENT IN:

Know and be able to implement employer's Incident Command System.
Know how to implement the employer's emergency response plan.
Understand hazards and risk with employees working in chemical protective clothing.
Know how to implement local emergency response plan.
Know the state emergency response plan and the Federal Regional Response Team.
Know and understand the importance of decontamination procedures.

LIMITATIONS:

Would not typically perform duties; would supervise only.

SUGGESTED TRAINING REQUIREMENTS:

Introduction to HAZWOPER
Hazard Communications
Sources of Information Module
Notification Procedure Module
Responding to an Emergency Module
Site Risk Assessment Module
Personal Protective Equipment Module
Controlling Spills and Clean-up Module
Decontamination Procedures Module
Incident Command System Module
Federal/State/Local Emergency Plans

10.0

PHMSA 000116713

MPL has developed and implemented various leak prevention and detection methodologies and standards utilized on MPL's PHMSA-regulated pipeline systems. In addition, MPL pipelines are constructed and maintained in accordance with federal, state, and local requirements and MPL corporate standards to ensure the integrity of the pipeline and prevent leaks or spills from occurring. Adherence to the these standards and methodologies minimizes the potential for a pipeline leak to occur due to a pipeline failure or malfunction and minimizes the threat of a worst case discharge to occur (the worst case discharge is defined in Appendix A for each MPL Response Zone).

The corporate standards that are implemented for all MPL PHMSA-regulated pipelines (as applicable) include, but are not limited to, the following:

- MPLMNT001 – Pipeline Repairs
- MPLMNT003 – Inspecting and Evaluating Line Pipe Metal Loss
- MPL-MNT-00485-KNO – Aerial Right-of-Way Inspection
- MPLMNT032 – Valve Maintenance and Repair
- MPL-MNT-00504-PRS – Responding to Anomalies
- MPLDOT003 – Integrity Management Program
- MPLDOT004 – HCA Identification Process
- MPLDOT005 – Baseline Assessment Schedule Process
- MPLDOT006 – Integrity Management Risk Management Process
- MPLDOT007 – Reassessment Schedule Process
- MPLDOT008 – Integrity Management Program Process Performance Evaluation
- MPL-DOT-00477-PRS – Leak Detection Adequacy Risk Assessment Process

Copies of these standards are found in Appendix J.

10.1 PIPELINE CONSTRUCTION AND OPERATION

All MPL PHMSA-regulated pipelines are constructed to meet or exceed federal liquid pipeline requirements (49 CFR 195), as well as applicable state and local statutes, codes, and regulations. In addition, all MPL PHMSA-regulated pipelines are constructed, installed, and operated in accordance with corporate MPL standards, applicable API standards, and American Society of Mechanical Engineers (ASME) standards as specified in Section 6.2 of the MPL Pipeline Repairs Standard (MPLMNT001). Adherence to these regulations, codes, and standards minimizes the potential for a pipeline leak to occur due to a pipeline failure or malfunction and minimizes the threat of a worst case discharge to occur (the worst case discharge is defined in Appendix A for each MPL Response Zone).

The preventive maintenance and repair strategy, practices and procedures and maintenance record keeping requirements for all mainline, non-mainline, and specified auxiliary valves on pipeline systems operated by MPL are described in the Valve Maintenance and Repair Standard (MPLMNT032). Section 8.2 of MPLMNT032 requires the implementation of an annual preventive maintenance program and includes the valve maintenance requirements and schedule by type of maintenance activity.

10.2 ASSESSMENT OF PIPELINES

10.2.1 Supervisory Control and Data Acquisition (SCADA) System

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

[redacted]

10.2.2 Aerial Right-of-Way Inspections

Each pipeline right-of-way (ROW) is typically inspected aerially in accordance with DOT regulations in 49 CFR 195.412. Further information regarding the Aerial ROW Inspection Patrol Process, applicable procedures and support documents, roles and responsibilities of the parties involved in the aerial ROW inspection process can be found in the Aerial Right-of-Way Inspection Standard (MPLMNT016). From an aerial view, the ROW inspector is not only able to observe emergency conditions, but advise of potential natural force threats such as erosion problems, leak detection, operational concerns, and of third party activities near the pipeline system that may pose a threat to the security of the pipeline system. Other methods of inspection may include walking, driving, or other appropriate means of traversing the ROW.

In accordance with the DOT regulations, Pipeline ROWs are inspected at least 26 times each calendar year, at intervals not exceeding three weeks by viewing the surface conditions on or adjacent to each pipeline ROW, as described in Table 5.1 in Standard MPLMNT016. During the performance of a ROW inspection, if there is an observation of a condition or activity on or near

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the ROW which may pose danger to the pipeline, potentially jeopardizing integrity or safety of the pipeline (designated as a "conflict"), the conflict responses described in Section 8.4 of Standard MPLMNT016 are to be implemented, including the completing of a Land & Pipe Management Report, creation of an Aerial Patrol Conflict Once Call Mobile ticket, and implementation of specified response actions.

10.2.3 Daily Observations by Company Personnel

During the course of normal daily activities, company personnel observe the pipeline system facilities within their work areas. Through company mobile radio systems and cell phones, emergencies that are observed can be immediately reported.

10.2.4 Observations by Others

The pipeline systems are marked with line markers in accordance with DOT PHMSA regulations. The line markers clearly identify Marathon Pipe Line LLC as the operator the pipeline system and provide a telephone number that can be called at all times to report an emergency.

10.2.5 High Consequence Areas (HCAs)

MPL implements integrity management procedures for all PHMSA-regulated pipelines that could potentially affect an HCA. These procedures are provided in the Integrity Management Program Process (IMPP) Standard (MPLDOT003). MPLDOT003 meets federal requirements (49 CFR 195.452) pertaining to assessment and repair of PHMSA-regulated pipelines as well as more stringent applicable state requirements related to pipeline integrity management. The IMPP consists of nine phases that address the elements required in 49 CFR 195.452(f). The phases of the IMPP are integrated, but independently performed and each phase has an independent standard that prescribes the applicable policies and procedures for that phase. Standards to support these phases include MPLDOT004, MPLDOT006, MPLDOT007, MPLDOT008, and MPLDOT011.

In addition, the MPL Baseline Assessment Schedule Process Standard (MPLDOT005) for pipeline integrity management referenced in Section 8.3.3 of the IMPP Standard contains procedures for conducting Baseline Assessments of PHMSA-regulated pipeline systems that could potentially affect HCAs. This standard includes procedures for pipe data collection, integrity threat analyses, assessment methodology selection, risk factor identification and analysis, and the baseline assessment schedule and documentation for compliance with 49 CFR 195.452.

10.3 REPAIRS OF PIPELINES

MPL procedures for assessments, repairs, and remedial actions related to PHMSA-regulated pipeline systems are contained in several corporate standards as listed in this section.

The standard for Inspection and Evaluating Line Pipe Metal Loss (MPLMNT003) provides a standardized process for investigation and evaluation of potential anomalies discovered following an In-Line Inspection in accordance with the DOT Integrity Management Program

(IMP) (49 CFR 195.452(h)). Anomalies fall into four categories: corrosion, construction/third-party damage, cracks, and mill-related anomalies.

The Pipeline Repairs Standard (MPLMNT001) describes approved pipeline repair methods and assists in the identification of effective repair strategies. This standard also provides a detailed description of the types and causes of anomalies as well as mechanical integrity concerns associated with these anomalies. In order to comply with federal, state, and local regulations, guidance regarding the replacement of a pipeline segment is provided. The intention of this guidance is to minimize the risk to persons, property, and the environment. This Standard is implemented for all MPL PHMSA-regulated pipelines to ensure consistent design, installation, and inspection of the parts used in repairs.

Additionally, Sections 8.3 and 8.4 of Standard MPLMNT03 describe the general practices and procedures used to maintain and repair valves associated with MPL pipelines.

10.4 PROCEDURES FOR DEALING WITH ABNORMAL OPERATIONS

Reported discovery of a potentially injurious pipeline anomaly will most likely originate from an integrity-based program in-line inspection assessment survey. The Responding to Anomalies Standard (MPLMNT110) describes the required reporting procedures and operational responses to discovery of an injurious pipeline anomaly. This Standard identifies procedures for anomaly discovery, response, operational risk analysis, remediation, and pressure reinstatement. It also describes roles and responsibilities, as well as documentation requirements.

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11.0

Section 11

TEAM MEMBERS' JOB DESCRIPTIONS

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DEPUTY INCIDENT COMMANDER

Scope of Responsibility

Deputy Incident Commander is responsible for assisting the Incident Commander in the development and implementation of strategic objectives and response priorities. The Deputy Incident Commander is also responsible for supervising the implementation of *Incident Action Plans*, coordinating the activities of the Section Chiefs, conducting planning meetings, and conducting field investigations.

Start Up

Upon arrival, check-in at the designated check-in location.

Obtain initial briefing.

Organize, assign, and brief subordinates.

Evaluate situation to assess amount of oil to be removed and methods to be employed.

Daily

Obtain briefings from the Deputy Incident Commander on prior shift.

Assign specific direction to staff.

Conduct planning meetings.

Attend briefing meetings conducted by Planning Section Chief.

Provide Logistics Section Chief with information on labor, equipment, material, and supply needs for Command Staff operations.

Coordinate the preparation of the Initial Incident Briefing Form.

Assist the Incident Commander in the development of strategic objectives and response priorities.

Coordinate the activities of the Section Chiefs to effect the safe, efficient, and effective implementation of *Incident Action Plans* in a manner consistent with company policy and appropriate government directives.

Conduct periodic field investigations.

Document all actions.

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DEPUTY INCIDENT COMMANDER (Continued)

Periodic

Assume control of the response in the Incident Commander's absence.

Demobilization

Provide Planning Section Chief with a copy of log and any notes or observations made during the operation.

Agree with relevant government/local authorities that acceptable demobilization conditions exist at each clean-up site.

Monitor developments in shore clean-up techniques and equipment.

Monitor developments in containment and recovery techniques and equipment.

Maintain up-to-date register of specialists in oil containment and recovery.

Provide Logistics Section Chief with a list of supplies to be replenished.

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ENVIRONMENTAL UNIT LEADER

Scope of Responsibility

Responsible for managing all environmental matters associated with emergency response operations and for providing advice on the potential environmental impacts of response operations. The Environmental Unit Leader collects information on environmentally sensitive areas and assists in the prioritization of the areas for protection and/or cleanup measures. He/She is also responsible for continuously assessing damage or potential damage to the environment.

Start Up

Upon arrival at the incident; Check-in, at designated check-in location.

Acquire work materials.

Obtain initial briefing.

Evaluate situation at spill site; assess damage and potential damage to environment.

Advise Operations and Planning Section Chiefs of bird sanctuaries and other biologically sensitive areas.

Apply for any labor or specialist resources needed to conduct monitoring/investigatory work.

Provide input to Planning Section Chief for development of environmental protection plan.

Arrange with the Liaison Officer to meet with the regulatory agencies to learn their concerns about biota impacts.

Determine which permits and approvals are required for response operations and prepare and submit applications. Seek waivers as appropriate.

Make arrangements for the recovery and rehabilitation of oiled wildlife.

Prepare environmental guidelines for the Planning Section Chief, Operations Section Chief, and contractors.

If appropriate, initiate baseline NRDA studies.

Determine resource needs.

ENVIRONMENTAL UNIT LEADER (Continued)

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Daily

Obtain briefings from the Environmental Unit Leader on prior shift.
Attend planning and briefing meetings conducted by Planning Section Chief.

Provide Planning Section Chief with information on labor, equipment, material, and supply needs for Environmental Unit operations.

Prepare Environmental Operations Plans for inclusion in *Incident Action Plans*.

Collect and maintain baseline environmental data from potentially affected areas.

Provide Operations Section Chief with information on the potential environmental impacts of emergency response operations.

Supervise the compilation of environmental information to support permit applications and/or efforts to obtain required government agency approvals.

Become familiar with existing environmental regulations and restrictions within an incident area.

Coordinate with Liaison Officer to obtain necessary government agency approvals for environmentally-related permits and/or approvals.

Obtain all necessary waste management permits and approvals.

Work with agencies to identify environmentally sensitive areas and wildlife habitats.

Coordinate wildlife rescue and rehabilitation operations with federal and state resource agencies.

Identify experts to conduct wildlife capture, transport, cleaning, rehabilitation, and release operations.

If necessary, arrange for the construction/commissioning of wildlife cleaning and rehabilitation operations.

Provide information to the Planning Section Chief on the status of impacts to wildlife for inclusion in Situation Status Reports.

Work with Operations Section Chief to prioritize sensitive habitat areas for protection and/or cleanup operations.

ENVIRONMENTAL UNIT LEADER (Continued)

Provide Operations Section Chief advice on cleanup techniques that will minimize secondary impacts to affected wildlife and/or sensitive habitat areas.

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Arrange for environmental specialists to collect data and assess impacts to:

(1) Water quality.

(2) Air quality.

(3) Commercial and sport fisheries.

(4) Manmade structures.

(5) Human health.

Identify experts to perform Natural Resource Damage Assessments (NRDA) operations.

Coordinate Natural Resource Damage Assessment (NRDA) operations with Legal Officer.

Document all actions.

Periodic

Collaborate with Liaison Officer in keeping authorities and institutions informed on status of clean-up operations.

Hire consultants to research response and problems for similar emergencies.

Provide input which will help the Planning Section Chief establish priorities for environmental protection.

Arrange for on-site participation and guidance of qualified specialists as needed.

Maintain awareness of significant developments concerning the environmental impact of oil pollution.

If appropriate, arrange for noise devices to assist in repelling birds and other wildlife from areas contaminated by oil.

Ensure environmental contractors in the field follow accountability, safety, and security procedures.

ENVIRONMENTAL UNIT LEADER (Continued)

Demobilization

Respond to demobilization orders.

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If appropriate, ensure the continuation of NRDA studies.

Demobilize equipment/labor/specialist/local services.

Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

Provide Logistics Section Chief with a list of supplies to be replenished.

Points to Consider

1. The potential for environmental impact constantly changes as winds move the oil.

2. Oil can be rapidly buried along sandy beaches.

3. Do not release rehabilitated wildlife to area that will be impacted by oil slicks.

4. Animals will ingest oil when they preen themselves. This will contribute to high mortality rates.

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FINANCE SECTION CHIEF

Scope of Responsibility

Responsible for managing and supervising all financial and administrative aspects of emergency response operations, including cost analysis for procurement of resources, development of a project budget, accounting, clerical support, contracts, and data processing. The Finance Section Chief is expected to protect MPL LLC's interests in financial dealings and to provide sound business management practices with accurate and complete obligation documents for the duration of the incident. He/She provides input on financial and cost analysis matters in all planning sessions. The Finance Section Chief ensures the conduct of all required accounting, insurance, compensation, and claims functions and activities of his/her section, including adequate documentation and record keeping.

Start Up

Upon arrival at the incident; Check-in at designated check-in location.

Obtain initial briefing.

Secure work materials.

Confirm dispatch and estimated time of arrival of staff and supplies.

Implement organization of Finance Section.

Establish field auditing.

Assign specific duties to staff; supervise staff.

Establish a petty cash fund.

Ensure the establishment of a general ledger for tracking expenses.

Establish bank/cash arrangements.

Determine resource needs.

Daily

Obtain briefings from the Finance Section Chief on prior shift.

Attend daily planning and briefing meetings and provide information on all financial matters related to *Incident Action Plan.*

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FINANCE SECTION CHIEF (Continued)

Provide Incident Commander with information on personnel, equipment, material, and supply needs for Finance Section operations.

Provide Deputy Incident Commander with information on the financial implications of actions taken/to be taken during emergency response operations.

Discuss and advise management on issues regarding insurance coverage and exclusions, claims management processing, and settlement approach.

Review all relevant insurance programs and ensure notification of insurers and appointment of loss adjusters.

Make duty assignments and supervise operations of Finance Section.

Prepare and post Finance Section organization chart.

Facilitate the preparation and distribution of guidelines, procedures, forms, and the establishment of a data management system necessary to account for expenditures made during emergency response operations.

Develop and administer cash accounts.

Ensure that purchase and work orders are prepared and that all purchase and work orders are processed in a timely and appropriate fashion.

Verify that obligation documents initiated during emergency response operations are properly prepared.

Work with Auditors to ensure the proper auditing of expenditures.

Ensure that appropriate cost and accounting control systems are established.

Provide accounting functions as directed, including auditing, billing, and documenting labor, material, and services used.

Administer vendor contracts, and service and equipment rental agreements.

Organize and direct equipment and personnel time recording function.

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FINANCE SECTION CHIEF (Continued)

Administer financial matters arising from serious injury or death to an employee or contractor involved in emergency response operations.

Oversee the investigation and processing of claims.

Document all actions.

Periodic

Collect purchase orders, work orders, and contracts.

Ensure enough personnel are available to handle all of the Finance Section's responsibilities.

Approve invoices for payment.

Maintain appropriate personnel records.

Provide MPL LLC's Management and Senior Manager with regular financial reports.

Provide the Incident Commander with information on the financial implications of actions taken or contemplated.

Provide the Incident Commander with periodic reports on the amount of expenditures.

Demobilization

Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

Receive *Demobilization Plan* from Planning Section.

Supervise demobilization of the section, including storage of supplies.

Recommend release of unit resources in conformity with *Demobilization Plan.*

Ensure continuing actions are taken on claims after demobilization.

Ensure a cost summary is made.

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FINANCE SECTION CHIEF (Continued)

Secure supplies needing to be replenished.

Provide Logistics Section Chief with a list of supplies to be replenished.

Point to Consider

Implement financial controls. Examples include the following:

No long term contracts.

Document all transactions and agreements.

Limit expenditure authority of personnel

Track all purchase orders, invoices, contracts, and labor agreements.

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INCIDENT COMMANDER

Scope of Responsibility

The Incident Commander is responsible for all phases of the spill response, including the development of strategic objectives that provide for the safe and efficient conduct of emergency response operations.

Start Up

Upon arrival, check-in at the designated check-in location.

Obtain initial briefing.

Assess the situation and determine: [1] the nature of the incident. [2] The threat posed by the incident to company personnel and the surrounding population. [3] The appropriate level of Emergency Response personnel.

Confirm dispatch and estimated time of arrival of staff and supplies.

Organize, assign, and brief subordinates.

Schedule and conduct team meetings and solicit response recommendations.

Establish strategic objectives and response priorities with the Planning Section.

Ensure that adequate records are kept and that a chronology is maintained.

Determine resource needs.

Daily

Obtain briefings from the Incident Commander on prior shift.

Assign specific duties to staff; supervise staff.

Ensure that personnel safety is accorded the highest priority throughout the response.

Develop strategic objectives and priorities to guide response activities.

Provide Planning Section Chief with strategic objectives and priorities for inclusion in the *Incident Action Plans.*

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INCIDENT COMMANDER (Continued)

Serve as the primary contact person for the Senior Manager. Keep same informed of developments.

Supervise overall emergency response operations and ensure that they are carried out in a manner that is consistent with company policy, appropriate government directives, and the needs and concerns of the impacted areas.

Review and approve resource allocation charges requested by the Section Chiefs.

Monitor and evaluate the performance of the Emergency Response Team and emergency operations. Make adjustments as necessary.

Approve requests for outside resources.

Prepare reports for senior company officials.

Attend unified command meetings with the federal and state On-Scene Coordinators.

Approve and authorize the implementation of the *Incident Action Plan.*

Determine resource needs for the Command Staff.

Document all actions.

Periodic

Visit site to assess operations and build morale.

Evaluate the Emergency Response Team's performance.

Demobilization

Review *Demobilization Plan* and obtain Senior Manager's approval.

Provide Planning Section Chief with a copy of log and any notes or observations made during the operation.

Supervise demobilization of Command Staff, including storage of supplies.

Provide Logistics Section Chief with a list of supplies to be replenished.

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INCIDENT COMMANDER (Continued)

Points to Consider

1. Before the Team initiates spill response efforts, meet to ensure that everyone understands such things as:
   - Method by which team members will pass information among themselves.
   - Ecological or socioeconomic areas to be protected first.
   - Who is handling each position?
   - Present status of response efforts.
2. Plan for the worst case situation when emergencies occur.
3. Indicate recognition and appreciation for accomplishments by response team members.
4. Always know how to contact each team member.
5. Periodically reevaluate the team's composition.

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LEGAL OFFICER

Scope of Responsibility

The Legal Office will provide legal advice on all aspects of emergency response operations. He/She is responsible for all legal matters and, therefore, is expected to the thoroughly familiar with all of the legal ramifications of emergency response operations. This includes the liabilities involved and the legal precedents that have been set in previous incidents. He/She also advises the Finance Section Chief and staff with respect to the legitimacy of claims, contracts, etc.

Start Up

Upon arrival at the incident; check-in at designated check-in location.

Obtain initial briefing.

Acquire work materials.

Evaluate the legal aspects of proposed clean-up procedures. Advise appropriate team members of any legal action potential.

Work with the Public Affairs Officer, Senior Manager, FOSC, and SOSC on the preparation of the initial press release.

Determine resource needs.

Daily

Obtain briefings from the Legal Officer on prior shift.

Attend planning and briefing meetings.

Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Legal operations.

Brief Legal staff on the contents of *Incident Action Plans*.

(1) Verify that staff have most recent plan.

(2) Make/Verify assignment.

(3) Establish/review reporting requirements.

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LEGAL OFFICER (Continued)

Review policies, practices, and procedures related to emergency response operations to identify and address legal issues that may arise from or are associated with the operations.

If requested to do so by Logistics Section Chief, review contracts before their execution.

If requested to do so by Incident Commander, review press releases and/or statements prior to their issuance.

Provide Operations Section Chief and Planning Section Chief and their staffs with legal advice on the conduct of emergency response operations, particularly if they are dependent upon government agency approvals and/or permits.

Ensure that information is gathered and preserved which may be relevant to the defense and/or settlement of future claims.

Ensure that emergency response personnel restrict communications related to liability or fault that may otherwise hinder future legal proceedings.

Supervise the activities of outside legal counsel, if utilized.

Document all actions.

Periodic

Advise team members on the type of documentation that must be completed to support the company in potential litigation.

Advise Incident Commander and Operations Section Chief on all legal matters related to emergency response operations.

Provide Finance Section Chief with legal advice on external damage assessment operations and the handling of claims.

Demobilization

Respond to demobilization orders.

Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

Provide Logistics Section Chief with a list of supplies to be replenished.

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LEGAL OFFICER (Continued)

Points to Consider

1. Comments made by response personnel regarding the cause and/or fault of the incident could affect future litigation.

2. The Legal Officer should work closely with any marine surveyors and claims adjustors.

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LIAISON OFFICER

Scope of Responsibility

The Liaison Officer is responsible for communicating with local, state, and federal government agencies. If these regulatory agencies assign representatives to the incident, the Liaison Officer works with them to relieve the Incident Commander of as much routine government liaison work as possible.

Start Up

Upon arrival at the incident; check-in at designated check-in location.

Obtain initial briefing.

Acquire work materials.

Ensure that all appropriate regulatory bodies and governments have been notified of spill.

Determine resource needs.

After consulting with Incident Commander, seek approval from proper government agents for proper clean-up actions.

Daily

Obtain briefings from Liaison Officer on prior shift.

Attend planning and briefing meetings.

Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Liaison operations.

Provide Planning Section Chief with information on the timing and location of scheduled meetings with government agencies for inclusion in *Incident Action Plans*.

Brief Liaison staff on contents of *Incident Action Plans*.

(1) Verify that staff have most recent plan.

(2) Make/verify assignments.

(3) Establish/review reporting requirement.

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LIAISON OFFICER (Continued)

Establish contact with federal, state, and local government officials in threatened and/or affected areas and provide them with information on the incident and the status of emergency response operations.

Advise Public Affairs Officer on the type of information that should be generated to keep federal, state, and local government officials informed of the status of emergency response operations.

Provide Public Affairs Officer with information on all government agency contacts.

Conduct observation tours for government agency representatives as long as the tours do not jeopardize personnel safety, tie up critical resources, or interfere with emergency response operations.

Arrange regular briefings for federal, state, and local government officials.

At the direction of Incident Commander, represent MPL LLC at meetings with federal, state, and local government officials.

Convey information, requests, and legally constituted directives to Incident Commander and Section Chiefs.

Prepare answers to questions raised by government agencies.

Assist Planning Section Chief in obtaining government agency approvals/permits for the conduct of emergency response operations.

Maintain a record of all contacts with federal, state, and local government officials.

Document all actions.

Periodic

Conduct observation tours for government agency representatives as required and when safety permits.

If changes are necessary to the *Incident Action Plan* for the current work cycle, ensure that Unified Command is agreeable to same.

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LIAISON OFFICER (Continued)

Demobilization

Respond to demobilization orders.

Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

Monitor changes and additions to all relevant policies and regulations of government agencies.

Develop and maintain awareness of local and national lines of communication to government agencies.

Hold and maintain an up-to-date list of relevant government agencies.

Provide Logistics Section Chief with a list of supplies to be replenished.

Points to Consider

1. All questions from government agencies should be directed to the Liaison Officer.

2. Keep detailed notes of:

- Actions taken by government/regulatory offices.
- Conversations over the telephone or in person with government/regulatory officials.
- Recommendations and instructions from government/regulatory offices.

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LOGISTICS SECTION CHIEF

Scope of Responsibility

Responsible for obtaining the labor, equipment, facilities, food, communication systems, and other material needed to support emergency response operations.

Start Up

Upon arrival at the incident; check-in at designated check-in locations.

Acquire work materials.

Confirm dispatch and estimated time of arrival of staff and supplies.

Obtain initial briefing.

Set up (as appropriate) CommandCenter, Command Post(s), and staging area(s).

Organize, assign, and brief subordinates.

Determine aircraft and airport needs.

Determine initial catering/janitorial services required.

Provide offices, office furniture, equipment, administrative services, and support personnel as required.

Initiate and approve requests for labor, equipment, and services (including support staff).

Supervise support staff.

If appropriate, work with the Operations Section to locate site(s) for staging area(s) and establish same.

Determine resource needs.

Daily

Obtain briefings from the Logistics Section Chief on prior shift.

Attend planning and briefing meetings.

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LOGISTICS SECTION CHIEF (Continued)

Supervise preparation of logistics support and services portions of *Incident Action Plans*.

(1) Make duty assignments.

(2) Prepare and post Logistics Section organization chart.

(3) Obtain summary of current actions.

(a) Equipment, materials, and services on-scene and where they are located.

(b) Equipment, materials, and services enroute and ETA.

Evaluate the magnitude of an incident with the Incident Commander to determine whether additional personnel should be activated.

Provide logistic support and services information to Planning Section Chief for inclusion in Situation Status Reports.

Brief Logistics personnel on contents of *Incident Action Plan* and other matters related to section operations.

Verify that Logistics personnel have most recent plan.

Make/verify assignments.

Establish/review reporting requirements.

Work with Operations Section Chief to identify and ensure the timely and efficient provision of field support services, including:

(1) Evacuation vessels.

(2) Berthing and/or housing.

(3) Decontamination units.

(4) Potable water.

(5) Food.

(6) Fuel.

(7) Mail.

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LOGISTICS SECTION CHIEF (Continued)

(8) Waste handling.

(9) medical/first aid facilities.

(10) Other, as necessary.

Work with Operations Section Chief to identify and ensure the timely and efficient provision of aircraft to support surveillance operations.

Work with Planning Section Chief to identify and ensure the timely and efficient provision of aircraft, vessels, and vehicles to support wildlife capture operations.

Ensure that Logistics support and service needs are met in a timely and efficient fashion.

Ensure that logistics support and service needs are met in a manner that maximizes personnel safety.

Ensure that guidelines, procedures, forms, and data management systems necessary to manage the acquisition of equipment, control inventory, and account for expenditures made during emergency response operations are followed by section personnel.

Ensure that an overall inventory is maintained of all equipment, material, and supplies purchased, rented, borrowed, or otherwise obtained during emergency response operations.

Ensure that necessary warehouse space is secured to store equipment, materials, and supplies.

Ensure that programs are in place to inspect and service equipment, store spare parts, and repair or replace damaged or defective equipment.

Ensure that records are maintained on transportation equipment and services used, materials and services provided, and contracts executed during emergency response operations.

Provide Operations Section Chief with recommendations on the timing of the release of logistics service and support manpower and equipment.

Document all actions.

Periodic

Maintain appropriate personnel records.

Ensure enough personnel are available to handle all of the section's responsibilities.

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LOGISTICS SECTION CHIEF (Continued)

Demobilization

Receive *Demobilization Plan* from Planning Section.

Respond to demobilization orders.

Brief subordinates regarding demobilization.

Supervise demobilization of section, including storage of supplies.

Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

Recommend release of unit resources in conformity with *Demobilization Plan.*

Receive lists of supplies to be replenished from team members and secure same.

Points to Consider

1. Understand the degree of OSHA requirements for all personnel working on the spill.
2. Fixed fee contracts for services and labor may be to the Company's best interest.
3. Contractors may provide old or poor equipment and charge new equipment rates.
4. During an oil spill, there are many people of high school age and up who insist on helping. In many respects, volunteers may cause more problems than help.
5. Equipment demobilization should begin as early as possible. For example, it may be possible to return resources that were called out early in the response but were not used.
6. Equipment may need maintenance in addition to decontamination before being demobilized.
7. Before demobilizing resources, careful analysis should be made to determine which resources have the best benefit/cost ratio. Those with the lower rating should be released first. For example, berthing expenses can be curtailed by releasing outlying contractors before local ones.
8. Demobilization plans must provide methodology for ensuring loaned assets are returned and accounted for.

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OPERATIONS SECTION CHIEF

Scope of Responsibility

Responsible for the management of all operations directly related to the evacuation of personnel, medical services, the control of fires, and/or the control, containment, and cleanup of any spilled or emitted material. The Operations Section Chief activates and supervises Section personnel, oversees the development and implementation of tactical operations plans, and directs efforts to implement *Incident Action Plans.*

Start Up

Upon arrival at the incident; check-in at designated check-in location.

Receive initial briefing.

Acquire work materials.

Confirm dispatch and estimated time of arrival of staff and supplies.

Organize, assign, and brief subordinates.

Ensure contractors understand their role and responsibilities.

Identify optimum locations for equipment staging areas.

Determine the labor, transportation, supplies, field communication, and other requirements for carrying out the *Incident Action Plan.*

Evaluate situation at oil spill site(s) to assess amount of oil to be removed and methods to be employed. Work with Planning Section Chief to establish if shoreline protection and/or cleanup are to be attempted. If so, where, and to what degree?

In consultation with Liaison Officer, agree with authorities on the details/extent of cleaning to be carried out.

Ensure that response personnel are aware of and follow company policies and appropriate government agency directives.

Determine resource needs.

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OPERATIONS SECTION CHIEF (Continued)

Daily

Obtain briefings from the Operations Section Chief on prior shift.
Conduct Tactical Operations Planning meetings.

Attend planning and briefing meetings.

Provide Logistics Section Chief with information on labor, equipment, material, and supply needs for Operations Section operations.

Supervise the development of the tactical operations portion of the *Incident Action Plan.*

(1) Review strategic objectives and response priorities with Section personnel.

(2) Obtain summary of current actions.

(3) Obtain summary of resource utilization.

(4) Devise response strategies.

(5) Make duty assignments.

(6) Prepare and post Operations Section organization chart.

Provide Planning Section Chief, Logistics Section Chief, and Finance Section Chief with copies of tactical operations plans.

Brief Operations Section personnel on contents of *Incident Action Plans.*

(1) Verify that Section personnel have most recent plan.

(2) Obtain Field Personnel Listings.

(3) Obtain/verify field assignments.

(4) Establish/review reporting requirements.

Verify that personnel have the equipment, materials, and supplies needed to carry out emergency response operations in a safe, effective, and efficient fashion.

Verify that personnel are aware of and follow Company policies and appropriate government agency directives.

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OPERATIONS SECTION CHIEF (Continued)

Verify that the concerns of impacted communities are adequately considered in the formulation and execution of emergency response strategies.

Verify that appropriate documentation is compiled.

Resolve conflicts that arise during the conduct of emergency response operations.

Keep Operations Sections personnel informed of changing weather conditions.

Provide regular briefings to Incident Commander on the nature and status of emergency response operations.

Provide information to the Planning Section Chief on the status of emergency response operations.

Coordinate with Planning Section Chief to ensure that emergency response operations are adequately support by surveillance operations.

Provide Public Affairs Officer with accurate, up-to-date information on the nature and status of emergency response operations.

Coordinate emergency response operations carried out by third parties, including response contractors/organizations, specialized service companies, and/or government agencies.

Initiate recommended releases/reassignment of equipment and/or labor resources when those resources are no longer needed.

Document all actions.

Periodic

Ensure all response personnel follow accountability, safety, and security procedures.

Report information about special activities, events, and occurrences to the Incident Commander.

Ensure enough personnel are available to handle all of the Operations Section's responsibilities.

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OPERATIONS SECTION CHIEF (Continued)

Demobilization

Receive copy of the *Demobilization Plan.*

Respond to demobilization orders.

Brief subordinates regarding demobilization.

Provide Planning Section Chief with log and a copy of any notes or observations made during response operations.

Via Planning Section Chief and Liaison Officer, discuss with relevant authorities status of acceptable demobilization conditions at each cleaned up site.

Supervise demobilization of section, including storage of supplies.

Provide Logistics Section Chief with a list of supplies to be replenished.

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PLANNING SECTION CHIEF

Scope of Responsibility

The Planning Section Chief is responsible for supervising the collection, evaluation, dissemination, and use of information to support emergency response operations. The Planning Section Chief utilizes this information, input from Sections Chiefs, and the strategic objectives defined by the Incident Commander as a framework for the preparation of *Incident Action Plans*. The objectives of the plans are to define specific response strategies, and to coordinate and mobilize resources effectively during emergency response operations. The Planning Section Chief is also responsible for coordinating the development of Situation Status Reports and other incident specific plans, providing technical services in support of emergency response operations, and handling environmentally-related matters during emergency response operations. The Planning Section Chief also coordinates the documentation of all aspects of emergency response operations, including demobilization.

Start Up

Upon arrival at the incident; check-in at designated check-in location.

Confirm dispatch and estimated time of arrival of staff and supplies.

Obtain initial briefing.

Acquire work materials.

Activate and supervise Planning Section units.

Interface with Liaison Officer to gain consensus on response priorities.

Coordinate with Operations Section Chief to obtain information to determine size, location, direction, type, or potential impact of spill.

Interface with Logistic Section Chief to insure adequate resources are available for operations to implement the *Incident Action Plan*.

Obtain information concerning damage or potential damage to the environment and wildlife.

Ensure log books, mail systems, office equipment, record keeping systems, and administrative support is available from the Logistics Section.

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PLANNING SECTION CHIEF (Continued)

Establish information requirements and reporting schedules for units.

Determine resource needs.

Daily

Obtain briefings from the Planning Section Chief on prior shift.

Attend Tactical Operations Planning meeting.

Conduct Planning meetings.

Conduct briefing meetings.

Provide Logistics Section Chief with information on labor, equipment, material, and supply needs for Planning Section operation.

Supervise the preparation of *Incident Action Plans*.

Brief Section Unit Leaders on the contents of *Incident Action Plans* and other matters related to Section operations.

(1) Verify that Unit Leaders have most recent plan.

(2) Make/verify assignments.

(3) Establish/review reporting requirements.

Ensure that systems and lines of communications are established that will facilitate the preparation and distribution of *Incident Action Plans*.

Ensure that any incident specific plans, reports, or other documents required by company Management, MPL LLC's Incident Commander, and/or government agencies during or following the completion of emergency response operations are compiled in a timely, efficient, and satisfactory fashion.

Ensure that systems are established that will facilitate the collection, evaluation, analysis, and dissemination of environmental, cultural, and social information and data. In the event of an oil/hazardous substance spill, this may include information on slick movements, potential spill-related impacts to environmentally sensitive areas, and air and water quality considerations.

Advise Incident Commander on all environmental aspects of emergency response operations.

PLANNING SECTION CHIEF (Continued)

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Ensure all environmental requirements are complied with and communicated to the Incident Commander and his/her staff.

Ensure that systems are established that will facilitate the collection, analysis, verification, and dissemination of information on the status of emergency response resources and operations.

Provide Public Affairs Officer with accurate, up-to-date information. Depending on the nature of the incident/response, this may include:

(1) Fate and effects of spilled oil/hazardous substance.

(2) The location of spilled oil/hazardous substance.

(3) The status of sheltering and/or evacuation operations.

(4) The status of fire fighting operations.

(5) Weather and other conditions.

(6) The type and number of wildlife affected by the incident.

(7) The status of wildlife rehabilitation efforts.

(8) Statistical summaries of emergency response operations.

Work with Liaison Officer in obtaining government agency approvals.

Supervise the compilation of environmental information necessary to obtain government agency approvals.

Assist Liaison Officer in responding to requests for information from government agencies.

Provide Incident Commander information on all government agency contacts.

Upon request, provide Operations Section Chief with recommendations on selection of equipment and response techniques, and on the timing of the release of labor and equipment resources.

Accumulate and provide performance information on the effectiveness of plans, personnel, equipment, and procedures to the Incident Commander for the Post-Incident Review meeting to be conducted after completion of operations.

Document all actions.

PLANNING SECTION CHIEF (Continued)

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Periodic

Ensure enough personnel are available to handle all of the Planning Section's responsibilities.

If appropriate, initiate and maintain SCAT.

Monitor oil impact in treated and untreated areas.

Interface with Liaison Officer to ensure environmental authorities and institutions are informed about the status of clean-up operations.

Advise team members of any significant changes in incident situations.

Ensure aerial surveillance is conducted to locate endangered wildlife habitats that may be threatened.

Prepare and distribute Incident Commander's orders.

Provide input which will assist in establishing priorities for shoreline protection.

Ensure appropriate documentation is being made. Obtain same.

Ensure that normal agency information collection and reporting requirements are being sent through the Liaison Officer.

Demobilization

Ensure appropriate personnel receive *Demobilization Plan.*

Respond to demobilization orders.

Supervise demobilization of section, including storage of supplies.

Obtain copy of all logs, notes, and observations made during the operation.

Ensure full chronological report is prepared for the Incident Commander.

Provide Logistics Section Chief with a list of supplies to be replenished.

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PUBLIC AFFAIRS OFFICER

Scope of Responsibility

The Public Affairs Officer is responsible for the formulation and release of information about an incident to the news media, non responding government agencies, and other stakeholders. The Public Affairs Officer is also responsible for ensuring that media and community concerns are clearly and accurately identified and addressed during emergency response operations.

Start Up

Upon arrival at the incident; check-in at designated check-in location.

Obtain initial briefing.

Acquire work materials.

Coordinate with the Legal Officer, Senior Manager, FOSC, and SOSC the preparation of the initial press release.

Determine resource needs.

Establish lines of communication with:

- Local press, radio, and TV.
- National/international media (where appropriate).
- Concerned citizens groups.
- Public organization.

Set media guidelines for response team members, security personnel, and contractors.

Establish a press room.

Consider having phone banks set up for the media to use.

Consider forming a Joint Information Center (JIC) with government agencies.

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PUBLIC AFFAIRS OFFICER (Continued)

Daily

Obtain briefings from the Public Affairs Officer on prior shift.

Relay information to Human Resources.

Attend daily planning and briefing meetings.

Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Public Affairs operations.

Provide Planning Section Chief with information on the timing and location of press conferences and briefings for inclusion in *Incident Action Plans*.

Brief Public Affairs staff on contents of *Incident Action Plans*.

(1) Verify that staff have most recent plan.

(2) Make/verify assignments.

(3) Establish/review reporting requirements.

Serve as the principal advisor to Incident Commander on all maters relating to external communications and interactions.

Advise Incident Commander on the public and community relations impact(s) of MPL LLC's handling of emergency response operations.

Work with Incident Commander and Legal Officer to establish incident specific public relations guidelines and distribute to Emergency Response Team members.

Establish lines of communication with: local press, radio, and TV outlets; national/ international media representatives; concerned citizens' groups; and public organizations.

Ensure access to complete, accurate, and up-to-date information on the nature and status of emergency response operations.

Monitor media coverage of the incident. Provide follow-up information when necessary. Correct any errors.

Arrange press conferences and briefings.

Prepare "fact sheets" on the incident.

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Serve as a Company spokesperson with local media.

Arrange press tours as long as the tours do not jeopardize personnel safety, tie up critical resources, or interfere with emergency response operations.

Maintain a record of newspaper articles, radio, and television broadcasts, press conferences, and press briefings.

Prepare updated press releases as required. (Coordinate with U.S. Federal On-Scene Coordinator, Incident Commander, and Legal Officer or participate as appropriate in the JointInformationCenter.)

Be available to handle on-the-spot inquiries from the media including journalists approaching response personnel on the beach.

Determine resource needs.

Document all activities.

Periodic

Conduct press/local audience conferences as required, using approved press/information release as basis. Ensure that Incident Commander has prior notice of conference time and place.

Conduct public relations workshops for response team members.

Consider holding town meetings so the public's concerns may be addressed.

Develop and implement accountability, safety, and protocols for media visiting field sites.

Demobilization

Receive a copy of the *Demobilization Plan.*

Respond to demobilization orders.

Provide Planning Section Chief with a copy of any notes or observations made during the operation.

Provide Logistics Section Chief with a list of supplies to be replenished.

PUBLIC AFFAIRS OFFICER (Continued)

Points to Consider

1. Refer to this Plan's Section 3.9 for media pointers.

2. Consider establishing a web site on the Internet to inform the public directly.

3. If a Joint Information Center (JIC) is established, will need to coordinate activities with agency personnel.

4. When monitoring press reports, remember to check the media's web sites on the Internet.

5. Before press conferences, confer with agency spokesperson(s) to ensure the message is consistent.

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QUALIFIED INDIVIDUAL

Scope of Responsibility

The Qualified Individual is responsible for the initial activation and commitment of response resources, proper notification of regulatory agencies, and establishing response resources. **The Qualified Individual (QI) quickly transfers responsibilities to the Emergency Response Team and the position is discontinued.** While the QI has full authority to implement removal activities and direct clean-up activities, the team accomplishes these tasks.

Start-up

Ensure notifications detailed in Section 2.0 are made.

Determine the scale of response necessary and based on this activate response resources.

Activate designated agreements with contractors and/or cooperative for emergency response actions.

Activate appropriate response team members.

Assess the possible hazards to human health and the environment due to the release.

Consider establishing liaison with FOSC and SOSC.

Provide initial briefing to response team members.

Document all activities.

Demobilization

Provide Planning Section Chief with a copy of log made during the operation.

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SAFETY OFFICER

Scope of Responsibility

Responsible for monitoring and assessing hazardous and unsafe situations, and developing measures to avoid or mitigate such situations. The Safety Officer works to correct unsafe acts or conditions through regular lines of authority, although he/she may exercise emergency authority to prevent or stop unsafe acts or conditions when immediate action is required. The Safety Officer maintains awareness of active and developing situations, and includes safety messages in *Incident Action Plans*. The Safety Officer is thoroughly versed in safe operating practices and safety-related training requirements.

Start Up

Upon arrival at the incident; check-in at designated check-in location.

Obtain initial briefing.

Ensure the spill site has been tested to determine level of PPE required to be worn by response personnel.

Create a *Site Safety and Health Plan*. Provide same to the appropriate personnel.

Apply for labor, equipment, and services necessary to ensure safe operations at site.

Develop and implement accountability, safety, and security measures for personnel and resources.

Establish instruction and training facilities for response personnel and ensure that they receive appropriate training (e.g., HAZWOPER).

Provide Operations Section Chief and contractor personnel advice on practices and procedures that will enhance the safety of field response personnel.

Determine resource needs.

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SAFETY OFFICER (Continued)

Daily

Obtain briefings from the Safety Officer on prior shift.

Attend planning and briefing meetings.

Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Safety operations.
Provide Planning Section Chief with information for the safety portion of Incident Action Plans.

(1) Description of safety hazards and risks.

(2) Measures to avoid or mitigate safety hazards and risks.

Prepare health and safety messages for *Incident Action Plans.*

Brief safety staff on contents of *Incident Action Plans.*

(1) Verify that staff have most recent plan.

(2) Make/verify assignments.

(3) Establish/review reporting requirements.

Ensure that all responding personnel have received required federal and state safety-related training.

Ensure compliance with all relevant OSHA requirements.

Assess the need for and recommend assistance from local fire, police, and emergency rescue units.

Evaluate the need to evacuate personnel and/or the residents of nearby communities that could be directly or indirectly affected by an emergency situation.

Develop appropriate safety guidelines to be observed during emergency response operations.

Work with Operations Section Chief and staff in the evaluation of field response operations to ensure the observation of appropriate safety guidelines.

SAFETY OFFICER (Continued)

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Develop and issue Safety Bulletins.

Work with Logistics Section Chief to ensure that appropriate personal protective equipment is available to emergency response personnel.

Ensure that partial and full decontamination facilities are set up and operational during the conduct of field operations.

Set up a system to identify and eliminate safety hazards in all aspects of emergency response operations.

Command search and rescue operations, as needed.

Investigate, report, and record all safety-related accidents that occur during emergency response operations, and develop remedial actions to avoid future occurrences.

Develop and maintain a record of the safety performance of emergency response personnel.

Maintain safety training records.

Exercise emergency authority to prevent or stop unsafe acts.

Notify the appropriate federal, state, and local government safety officials of all safety-related incidents.

Identify locations for first aid stations in the field.

Serve as liaison with federal and state OSHA officials.

Establish and enforce industrial hygiene standards and requirements for field operations.

Document all actions.

Periodic

Monitor work sites for smoking and use of alcohol/controlled substances.

Investigate, report, and record all accidents and/or near misses. Develop remedial actions to avoid future occurrences.

SAFETY OFFICER (Continued)

Attend induction/debriefing of contractors.

Receive and relay manufacturer's instructions to cope with hazards inherent in the products involved.

Demobilization

Respond to demobilization orders.

Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

Monitor relevant developments in safety techniques.

At the conclusion of the response, analyze deficiencies and recommend procedure or equipment changes to be made before a future event.

Provide Logistics Section Chief with a list of supplies to be replenished.

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SENIOR MANAGER

Scope of Responsibility

The Senior Manager serves as the primary senior management contact for the Incident Commander. He/She has access to senior management who establishes company policies. Also ensures that the Incident Commander has the resources and support necessary to mount and sustain emergency response operations.

Start Up

Upon arrival, check-in at the designated check-in location.

Obtain initial briefing.

Ensure appropriate members of teams are called out.

Brief appropriate senior management personnel. Request they identify and alert personnel that may be needed to support control, and/or response objectives.

Establish strategic objectives and response priorities.

Organize, brief, and assign subordinates.

If applicable, supervise the transition from a lower level team.

Notify FOSC and SOSC of proposed activities.

Work with the Public Affairs Officer, Legal Officer, FOSC, and SOSC on the preparation of the initial press release.

Identify the need for an investigation team.

Daily

Assign specific duties to staff; supervise staff.

Conduct planning and briefing meetings as required coordinating the clean-up effort.

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SENIOR MANAGER (Continued)

Ensure that assigned responsibilities are carried out and that coordination exists between supervisory team members.

Evaluate and adjust response priorities.

Arrange for the use of company personnel as requested by the Incident Commander and/or as necessary to support control and/or response operations.

Authorize the utilization of company resources as requested by Incident Commander.

Develop the overall plan of action for the containment and cleanup of the spill. Delegate the responsibility of putting the plan into effect to the key personnel in the response team.

Obtain an itinerary for the appropriate senior management to ensure that they can be contacted and/or readily assembled in the event that management decisions or input are needed to support response operations.

Evaluate and adjust strategic objectives and response priorities based upon input from senior management and supervisory team members.

Keep Incident Commander advised of developments.

Assess legal advice from Legal Officer during response operations.

Brief senior management on the status of emergency response operations.

Document all actions.

Periodic

Serve as the Company's primary spokesperson.

Serve as a contact person for high level government agencies not directly involved in response operations.

Contact senior management of other companies when possible; to request use of third party labor and/or equipment resources to support the company's response operations.

Facilitate senior management review and approval of proposed information and/or press releases.

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Community Relations Officer

_X_ **Complete** _NA_ **Not Applicable**

___ Obtain initial briefing from Incident Commander.
___ Obtain briefings from Community Relations Officer on prior shift.
___ Attend Command Staff and briefing meetings.
___ Provide JIM with information on manpower, equipment, material, and supply needs for community relations operations.
___ Provide JIM with information on the timing and location of scheduled meetings with the community for inclusion in Incident Action Plans.
___ Brief Community Relations staff on contents of Incident Action Plans:
(1) Verify that staff has most recent plan.
(2) Make/verify assignments.
(3) Establish/review reporting requirement
___ Establish contact with residents, business, and other members of the community in threatened and/or affected areas and provide them with information on the incident and the status of the emergency response operations.
___ Provide advice on the type of information that should be generated to keep the community informed of the status of emergency response operations.
___ Provide information on all community contacts
___ Arrange regular briefings for the community including town/community meetings
___ Arrange for psychological support services as necessary (through EAP)
___ Arrange for observation tours for community or government representatives when required.
___ Coordinate HR support as required supplementing community response and/or managing internal personnel issues.
___ At the direction of Incident Commander, represent Marathon at meetings with the community.
___ Convey information, requests, and legally constituted directives to Incident Commander and Section Chiefs.
___ Prepare answers to questions raised by the community.
___ Assist the Finance Officer and Legal in developing and administering a claims handling program.
___ Work with Logistics in providing temporary housing of all evacuators.
___ Maintain a record of all contacts with the community.
___ Coordinate the CERT Phone Bank, providing basic incident facts and managing calls coming into Marathon.
___ Provide act sheet format for phone bank and information from the phone bank to the EST.
___ Senior management on site.
___ Volunteer management.
___ Partnering cultivation.
___ Identify and coordinate community recovery needs.
___ Monitor and disseminate claims handling program.
___ **Document all actions.**

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Deputy Incident Commander Duties

Scope of Responsibility

Responsible for assisting the Incident Commander in the development and implementation of strategic objectives and response priorities. The Deputy Incident Commander is also responsible for supervising the implementation of *Incident Action Plans*, coordinating the activities of the Section Chiefs, conducting planning meetings, and conducting field investigations.

Start Up

- ❑ Upon arrival, check-in at the designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Organize, assign, and brief subordinates.
- ❑ Evaluate situation to assess amount of oil to be removed and methods to be employed.

Daily

- ❑ Obtain briefings from the Deputy Incident Commander on prior shift.
- ❑ Assign specific direction to staff.
- ❑ Conduct planning meetings.
- ❑ Attend briefing meetings conducted by Planning Section Chief.
- ❑ Provide Logistics Section Chief with information on labor, equipment, material, and supply needs for Command Staff operations.
- ❑ Coordinate the preparation of the Initial Incident Briefing Form.
- ❑ Assist the Incident Commander in the development of strategic objectives and response priorities.
- ❑ Coordinate the activities of the Section Chiefs to effect the safe, efficient, and effective implementation of *Incident Action Plans* in a manner consistent with company policy and appropriate government directives.
- ❑ Conduct periodic field investigations.
- ❑ Document all actions.

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Periodic

- ❑ Assume control of the response in the Incident Commander's absence.

Demobilization

- ❑ Provide Planning Section Chief with a copy of log and any notes or observations made during the operation.
- ❑ Agree with relevant government/local authorities that acceptable demobilization conditions exist at each clean up site.
- ❑ Monitor developments in shore clean-up techniques and equipment.
- ❑ Monitor developments in containment and recovery techniques and equipment.
- ❑ Maintain up-to-date register of specialists in oil containment and recovery.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

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Documentation Unit Leader

_X_ **Completed** _NA_ **Not Applicable**

___ Obtain initial briefing from Planning Section Chief.
___ Obtain briefings from Documentation Unit Leader on prior shift.
___ Provide Planning Section Chief with information on manpower, equipment, material, and supply needs for Documentation Unit operations
___ In association with Legal Officer, develop documentation guidelines for distribution to appropriate emergency response personnel.
___ Ensure that all response personnel are familiar with documentation guidelines.
___ Distribute and collect log books provided to emergency response personnel.
___ Establish a filing system for incident files.
___ Distribute copies of the file index to appropriate emergency response personnel.
___ Organize, maintain, and store incident files in a convenient, secure location.
___ Establish duplication services for the incident, and respond to duplication requests.
___ Obtain approval from Planning Section Chief prior to release of documentation.
___ Duplicate and file all official forms and reports.
___ Check records and completeness and accuracy prior to filing.

___ **Document all actions.**

Environmental Unit Leader Duties

Scope of Responsibility

Responsible for managing all environmental matters associated with emergency response operations and for providing advice on the potential environmental impacts of response operations. The Environmental Unit Leader collects information on environmentally sensitive areas and assists in the prioritization of the areas for protection and/or cleanup measures. He/She is also responsible for continuously assessing damage or potential damage to the environment.

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Acquire work materials.
- ❑ Obtain initial briefing.
- ❑ Evaluate situation at spill site; assess damage and potential damage to environment.
- ❑ Advise Operations and Planning Section Chiefs of bird sanctuaries and other biologically sensitive areas.
- ❑ Apply for any labor or specialist resources needed to conduct monitoring/investigatory work.
- ❑ Provide input to Planning Section Chief for development of environmental protection plan.
- ❑ Arrange with the Liaison Officer to meet with the regulatory agencies to learn their concerns about biota impacts.
- ❑ Determine which permits and approvals are required for response operations and prepare and submit applications. Seek waivers as appropriate.
- ❑ Make arrangements for the recovery and rehabilitation of oiled wildlife.
- ❑ Prepare environmental guidelines for the Planning Section Chief, Operations Section Chief, and contractors.
- ❑ If appropriate, initiate baseline NRDA studies.
- ❑ Determine resource needs.

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Environmental Unit Leader Duties

Daily

- ❑ Obtain briefings from the Environmental Unit Leader on prior shift.
- ❑ Attend planning and briefing meetings conducted by Planning Section Chief.
- ❑ Provide Planning Section Chief with information on labor, equipment, material, and supply needs for Environmental Unit operations.
- ❑ Prepare Environmental Operations Plans for inclusion in *Incident Action Plans*.
- ❑ Collect and maintain baseline environmental data from potentially affected areas.
- ❑ Provide Operations Section Chief with information on the potential environmental impacts of emergency response operations.
- ❑ Supervise the compilation of environmental information to support permit applications and/or efforts to obtain required government agency approvals.
- ❑ Become familiar with existing environmental regulations and restrictions within an incident area.
- ❑ Coordinate with Liaison Officer to obtain necessary government agency approvals for environmentally-related permits and/or approvals.
- ❑ Obtain all necessary waste management permits and approvals.
- ❑ Work with agencies to identify environmentally sensitive areas and wildlife habitats.
- ❑ Coordinate wildlife rescue and rehabilitation operations with federal and state resource agencies.
- ❑ Identify experts to conduct wildlife capture, transport, cleaning, rehabilitation, and release operations.
- ❑ If necessary, arrange for the construction/commissioning of wildlife cleaning and rehabilitation operations.
- ❑ Provide information to the Planning Section Chief on the status of impacts to wildlife for inclusion in Situation Status Reports.
- ❑ Work with Operations Section Chief to prioritize sensitive habitat areas for protection and/or cleanup operations.

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- Provide Operations Section Chief advice on cleanup techniques that will minimize secondary impacts to affected wildlife and/or sensitive habitat areas.
- Arrange for environmental specialists to collect data and assess impacts to:
    (1) water quality.
    (2) air quality.
    (3) commercial and sport fisheries.
    (4) manmade structures.
    (5) human health.
- Identify experts to perform Natural Resource Damage Assessments (NRDA) operations.
- Coordinate Natural Resource Damage Assessment (NRDA) operations with Legal Officer.
- Document all actions.

Periodic

- Collaborate with Liaison Officer in keeping authorities and institutions informed on status of clean-up operations.
- Hire consultants to research response and problems for similar emergencies.
- Provide input which will help the Planning Section Chief establish priorities for environmental protection.
- Arrange for on-site participation and guidance of qualified specialists as needed.
- Maintain awareness of significant developments concerning the environmental impact of oil pollution.
- If appropriate, arrange for noise devices to assist in repelling birds and other wildlife from areas contaminated by oil.
- Ensure environmental contractors in the field follow accountability, safety, and security procedures.

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Demobilization

- ❑ Respond to demobilization orders.
- ❑ If appropriate, ensure the continuation of NRDA studies.
- ❑ Demobilize equipment/labor/specialist/local services.
- ❑ Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

Points to Consider

1. The potential for environmental impact constantly changes as winds move the oil.
2. Oil can be rapidly buried along sandy beaches.
3. Do not release rehabilitated wildlife to area that will be impacted by oil slicks.
4. Animals will ingest oil when they preen themselves. This will contribute to high mortality rates.

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Environmental Technical Services (ETS) Duties

In the event of a Level II Emergency Response, the Environmental Technical Services (ETS) Project Leader reports to the MPL Environmental Unit / Section Leader. ETS provides assistance and acts as an advisor during the short term emergency response remediation of the release, performing activities requested of the Environmental Unit Leader. ETS works closely with the Environmental Unit Leader to assist in the containment of the release and to develop a short term response plans. During the initial emergency response, ETS assists in making notifications to state and federal regulators, dependant on the location of the release. ETS and their outside consultant (if necessary) will also assist in the permitting (air, NPDES, USACOE, etc.) of short term remediation, if necessary. ETS and their outside consultant assist in creating and maintaining regulatory relationships and acquire regulatory approval and signoff of the short term response-remediation plan. ETS and their outside consultant will contribute to the short term remediation plan possible pathways for further impacts, such as surface movement or contaminant phase (liquid vs. free). Additionally, ETS and their outside consultant will aid in creating and executing a water sampling plan steeping out from the Hot Zone, NRDA documentations, and documentation of results for presentation to regulators. Additionally, initial site characterization and definement activities will take place for use during long term remediation.

Once initial emergency response work has been completed, ETS and their outside consultant will assume long term remediation responsibility, if necessary. The possibility for an interim response is dependent on the individual project situation, but if the scenario is necessary, some emergency response activities and personnel will remain active, while ETS oversees project management responsibilities. Long term remediation will take a look at remedial options and a remedial plan will be developed. ETS will work with MPL Accounting in developing accruals for the long term remediation.

Finance Section Chief Duties

Scope of Responsibility

Responsible for managing and supervising all financial and administrative aspects of emergency response operations, including cost analysis for procurement of resources, development of a project budget, accounting, clerical support, contracts, and data processing. The Finance Section Chief is expected to protect MPL LLC's interests in financial dealings and to provide sound business management practices with accurate and complete obligation documents for the duration of the incident. He/She provides input on financial and cost analysis matters in all planning sessions. The Finance Section Chief ensures the conduct of all required accounting, insurance, compensation, and claims functions and activities of his/her section, including adequate documentation and record keeping.

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Secure work materials.
- ❑ Confirm dispatch and estimated time of arrival of staff and supplies.
- ❑ Implement organization of Finance Section.
- ❑ Establish field auditing.
- ❑ Assign specific duties to staff; supervise staff.
- ❑ Establish a petty cash fund.
- ❑ Ensure the establishment of a general ledger for tracking expenses.
- ❑ Establish bank/cash arrangements.
- ❑ Determine resource needs.

Daily

- ❑ Obtain briefings from the Finance Section Chief on prior shift.

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Attend daily planning and briefing meetings and provide information on all financial matters related to *Incident Action Plan.*

- ❑ Provide Incident Commander with information on personnel, equipment, material, and supply needs for Finance Section operations.
- ❑ Provide Deputy Incident Commander with information on the financial implications of actions taken/to be taken during emergency response operations.
- ❑ Discuss and advise management on issues regarding insurance coverage and exclusions, claims management processing, and settlement approach.
- ❑ Review all relevant insurance programs and ensure notification of insurers and appointment of loss adjusters.
- ❑ Make duty assignments and supervise operations of Finance Section.
- ❑ Prepare and post Finance Section organization chart.
- ❑ Facilitate the preparation and distribution of guidelines, procedures, forms, and the establishment of a data management system necessary to account for expenditures made during emergency response operations.
- ❑ Develop and administer cash accounts.
- ❑ Ensure that purchase and work orders are prepared and that all purchase and work orders are processed in a timely and appropriate fashion.
- ❑ Verify that obligation documents initiated during emergency response operations are properly prepared.
- ❑ Work with Auditors to ensure the proper auditing of expenditures.
- ❑ Ensure that appropriate cost and accounting control systems are established.
- ❑ Provide accounting functions as directed, including auditing, billing, and documenting labor, material, and services used.
- ❑ Administer vendor contracts, and service and equipment rental agreements.
- ❑ Organize and direct equipment and personnel time recording function.

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Administer financial matters arising from serious injury or death to an employee or contractor involved in emergency response operations.

- ❑ Oversee the investigation and processing of claims.
- ❑ Document all actions.

Periodic

- ❑ Collect purchase orders, work orders, and contracts.
- ❑ Ensure enough personnel are available to handle all of the Finance Section's responsibilities.
- ❑ Approve invoices for payment.
- ❑ Maintain appropriate personnel records.
- ❑ Provide MPL LLC's Management and Senior Manager with regular financial reports.
- ❑ Provide the Incident Commander with information on the financial implications of actions taken or contemplated.
- ❑ Provide the Incident Commander with periodic reports on the amount of expenditures.

Demobilization

- ❑ Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.
- ❑ Receive *Demobilization Plan* from Planning Section.
- ❑ Supervise demobilization of the section, including storage of supplies.
- ❑ Recommend release of unit resources in conformity with *Demobilization Plan.*
- ❑ Ensure continuing actions are taken on claims after demobilization.
- ❑ Ensure a cost summary is made.

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Secure supplies needing to be replenished.

- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

Point to Consider

1. Implement financial controls. Examples include the following.
2. No long term contracts.
3. Document all transactions and agreements.
4. Limit expenditure authority of personnel
5. Track all purchase orders, invoices, contracts, and labor agreements.

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Findlay Situation Unit Leader

Scope of Responsibility

The Findlay Situation Unit Leader (F-SUL) assists the Planning Section Chief until an On Site Command Center is established. This position will be staffed by the O&L Coordinator or another individual as determined by the O&L Department Manager in the initial phase of an Emergency Response. This position shall be responsible for the collection, dissemination, and use of information to support emergency response operations. This information will be utilized along with input from Sections Chiefs and the strategic objectives defined by the Incident Commander as a framework for the preparation of *Incident Action Plans*. The Findlay Information Center will be created until the On Site Command Center is established. All information will then be downloaded to the Planning Section Chief. Once the information has been transferred the F-SUL position will be phased out. The Findlay Information Center will continue to provide valuable information to MPL Management throughout the emergency.

Start Up

- ❑ Provide initial briefing with information obtained from Operations Center, Area Personnel, and others as deemed necessary.

- ❑ Coordinate with Hydraulics, CPM, the Operations Center, and first responders to obtain information needed to determine initial estimates on size and location of spill. F-SUL is responsible for providing the final estimated release volume to ES&R.

    - The initial release estimate from CPM should only be used to determine the amount of resources needed to respond. This estimate should not be shared outside the ICS.
    - The estimate obtained from Hydraulics once the location of the release has been determined will include all possible drain-up volume and will provide a worst case scenario that should be shared with outside agencies as the Official MPL Estimate.
    - The final estimated release volume will be determined based on ticketed volume when the release batch(es) are delivered to their destination.

- ❑ Interface with Incident Commander to gain consensus on response priorities.

- ❑ Determine resource needs. Enlist the help of a Documentarian if required. Set up a relief F-SUL for the next shift if necessary.

- ❑ Interface with Logistic Section Chief to track resources employed and en route. Communicate check-in point as determined by the Incident Commander for resources and employees en route and provide maps and lodging information.

- ❑ Begin documenting event information. Using ICS forms and wall charts. The forms can be found either in the MPL ERP or on the CERT home page. Some of these are:

    - ❑ Incident Briefing (ICS 201-1

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- ❑ Summary of Current Actions (ICS 201-2)
- ❑ Resource Summary (ICS 201)
- ❑ Incident Status Summary (ICS 209)
- ❑ Response Objectives (ICS 202)
- ❑ Notification Status Report
- ❑ Weather Report

- ❑ Establish the Findlay Information Center (RM 719M) using the wall charts and Maps
- ❑ Obtain information requirements and reporting schedules for the response.
- ❑ Coordinate with the GIS group to begin assembling maps.
- ❑ Aid in the internal notifications as directed.
- ❑ Provide assistance to ICS team as required.
- ❑ Attend assessment meetings to gather Incident information as requested by Planning Section Chief.
- ❑ Transfer information to the On Site Mobile Command Center to establish the Information Center there.
- ❑ Continue to support the on site Command Center if requested and time permits. Request will be made by the Incident Commander or the Planning Section Chief.

The Findlay Situation Unit Leader (F-SUL) has the responsibility to establish the Findlay Information Center during the initial phase of an actual response. The Findlay Information Center should be designed to assist in answering as many of the following questions as possible early in the response. Although certain responses may require a different approach generally the following has proven to hold true.

What type of information would assist with properly answering the questions:

1. Does the Incident Commander have command and control?
    a. Incident information and facts
    b. Strategic and tactical objectives defined
    c. Response divided into manageable, explainable span of control (Division/Groups)
    d. Summary of control/response operations
    e. Detail of response personnel and equipment
    f. Proper notifications made
    g. Summary of public/media activity
    h. Sensitive Area Status
    i. Weather conditions

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2. What's the problem?
    a. Source
    b. Impact (people, property, environment)

3. What are we doing?
    a. What is being done? – progress / metrics
    b. Where is it being done?
    c. With what?

- The Findlay Information Center can assist responders and others to gain an understanding of the current incident status. Certain items are essential and others will follow when time permits or as they are developed. The table on the following page establishes the priority and corresponding rationale. Note that there could be additional information that needs to be posted to provide a better picture of the incident and response efforts (i.e., Days to Refinery Impact, sampling summaries, etc).

Wall Chart / Forms /Information	1 Priority	2 Priority	3 Priority	Rationale
Incident Information	X			High level overview of incident and current status
Weather Forecast	X	X	X	Will assist with response strategies
Incident Status Summary, ICS 209	X			Usually not available during first couple of assessments – source status should be included in Incident Information
Summary of Current Actions		X	X	Important to start documenting significant actions
Situation Map with identified divisions	X	X		Assists with telling the story – Planning needs to get with operations and break this into manageable divisions. Depending on the incident this may be less important (i.e., product quality)
Response Objectives ICS 202	X	X		The Level II Incident Commander will still be getting up to speed initially and needs to understand the incident prior to setting objectives Strategic objectives will likely be available prior to tactical objectives.
Resources @ Risk Summary, ICS 232		X		The Level II Environmental Leader will still be getting up to speed initially and needs to understand the incident prior. Initial information will likely be captured in Incident information
Incident Organization Chart, ICS 207		X		The Level II team will still be forming. Planning Section Chief will be defining players, could evolve to cover shifts. Typically don't use Organizational Assignment List ICS 203
Division/Group	X			Although there may not be the "official forms" to populate data from – this needs to define what is going on where, with who and with what. This data will feed ICS 204 when personnel are available
Division Group Assignment List ICS 204			X	These are the forms completed by the section leaders defining what is going on/planned/needed. These feed the summary status and posted on the Div/group charts eventually. Division group assignment summary is not viewed as a needed chart within the information center.
Radio Communication Plan,			X	When communications folks in place if needed

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Findlay Situation Unit Leader

ICS 205				
Medical Plan, ICS 206			X	The Level II Safety Leader will still be getting up to speed initially and needs to understand the incident prior to developing. Hospital information can be displayed on contact list or Notification Board.
Safety/Security Plan	X			This is typically one of the very first things to help guide a proper response. (Site Safety Plan)
Environmental Plans			X	Will be developed as needed and provided directly to folks needing it. The Information Center is a place to post for reference.
Operational Plans			X	Will be developed as needed and provided directly to folks needing it. The Information Center is a place to post for reference.
Media Board		X	X	Press releases may be a source of information that is essential for managing the response. Priority needs to be decided base on type incident.
Notification Board	X			Need to understand what notifications have been made to understand involvement from agencies, etc.
Incident Action Plans		X	X	Incident action plan is generated utilizing information from the information center and will be developed, distributed and posted as appropriate.
Resource Summary (ICS 201)	X			Identifies available resources and contact information..
Meeting Schedule		X	X	Initially critical players will understand when meetings are – a routine meeting schedule will be established by the IC or the Deputy IC

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Incident Commander

Scope of Responsibility

Responsible for all phases of the spill response, including the development of strategic objectives that provide for the safe and efficient conduct of emergency response operations.

Start Up

- ❑ Upon arrival, check-in at the designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Assess the situation and determine: [1] The nature of the incident. [2] The threat posed by the incident to company personnel and the surrounding population. [3] The appropriate level of Emergency Response personnel.
- ❑ Confirm dispatch and estimated time of arrival of staff and supplies.
- ❑ Organize, assign, and brief subordinates.
- ❑ Schedule and conduct team meetings and solicit response recommendations.
- ❑ Establish strategic objectives and response priorities with the Planning Section.
- ❑ Ensure that adequate records are kept and that a chronology is maintained.
- ❑ Determine resource needs.

Daily

- ❑ Obtain briefings from the Incident Commander on prior shift.
- ❑ Assign specific duties to staff; supervise staff.
- ❑ Ensure that personnel safety is accorded the highest priority throughout the response.
- ❑ Develop strategic objectives and priorities to guide response activities.
- ❑ Provide Planning Section Chief with strategic objectives and priorities for inclusion in the *Incident Action Plans.*

INCIDENT COMMANDER (Continued)

- ❑ Serve as the primary contact person for the Senior Manager. Keep same informed of developments.
- ❑ Supervise overall emergency response operations and ensure that they are carried out in a manner that is consistent with company policy, appropriate government directives, and the needs and concerns of the impacted areas.
- ❑ Review and approve resource allocation charges requested by the Section Chiefs.
- ❑ Monitor and evaluate the performance of the Emergency Response Team and emergency operations. Make adjustments as necessary.
- ❑ Approve requests for outside resources.
- ❑ Prepare reports for senior company officials.
- ❑ Attend unified command meetings with the federal and state On-Scene Coordinators.
- ❑ Approve and authorize the implementation of the *Incident Action Plan.*
- ❑ Determine resource needs for the Command Staff.
- ❑ Document all actions.

Periodic

- ❑ Visit site to assess operations and build morale.
- ❑ Evaluate the Emergency Response Team's performance.

Demobilization

- ❑ Review *Demobilization Plan* and obtain Senior Manager's approval.
- ❑ Provide Planning Section Chief with a copy of log and any notes or observations made during the operation.
- ❑ Supervise demobilization of Command Staff, including storage of supplies.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

Points to Consider

1. Before the Team initiates spill response efforts, meet to ensure that everyone understands such things as:

   - method by which team members will pass information among themselves.
   - ecological or socioeconomic areas to be protected first.
   - who is handling each position.
   - present status of response efforts.

2. Plan for the worst case situation when emergencies occur.

3. Indicate recognition and appreciation for accomplishments by response team members.

4. Always know how to contact each team member.

5. Periodically reevaluate the team's composition.

Legal Officer Duties

Scope of Responsibility

Provides legal advice on all aspects of emergency response operations. He/She is responsible for all legal matters and, therefore, is expected to the thoroughly familiar with all of the legal ramifications of emergency response operations. This includes the liabilities involved and the legal precedents that have been set in previous incidents. He/She also advises the Finance Section Chief and staff with respect to the legitimacy of claims, contracts, etc.

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Acquire work materials.
- ❑ Evaluate the legal aspects of proposed clean-up procedures. Advise appropriate team members of any legal action potential.
- ❑ Work with the Public Affairs Officer, Senior Manager, FOSC, and SOSC on the preparation of the initial press release.
- ❑ Determine resource needs.

Daily

- ❑ Obtain briefings from the Legal Officer on prior shift.
- ❑ Attend planning and briefing meetings.
- ❑ Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Legal operations.
- ❑ Brief Legal staff on the contents of *Incident Action Plans*.
    - (1) Verify that staff have most recent plan.
    - (2) Make/Verify assignment.
    - (3) Establish/review reporting requirements.
- ❑ Review policies, practices, and procedures related to emergency response operations to identify and address legal issues that may arise from or are associated with the operations.
- ❑ If requested to do so by Logistics Section Chief, review contracts before their execution.

- ❑ If requested to do so by Incident Commander, review press releases and/or statements prior to their issuance.

- ❑ Provide Operations Section Chief and Planning Section Chief and their staffs with legal advice on the conduct of emergency response operations, particularly if they are dependent upon government agency approvals and/or permits.

- ❑ Ensure that information is gathered and preserved which may be relevant to the defense and/or settlement of future claims.

- ❑ Ensure that emergency response personnel restrict communications related to liability or fault that may otherwise hinder future legal proceedings.

- ❑ Supervise the activities of outside legal counsel, if utilized.

- ❑ Document all actions.

Periodic

- ❑ Advise team members on the type of documentation that must be completed to support the company in potential litigation.

- ❑ Advise Incident Commander and Operations Section Chief on all legal matters related to emergency response operations.

- ❑ Provide Finance Section Chief with legal advice on external damage assessment operations and the handling of claims.

Demobilization

- ❑ Respond to demobilization orders.

- ❑ Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

Points to Consider

1. Comments made by response personnel regarding the cause and/or fault of the incident could affect future litigation.

2. The Legal Officer should work closely with any marine surveyors and claims adjustors.

Liaison Officer Duties

Scope of Responsibility

The Liaison Office is responsible for communicating with local, state, and federal government agencies. If these regulatory agencies assign representatives to the incident, the Liaison Officer works with them to relieve the Incident Commander of as much routine government liaison work as possible.

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Acquire work materials.
- ❑ Ensure that all appropriate regulatory bodies and governments have been notified of spill.
- ❑ Determine resource needs.
- ❑ After consulting with Incident Commander, seek approval from proper government agents for proper clean-up actions.

Daily

- ❑ Obtain briefings from Liaison Officer on prior shift.
- ❑ Attend planning and briefing meetings.
- ❑ Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Liaison operations.
- ❑ Provide Planning Section Chief with information on the timing and location of scheduled meetings with government agencies for inclusion in *Incident Action Plans*.
- ❑ Brief Liaison staff on contents of *Incident Action Plans*.

(1) Verify that staff have most recent plan.

(2) Make/verify assignments.

(3) Establish/review reporting requirement.

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Liaison Officer Duties

Establish contact with federal, state, and local government officials in threatened and/or affected areas and provide them with information on the incident and the status of emergency response operations.

- ❑ Advise Public Affairs Officer on the type of information that should be generated to keep federal, state, and local government officials informed of the status of emergency response operations.
- ❑ Provide Public Affairs Officer with information on all government agency contacts.
- ❑ Conduct observation tours for government agency representatives as long as the tours do not jeopardize personnel safety, tie up critical resources, or interfere with emergency response operations.
- ❑ Arrange regular briefings for federal, state, and local government officials.
- ❑ At the direction of Incident Commander, represent MPL LLC at meetings with federal, state, and local government officials.
- ❑ Convey information, requests, and legally constituted directives to Incident Commander and Section Chiefs.
- ❑ Prepare answers to questions raised by government agencies.
- ❑ Assist Planning Section Chief in obtaining government agency approvals/permits for the conduct of emergency response operations.
- ❑ Maintain a record of all contacts with federal, state, and local government officials.
- ❑ Document all actions.

Periodic

- ❑ Conduct observation tours for government agency representatives as required and when safety permits.
- ❑ If changes are necessary to the *Incident Action Plan* for the current work cycle, ensure that Unified Command is agreeable to same.

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Demobilization

- ❑ Respond to demobilization orders.
- ❑ Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.
- ❑ Monitor changes and additions to all relevant policies and regulations of government agencies.
- ❑ Develop and maintain awareness of local and national lines of communication to government agencies.
- ❑ Hold and maintain an up-to-date list of relevant government agencies.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

Points to Consider

1. All questions from government agencies should be directed to the Liaison Officer.
2. Keep detailed notes of:
3. Actions taken by government/regulatory offices.
4. Conversations over the telephone or in person with government/regulatory officials.
5. Recommendations and instructions from government/regulatory offices.

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Logistics Section Chief Duties

Scope of Responsibility

The Logistics Section Chief is responsible for obtaining the labor, equipment, facilities, food, communication systems, and other material needed to support emergency response operations.

Start Up

Upon arrival at the incident, check-in at designated check-in locations.

Acquire work materials.

Confirm dispatch and estimated time of arrival of staff and supplies.

Obtain initial briefing.

Set up (as appropriate) Command Center, Command Post(s), and staging area(s).

Organize, assign, and brief subordinates.

Determine aircraft and airport needs.

Determine initial catering/janitorial services required.

Provide offices, office furniture, equipment, administrative services, and support personnel as required.

Initiate and approve requests for labor, equipment, and services (including support staff).

Supervise support staff.

If appropriate, work with the Operations Section to locate site(s) for staging area(s) and establish same.

Determine resource needs.

Daily

Obtain briefings from the Logistics Section Chief on prior shift.

Attend planning and briefing meetings.

Supervise preparation of logistics support and services portions of *Incident Action Plans*.

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Logistics Section Chief Duties

(1) Make duty assignments.

(2) Prepare and post Logistics Section organization chart.

(3) Obtain summary of current actions.

(a) Equipment, materials, and services on-scene and where they are located.

(b) Equipment, materials, and services enroute and ETA.

Evaluate the magnitude of an incident with the Incident Commander to determine whether additional personnel should be activated.

Provide logistic support and services information to Planning Section Chief for inclusion in Situation Status Reports.

Brief Logistics personnel on contents of *Incident Action Plan* and other matters related to section operations.

(1) Verify that Logistics personnel have most recent plan.

(2) Make/verify assignments.

(3) Establish/review reporting requirements.

Work with Operations Section Chief to identify and ensure the timely and efficient provision of field support services, including:

(1) evacuation vessels.

(2) berthing and/or housing.

(3) decontamination units.

(4) potable water.

(5) food.

(6) fuel.

(7) mail.

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(8) waste handling.

(9) medical/first aid facilities.

(10) other, as necessary.

Work with Operations Section Chief to identify and ensure the timely and efficient provision of aircraft to support surveillance operations.

Work with Planning Section Chief to identify and ensure the timely and efficient provision of aircraft, vessels, and vehicles to support wildlife capture operations.

Ensure that Logistics support and service needs are met in a timely and efficient fashion.

Ensure that logistics support and service needs are met in a manner that maximizes personnel safety.

Ensure that guidelines, procedures, forms, and data management systems necessary to manage the acquisition of equipment, control inventory, and account for expenditures made during emergency response operations are followed by section personnel.

Ensure that an overall inventory is maintained of all equipment, material, and supplies purchased, rented, borrowed, or otherwise obtained during emergency response operations.

Ensure that necessary warehouse space is secured to store equipment, materials, and supplies.

Ensure that programs are in place to inspect and service equipment, store spare parts, and repair or replace damaged or defective equipment.

Ensure that records are maintained on transportation equipment and services used, materials and services provided, and contracts executed during emergency response operations.

Provide Operations Section Chief with recommendations on the timing of the release of logistics service and support manpower and equipment.

Document all actions.

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Periodic

Maintain appropriate personnel records.

Ensure enough personnel are available to handle all of the section's responsibilities.

Demobilization

Receive *Demobilization Plan* from Planning Section.

Respond to demobilization orders.

Brief subordinates regarding demobilization.

Supervise demobilization of section, including storage of supplies.

Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.

Recommend release of unit resources in conformity with *Demobilization Plan.*

Receive lists of supplies to be replenished from team members and secure same.

Points to Consider

1. Understand the degree of OSHA requirements for all personnel working on the spill.
2. Fixed fee contracts for services and labor may be to the Company's best interest.
3. Contractors may provide old or poor equipment and charge new equipment rates.
4. During an oil spill, there are many people of high school age and up who insist on helping. In many respects, volunteers may cause more problems than help.
5. Equipment demobilization should begin as early as possible. For example, it may be possible to return resources that were called out early in the response but were not used.
6. Equipment may need maintenance in addition to decontamination before being demobilized.
7. Before demobilizing resources, careful analysis should be made to determine which resources have the best benefit/cost ratio. Those with the lower rating should be released first. For example, berthing expenses can be curtailed by releasing outlying contractors before local ones.
8. Demobilization plans must provide methodology for ensuring loaned assets are returned and accounted for.

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Operations Section Chief Duties

Scope of Responsibility

The Operations Section Chief is responsible for the management of all operations directly related to the evacuation of personnel, medical services, the control of fires, and/or the control, containment, and cleanup of any spilled or emitted material. The Operations Section Chief activates and supervises section personnel, oversees the development and implementation of tactical operations plans, and directs efforts to implement *Incident Action Plans.*

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Receive initial briefing.
- ❑ Acquire work materials.
- ❑ Confirm dispatch and estimated time of arrival of staff and supplies.
- ❑ Organize, assign, and brief subordinates.
- ❑ Ensure contractors understand their role and responsibilities.
- ❑ Identify optimum locations for equipment staging areas.
- ❑ Determine the labor, transportation, supplies, field communication, and other requirements for carrying out the *Incident Action Plan.*
- ❑ Evaluate situation at oil spill site(s) to assess amount of oil to be removed and methods to be employed. Work with Planning Section Chief to establish if shoreline protection and/or cleanup is to be attempted. If so, where and to what degree.
- ❑ In consultation with Liaison Officer, agree with authorities on the details/extent of cleaning to be carried out.
- ❑ Ensure that response personnel are aware of and follow company policies and appropriate government agency directives.
- ❑ Determine resource needs.

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Operations Section Chief Duties

Daily

- ❑ Obtain briefings from the Operations Section Chief on prior shift.
- ❑ Conduct Tactical Operations Planning meetings.
- ❑ Attend planning and briefing meetings.
- ❑ Provide Logistics Section Chief with information on labor, equipment, material, and supply needs for Operations Section operations.
- ❑ Supervise the development of the tactical operations portion of the *Incident Action Plan.*

(1) Review strategic objectives and response priorities with Section personnel.

(2) Obtain summary of current actions.

(3) Obtain summary of resource utilization.

(4) Devise response strategies.

(5) Make duty assignments.

(6) Prepare and post Operations Section organization chart.

- ❑ Provide Planning Section Chief, Logistics Section Chief, and Finance Section Chief with copies of tactical operations plans.
- ❑ Brief Operations Section personnel on contents of *Incident Action Plans.*

(1) Verify that Section personnel have most recent plan.

(2) Obtain Field Personnel Listings.

(3) Obtain/verify field assignments.

(4) Establish/review reporting requirements.

- ❑ Verify that personnel have the equipment, materials, and supplies needed to carry out emergency response operations in a safe, effective, and efficient fashion.
- ❑ Verify that personnel are aware of and follow Company policies and appropriate government agency directives.

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- ❑ Verify that the concerns of impacted communities are adequately considered in the formulation and execution of emergency response strategies.
- ❑ Verify that appropriate documentation is compiled.
- ❑ Resolve conflicts that arise during the conduct of emergency response operations.
- ❑ Keep Operations Sections personnel informed of changing weather conditions.
- ❑ Provide regular briefings to Incident Commander on the nature and status of emergency response operations.
- ❑ Provide information to the Planning Section Chief on the status of emergency response operations.
- ❑ Coordinate with Planning Section Chief to ensure that emergency response operations are adequately support by surveillance operations.
- ❑ Provide Public Affairs Officer with accurate, up-to-date information on the nature and status of emergency response operations.
- ❑ Coordinate emergency response operations carried out by third parties, including response contractors/organizations, specialized service companies, and/or government agencies.
- ❑ Initiate recommended releases/reassignment of equipment and/or labor resources when those resources are no longer needed.
- ❑ Document all actions.

Periodic

- ❑ Ensure all response personnel follow accountability, safety, and security procedures.
- ❑ Report information about special activities, events, and occurrences to the Incident Commander.
- ❑ Ensure enough personnel are available to handle all of the Operations Section's responsibilities.

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Demobilization

- ❑ Receive copy of the *Demobilization Plan.*
- ❑ Respond to demobilization orders.
- ❑ Brief subordinates regarding demobilization.
- ❑ Provide Planning Section Chief with log and a copy of any notes or observations made during response operations.
- ❑ Via Planning Section Chief and Liaison Officer, discuss with relevant authorities status of acceptable demobilization conditions at each cleaned up site.
- ❑ Supervise demobilization of section, including storage of supplies.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

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Planning Section Chief Duties

Scope of Responsibility

The Planning Section Chief is responsible for supervising the collection, evaluation, dissemination, and use of information to support emergency response operations. The Planning Section Chief utilizes this information, input from Sections Chiefs, and the strategic objectives defined by the Incident Commander as a framework for the preparation of *Incident Action Plans*. The objectives of the plans are to define specific response strategies, and to coordinate and mobilize resources effectively during emergency response operations. The Planning Section Chief is also responsible for coordinating the development of Situation Status Reports and other incident specific plans, providing technical services in support of emergency response operations, and handling environmentally-related matters during emergency response operations. The Planning Section Chief also coordinates the documentation of all aspects of emergency response operations, including demobilization.

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Confirm dispatch and estimated time of arrival of staff and supplies.
- ❑ Obtain initial briefing.
- ❑ Acquire work materials.
- ❑ Interface with Incident Commander to gain consensus on response priorities.
- ❑ Coordinate with Operations Section Chief to obtain information to determine size, location, direction, type, or potential impact of spill.
- ❑ Interface with Logistic Section Chief to track resources employed and en route.
- ❑ Ensure log books, mail systems, office equipment, record keeping systems, and administrative support are available from the Logistics Section.
- ❑ Establish information requirements and reporting schedules for units.
- ❑ Determine resource needs.

Daily

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Planning Section Chief Duties

- ❑ Obtain briefings from the Planning Section Chief on prior shift.
- ❑ Attend Tactical Operations Planning meeting.
- ❑ Conduct Planning meetings.
- ❑ Conduct briefing meetings.
- ❑ Provide Logistics Section Chief with information on labor, equipment, material, and supply needs for Planning Section operation.
- ❑ Supervise the preparation of *Incident Action Plans*.
- ❑ Brief Section Unit Leaders on the contents of *Incident Action Plans* and other matters related to Section operations.
    - (1) Verify that Unit Leaders have most recent plan.
    - (2) Make/verify assignments.
    - (3) Establish/review reporting requirements.
- ❑ Ensure that systems and lines of communications are established that will facilitate the preparation and distribution of *Incident Action Plans*.
- ❑ Ensure that any incident specific plans, reports, or other documents required by company Management, MPL LLC's Incident Commander, and/or government agencies during or following the completion of emergency response operations are compiled in a timely, efficient, and satisfactory fashion.
- ❑ Ensure that systems are established that will facilitate the collection, evaluation, analysis, and dissemination of environmental, cultural, and social information and data. In the event of an oil/hazardous substance spill, this may include information on slick movements, potential spill-related impacts to environmentally sensitive areas, and air and water quality considerations.
- ❑ Ensure that systems are established that will facilitate the collection, analysis, verification, and dissemination of information on the status of emergency response resources and operations.
- ❑ Provide Public Affairs Officer with accurate, up-to-date information. Depending on the nature of the incident/response, this may include:
    - (1) fate and effects of spilled oil/hazardous substance.
    - (2) the location of spilled oil/hazardous substance.

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(3) the status of sheltering and/or evacuation operations.

(4) the status of fire fighting operations.

(5) weather and other conditions.

(6) the type and number of wildlife affected by the incident.

(7) the status of wildlife rehabilitation efforts.

(8) statistical summaries of emergency response operations.

- ❑ Assist other section chiefs in responding to requests for information from government agencies.
- ❑ Provide Incident Commander information on all government agency contacts.
- ❑ Upon request, provide Operations Section Chief with recommendations on selection of equipment and response techniques, and on the timing of the release of labor and equipment resources.
- ❑ Document all actions.

Periodic

- ❑ Ensure enough personnel are available to handle all of the Planning Section's responsibilities.
- ❑ If appropriate, initiate and maintain SCAT.
- ❑ Advise team members of any significant changes in incident situations.
- ❑ Prepare and distribute Incident Commander's orders.
- ❑ Ensure appropriate documentation is being made. Obtain same.

Demobilization

- ❑ Ensure appropriate personnel receive *Demobilization Plan.*
- ❑ Respond to demobilization orders.
- ❑ Supervise demobilization of section, including storage of supplies.
- ❑ Ensure full chronological report is prepared for the Incident Commander.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

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Public Affairs Officer

Scope of Responsibility

The Public Affairs Officer is responsible for the formulation and release of information about an incident to the news media, non responding government agencies, and other stakeholders. The Public Affairs Officer is also responsible for ensuring that media and community concerns are clearly and accurately identified and addressed during emergency response operations.

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Acquire work materials.
- ❑ Coordinate with the Legal Officer, Senior Manager, FOSC, and SOSC the preparation of the initial press release.
- ❑ Determine resource needs.
- ❑ Establish lines of communication with:
    1. • Local press, radio, and TV.
    2. • National/international media (where appropriate).
    3. • Concerned citizens groups.
    4. • Public organization.
- ❑ Set media guidelines for response team members, security personnel, and contractors.
- ❑ Establish a press room.
- ❑ Consider having phone banks set up for the media to use.
- ❑ Consider forming a Joint Information Center (JIC) with government agencies.

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Daily

- ❑ Obtain briefings from the Public Affairs Officer on prior shift.
- ❑ Relay information to Human Resources.
- ❑ Attend daily planning and briefing meetings.
- ❑ Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Public Affairs operations.
- ❑ Provide Planning Section Chief with information on the timing and location of press conferences and briefings for inclusion in *Incident Action Plans*.
- ❑ Brief Public Affairs staff on contents of *Incident Action Plans*.
    - (1) Verify that staff have most recent plan.
    - (2) Make/verify assignments.
    - (3) Establish/review reporting requirements.
- ❑ Serve as the principal advisor to Incident Commander on all maters relating to external communications and interactions.
- ❑ Advise Incident Commander on the public and community relations impact(s) of MPL LLC's handling of emergency response operations.
- ❑ Work with Incident Commander and Legal Officer to establish incident specific public relations guidelines and distribute to Emergency Response Team members.
- ❑ Establish lines of communication with: local press, radio, and TV outlets; national/ international media representatives; concerned citizens' groups; and public organizations.
- ❑ Ensure access to complete, accurate, and up-to-date information on the nature and status of emergency response operations.
- ❑ Monitor media coverage of the incident. Provide follow-up information when necessary. Correct any errors.
- ❑ Arrange press conferences and briefings.
- ❑ Prepare "fact sheets" on the incident.

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- ❑ Serve as a Company spokesperson with local media.
- ❑ Arrange press tours as long as the tours do not jeopardize personnel safety, tie up critical resources, or interfere with emergency response operations.
- ❑ Maintain a record of newspaper articles, radio, and television broadcasts, press conferences, and press briefings.
- ❑ Prepare updated press releases as required. (Coordinate with U.S. Federal On-Scene Coordinator, Incident Commander, and Legal Officer or participate as appropriate in the JointInformationCenter.)
- ❑ Be available to handle on-the-spot inquiries from the media including journalists approaching response personnel on the beach.
- ❑ Determine resource needs.
- ❑ Document all activities.

Periodic

- ❑ Conduct press/local audience conferences as required, using approved press/information release as basis. Ensure that Incident Commander has prior notice of conference time and place.
- ❑ Conduct public relations workshops for response team members.
- ❑ Consider holding town meetings so the public's concerns may be addressed.
- ❑ Develop and implement accountability, safety, and protocols for media visiting field sites.

Demobilization

- ❑ Receive a copy of the *Demobilization Plan.*
- ❑ Respond to demobilization orders.
- ❑ Provide Planning Section Chief with a copy of any notes or observations made during the operation.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

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Points to Consider

1. Refer to Section 3.0 of the 194 plan for media pointers.
2. Consider establishing a web site on the Internet to inform the public directly.
3. If a Joint Information Center (JIC) is established, will need to coordinate activities with agency personnel.
4. When monitoring press reports, remember to check the media's web sites on the Internet.
5. Before press conferences, confer with agency spokesperson(s) to ensure the message is consistent.

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Qualified Individual Duties

Scope of Responsibility

The Qualified Individual is responsible for the initial activation and commitment of response resources, proper notification of regulatory agencies, and establishing response resources. **The Qualified Individual (QI) quickly transfers responsibilities to the Emergency Response Team and the position is discontinued.** While the QI has full authority to implement removal activities and direct clean-up activities, the team accomplishes these tasks.

Start-up

- ❑ Ensure notifications detailed in Section 2.0 of the 194 plan are made.
- ❑ Determine the scale of response necessary and based on this activate response resources.
- ❑ Activate designated agreements with contractors and/or cooperative for emergency response actions.
- ❑ Activate appropriate response team members.
- ❑ Assess the possible hazards to human health and the environment due to the release.
- ❑ Consider establishing liaison with FOSC and SOSC.
- ❑ Provide initial briefing to response team members.
- ❑ Document all activities.

Demobilization

- ❑ Provide Planning Section Chief with a copy of log made during the operation.

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Repair Section Leader

The Repair Section Lead reports to the Operations Section Chief and is responsible for developing a plan to repair the pipe and ensuring execution of the plan to allow the pipe to be returned to service. This role is typically filled by the System Integrity Leader. An M&TE project team will be assembled to support the Repair Section Leader by assisting with the efforts of plan development and procuring of resources. The Repair Section will inspect the failed pipe to evaluate repair options and select the preferred method. It will also determine how best to drain the pipe and achieve isolation in order to safely complete the repair. The Repair Section will typically secure its own pipeline contractor through Logistics and Planning and inspector to be devoted solely to the repair effort. After final inspection and testing of the completed repair, the pipeline section will be turned over to operations for return to service with approval of the Incident Commander.

X Completed N/A Not Applicable

____ Contact M&TE to assist with management of the Repair Project.

____ Coordinate efforts with the Operations Section Chief to prepare the site for safe access and inspection of pipe failure

____ Complete initial inspection of pipe failure site when safe to do so

____ Communicate periodic updates to the Operations Section Chief

____ Locate and mobilize all primary and contingent line prep equipment and repair materials that could be used (PLAN FOR CONTINGENCIES)

____ Ensure all paperwork (certifications, mill test reports, hydrotest records) are available for repair materials.

____ Determine the drain up method and estimate the time required to drain up the line

____ Develop an initial pipeline repair plan and timeline

____ Develop a Commissioning, Decommissioning, and Recommissioning (CDR) plan

____ Secure a pipeline contractor, inspector, and non-destructive testing (NDT) contractor

____ Ensure contractor has qualified welders and all required Operator Qualifications.

____ Ensure repair contractor makes proper emergency one-call notification prior to digging.

____ Direct the excavation of the failed pipe segment and appurtenance taps as necessary

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Repair Section Leader

____ Inspect the pipe failure and list repair options. Engage a 3rd party metallurgical consultant to assist with preliminary failure mode determination as necessary.

____ Drain the section by gravity, stopple, or purge considering market impact and safety.

____ Repair the failed pipe by cutout and replacement with pre-tested pipe, full encirclement sleeve, or by bolt-on clamp while ensuring complete isolation from hazardous vapors or liquids. Method to be determined with pipeline integrity oversight and with market impact considerations.

____ Complete required inspection, NDT, and proof testing.

____ Turn the line section back over to operations for return to service.

____ Inspect the repaired section during start up and initial operation.

____ Prepare failed pipe segment for shipment to metallurgical consultant for final failure analysis. Ensure appropriate documentation prior to, during, and after shipment.

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Safety Officer

Scope of Responsibility

The Safety Office is responsible for monitoring and assessing hazardous and unsafe situations, and developing measures to avoid or mitigate such situations. The Safety Officer works to correct unsafe acts or conditions through regular lines of authority, although he/she may exercise emergency authority to prevent or stop unsafe acts or conditions when immediate action is required. The Safety Officer maintains awareness of active and developing situations, and includes safety messages in *Incident Action Plans*. The Safety Officer is thoroughly versed in safe operating practices and safety-related training requirements.

Start Up

- ❑ Upon arrival at the incident, check-in at designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Ensure the spill site has been tested to determine level of PPE required to be worn by response personnel.
- ❑ Create a *Site Safety and Health Plan*. Provide same to the appropriate personnel.
- ❑ Apply for labor, equipment, and services necessary to ensure safe operations at site.
- ❑ Develop and implement accountability, safety, and security measures for personnel and resources.
- ❑ Establish instruction and training facilities for response personnel and ensure that they receive appropriate training (e.g., HAZWOPER).
- ❑ Provide Operations Section Chief and contractor personnel advice on practices and procedures that will enhance the safety of field response personnel.
- ❑ Determine resource needs.

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Daily

- ❑ Obtain briefings from the Safety Officer on prior shift.
- ❑ Attend planning and briefing meetings.
- ❑ Provide Deputy Incident Commander with information on labor, equipment, material, and supply needs for Safety operations.
- ❑ Provide Planning Section Chief with information for the safety portion of Incident Action Plans.

    (1) Description of safety hazards and risks.

    (2) Measures to avoid or mitigate safety hazards and risks.

- ❑ Prepare health and safety messages for *Incident Action Plans*.
- ❑ Brief safety staff on contents of *Incident Action Plans*.

    (1) Verify that staff have most recent plan.

    (2) Make/verify assignments.

    (3) Establish/review reporting requirements.

- ❑ Ensure that all responding personnel have received required federal and state safety-related training.
- ❑ Ensure compliance with all relevant OSHA requirements.
- ❑ Assess the need for and recommend assistance from local fire, police, and emergency rescue units.
- ❑ Evaluate the need to evacuate personnel and/or the residents of nearby communities that could be directly or indirectly affected by an emergency situation.
- ❑ Develop appropriate safety guidelines to be observed during emergency response operations.
- ❑ Work with Operations Section Chief and staff in the evaluation of field response operations to ensure the observation of appropriate safety guidelines.

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- Develop and issue Safety Bulletins.
- Work with Logistics Section Chief to ensure that appropriate personal protective equipment is available to emergency response personnel.
- Ensure that partial and full decontamination facilities are set up and operational during the conduct of field operations.
- Set up a system to identify and eliminate safety hazards in all aspects of emergency response operations.
- Command search and rescue operations, as needed.
- Investigate, report, and record all safety-related accidents that occur during emergency response operations, and develop remedial actions to avoid future occurrences.
- Develop and maintain a record of the safety performance of emergency response personnel.
- Maintain safety training records.
- Exercise emergency authority to prevent or stop unsafe acts.
- Notify the appropriate federal, state, and local government safety officials of all safety-related incidents.
- Identify locations for first aid stations in the field.
- Serve as liaison with federal and state OSHA officials.
- Establish and enforce industrial hygiene standards and requirements for field operations.
- Document all actions.

Periodic

- Monitor work sites for smoking and use of alcohol/controlled substances.
- Investigate, report, and record all accidents and/or near misses. Develop remedial actions to avoid future occurrences.

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- ❑ Attend induction/debriefing of contractors.
- ❑ Receive and relay manufacturer's instructions to cope with hazards inherent in the products involved.

Demobilization

- ❑ Respond to demobilization orders.
- ❑ Provide Planning Section Chief with log and a copy of any notes or observations made during the operation.
- ❑ Monitor relevant developments in safety techniques.
- ❑ At the conclusion of the response, analyze deficiencies and recommend procedure or equipment changes to be made before a future event.
- ❑ Provide Logistics Section Chief with a list of supplies to be replenished.

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Senior Manager Duties

Scope of Responsibility

Senior Managers serves as the primary senior management contact for the Incident Commander. He/She has access to senior management who establishes company policies. Also ensures that the Incident Commander has the resources and support necessary to mount and sustain emergency response operations.

Start Up

- ❑ Upon arrival, check-in at the designated check-in location.
- ❑ Obtain initial briefing.
- ❑ Ensure appropriate members of teams are called out.
- ❑ Brief appropriate senior management personnel. Request they identify and alert personnel that may be needed to support control, and/or response objectives.
- ❑ Establish strategic objectives and response priorities.
- ❑ Organize, brief, and assign subordinates.
- ❑ If applicable, supervise the transition from a lower level team.
- ❑ Notify FOSC and SOSC of proposed activities.
- ❑ Work with the Public Affairs Officer, Legal Officer, FOSC, and SOSC on the preparation of the initial press release.
- ❑ Identify the need for an investigation team.

Daily

- ❑ Assign specific duties to staff; supervise staff.
- ❑ Conduct planning and briefing meetings as required to coordinate the clean-up effort.

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- Ensure that assigned responsibilities are carried out and that coordination exists between supervisory team members.
- Evaluate and adjust response priorities.
- Arrange for the use of company personnel as requested by the Incident Commander and/or as necessary to support control and/or response operations.
- Authorize the utilization of company resources as requested by Incident Commander.
- Develop the overall plan of action for the containment and cleanup of the spill. Delegate the responsibility of putting the plan into effect to the key personnel in the response team.
- Obtain an itinerary for the appropriate senior management to ensure that they can be contacted and/or readily assembled in the event that management decisions or input are needed to support response operations.
- Evaluate and adjust strategic objectives and response priorities based upon input from senior management and supervisory team members.
- Keep Incident Commander advised of developments.
- Assess legal advice from Legal Officer during response operations.
- Brief senior management on the status of emergency response operations.
- Document all actions.

Periodic

- Serve as the Company's primary spokesperson.
- Serve as a contact person for high level government agencies not directly involved in response operations.
- Contact senior management of other companies when possible, to request use of third party labor and/or equipment resources to support the company's response operations.
- Facilitate senior management review and approval of proposed information and/or press releases.

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- ❑ Review and approve press releases and statements.
- ❑ Keep non-involved company personnel informed of the situation.

Demobilization

- ❑ Provide Planning Section Chief with a copy of log and any notes or observations made during the operation.
- ❑ Convene post-incident stewardship meeting approximately four (4) weeks after stand down.
- ❑ Monitor Emergency Response Team structure and modify as needed.

Points to Consider

1. Before the Team initiates spill response efforts, meet to ensure that everyone understands such things as:

   • Method by which team members will pass information among themselves.

   • Ecological or socioeconomic areas to be protected first.

   • Who is handling each position?

   • Present status of response efforts.

2. Plan for the worst case situation when emergencies occur.
3. Indicate recognition and appreciation for accomplishments by response team members.
4. Always know how to contact each team member.
5. Periodically reevaluate the team's composition.

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APPENDIX A
OHIO VALLEY

A

PHMSA 000116813

OHIO VALLEY RESPONSE ZONE
GENERAL INFORMATION SUMMARY

Name, Address, and Telephone Number of Operator:	Marathon Pipe Line LLC 539 South Main Street Findlay, Ohio 45840-3295 419-421-2121 (Voice) 419-421-4018 (Fax) Ohio Valley Response Zone Office: Marathon Pipe Line LLC 539 S. Main Street Findlay, OH 45840-3295 419-421-3719 (Voice) 419-421-4515 (Fax)
Description of Pipeline:	There are several segments, ranging in size between gathering lines and 24" in diameter, located in the Ohio Valley Response Zone.
Location of Response Zone:	Within Pennsylvania, Michigan, Ohio, Indiana, Kentucky and West Virginia. See maps in Appendix F for details and Appendix A for a list of counties, local contacts, and notification telephone numbers.
Name and Telephone Number of Qualified Individual (QI):	Shawn M Lyon 419-421-4002 (Office) (b) (6) (Cell)
Name and Telephone Number of Alternate Qualified Individual (Alt QI):	Steve Willis 419-421-3719 (Office) (b) (6) (Cell)
Basis for Significant and Substantial Harm:	Pipeline is near water intakes and environmentally sensitive areas. It also crosses waterways.
Type of Oil Transported:	Crude oil and refined products

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OHIO VALLEY RESPONSE ZONE
GENERAL INFORMATION SUMMARY

Worst Case Discharge (Pipeline)

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

[redacted]

E. Sparta Area

- The Canton to East Sparta No. 1 and No. 2 6" products pipeline system from the Canton Refinery to East Sparta Station, mile post 8
- Eastern portion of the Lima to Canton 12" and 16" crude oil pipeline system from the Ashland-Wayne County line to Canton Refinery
- Eastern portion of the East Sparta to Heath 8" products line from Coshocton County (Walhonding River) bi-directional
- East Sparta to Midland 8" products line bi-directional
- East Sparta Station, Tank 475, External Floating Roof
- East Sparta Station, Tank 476, External Floating Roof
- East Sparta Station, Tank 766, Internal Floating Roof
- East Sparta Station, Tank 767, Internal Floating Roof
- East Sparta Station, Tank 768, Internal Floating Roof
- East Sparta Station, Tank 769, Internal Floating Roof
- East Sparta Station, Tank 877, Internal Floating Roof
- East Sparta Station, Tank 914, Cone Roof
- East Sparta Station, Tank 915, Cone Roof
- East Sparta Station, Tank 916, Cone Roof

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OHIO VALLEY RESPONSE ZONE
GENERAL INFORMATION SUMMARY

Midland Terminal TT&R

- 8" products line from Midland Terminal to Buckeye Station (next door to Midland Terminal)
- 8" products line from Midland Terminal to Buckeye Terminal (across the street from Midland Terminal)
- 12" products line from Buckeye Station (next door to Midland Terminal) to the Midland Terminal
- 6" relief line to tank T-8 from station piping
- 4" relief line to tank T-8 from station piping
- Midland Terminal, Tank 50-1 (T-1), Internal Floating Roof
- Midland Terminal, Tank 61-2 (T-2), Internal Floating Roof
- Midland Terminal, Tank 94-3 (T-3), Internal Floating Roof
- Midland Terminal, Tank 96-4 (T-4), Cone Roof
- Midland Terminal, Tank 50-5 (T-5), Internal Floating Roof
- Midland Terminal, Tank 28-6 (T-6), Internal Floating Roof
- Midland Terminal, Tank T-8, Internal Floating Roof

Heath Area

- The Heath to Dayton 6/8" products pipeline system from Heath Station to Columbus Terminal
- The Heath to Dayton 6/8" products pipeline system, from Hayden Run Junction to Dayton Station
- The Columbus Junction to Columbus Terminal 8" products pipeline system from Columbus Junction to Columbus Terminal, mile post 8
- Columbus East 12" to Sunoco
- Southern portion of the Heath to Findlay 10" and 8" products pipeline from Heath to Marion-Delaware County line
- Western portion of the East Sparta to Heath 8" products line from Coshocton County (Walhonding River) to Heath
- Heath Station, Tank 212, Internal Floating Roof
- Heath Station, Tank 213, Cone Roof
- Heath Station, Tank 233, Internal Floating Roof
- Heath Station, Tank 235, Internal Floating Roof
- Heath Station, Tank 239, Internal Floating Roof
- Heath Station, Tank 913, Internal Floating Roof

- Heath Station, Tank 114, Internal Floating Roof
- 14" Products Line from Jackson – Gallia County Line to Columbus West Terminal
- 12" Interconnect from Columbus West to Columbus East

Columbus East Terminal

- Columbus East, Tank 40-370, Internal Floating Roof
- Columbus East, Tank 41-371, Internal Floating Roof

Columbus East Terminal ***(cont.)***

- Columbus East, Tank 12-372, Internal Floating Roof
- Columbus East, Tank 23-373, Internal Floating Roof
- Columbus East, Tank 24-374, Cone Roof
- Columbus East, Tank 24-375, Cone Roof
- Columbus East, Tank 24-376, Internal Floating Roof
- Columbus East, Tank 52-377, Internal Floating Roof

Columbus West Terminal

- Columbus West, Tank 20-2, Geodesic Dome, Internal Floating Roof
- Columbus West, Tank 35-3, Geodesic Dome, Internal Floating Roof
- Columbus West, Tank 55-4, Geodesic Dome, Internal Floating Roof
- Columbus West, Tank 25-5, Cone Roof
- Columbus West, Tank 25-6, Cone Roof
- Columbus West, Tank 25-7, Cone Roof
- Columbus West, Tank 80-9, Internal Floating Roof
- Columbus West, Tank 30-10, Internal Floating Roof
- Columbus West, Tank 30-11, Internal Floating Roof
- Columbus West, Tank 55-18, Internal Floating Roof
- Columbus West, Tank 80-19, Internal Floating Roof

OHIO VALLEY RESPONSE ZONE
GENERAL INFORMATION SUMMARY

Lima Area

- The Myers to Martel 6" crude oil pipeline system from Myers Station to Martel Station, mile post 9 (line N_2 purged and open)
- Western portion of the Lima to Canton 12" and 16" crude oil pipeline system from Lima Station to Ashland-Wayne County line
- Northern portion of the Heath to Findlay 10" and 8" products pipeline from Marion-Delaware County line to Findlay, Ohio
- 4" Products Line from Bellevue Station to Norfolk and Southern Railroad
- #2-10" Products Line from Jay County, Indiana to Lima, Ohio
- RIO 8" Products Line from Jay County, Indiana to Lima, Ohio
- 22" Crude Line from Jay County, Indiana to Lima, Ohio
- Maumee 22": from Lima terminal to Maumee (Lima, Ohio)
- #2-10": Robin Wabash Station to Lima Metering
- Buckeye 12": Buckeye Lima Station to Lima Metering
- Lima Metering to Lima Buckeye 8"
- Lima 10" Pump Out to Inland Products
- 6" Transmix Pump out: Lima Terminal to Lima - Canton Crude Line
- 16" from crude Manifold (It terminates off of the 22" into tank 80-7 at the TT&M terminal. (b) (3), (b) (7)(F) [redacted]
- Lima Station, Tank 20 (Relief), Internal Floating Roof
- Lima Station, Tank 1207, Internal Floating Roof
- Lima Station, Tank 1208, External Floating Roof
- Lima Station, Tank 1209, Internal Floating Roof
- Lima Station, Tank 1210, Internal Floating Roof
- Lima Station, Tank 1217, External Floating Roof
- Lima Station, Tank 1218, External Floating Roof
- Lima Station, Tank 1219, External Floating Roof
- Lima Station, Tank 1220, External Floating Roof
- Lima Station, Tank T-2, Cone Roof
- Lima Station, Tank 10-18, Covered Floating Roof
- Lima Station, Tank 10-19, Cone Roof

OHIO VALLEY RESPONSE ZONE
GENERAL INFORMATION SUMMARY

Lima Area *(Cont.)*

- Lima Station, Tank 10-20, Cone Roof
- Lima Station, Tank 16-17, Cone Roof
- Lima Station, Tank 20-3, Open Floating Roof
- Lima Station, Tank 20-9, Open Floating Roof
- Lima Station, Tank 24-16, Cone Roof
- Lima Station, Tank 25-10, Cone Roof
- Lima Station, Tank 25-11, Covered Floating Roof
- Lima Station, Tank 25-12, Cone Roof
- Lima Station, Tank 25-13, Cone Roof
- Lima Station, Tank 55-1, Covered Floating Roof
- Lima Station, Tank 55-4, Open Floating Roof
- Lima Station, Tank 55-5, Open Floating Roof
- Lima Station, Tank 80-7, Cone Roof
- Lima Station, Tank 80-8, Covered Floating
- Lima Station, Tank 100-14, Cone Roof
- Lima Station, Tank 268-15, Covered Floating Roof
- Lima Station, Tank AA-8-1, Cone Roof
- Lima Station, Tank AA-8-2, Cone Roof
- Lima Station, Tank HA-1-1, Horizontal Roof
- Lima Station, Tank HA-1-2, Horizontal Roof
- Lima Station, Tank RA-10-3, Cone Roof
- Findlay Station, Tank 6, Internal Floating Roof
- Findlay Station, Tank 7, Internal Floating Roof
- Findlay Station, Tank 8, Vertical Fixed Roof
- Findlay Station, Tank 29, Internal Floating Roof
- Findlay Station, Tank 286, Internal Floating Roof

Lima Area*(Cont.)*

- Findlay Station, Tank 301, Internal Floating Roof
- Findlay Station, Tank 302, Internal Floating Roof
- Findlay Station, Tank 303, External Floating Roof
- Findlay Station, Tank 304, Open Floating Roof

Northeast Area (Woodhaven)

- Samaria - Detroit 16" Crude Line
- Woodhaven LPG Lines from Detroit, MI to Woodhaven, MI
- Van Buren to Detroit 16" Crude Line
- Woodhaven LPG Caverns,1,2,4,5,6,7,8,9
- Woodhaven Cavern Facility, Tank V4, Bullet Tank
- Woodhaven Cavern Facility, Tank V5, Bullet Tank
- Woodhaven Cavern Facility, Tank V6, Bullet Tank
- Woodhaven Cavern Facility, Tank V10, Bullet Tank
- Woodhaven Cavern Facility, Tank V11, Bullet Tank
- Samaria Station, Tank 705, External Floating Roof
- Samaria Station, Tank 706, External Floating Roof
- Samaria Station, Tank 708, External Floating Roof
- Samaria Station, Tank 709, External Floating Roof
- Samaria Station, Tank 710, External Floating Roof
- Samaria Station, Tank 711, Internal Floating Roof
- Samaria Station, Tank 712, Internal Floating Roof
- Stockbridge Station, Tank 681, Internal Floating Roof

OHIO VALLEY RESPONSE ZONE
GENERAL INFORMATION SUMMARY

Owensboro Area

- Patoka, Illinois, to Owensboro, Kentucky, 20" crude oil pipeline Mile Post 88 to 139
- Owensboro, Kentucky, to Catlettsburg, Kentucky, 24" crude oil .pipeline
- MidValley – Lebanon Junction 20" spur
- Owensboro Station, Tank 713, External Floating Roof
- Owensboro Station, Tank 714, External Floating Roof
- Owensboro Station, Tank 719, External Floating Roof
- Owensboro Station, Tank 720, External Floating Roof
- Lebanon Jct. Station, Tank 801, External Floating Roof
- Lebanon Jct. Station, Tank 802, External Floating Roof
- Louisville International Airport, Tank 5, Cone Roof
- Louisville International Airport, Tank 9, Cone Roof
- Louisville to Louisville International Airport, 8" – 6" Jet Fuel (Louisville Algonquin terminal to Louisville International Airport)
- Louisville to Lexington 8" Products (Louisville Algonquin terminal to Lexington terminal)
- Lexington Station, Tank 1-824, Cone Roof
- #1-12" from MPL Valero Junction to Louisville Algonquin Terminal
- (b) (3), (b) (7)(F) [redacted]
- MPL Valero Junction – Buckeye 12"
- MPL Valero Junction – Valero Terminal 12"
- Kramers LN Station, Tank T-5, Covered Floating Roof
- Robinson Wabash – Louisville Campground Road 16" Mile Post 73 – Mile Post 120
- Louisvile Campground Rd – Louisville Thornton 16"

Owensboro Area *(Cont.)*

- Louisville Campground Rd – Citgo 12"
- Louisville Campground Rd – Transmontane 12"
- Louisville Campground Rd – Louisville Chevron Junction 12"
- Campbell Branch – Vina Metering Crude 6"
- Campbell Branch, Tank 990, Internal Floating
- Kenova – Columbus 14" Mile Post 0 – Mile Post 40
- Kenova Tank Farm – Kenova Station 12"
- Catlettsburg Refinery, Tank 803, External Floating Roof
- Catlettsburg Refinery, Tank 804, External Floating Roof
- Catlettsburg Refinery – Catlettsburg Butane Cavern 8" Butane
- Catlettsburg Propane Caver n– Catlettsburg Refinery 2" Propane Vapor
- Catlettsburg Propane Cavern – Catlettsburg Refinery 6" LPG
- Catlettsburg Propane Cavern – Catlettsburg Refinery 4" LPG
- Catlettsburg Refinery – Catlettsburg Refinery Neal 2" Fuel Gas
- Catlettsburg Refinery – Catlettsburg Refinery Neal 4" Butane
- Catlettsburg Refinery – Neal Chemical Plant 3" Feed LPG
- Catlettsburg Refinery – Tri State #2 – 6" Oil Water
- Catlettsburg Refinery – Tri State 10" Products
- Catlettsburg Refinery – Tri State 16" Products
- Catlettsburg Refinery – Tri State A – 6" Products

Kenova Terminal

- Tank 25-202, Cone Roof
- Tank 52-270, Internal Floating Roof
- Tank 52-271, Internal Floating Roof
- Tank 52- 272, Internal Floating Roof

	• Tank 90-258, Internal Floating Roof • Tank 95-259, Internal Floating Roof • Tank 96-260, Internal Floating Roof • Tank 96-257, Internal Floating Roof • Tank 123-255, Cone Roof • Tank 150-262, Cone Roof • Tank 151-261, Cone Roof
Canton Refinery	• Tank 74
Detroit Refinery	• Tank 113
Catlettsburg Refinery	• Tank 803 • Tank 804
Lexington Terminal	• Tank 824

OHIO VALLEY RESPONSE ZONE
TELEPHONE NUMBERS

MPL LLC Emergency Number	800-537-6644
Operations Vice President	
Shawn M. Lyon	Office: 419-421-4002
Findlay	Cell: (b) (6)
Region Manager	
Steve Willis	Office: 419-421-3719
Findlay, OH	Cell: (b) (6)
East Sparta Area	
Scott Vongraff	Office: 330-866-5525
Area Manager	Cell: (b) (6)
Ryan Dennison	Office: 330-866-5525
Operations Supervisor	Cell: (b) (6)
Heath Area	
Brian Duggan	Office: 740-522-8448
Area Manager	Cell: (b) (6)
Aaron Clark	Office: 740-522-8448
Operations Supervisor	Cell: (b) (6)
Lima Area	
Patrick Thompson	Office: 419-229-3344
Area Manager	Cell: (b) (6)
Travis Unverferth	Office: 419-228-3201
Operations Supervisor	Cell: (b) (6)
Northeast Area	
Ray Price	Office: 734-676-7775
Area Manager	Cell: (b) (6)
Miranda Steinberger	Office: 734-676-7775
Operations Supervisor	Cell: (b) (6)

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Owensboro Area

Randy Eakins	Office: 270-926-5560
Area Manager	Cell: (b) (6)
Danny Conley	Office: 270-926-5578
Operations Supervisor	Cell: (b) (6)

ES&R Representative

Safety

East Sparta Area – Scott O'dell	Office: 330-866-5525
	Cell: (b) (6)
Heath Area – Scott O'dell	Office: 330-866-5525
	Cell: (b) (6)
Lima Area – Eric Sponaughle	Office: 419-421-3073
	Cell: (b) (6)
Northeast Area – Eric Sponaughle	Office: 419-421-3073
	Cell: (b) (6)
Owensboro Area – Jason Underhill	
	Office: 270-926-5568
	Cell: (b) (6)

Environmental

Matt Baumgart	Office: 614-274-7343
Columbus, Oh	Cell: (b) (6)

Operations Superintendent

Matthew Greenawalt	Office: 419-421-4088
Findlay, OH	Cell: (b) (6)

Terminal Managers

Brian Hyde	Office: 614-276-5141
Columbus Terminal Manager	Cell: (b) (6)
Steven Hester	Office: 304-453-3331
Kenova Terminal Manager	Cell: (b) (6)
Bill Strong	Office: 859-254-3427
Lexington Terminal Manager	Cell: (b) (6)

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Nicholas Mwanthi Lima Terminal Manager	Office: Cell:	419-224-5746 (b) (6)
Chris McCormick Louisville Kramers Lane	Office: Cell:	502-447-3550 (b) (6)
Mike Leins Louisville Algonquin	Office: Cell:	502-772-5200 (b) (6)
Al Smith Midland Terminal Manager	Office: Cell:	724-643-9101 (b) (6)

Human Resources Representative

Nicole Hall Findlay	Office: Cell:	419-421-3398 (b) (6)

Region Accountant

Lauren Stuck	Office:	419-421-4278

Corporate Emergency Response Team 1-877-MAPLINE
(CERT activates EST)

MPL LLC Counsel

Woody Gearheart Findlay, OH	Office: Cell:	419-421-2386 (b) (6)

Land Agent

Ed May Findlay, OH	Office: Cell:	419-421-3704 (b) (6)
Jim Reneau Findlay, OH	Office: Cell:	419-421-2885 (b) (6)
Jeff Erwin Owensboro	Office: Cell:	502-926-5579 (b) (6)

Federal Government	National Response Center	800-424-8802 202-267-2675
	USCG National Command Center	800-DAD-SAFE 202-372-2100

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	Oil Spill Region IV Response Team	
	U.S. Coast Guard	305-536-5651
	U.S. EPA	404-562-8721
		404-562-8700
	MSO Huntington, WV	800-253-7465
	MSO Louisville, KY	800-253-7465
	MSO Padukah, KY	502-442-1621
	MSO Memphis, TN	901-544-3912
	Ohio Valley Command Center	502-779-5422
	St. Louis	314-539-3091
	EPA Region IV - Kentucky Atlanta, Georgia	404-562-9900
	EPA Region V – Chicago, IL	312-886-9296
	OSHA	800-321-OSHA (6742)
	DOT - Office of Pipeline Safety - Southern Region Atlanta, Georgia	404-832-1147
	DOT - Office of Pipeline Safety - Central Region Kansas City, Missouri	816-329-3800
	DOT - Office of Pipeline Safety - Eastern Region West Trenton, NJ	609-989-2171
	ORSANCO	513-231-7719
State Government	**Indiana**	
	IDEM	888-233-7745 (in U.S.) 317-233-7745(outside U.S.)
	One Call	800-382-5544
	Kentucky	
	Natural Resources and Environmental Protection Hotline	502-564-6940 502-564-2340
	Disaster and Emergency Services	502-564-7815
	Public Service Commission Hotline	502-564-3940 800-772-4636
	KY Department of EPA	502-564-0323

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KY Emergency Management Operations 800-255-2587

	Division of Water Quality	502-564-2380
State Government	Louisville	502-429-7122
	Columbia	270-384-4734
	Frankfort	502-564-3358
	Hazard	606-435-6022
	Madisonville	270-824-7529
	Morehead	606-783-8655
	Division of Air Quality	800-AIR IN KY
	Ashland	606-929-5285
	Frankfort	502-564-3358
	Hazard	606-435-6022
	Owensboro	270-687-7304
	One Call	800-752-6007
	Michigan	
	State Police Dispatch	800-292-4706 (in state) 517-373-7660
	PEAS	800-292-4706 (in state) 517-373-7660 (out of state)
	MI Public Service Commission	517-241-6180
	MI Dept. of Environmental Quality	517-373-7917
	Fire Marshall	888-684-3473
	One Call	800-482-7171
State Government		
	Ohio	
	OEPA	614-224-0946(in state) 800-282-9378(out of state)
	One Call	800-362-2764
	Fire Marshall	614-752-7161 800-589-2728(after hours)

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Pennsylvania	
PEMA	800-424-7362 (in state) 717-651-2001 (out of state)
PDEP (SW Region)	412-442-4000
One Call	800-242-1776
West Virginia	
West Virginia Department of Environmental Protection – Division of Water & Waste Management	800-642-3074 (24 hour) 304-588-2107
West Virginia State Fire Marshall	304-558-2191
West Virginia Office of Oil & Gas	800-642-3074 (24 hour)
West Virginia Department of Transportation	304-558-3028 (24 hour) 304-558-3505

Aerial Patrol

Chief Pilot-Midwest Jordan Cole	Cell: (b) (6) Email: Jordan@kcsiaerialpatrol.com
Observer/Pilot Brad Hotelling	Cell: (b) (6) Email: bradh@kcsiaerialpatrol.com
Primary Pilot Martin Belcher	Cell: (b) (6) Email: martin@kcsiaerialpatrol.com
Observer/Pilot Ryan Hueter	Cell: (b) (6) Email: ryan@kcsiaerialpatrol.com
Primary Pilot/Owner-Owensboro Mike Payne	Cell: (b) (6) Email: castleheli@aol.com

*NOTE: In addition to those listed above, the **Civil Air Patrol (CAP)** may also be used for aerial patrol, but they must be requested through the Coast Guard. CAP has varying capabilities in each state.*

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Heath Area

FIRST RESPONDER

First Responder Address	Telephone Number	Size of Spill	Response Time	USCG Classification
BBU Lancaster, OH	800-837-8064	Small	1hr	None
EMS Groveport, OH	614-567-6273	Small	1hr	Ohio Valley COTP River MM Inland MM
Interdyne Corporation Lima, OH	419-229-8192	Medium	3hr	None
SWS Southern Waste Services Findlay, OH	419-425-5845	Medium	3hr	Ohio Valley COTP River MM, W2, W3 Inland MM, W2, W3
Clean Harbors Cincinnati, OH Cleveland, OH	800-645-8265	Medium / WCD	3hr	Ohio Valley COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3
Weavertown Environmental Carnegie, PA	800-746-4850	WCD	3hr	Pittsburg COTP Rivers MM, W1, W2, W3 Inland MM
McCutcheon Enterprises Apollo, PA	724-568-3623	WCD	4hr	Huntington, Toledo COTP River MM,W1,W2,W3 Inland MM, W2,

CONSTRUCTION

BBU Services	800-837-8064	Construction
Dover Contracting, Inc	330-343-3232	Construction
CJ Hughes	304-522-3868	Construction

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OSRO's **E. Sparta Area**

FIRST RESPONDER

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
PSC Industrial Outsourcing, LP Canton, OH	330-312-5586	Small	1 hr	None See Equip Info
Weavertown Environmental Carnegie, PA	800-746-4850	Small/ Medium	1 hr	Pittsburgh COTP Rivers MM, W1, W2, W3 Inland MM
EMS Cleveland, OH Groveport, OH Toledo, OH Steubenville, OH	877-816-9111 24 hr Hotline	Small	2hr	Ohio Valley COTP River MM Inland MM
BBU Lancaster, OH	800-837-8064	Small	2 hr	None See Equip Info.
Interdyne Corporation Lima, OH	419-229-8192	Medium	3 hr	None See Equip Info.

WORST CASE RESPONDER

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
Clean Harbors Cincinnati, OH Cleveland, OH Taylor, MI Chicago, IL	800-645-8265	WCD	2 hr	Pittsburgh COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline
McCutcheon Enterprises, Inc. Apollo, PA	724-568-3623	WCD	3 hr	Pittsburg, Toledo COTP River MM,W1,W2,W3 Inland MM, W2, Inland MM, W1, W2
MPC Detroit, MI Burton, MI	800-521-8232	WCD	4 hr	Pittsburgh COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline

CONSTRUCTION

Roberts Pipeline	800-790-0093	Construction

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Dover Contracting, Inc	330-343-3232	Construction

OSRO's **Lima Area**
FIRST RESPONDER

OSRO Address	**Telephone Number**	**Size of Spill**	**Response Time**	**USCG Classification**
Interdyne Corporation Lima, OH	419-229-8192	Small	1hr	None
Allied Environmental Services Lima, OH	800-992-5781	Small	1 hr	See Equipment List
EQ Industrial Services Dunbreidge, OH	800-839-3975	Small	1hr	None
Summit Environmental Services, Inc. Evansville, IN	877-421-1744	Small	1hr	See equipment list
EMS Groveport, OH	614-567-6273	Medium	2hr	None
BBU Lancaster, OH	800-837-8064	Medium	3hr	None
MPC Detroit, MI	800-521-8232	WCD	3hr	Huntington COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2 Shoreline
Clean Harbors Cincinnati, OH Cleveland, OH	800-645-8265	WCD	3hr	Huntington COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline
Weavertown Environmental Carnegie, PA Ashland, KY Franklin, PA New Matamoras, OH E. Liverpool, OH Charleston, WV	800-746-4850	WCD	5hr	Huntington COTP Rivers MM, W1, W2, W3 Inland MM Shoreline

Lima Area

CONSTRUCTION

Dover Contracting, Inc	330-343-3232	Construction

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Roberts Pipeline	800-790-0093	Construction

OSRO's **Owensboro**
FIRST RESPONDER

OSRO Address	**Telephone Number**	**Size of Spill**	**Response Time**	**USCG Classification**
Summit Environmental Services, Inc. Evansville, IN	877-421-1744	Small	1hr	See Equipment List
AES (Evergreen) Shelbyville, Ky Evansville,IN	800-421-7646	Small	1hr	None
Southern Waste Services (SWS) Paducah, KY	270-444-8003	Medium	3hr	See OSRO Equipment List
Bolin Enterprises Casey, IL	217-232-4533	Medium	3hr	None
Clean Harbors Cincinnati, OH Monee, IL	800-645-8265	WCD	4hr	Louisville COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline
Veolia Environmental Services Mitchell, IL Huber Heights, OH	800-686-4005	WCD	4hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM Grt Lake Shoreline
MPC Detroit, MI	800-521-8232	WCD	8hr	Detroit COTP Inland MM, W2 Rivers MM, W1, W2, W3 Grt. Lake MM, W1, W2, W3

Owensboro
CONSTRUCTION

OSRO Address	**Telephone Number**	**USGC Classification**
Hall Construction Co.	502-367-6151	Construction
C.J. Hughes Construction Co.	304-522-3868	Construction
Foltz Welding Pipeline Maint., Inc	618-432-7777	Construction

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Northeast
(Samaria & Woodhaven)

OSRO'S
First Responder

OSRO Address	Number	Size of Spill	Response Time	USCG Classification
EMS Toledo, OH	419-419-8136	Small	1 hr	Ohio Valley COTP River MM Inland MM
MPC Detroit, MI Burton, MI	800-521-8232	Small/ Medium/ WCD	1hr	Detroit COTP Inland MM, W2 Rivers MM, W1, W2, W3 Grt. Lake MM, W1, W2, W3
EQ Industrial Services Rudolph, OH Ypsilanti, MI	800-839-3975	Small/ Medium	1hr	Toledo COTP River MM Inland MM
Southern Waste Services (SWS) Findlay, OH	419-425-5845	Medium	2hr	Ohio Valley COTP River MM, W2, W3 Inland MM, W2, W3
Young's Environmental Clean Up Flint, MI	800-496-8647	Medium	2hr	Detroit COTP River MM
Interdyne Corporation Lima, OH	419-229-8192	Medium	2hr	None
Clean Harbors Cincinnati, OH Cleveland, OH	800-645-8265	WCD	3hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3 Grt. Lakes W2, W3 Shoreline
Weavertown Environmental Carnegie, PA	800-746-4850	WCD	4hr	Huntington COTP Rivers MM, W1, W2, W3

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				Inland MM Shoreline

Northeast Area

CONSTRUCTION

Interdyne	419-229-8192	Construction
RBM	419-693-5840	Construction

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Indiana Telephone Numbers

Local Contacts	Indiana	
	Gibson County	
	EMA	812-386-9630
	Sheriff/Police	812-385-3496
	EMS	812-385-8967
	State Police	812-867-2079
		800-852-3970
	Posey County	
	LEPC	812-838-1333
	Police	812-838-3541
	State Police	812-867-2079
		800-852-3970
	911 Dispatch	812-838-1320
	EMS	812-838-1319
	Spencer County	
	LEPC/EMA	812-649-6020
	Sheriff/Police	812-649-2286
	Fire	Dispatch Sheriff
	Ambulance Service	Dispatch Sheriff
	State Police	812-482-1441
	Indiana Regional Department of Environmental Management	812-380-2305
	Red Cross Boonville	812-897-0390
	Vanderburgh County	
	LEPC	812-435-5035
	EMA	812-435-6020
	Sheriff	812-421-6203
	Police	812-436-7956
	Fire	812-436-6235
	Evansville AMR	812-421-6500
	State Police	812-867-2079
		800-852-3970
	Health Department	812-435-2400

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Indiana Telephone Numbers

Local Contacts

Indiana (Cont'd)

Warrick County

LEPC/EMA	812-897-6178
Boonville Police	812-897-1200
Sheriff	812-897-6180
Fire	Dispatch
Ambulance	Dispatch
State Police	812-867-2079
	800-852-3970
Indiana Regional DEM	812-380-2305
Red Cross	812-897-0390

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Kentucky Telephone Numbers

Local Contacts

Kentucky

Anderson County

LEPC	502-839-5125
Dispatches Sheriff, State Police, Fire, Ambulance	
KY Area 14 EMA	502-607-1638
Anderson County EMA	502-839-7378
Red Cross	502-589-4450

Bath County

LEPC/EMA	606-674-6056 (day)
	606-674-2006 (night)
Sheriff	606-674-2931
Dispatches Fire, Ambulance, Police	
State Police	606-784-4127

Boyd County

LEPC	606-329-9639
Dispatches Sheriff, Fire, Ambulance, Police	
State Police	606-928-6421

Breckinridge County

LEPC/ EMA	270-756-2269
Sheriff	270-756-6266
Dispatches Fire, Ambulance, Police	
State Police	270-766-5078
Red Cross	502-589-4450

Bullitt County

LEPC	502-543-7074
Dispatches Sheriff, Police, Fire, Ambulance	
State Police	502-583-8061
KY Area 6 EMA	502-636-0439
Red Cross	502-955-6259

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Kentucky Telephone Numbers

Local Contacts

Kentucky (Cont'd)

Carter County

LEPC	606-474-5753
Dispatch Sheriff, Police, Fire, Ambulance	
State Police	606-928-6421

Clark County

Disaster Emergency Services	859-745-7415
Dispatches Sheriff, Police Fire, Ambulance	859-745-7403
State Police	859-623-2404

Daviess County

Sheriff	270-685-8444
Dispatches Fire, Ambulance, Police	
State Police	270-685-3927
KY Area 3 EMA	270-686-7896
EMA	270-685-8448
Red Cross	270-683-2438

Elliott County

LEPC	606-738-6000
Dispatches Sheriff (night), Fire, Ambulance	
Sheriff	606-738-5422 (day)
State Police	606-784-4127

Fayette County

Sheriff	859-252-1771
Dispatches Fire, Ambulance, Police	
State Police	502-227-2221
KY Area 13 EMA	859-246-2334
EMA	859-258-3784
LEPC	859-258-3784 (day)
Red Cross	859-253-1331

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Kentucky Telephone Numbers

Local Contacts **Kentucky (Cont'd)**

Hancock County

EMA/LEPC	270-927-1310
Dispatches Sheriff, Fire, Ambulance, Police	270-927-8200
Sheriff	270-927-6247
State Police	270-685-3927
KY Area 3 EMA	270-686-7896

Hardin County

LEPC	270-765-5978
EMA	270-737-4217
Dispatches Sheriff, Fire, Ambulance, Police	
Sheriff	270-765-7656
State Police	270-766-5078

Jefferson County

LEPC/EMA	502-574-3900
Sheriff	502-574-5400
	800-280-6694
Fire, Ambulance, Police (all other cities)	502-574-2111
Fire and Ambulance (Louisville only)	502-574-3220
Fire Chief (Louisville)	502-574-3701
Police (Louisville only)	502-574-7111
Health Department	502-574-6520
Metropolitan Sewer District	502-540-6000
Air Pollution Control District (L only)	502-574-6000
Louisville Water Company	502-583-6610
KY Area 6 EMA	502-636-0439
Red Cross	502-589-4450

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Kentucky Telephone Numbers

Local Contacts

Kentucky (Cont'd)

Jessamine County

LEPC	859-887-5447
Dispatches Sheriff, Fire, Ambulance, Police	
LEPC (non-emergency)	(606) 887-2922
State Police	859-623-2404
KY Area 14 EMA	502-839-4664
EMA	859-887-2922

Mercer County

LEPC	859-734-3311
Dispatches Sheriff (night), Fire, Ambulance, Police	
Sheriff	859-734-4221 (day)
State Police	859-623-2404
KY Area 14 DES	502-839-4664
EMA (non-emergency)	859-734-6333

Montgomery County

LEPC	859-498-8720
Dispatches Sheriff, Police, Fire, Ambulance	
State Police	606-784-4127

Nelson County

LEPC	502-348-3211
Dispatches Sheriff, Fire, Ambulance, Police	
Sheriff	502-348-1840 (day)
State Police	502-583-8061
EMA	502-348-3600

Rowan County

LEPC	606-784-7511
Dispatches Sheriff, Fire, Ambulance, Police	
Sheriff	606-784-5446 (day)
State Police	606-784-4127

Shelby County

LEPC	502-633-2323
Dispatches Sheriff, Fire, Ambulance, Police	
Sheriff	502-633-4324 (day)
State Police	502-227-2221
KY Area 6 EMA	502-636-0439
EMA	502-647-9001

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OHIO VALLEY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Kentucky (Cont'd)

Spencer County

EMA/LEPC	502-477-5533
Dispatches Sheriff, Fire, Ambulance, Police	
Sheriff	502-477-3200 (day)
State Police	502-227-2221
KY Area 6 EMA	502-636-0439

Woodford County

LEPC	859-873-3170
Dispatches Sheriff, Fire, Ambulance, Police	859-873-3126
Sheriff	859-873-3119 (day)
State Police	502-227-2221
KY Area 14 EMA	502-839-4664
EMA	859-873-3170
Red Cross	859-873-3121

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Michigan Telephone Numbers

Local Contacts	Michigan	
	Hillsdale County	
	LEPC	517-437-3932
	Sheriff	517-437-7317
	Dispatches Fire, Police, Ambulance	800-437-7317
	Jackson County	
	LEPC	517-768-7948
	Sheriff	517-788-4200
	Dispatches Fire, Police, Ambulance	
	Ingham County	
	LEPC	517-887-4508
	Sheriff (Police, Fire, Ambulance)	517-676-8248
	Lenawee County	
	LEPC	517-264-4759 (day) 517-263-0524 (night)
	Sheriff	517-263-0524
	Dispatches Fire, Police, Ambulance	
	Livingston County	
	LEPC	517-546-4620
	Dispatches Sheriff, Fire, Police, Ambulance	517-546-9111
	Monroe County	
	LEPC	734-240-3135 888-354-5500 x3135
	Sheriff	734-243-7070
	Dispatches Fire, Police, Ambulance	
	Washtenaw County	
	LEPC (except Ann Arbor)	734-222-3800 x2007
	LEPC (Ann Arbor)	734-761-2425
	Sheriff	734-971-8400
	Dispatches Police, Ambulance	734-994-4111
	Fire Department (8 of 20 cities)	734-973-0911

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Michigan Telephone Numbers

Local Contacts — **Michigan (cont.)**

Wayne County

LEPC	734-941-8937
LEPC (Detroit)	313-596-5562
Sheriff	313-224-2222
State Police (except Detroit)	313-237-2450
Fire Department (except Detroit)	313-281-4264
Ambulance (except Detroit)	313-281-4264
Ambulance, Fire, Police (Detroit)	313-596-2900

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Ohio Telephone Numbers

Local Contacts

Ohio

Allen County	
LEPC / EMA	419-993-1404
	419-227-3535 (24 hr)
Sheriff	419-227-3535
State Police	419-228-2421
Fire and Ambulance	419-991-4055
Ashland County	
LEPC / EMA	419-282-4272
	419-289-2911 (24 hr)
Sheriff, Fire and Ambulance	419-289-3911
Auglaize County	
LEPC / EMA	419-739-6725 (24 hr)
Sheriff, Fire and Ambulance	419-738-2147
Carroll County	
LEPC / EMA	330-627-0003
Sheriff	330-627-2141 (24 hr)
Ambulance	330-627-0000
Fire	330-627-2141
Clark County	
EMA Info Coord.	937-328-4586
Haz Mat Coord.	937-324-7605
	937-324-7615 (24 hr)
Fire and Ambulance	937-324-7605
Sheriff	937-328-2560
Columbiana County	
LEPC	330-424-0861
EMA	330-424-9725
	330-424-7255 (24 hr)
Sheriff	330-424-7255
Coshocton County	
LEPC	740-622-1984
	740-622-2411 (24 hr)
Sheriff, Fire and Ambulance	740-622-2411
Crawford County	
LEPC	419-562-6009
	419-562-7906 (24 hr)
Sheriff, Fire and Ambulance	419-562-7906

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Ohio Telephone Numbers

Local Contacts

Ohio (Cont'd)

Cuyahoga County

LEPC	216-443-5472
EMA	216-771-1365 (24 hr)
Sheriff, Fire and Ambulance	216-443-6085

Delaware County

EMA	740-368-2181
	740-548-2182 (24 hr)
Sheriff	740-833-2800
Fire and Ambulance	740-368-1911

Erie County

LEPC / EMA	419-627-7617
	419-627-7668 (24 hr)
Sheriff, Fire and Ambulance	419-627-7668

Fairfield County

EMA / LEPC	740-654-4357
	740-653-5223 (24 hr)
Sheriff, Fire and Ambulance	740-653-5223

Franklin County

EMA	614-794-0213
	614-882-6614 (24 hr)
Sheriff, Fire and Ambulance	614-462-3333
Columbus Hlth Dept Envir Div	614-645-6971

Gallia County

EMA / LEPC	740-441-2036
	740-446-1221 (24 hr)
Sheriff, Fire and Ambulance	740-446-1221

Greene County

LEPC	937-223-6323
Dayton Reg. HazMat Coord.	937-512-5103
	937-901-5112 (24 hr)
Sheriff, Fire and Ambulance	937-376-5111

Hancock County

LEPC / EMA	419-424-7092
	419-422-2424 (24 hr)
Sheriff, Fire and Ambulance	419-422-2424

Hardin County

LEPC	419-674-2276
	419-674-7171 (24 hr)
Sheriff, Fire and Ambulance	419-673-1268

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Ohio Telephone Numbers

Local Contacts

Ohio (Cont'd)

Hocking County	
EMA / LEPC	740-385-6168
	740-385-2131 (24 hr)
Sheriff Department	740-385-2131
Fire and Ambulance	740-385-1616
Holmes County	
EMA	330-674-0989
	330-674-1936 (24 hr)
Sheriff	330-674-1936
Highway Patrol	330-264-0575
Huron County	
LEPC / EMA	419-663-5772 (24 hr)
Sheriff	419-663-2828
State Police	419-668-3711
Fire Department	419-483-3333
Ambulance	419-663-1367
Jackson County	
EMA / LEPC	740-286-5630
	740-286-6464 (24 hr)
Sheriff, Fire and Ambulance	740-286-6464
Jefferson County	
LEPC / EMA	740-282-1263
	740-283-8600 (24 hr)
Sheriff	740-283-8600
Ohio Highway Patrol	740-264-1641
Fire and Ambulance	740-266-4150
Lawrence County	
EMA / LEPC	740-532-0911
	740-534-1911 (24 hr)
Sheriff, Fire and Ambulance	740-534-1911
Licking County	
EMA	740-349-6437
	740-345-2345 (24 hr)
Sheriff	740-349-6400
Fire and Ambulance	740-345-2345
Madison County	
EMA	740-852-4200
	740-852-1212 (24 hr)
Sheriff, Fire and Ambulance	740-852-1212

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Ohio Telephone Numbers

Local Contacts

Ohio (Cont'd)

Lucas County

LEPC / EMA Info Coord.	419-213-6503
Emergency Coord	419-213-6527
	419-936-3550 (24 hr)
Sheriff	419-243-5111
Toledo Police Dept.	419-245-3340
Emergency Outside Toledo	419-936-8990
Ohio Highway Patrol	419-666-1323
	419-865-5544
Fire Department	419-245-1147
Toledo Edison Power Co.	888-544-4877

Mahoning County

LEPC / EMA	330-740-2200
	330-480-5020 (24 hr)
Sheriff	330-480-5020
Ohio Highway Patrol	330-533-6866
Police, Fire and Ambulance	330-743-2141
Youngstown Police	330-742-8900
	800-837-2489
Power Co.	330-742-8929
	800-633-4766

Marion County

LEPC / EMA	740-494-9911
	740-382-8244
Sheriff, Fire and Ambulance	740-382-8244
Ohio Highway Patrol	740-383-2181

Medina County

LEPC	330-722-9240
	330-725-6631 (24 hr)
Sheriff, Fire and Ambulance	330-336-6650

Mercer County

EMA/LEPC	419-586-6468
	419-586-6455 (24 hr)
Sheriff, Fire and Ambulance	419-586-6455
Ohio Highway Patrol	419-586-5512

Montgomery County

Info Coord	937-223-6323
Emerg Coord	937-512-5103
	937-901-5112 (24 hr)
Sheriff, Fire and Ambulance	937-225-4357

Morrow County

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Ohio Telephone Numbers

EMA / LEPC	419-947-4041
	419-946-7055 (24 hr)
Sheriff	419-946-4444
Fire and Ambulance	419-946-7055
Ottawa County	
LEPC / EMA	419-734-6904
	419-734-4404 (24 hr)
Sheriff, Fire and Ambulance	419-734-4404
Pickaway County	
EMA / LEPC	740-477-1165
	740-207-6865 (24 hr)
Sheriff, Fire and Ambulance	740-474-2176
Portage County	
LEPC	330-297-7259
EMA	330-297-3607
	330-296-0222 (24 hr)
Sheriff, Fire and Ambulance	330-296-5100
Richland County	
LEPC	419-774-5886 (24 hr)
Sheriff	419-774-5881
Ohio Highway Patrol	419-756-2222
Springfield Twp Fire Department	419-529-3233
Ambulance	419-524-3838
Mansfield Fire Department	419-755-9814
Sandusky County	
EMA / LEPC	419-334-8933
	419-334-6434 (24 hr)
Sheriff, Fire and Ambulance	419-332-2613
Seneca County	
LEPC	419-447-0266
	419-447-3456 (24 hr)
Sheriff, Fire and Ambulance	419-447-3456
Ohio Highway Patrol	419-448-0042
Stark County	
LEPC	330-451-3907
EMA	330-451-3900
	330-451-3911 (24 hr)
Sheriff, Fire and Ambulance	330-430-3800

Local Contacts **Ohio (Cont'd)**

Summit County

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Ohio Telephone Numbers

EMA/LEPC	330-643-2558
	330-643-2522 (24 hr)
Sheriff	330-379-2181
Fire and Ambulance	330-882-3111
Akron Fire Department	330-375-2101
Trumbull County	
LEPC	330-675-2666 (24 hr)
Sheriff, Fire and Ambulance	330-675-2508
Tuscarawas County	
LEPC	330-308-6670
	330-343-2642 (24 hr)
Sheriff, Fire and Ambulance	330-339-7743
Vinton County	
EMA / LEPC	740-596-3524 (24 hr)
Sheriff Department	740-596-5242
Fire / Ambulance	740-596-4122
Wayne County	
LEPC / EMA	330-262-9817
	330-287-5700 (24 hr)
Sheriff, Fire and Ambulance	330-287-5700
Wood County	
LEPC / EMA	419-354-9269
	419-354-9001 (24 hr)
Sheriff, Fire and Ambulance	419-354-9001
Wyandot County	
EMA / LEPC	419-294-6406
	419-294-2362 (24 hr)
Sheriff, Fire and Ambulance	419-294-2362

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Pennsylvania Telephone Numbers

Local Contacts

Pennsylvania

Beaver County

EMA/LEPC/Emergency Services	724-775-1700
24hr Non-Emergency Dispatch	724-775-0880
Sheriff	724-770-4602
Medic Rescue/Ambulance	724-728-3620
Brighton Twp. Police	724-774-1789
State Police	724-773-7400

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OHIO VALLEY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

West Virginia

Wayne County

EMA/LEPC/Emergency Services	(304) 272-6333
Dispatch Communications Center	(304) 272-6333
Wayne VFD	(304) 272-5656
Kenova VFD	(304 453-4153
Sheriff Department	(304) 272-6378
Kenova Fire/Ambulance	(304) 453-1601
Wayne Town Police	(304) 272-3221
Kenova Police Department	(304) 453-1281
State Police	(304) 526-5131

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East Sparta Area Downstream Sensitive Areas

Downstream Sensitive Sites — **E. Sparta Area**

Beaver County

Columbiana County

Mc Master Farms Barn	330-482-2913
Buckey Water District - water plant	330-532-2959
office	330-532-2448

Coshocton County

Conesville Generating Station Control Room	740-829-2378 x4051 (24 hr)

Jefferson County

Toronto Filtration Plant or	740-537-2591
Toronto Police Dept.	740-537-1591
Ohio Edison Co. Stratton Plant	740-537-1546 x7864
Alikanna Raw Water Plant Steubenville Filtration Plant	740-283-6041

Mahoning County

Mahoning Co. Sanitary District Both Berlin and Meander Reservoir	330-799-6315
Vicnor Farms	800-842-0461
Dale Sarver – owner	(b) (6) (home)
Tippecanoe Country Club	330-758-7518

Summit County

Barberton Reservoir	330-848-6744
Ohio Edioson "A 1st Energy Company	800-633-4766
Turkeyfoot Lake Golflinks	330-644-5971

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East Sparta Area Downstream Sensitive Areas

Downstream Sensitive Sites **E. Sparta Area**

Wayne County

West Salem Water Plant	419-853-4941
Emergency Pager	800-589-8206 Pin 22856

Tuscarawa County

U. S. Silica Company	330-852-2012
Emergency Contact	330-878-5260

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Heath Area Downstream Sensitive Areas

Downstream Sensitive Sites	Heath Area	
OHIO	*Clark County*	
	Greenon High School	
	Indian Valley Middle School	937-340-6372
	Shawnee High School	937-325-9296
	Delaware County	
	County Clerk's Office	765-747-7726
	Delaware Police Department	765-747-7885
	Delaware County Water Co. Alum Creek Pump Station	740-549-1906
	Fairfield County	
	Christmas Rocks/Charles Goslin State Nature Pres.	614-224-0946
	Ohio State Emergency Response 24hour/7 days in and out of State	800-282-9378
	Rhododendron Cove State Nature Preserve	614-224-0946
	Beck (Allen F.) Clear Creek State Nature Preserve	614-224-0946
	Franklin County	
	Blendon Woods Metro Park	614-891-0700
	Camp Chase Railroad Operations	412-426-8800
	Columbus Regional Airport Authority (Bolton Field)	614-851-9900
	Division of Water	
	Dublin Station	614-645-8297
	Alum Creek Station	614-901-6772
	Emerald Glen Housing	614-851-1225
	Miller Investments	614-844-5700

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Heath Area Downstream Sensitive Areas

Ohio Department of Transportation	614-466-7170
Solid Waste Authority of Central Ohio (SWACO)	614-871-5100
Swift Transportation	614-274-5204
Vontz Realty	308-520-3953
Wabash National Trailer Centers in Columbus Ohio	614-878-6088 800-369-5434
Winding Hollow Country Club	614-855-8600
Greene County	
Wright-Patterson AFB	
Emergency Action	937-257-7152
Disaster Preparedness	937-257-6865
City of Fairborne Water Well Fields	937-754-3055
Hocking County	
Big Brothers & Big Sisters of Ohio (Camp Oty'Okwa)	740-385-5279
Columbus Metro Parks	614-891-0700
Clear Creek Metro Park	740-385-1834 740-969-8210
Wayne National Forest	740-753-0101
Jackson County	
A.P. Green Refractories	740-682-7711
Waterloo Coal Company	740-286-5633
Honda Dealership of Jackson	740-286-4956
City of Jackson Railroad	740-286-3224
After hours Jackson City Police	740-286-4131
Lawrence County	
McGinnis Incorporated	740-377-4391
Lawrence Economic Development	740-377-4550

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Heath Area Downstream Sensitive Areas

	Corporation	
	South Point LTD (Comfort Inn)	740-377-2786
	Symmes Valley School	740-643-2451 740-643-2371
	Licking County	
	Camp Falling Rock	740-745-5327
	Dry Creek Concrete	740-366-3333
	Granville Water Department	740-587-0165
	Kyber Run Golf Course	740-967-1404
	Licking Springs Golf Course	740-366-2770
	Racoon Creek Int'l Golf Course	740-587-0921
	Pickaway County	
	Norfolk Southern Railroad	800-635-5768 800-453-2530 (Emergency)
	CSX Railroad	800-232-0144 (Emergency)
	Mackey Ford State Wildlife Area	614-224-0946
	American Electric Power Co, Pickway Power Station	614-835-3020
	Columbus Metroparks	614-891-0700
	Tuscarawas County	
	Walhonding Valley Fire District	740-824-3100
KENTUCKY	*Boyd County, KY*	
	Merdie Boggs & Sons Towing & Harbor Service	606-739-4154
	Ashland Municipal Water Works	606-739-5135
	Armco Steel Corporation	606-739-5135
	Semet Solvay Division of ARMCO, Inc.	606-739-5135

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Heath Area Downstream Sensitive Areas

Wayne County, WV

CTI Transfer Terminal Office	304-453-3271
City of Kenova /CityHall	304-453-1571
Willert Home Products	304-453-3893
Allied Warehouse Services	304-453-3800
Ferrellgas Office Building	800-642-1327
City of Kenova (Water)	305-453-1571
City of Kenova (Sewer)	304-453-1571
Merdie Boggs Towing	606-739-4154
McGinnis Marine	800-595-5332 740-377-4391

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Kentucky Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Kentucky Area	
	Newton Lake State Fish and Wildlife	618-783-3478
	Newton Lake CIPS Power Plant and Water Intake	618-783-8402
	Hamilton County Conservation Area	618-773-4340
	Hovey Lake State Fish and Game Area	812-838-2927
	Harmonie State Park	812-682-4821
	Beal Woods Conservation Area	618-298-2442
	Wabash River Repowering Project	812-535-4628
	Chauncey Marsh Area (Red Hill State Park Satellite)	618-936-2112
	Embarrass River Public Boat Access Lawrence County Sheriffs Dept	618-943-5766
	Wabash River Public Boat Access	Lawrence County Sheriffs Dept 618-943-5766
	Wabash River Public Boat Access	
	Wabash River Public Boat Access White County Sheriffs Dept Dispatch	618-382-5321
	Little Wabash River Public Boat Access White County Sheriffs Dept Dispatch	618-382-5321
	Gibson County, IN	
	Black River, State Heritage River (outstanding ecological importance)	812-838-1321
	Dispatch	812-838-1320
	Vanderburgh County, IN	
	Wesselman Woods State Nature Preserve (Harper Ditch, Pigeon Creek) Dept of Parks and Rec	812-435-6141
	Stream Valley Park – Evansville, IN	Dept of Parks and Rec 812-435-6141

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Kentucky Downstream Critical/Sensitive Areas

Dept. of Parks and Recreation	812-435-6141
Kleymer Park – Evansville, IN	Dept. of Parks and Recreation 812-435-6141
Garvin Park – Evansville, IN	Dept. of Parks and Recreation 812-435-6141
Warrick County, IN	
Newburgh Park – City of Newburgh Parks Board (Warrick County Sheriff's Dept)	812-897-1200
Ashumbala Nature Preserve	812-867-6596
Warrick County Sheriff's Dept.	812-897-1200
Newburgh Locks and Dam – Ohio River (Ohio River - river mile 776.3 RDB)	812-853-8470
ALCOA Industrial Water Intake (Ohio River - river mile 773.7 RDB)	812-853-6111
Vectren Energy Water Intake (Ohio River mile 773.2 RDB)	812-464-4750
Daviess County, KY	
Dart Polymers Inc. at 2400 Harbor Rd. (Ohio River – river mile 759 LDB)	270-926-3434
Owensboro Riverport Authority Dock at 2300 Harbor Rd. (Ohio River – river mile 758.9 LDB)	270-926-4238
U.S. Coast Guard Depot Dock at 3301 Highway 60 E (Ohio River – river mile 754.3 LDB)	800-253-7465
Owensboro Utility Company Industrial Intake at 4301 US 60 E (Ohio River – river Mile 753.4 LDB)	270-926-3200
Fayette County, KY	
Velero	859-255-4709
Jefferson County, KY	

Kentucky Downstream Critical/Sensitive Areas

Nexio Solutions	502-778-7323
West-End Demolition	502-775-8558
Citgo Terminal	
Bill Weineke, Terminal Manager	502-447-1030

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Lima Area Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Lima Area	
	Killdeer Wildlife Area	740-496-2254
	Wildlife District Two	419-424-5000
	Auglaize County	
	St. Marys Municipal Power Plant	419-394-3303
	Allen County	
	Johnny Appleseed Park Dist.	419-221-1232
	Shawnee Country Club	419-229-4801
	SOCI Petroleum (Santmyer Oil Co.)	800-686-4589Buckeye
Pipeline	419-223-4856	
	Mid Valley Pipeline	419-229-4100
	Dave's Excavating	419-222-6676
	General Dynamics (Security)	419-221-7209
	Shell Oil Terminal	419-224-4015
	(Buckeye Partners) Emergency No.	800-547-0071
	Marion County	
	Caledonia Water Dept.	419-845-2713
	Ohio-Am Water Co.	800-666-6827
	Mercer County	
	Celina Water Treatment	419-586-2270
	Service Director	419-586-6464
	Morrow County	
	Galion Country Club	1878
	Richland County	
	Mansfield Water Treatment	419-884-3310
	Shelby Water Works	419-342-2171
	Bolin & Bartley S&G	419-289-1507
	Fruit Farm Irrigation System drawing from the Black Fork River Jeff Burr - Farmer	419-896-2866
	Snow Trails Ski Resort	419-756-3105

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Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	User	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	User	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	
(b) (3), (b) (7)(F)		
(b) (7)(F), (b) (3)		

Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	User	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	User	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	User	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

The following telephone numbers are contacts for the USCG, Commanding Officer Office:

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

304-529-5524
513-684-3295
502-582-5194
502-442-1621

Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	Lock & Dam Location	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

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

Mile Marker	User	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

hours)

Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	User	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

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

Mile Marker	Lock & Dam Location	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

Water Intake Telephone Numbers

Water Intakes (b) (7)(F), (b) (3)

Mile Marker	Lock & Dam Location	Telephone
(b) (7)(F), (b) (3)	(b) (3), (b) (7)(F)	

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

Woodhaven Downstream Sensitive Areas

Downstream Sensitive Sites	Woodhaven Area	
	Hillsdale County	
	Municipal Boat Launch	517-437-3579
	Jackson County	
	Eagle Point Marine and Yacht Club	517-529-4534
	Pine Hill Lake Marina	517-688-9716
	Monroe County	
	Andrews Boat Dock	734-848-4531
	Bi-State Marine	734-848-4749
	Otter Creek Marina Inc.	734-241-0313
	Toledo Beach Marina	734-243-3800
	Luna Pier Harbour Club	734-848-8777
	Riverfront Marina (Restaurant, Lounge & Party Store)	734-242-0737
	Trout's Yacht Basin	734-242-5545
	The Nature Conservancy: Erie Marsh Preserve	517-373-7660
	Sterling State Park	734-289-2715
	E. Raisinville French Town United Methodist Church	734-242-9747
	Monroe County (Cont'd)	
	Monroe Co. Road Commission	734-240-5102
	Monroe Co. Historical Commission	734-240-7780
	Monroe Co/City Custer Airport	734-384-9616
	Monroe City Park	734-242-3402 734-243-0700

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Woodhaven Downstream Sensitive Areas

Downstream Sensitive Sites	Woodhaven Area (Cont'd)	
	Monroe City Fire Dept.	734-241-0522
	Veterans Park	734-243-0700
	Vinces Drive Inn	734-241-0282
	Monroe Family YMCA	734-241-2606
C.S.X. Transportation	734-464-5600	
	Monroe City Eng.	734-384-9126
	Norman Towers	734-243-0253
	St. Mary's Academy	734-241-5955
	St. Mary's Parish & Rectory Catholic Church	734-241-1644
Masonic Lodge, Secretary, Brian Fauls	734-444-9344	
	First Church of Christ Scientist	734-242-5577
	Ray's Septic Tank Cleaning	734-241-6273
	Monroe County (Cont'd)	
	Monroe Auto Credit	734-243-5700
	Clamdigger's	734-243-2628
	Monroe Co. Fair Assoc.	734-241-5775
	Ellis Library	734-241-5277
	Monroe Co. Youth Center	734-240-3220
	Fairview Center	734-240-3190
	Harbor Light Salvation Army	734-384-3402
	Monroe Co. Drain Commission	734-240-3101
	Monroe Public Schools	734-265-3000
	Waterloo Elementary	734-265-5100

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Woodhaven Downstream Sensitive Areas

Downstream Sensitive Sites	Woodhaven Area (Cont'd)	
	Riverside Early Learning Center	734-265-4900
	C.S.X. Transportation	734-464-5600
	Architonics	734-241-2420
	Marian Place Apts.	734-241-2414
	St. Michaels School	734-241-8645
	St. Michaels Church	734-241-8645
	Monroe County (Cont'd)	
	Monroe Correction	734-240-7100
	U.S. Post Office	734-241-2689
	Knights of Columbus	734-241-4640
	Catholic Youth Organization	734-241-1928
American Legion, Earl Gladfelter Post #268		734-439-2170
	Monroe Club	734-241-8717
	Uptown Bar	734-243-9380
	Key Bank	734-243-6400
	Monroe Alliance Church	734-241-7711
	Monroe City Water Dept.	734-241-5947
	Wayne County	
	Roostertail Marina	313-822-1234
	Sinbads Inc.	313-822-7817
	Wyandotte Yacht Club	313-381-2628

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Woodhaven Downstream Sensitive Areas

Downstream Sensitive Sites	Woodhaven Area (Cont'd)	
	Oakwoods Metropark	734-782-3956
	Detroit InternationalWildlife Refuge USFWS	734-692-7608
	Maybury State Park	248-349-8390

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Other Downstream Sensitive Areas

Downstream Sensitive Sites	Others	
	Tri-State Bird Rescue & Research	302-737-9543
	International Bird Rescue & Research Center	707-207-0380
	Natural Resource Damage Contractors	
	Smithgroup JJR (Johnson, Johnson & Roy)	734-662-4457
	Environmental Concern, Inc.	410-745-9620

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East Sparta Area Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the E. Sparta Operations Area are shown in the Response Maps. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

There are only two threatened or endangered species documented in the E. Sparta Operations Area. The Northern Wild Monkshood (a plant) is found in Summit and Portage Counties.

Wetlands in much of the response area have not been delineated by the federal government. However, the National Wetlands Inventory has delineated wetlands on quadrangle maps for the following counties included in the response zone: Wayne (three quarter of the county), Summit, Stark, Portage, Mahoning, Columbiana, and Jefferson.

The E. Sparta Operations Area includes a variety of areas of concern.; Findley State Park (Medina County); Portage State Park (one mile north of Manchester); Cuyahoga Valley National Recreation Area (Summit County); Wet Branch State Park (Portage County); Nelson & Kennedy Ledges State Park (two miles north of Nelson); Tinkers Creek State Park (three miles north of Hudson); Guilford Lake State Park (Guilford Lake, Columbiana County); Beaver Creek State Park (five miles north of Calcutta); and Jefferson Lake State Park (five miles northeast of East Springfield).

ACCESS/STAGING AREAS

Airports

Akron – Canton Regional Airport (Between Akron and Canton)
Cleveland Hopkins International Airport Cleveland, OH
Detroit City Airport Detroit, MI
Detroit Metro Airport Romulus, MI
Pittsburgh International Airport Pittsburgh, PA
Toledo Express Airport Swanton, OH
Youngstown Executive Airport near Canfield, OH
Youngstown Municipal Airport (north of Youngstown)

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East Sparta Area Critical/Sensitive Areas

ACCESS/STAGING AREAS

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted waterway. The Cleanup Unit Leader and his people along with a aerial surveillance will identify possible launch and access sites.

MEANDER CREEK SPILL SCENARIO

Meander Creek Spill
Station #: 7011+86 Milepost 132.9
ROW 182B
Ave Width: 2-12 yards
Ave. Depth: 1-4 feet
Ave speed: 1-2 MPH

Township:	Ellsworth
County:	Mahoning
State:	Ohio
Population:	Rural/residential

SEE TELEPHONE NUMBER SECTION

Critical Areas

Mahoning County
Westhill Heights - 0.5 mi
Canfield - 4.0 mi
Austintown Township - 1 mile
Youngstown - 7 miles
Ellsworth Township - 1.2 miles

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East Sparta Area Critical/Sensitive Areas

MEANDER CREEK SPILL SCENARIO

Trumbull County
Mineral Ridge - 0.9 mile
McDonald - 2.6 miles
Niles - 2.7 miles
Girard - 4.2 miles
Weathersfield - 0.1 mile

DESCRIPTION OF SPECIAL ENVIRONMENTAL CHARACTERISTICS

Small scale recreational fishing and canoeing occurs along the entire length of the creek. Agricultural land borders both shores of the creek.

The Meander Creek flows into the Meander Reservoir where several parks and wildlife sanctuaries exist. Recreational boating, hunting, parks, and water intakes for Youngstown are found along the length of the lake.

Mill Creek Park, the hunting club on Palmyra Road west of the release site, the neighboring horse farms, and bird sanctuaries all receive attention and monitoring to prevent and preclude environmental damages.

CRITICAL AREAS

Clinton to Youngstown to Steubenville 6"

ROW	DESCRIPTION
1	Youngstown Terminal
1A	Old SR 21

CRITICAL AREAS

Clinton to Youngstown to Steubenville 6" (Cont'd)

ROW	DESCRIPTION
2	Spring Hills Golf Course
2	Pancake Creek
6C Ax	Factory Run
8-72A	Populated Area of South Akron
10A	SR 62
11	Anderson Run

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East Sparta Area Critical/Sensitive Areas

	22C	I-76 (Turnpike)
	23	SR 224
	23	State Nature Preserve
	24	Boy Scout Camp
	24	Optimist Club Camp
	24	Christ Mission Camp
	24	SR 93
	25A	Housing Development
	26A-30	SR 11
	30	Mill Creek
	33-34	Housing Development
	34A	South Main Street
	43A	SR 165
	48A	SR 164

CRITICAL AREAS Clinton to Youngstown to Steubenville 6" (Cont'd)

ROW	DESCRIPTION
55A	SR 241
57	SR 619
60	SR 14 (Industrial Park)
60A-61	City of Columbiana
69-70A, 71B	Tuscarawas River (4 crossings)
74	Crestview High School
75	Little Bull Creek

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East Sparta Area Critical/Sensitive Areas

	78B	SR 558
	80A	SR 517
	83	Wingfoot Lake Marshlands
	88A-91A, 93A	Elk Run
	89	Potter Creek
	93B	SR 154
	94	Town of Elkton
	95A	Middle Fork of Little Beaver
	99, 100	Stream
	102A	Branch of West Fork of Little Beaver
	103A	Branch of West Fork of Little Beaver
	108A	West Fork of Little Beaver
	108B	SR 11
CRITICAL AREAS	Clinton to Youngstown to Steubenville 6" (Cont'd)	
	ROW	DESCRIPTION
	114A	SR 45
	116A	Peters Run
	117A	Bailey Run
	117C	Adler Lick Run
	122	SR 224
	124A	Little Yellow Creek
	124A	SR 39
	125A	Church

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East Sparta Area Critical/Sensitive Areas

	132	North Fork Yellow Creek
	134A	SR 183
	136A	Yellow Creek (first crossing)
	138	School
	138	Irondale
	138A	Willow Creek (Flows to Berlin Res.)
	139A	SR 225
	139A	Yellow Creek (second crossing)
	139B	Tributary of Willow Creek
	141A	SR 14
	142A	Yellow Creek (third crossing)
	146A	SR 213

CRITICAL AREAS Clinton to Youngstown to Steubenville 6" (Cont'd)

ROW	DESCRIPTION
148A, 148B	Dry Run
152A	SR 152
149A, 154, 160	Branch of Mahoning River
156A	Mahoning River
161	Shelley Run (first and second crossing)
162	Shelley Run (third and fourth crossing)
162	Island Creek
164A	SR 534
167	Branch of Island Creek (first crossing)

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	168	Branch of Island Creek (second crossing)
	169	Egypt Hollow
	167, 178A	Stream
	170-171	Populated area
	171A	SR 213
	174-176	Populated area
	177-178	Populated area
	179A	SR 45
	181A	SR 7
	181A	Stream (first crossing)
	181B	Stream (second crossing)

CRITICAL AREAS Clinton to Youngstown to Steubenville 6" (Cont'd)

ROW	DESCRIPTION
181C	Mock Road
182A, 182B	Meander Creek
182A, 182B	Mahoning Valley Sanitary Dist. State Game Lands
184A	Stream
184-223	Palmyra Road to Youngstown Terminal to the Ohio Turnpike
188, 191	Stream
193A	Sawmill Creek (first crossing)
194A	Sawmill Creek (second crossing)
197A	I-76 Turnpike

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East Sparta Area Critical/Sensitive Areas

	199A, 199B	Stream
	201	Austintown Park
	202A	SR 46
	203	SR 11
CRITICAL AREAS	Toledo South 4" Products System	
	ROW	Clinton to Brecksville
	2-38	Populated area
	54	Branch of Wolf Creek
	56	Marshlands
	58-60	Housing
	59A	SR 162
	63-66A	Housing
	66-69, 71	Marshlands
	72A	Branch of Yellow Creek
	72A	SR 18
	73-80	Housing Development
	76B	Marshlands and Yellow Creek
	84	Marshlands
	86	I-271
	86	Marshlands
	89-90A	East Branch of the Rocky River
	90-92A	Vacation Cottages
	94A	Stream

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East Sparta Area Critical/Sensitive Areas

	98B	East Branch of the Rocky River
	98C	SR 303
	100, 102B	Housing
CRITICAL AREAS	Toledo South 4" Products System	
	ROW	Clinton to Brecksville
	103B	SR 176
	106	Marshlands
	107-109	Housing
	111A	Ohio Turnpike
	111A	Marshland
	111A	Furnace Run
	111D	I-77
	111G	SR 21
CRITICAL AREAS	East Sparta to Midland 8"	
	Mile Post	Description
	0.00	Wetland/ Lake or River
	0.09	Residential/Industrial
	4.37	Goodland Acres
	5.86	Residential/Industrial
	8.10	Residential/Industrial
	10.70	Residential/Industrial
	15.81	Pattersonville
	38.03	Beaver Creek State Park

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43.98	Residential/Industrial
44.38	Residential/Industrial
47.68	Negley
55.80	Residential/Industrial
56.16	Fairview
56.39	Five Points
57.02	State game lands #173
59.87	Midland
61.11	Tank Farm

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database.

Ashland County, OH
Farm Irrigation System, Earl McNaull, Jerome Fork River

Columbiana County, OH
Highland Wildlife Area
McMaster Farms, Mill Creek
Wellsville Reservoir, City of Wellsville
Little Beaver Creek, OH DNAP
West Branch Resources

Jefferson County, OH
Toronto Filtration Plant, Toronto, Ohio River
Toronto Plant, Toronto, Ohio River
W. H. Sammis Plant, Ohio Edison Co., Ohio River
Alikanna Raw Water Plant, City of Steubenville, Ohio River
Steubenville Marina, Steubenville

Mahoning County, OH
Berlin Reservoir, Mahoning Valley San Dist - Berlin R
Green Valley Turf Farm, Mill Creek
LTV- Steel-Campbell Works, Mahoning River
Tippecanoe Country Club, Unnamed Lake

Stark County, OH

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Canton Audobon Society
Jackson Bog State Nature Preserve
Quail Hollow State Park

Summit County, OH
Barberton Reservoir, Barberton Water Plant
Cuyahoga River, Gorge Plant
Babcock & Wilcox Co., Ohio-Eire Canal
Turkeyfoot Lake Golflinks, Portage Lake
Portage Lakes State Park, OH DNR

Wayne County, OH
West Salem Water Plant, Village of West Salem, Muddy Fork Creek
PCA - Rittman, Packaging Corporation of, Chippewa Creek

Environmentally Sensitive Areas from the U.S. EPA's Region III - ACP database.

Beaver County, PA
Old Economy Village
Little Beaver Creek
Phillis Island
Georgetown Island

MIDLAND, PA LIGHT PRODUCTS TERMINAL - CRITICAL / SENSITIVE AREAS

Sensitive Areas Within Planning Distance of Facility

The calculated Planning Distance for the Midland Terminal is 66 miles. The Terminal is located at Mile 35 on the Ohio River and the Planning Distance would extend to Mile 101, which is located approximately at Wheeling, West Virginia.

In the TT&M FRP, MAP will use the EPA Region 5 "Inland Sensitivity Atlas for the Eastern Ohio River" to designate environmentally and economically sensitive areas. The Atlas is from a computer disk provided by the Oil Planning and Response Section of the EPA Region 5 and was produced by the EPA in conjunction with The Great Lakes Commission, Upper Mississippi River Basin Association, the U.S.G.S. Upper Midwest Environmental Sciences Center. The Atlas is a series of "tiles" or charts of the Ohio River with sensitive areas designated by a symbol and number. In addition to the charts, each "tile" has a corresponding information sheet indicating location, specific sensitivity or economic importance, and a contact phone number. The Atlas contains locations of sensitive species, managed natural resource areas, surface water intakes, marinas, navigation locks and dams, boat access ramps, oil storage facilities and pipelines. Due to the location, there are no schools, medical facilities, residential areas, businesses, or transportation routes which should be considered sensitive.

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East Sparta Area Critical/Sensitive Areas

The following contiguous "tiles" or charts and approximate locations have been included in the TT&M FRP for Ohio River Miles 35 through 90. In addition to the charts, the corresponding data are also included, along with a map index and legend.

Tiles Included: Tile 16 – East Liverpool to Toronto, OH
Tile 17 – Midland, PA area Inset 17-A2 – Blown up (inset) chart of Midland area
Tile 20 – Weirton, WV to 12 miles downstream Inset 20-A3 – Blown up (inset) Steubenville, OH-Weirton area
Tile 24 – Wheeling, WV area

A copy of the CD is available at the Midland Terminal.

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OHIO

USGS Topographical Quadrangle Maps
(1:24,000 Scale)

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East Sparta Area Critical/Sensitive Areas

Akron-East
Akron-West
Alliance
Ashland-North
Ashland-South
Atwater
Bellevue
Berea
Blooming Grove
Broadview Heights
Bucyrus
Cairo
Caledonia
Canfield
Campbell, OH-PA
Canal Fulton
Carey
Cleveland-South
Clyde
Columbia
Crestline
Creston
Dalton
Damascus
Denmark
Delphos
Deerfield
Doylestown
E.Liverpool-N,OH-WV
E.Liverpool-S,OH-WV
E.Palestine, OH-PA
Elida
Elkton
Fireside
Galion
Gavers
Geneva, IN
Gerard
Hartville
Jeromesville
Knoxville, OH-WV
Lake Milton
Lakewood
Lima
Limaville
Lisbon

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East Sparta Area Critical/Sensitive Areas

Lodi
Lucas
Mansfield-North
Mansfield-South
Marion
Marion-West
McCutchenville
Medina
Meeker
Monnet
Morral
Moulton
Mount Gilead
Nevada
New Bloomington
New Pittsburg
Newton Falls
New Middleton, OH-PA
North Canton
Northfield
North Robinson
Olivesburg
Orrville
Pavonia
Penninsula
Perrysville
Polk
Portland, IN
Richmond
Rittman
Salem
Salineville
Seville
Shaker Heights
Sharon West, OH-PA
Shiloh
Smithfield
Steubenville-E,OH-PA
Steubenville-W,OH-PA
Suffield

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OHIO

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Sycamore
Uniopolis
Upper Sandusky
Wadsworth
Warren
Wapakoneta
Weirton, WV-PA-OH
Wellsville, OH-WV
Westfield Center
Westpoint
West Richfield
West Salem
Wharton
Willshire, IN-OH
Windham
Wooster
Youngstown

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Heath Area Critical/Sensitive Areas

ACCESS AND STAGING AREAS

Airports

Port Columbus International Airport, Columbus, OH
Allen Co. Airport, Lima, OH
Toledo Express Airport, Toledo, OH
Cincinnati / Northern Kentucky International Airport, Cincinnati, OH
Dayton International Airport, Dayton, OH
Tri-State Airport, Huntington, WV

Staging Areas

The station nearest to the oil spill site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The Cleanup unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

OHIO RIVER ACCESS SITES

Virginia Point Park Boat Ramp MM 317.1
From Hwy 60 Bridge at Big Sandy River, east on Hwy 60 approximately 0.25 miles to 23rd street, left on 23rd street and 0.95 miles to park (b) (7)(F), (b) (3)

Villager's Park and Boat Ramp MM 317.2

From Hwy 60 Bridge at Big Sandy River, east on Hwy 60 approximately 1.15 miles to Hwy 75, right approximately 0.8 miles to Hyw 52/75, continue approximately 2 miles, left on Hwy 75 approximately 12.2 miles to 152, right on 152 approximately 9.2 miles to CR 17, left on CR 17 approximately 4 miles to CR 22, right on CR 22 approximately 3.3 miles to site.

MPC Marine Repair Terminal (MRT) MM 318.4

From Hwy 60 Bridge at Big Sandy River, west on Hwy 60 approximately 0.19 miles, right on Hwy 60 approximately 1.81 miles to site.

SCIOTO RIVER ACCESS POINTS

SR 762 Bridge Crossing
Take US 23 South to SR 762, west on SR 762 approximately 1 mile to bridge crossing.

SR 316 Bridge Crossing
Take US 23 South to SR 316, west on SR 316 approximately 1 mile to bridge crossing.

Commercial Point Road Bridge Crossing
Take US 23 South to Island Road (Twp 38) and follow west to Commercial Point Road bridge crossing.

Route 56 Bridge Crossing
Take US 23 South to Route 56, west approximately 0.3 miles to bridge crossing.

ENVIRONMENTAL SENSITIVITIES

A number of threatened or endangered species are found in the Area. The Indiana Bat is found throughout the entire response zone. In addition to the Indiana Bat there are threatened or endangered species located in specific counties of the Heath Area. These threatened or endangered species and their respective counties include:

Fairfield County
- Eastern Massasauga
- Clubshell Mussel

Franklin County
- Eastern Massasauga
- Scioto Madtom
- Clubshell Mussel
- Northern Riffleshell Mussel

Gallia County
- Pink Mucket Pearly Mussel

Hocking County
- Northern Monkshood
- Bald Eagle
- American Burying Beetle
- Small Whorled Pogonia

Lawrence County
- Pink Mucket Pearly Mussel
- Running Buffalo Clover

Pickaway County
- Scioto Madtom
- Clubshell Mussel
- Northern Riffleshell

Vinton County
American Burying Beetle
Other
Delaware Reservoir
Delaware Reservoir Wildlife Area
Delaware State Park
City of Delaware.
James J. Thomas Park
Julian Griggs Dam
Lower Scioto Park
Lou Berliner Park
Dodge Park
City of Columbus
City of Dublin
City of Hilliard
City of Upper Arlington

CRITICAL AREAS

Environmentally Sensitive Areas and Water Intakes from the U.S. EPA's Region V - ACP database.

Coshocton County
Conesville General Station
Echo Hills, Village, Inc.
Delaware County
Alum Creek Plant
City of Delaware
Lake of the Woods Water Company
Olentangy Plant
Village of Ashley
Village of Sunbury
Franklin County
Goll Woods National natural Landmark
City of Westerville
Columbus Hap Cremean
Columbus/Dublin Rd Water Treatment Plant
Gallia County
Village of Rio Grande
Green County
Village of Cedarville
Hocking County
Ohio DNR-Hocking Hills State Park
Wayne National Forest
Crane Hollow Nature Preserve
Jackson County
City of Jackson
Jackson County Airport
Washington Township Meeting Hall

Heath Area Critical/Sensitive Areas

City of Wellston – North
Village of Oak Hill

Lawrence County
City of Ironton
Symmes Valley Elementary School 1
Village of South Point

Licking County
City of Newark

Madison County
Anderson Springs

Miami County
City of Piqua
Village of West Milton

Muskegon County
Blue Rock State Park
Maysville Regional Water District
Village of New Concord
Salt Creek Elementary School

Pickaway County
Saltcreek Elementary School
Mackey Ford State Wildlife Area

Vinton County
Chief Logan Scout Reserve
Lake Hope State Park
Club Vinton

Kentucky Critical/Sensitive Areas

ENVIRONMENTAL SENSITIVE AREAS

- **Ohio River**
- **Kentucky River**
- **Big Sandy River**
- **Little Sandy River**
- **Little Fork River - Carter and Boyd Counties**
- **Licking River - Bath and Rowan Counties**
- **Salt River - Mercer, Spencer, & Anderson Counties in KY**
- **Taylorsville Lake - near Louisville, KY**
- **Yellow Creek - near Owensboro, KY**
- **Tar Fork Creek - Breckinridge County, KY**
- **Clover Creek - Breckinridge County, KY**
- **Rolling Fork - west of Lebanon Jct., KY**
- **Bernheim Forest**
- **Knobs State Park**
- **Grayson Lake**
- **Grayson Wildlife Management Area**
- **Daniel Boone National Forest - Rowan and Elliott Counties**

ACCESS AND STAGING AREA

Control points shall be established so uninformed citizens, sightseers, and other emergency responders will not enter the incident area. State police, highway patrol, local police or other responding agencies shall be used to set up control points at a safe location to keep all unauthorized individuals from entering the incident area.

Safety distances for specific materials handled by the facilities covered by this plan can be found in the DOT Emergency Response Guidebook. No one should enter this area without permission from the QI/Area Supervisor.

The staging area should be set up at a secure location away from the incident area. The QI/Area Supervisor should mark this area for easy identification by responding personnel. The staging area will be used as a place for personnel and equipment to gather, to be utilized by the QI/Area Supervisor as needed, and will also serve to keep responders from gathering too close to the incident area. The QI must ensure that the responders have all information available before advancing to the incident so that proper safety measures can be taken, i.e., personal protective equipment.

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Kentucky Critical/Sensitive Areas

ACCESS AND STAGING AREA

An access area to the incident should be selected which is uphill and upwind of the incident, if possible, and at a safe distance, taking into consideration the possibility of explosion or ignition of the spilled material. These areas should be supervised to control access to the incident only by those responders who are properly equipped and trained. Responders should also exit the incident area from this point, if it can be done safely, then proceed to the decontamination area if one has been established.

Possible access areas to spills on waterways could be local boat ramps.

Ohio River (Mile Markers 754.5 to 985.5)

Can be accessed at boat ramps located:

River Mile Marker:	Description
545.6	Valco's, Carroll County, KY
551.0	Brooksburg, Jefferson County, IN
557.0	Madison, Jefferson County, IN
537.1	Milton, Trimble County, KY
559.0	River Services, Trimble County, IN
562.2	Coopers Bar, Trimble County, KY
574.9	Bethlehem, Clark County, IN
580.5	Westport, Oldham County, KY
584.1	Bull Creek, Clark County, IN
589.8	The Famous Dog, Oldham County, KY
596.2	Utica, Clark County, IN
596.9	Goose Creek, Oldham County, KY
598.5	Six Mile Island, Clark County, IN
599.7	Cox Park, Jefferson County, KY
600.8	Marine Sales & Service, Jefferson County, KY
602.7	Jeffersonville, Clark County, IN
602.3	Towhead Island, Jefferson County, KY
608.7	New Albany, Floyd County, IN
613.2	Middle Creek, Floyd County, IN
619.2	Greenwood Road, Jefferson County, KY

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Kentucky Critical/Sensitive Areas

ACCESS AND STAGING AREAS

Ohio River (Mile Markers 754.5 to 985.5) (Cont'd)

River Mile Marker:	Description
630.0	West Point, Jefferson/Hardin Counties, KY
637.7	Rock Haven, Meade County, KY
645.8	Brandenburg, Meade County, KY
756.5	Owensboro, Daviess County, KY
760.5	Little Hurricane, Daviess County, KY
765.5	French Island, Spencer County, IN
777.5	Newburgh, Warrick County, IN
781.7	Newburgh, Warrick County, IN
787	Evansville, Vanderburgh County, IN Henderson, Henderson County, KY
792.5	Evansville, Vanderburgh County, IN
796.5	Evansville, Vanderburgh County, IN
797.0	Evansville, Vanderburgh County, IN
802.0	Atkinson Park, Henderson County, KY
804.0	Henderson, Henderson County, KY
829.0	Mt. Vernon, Posey County, KY
842.5	Uniontown, Union County, KY
857.6	Blackburn, Union County, KY
858.0	Old Shawneetown, Gallatin County, IL
871.4	Mulfordtown, Union County, KY
876.9	Weston, Union County, KY
881.0	Cave In Rock, Hardin County, IL
882.8	Negro Creek, Hardin County, IL
884.9	Peters Creek, Hardin County, IL
888.9	Elizabethtown, Hardin County, IL
889.5	Kentucky Department Fish & Wildlife, Crittenden County, KY
889.8	Jacks Point, Hardin County, IL
891.9	Rosiclaire, Hardin County, IL
893.8	Carrsville, Livingston County, KY
897.3	Grand Pierre, Livingston County, KY

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Kentucky Critical/Sensitive Areas

901.9	Givens Creek, Livingston, County, KY

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ACCESS AND STAGING AREAS

Ohio River (Mile Markers 754.5 to 985.5) (Cont'd)

River Mile Marker:	Description
902.2	Lusk Creek, Pope County, KY
902.4	Golconda, Pope County, KY
910.5	Barren Creek, Pope County, KY
911.2	Bay City, Pope County, KY
914.9	Birdsville, Livingston County, KY
919.0	Dyer Creek, Livingston County, KY
920.4	Smithland, Livingston County, KY
927.8	Cottonwood Bar, Livingston County, KY
927.9	Brookport, Massac County, IL
942.5	Massac River, Massac County, IL
943.8	Metropolis, Massac County, IL
944.0	Massac Creek, McCracken County, KY
951.2	Joppa, Massac County, IL
956.0	Redstone Creek, Ballard County, KY
965.0	Olmstead Ramp, Pulaski County, IL
973.2	Mound City, Ballard County, KY
979.1	City of Cairo, Alexander County, IL
981.0	City of Cairo, Alexander County, IL

Staging Areas - Kentucky River - (Mile Markers 95.0 to 0.0)

Can be accessed at boat ramps located:

River Mile Marker:	Description
89.2	Craig Creek, Woodford County, KY
88.0	Woodford County, KY
84.5	Tyrone, Anderson County, KY
72.8	Shore Acres, Woodford County, KY
68.6	Cedar Run Creek, Franklin County, KY
66.4	Frankfort Boat Club, Franklin County, KY
64.5	Leestown Terrace, Franklin County, KY

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Kentucky Critical/Sensitive Areas

ACCESS AND STAGING AREAS

Staging Areas - Kentucky River - (Mile Markers 95.0 to 0.0) (Cont'd)

River Mile Marker:	Description
55.8	KY River Campgrounds, Franklin County, KY
30.8	Lockport, Owen County, KY
31.0	Sparr Marina, Owen County, KY
30.8	Lockport, Owen County, KY
28.4	Leitch's Landing, Owens County, KY

20" Patoka to Owensboro Crude Line from IL/IN State Line to Owensboro, KY

ROW	DESCRIPTION
317	Black River
331	State Hwy 165
336	Black River
345	State Hwy 68
346	State Hwy 65
350, 352	Big Creek
360	Jordan Creek
364	Interstate Hwy 64
385	C & E.I. Railroad
388	US Hwy 41
407	State Hwy 57
408	Interstate Hwy 164
409	N.Y.C. Railroad
410	Blue Grass Creek
443	State Hwy 62 and US Hwy 460
444	Southern Railroad
456	Pecka Creek

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457	State Hwy 261
463	State Hwy 66
477	State Hwy 66
482	Little Pigeon Creek
483	State Hwy 61
484	Y.D.C. Railroad
485	State Hwy 61
486	U.S. Hwy 66
490	State Hwy 66
528	U.S. Hwy 231
532	Ohio River Crossing
534	U.S. Hwy 60

LOUISVILLE ALGONQUIN, KY TERMINAL - CRITICAL / SENSITIVE AREAS

Sensitive Areas Within Planning Distance of Facility

This section details the critical and sensitive areas that have been identified to date which have the potential to be at risk in the event of a release at the Terminal.

A review of the substantial harm planning distance has revealed the following vulnerable or sensitive areas:

Water Intakes

(b) (7)(F), (b) (3) [redacted]

Schools

N/A

Medical Facilities

N/A

Residential Areas

Kentucky Critical/Sensitive Areas

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Bridgeport	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Locust Point				
Salina				
Sugar Grove				
Fishtown				
West Point				
Evans Landing				
New Boston				
Pilcher Landing				
Hughes Landing				
Gurley Landing				
Davidson				
Cedar Farm Landing				
Tobacco Landing				
Morvins Landing				
Mauckport				
Titus				
Oolite				
New Amsterdam				
Leavenworth				
Fredonia				
Artist Point				
Schooler Point Landing				
Wolf Creek				
Alton				
Magnet				
Concordia				
Derby				
Chenaultt				

Businesses

Businesses	Standard Coordinates	
	Latitude (N)	Longitude (W)
Hughes Bar	(b) (7)(F), (b) (3)	
Donners Landing (historical)		
Rosewood		
Brown Landing		
Van Buren Lodge		
Boones Landing (historical)		
Lopps Landing (historical)		
Buzzard Roost Overlook		
Peters Landing		
Mano Point Recreation Site		

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Kentucky Critical/Sensitive Areas

Wetlands

N/A

Fish and Wildlife Areas

Wildlife Rehabilitation
In an oil spill incident, it is possible that birds, aquatic life, and/or other wildlife may come in contact with the spilled material. If wildlife becomes involved in the spilled material, it will be necessary to perform wildlife rescue and rehabilitation operations. The capture and treatment of wildlife, especially endangered species, is highly regulated by the U.S. Department of the Interior. To conduct these operations, it will be necessary to obtain assistance from properly trained, licensed, and permitted organizations and personnel. It is important to ensure that any personnel involved in wildlife rescue and rehabilitation operations, including volunteers, have received the appropriate level of Hazardous Waste Operations and Emergency Response (HAZWOPER) training.

In the event that wildlife is impacted, advice and assistance from trained and experienced persons in the area of wildlife rescue and rehabilitation may be requested.

The Corporate Emergency Response Team (CERT) will arrange for various agencies to be available for this service, such as:

- Tri-State Bird Rescue and Research, Inc.
  Wilmington, DE
  Administrative: 302/737-7241
  24-hour pager: 800/710-0695 (Eileen M Gilbert)
  800/710-0696 (Dr. Erica Miller)

- International Bird Rescue and Research Center
  Berkeley, CA
  Administrative: 510/841-9086
  (Recorded menu for emergencies)

Lakes and Streams

Lakes and Streams	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
French Creek	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Paddy Run				
Dreamland Lake				
Arrowhead Lake				
Mill Creek Cutoff				
Knob Creek				
Eversole Creek				

Kentucky Critical/Sensitive Areas

Lakes and Streams	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Mill Creek	(b) (3), (b) (7)(F)			
Macauley Creek				
Fourmile Creek				
Bee Branch				
Salt River				
Prewitts Lake				
Abrahams Run				
Mosquito Creek				
Otter Creek				
Big Run				
Doe Run				
Flippins Run				
Buck Creek				
Lick Run				
French Creek				
Indian Creek				
Potato Run				
Blue River				
Wolf Creek				
Little Blue River				
Watson Run				
Spring Creek				
Mill Creek				
Oil Creek				
Knob Creek				
Yellowbank Creek				
Little Poison Creek				
Poison Creek				

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

Endangered Flora and Fauna

There are no known endangered flora or fauna species in this area based on our current findings. Kentucky has an Endangered and Threatened Species listing of 42 species. These species are as follows:

Fauna	Status
Gray bat	Endangered
Indiana bat	Endangered
Virginia big-eared bat	Endangered
Cumberland bean	Endangered
Tubercled blossom	Endangered
Catspaw	Endangered
Clubshell	Endangered
Combshell	Endangered
Blackside dace	Threatened
Relict darter	Endangered

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Kentucky Critical/Sensitive Areas

Fauna	Status
Bald eagle	Threatened
Cumberland elktoe	Endangered
Fanshell	Endangered
Winged mapleleaf	Endangered
Pink mucket	Endangered
Oyster mussel	Endangered
Cracking pearlymussel	Endangered
Dromerdary pearlymussel	Endangered
Littlewing pearlymussel	Endangered
White wartyback pearlymussel	Endangered
Rough pigtoe	Endangered
Orangefoot pimpleback	Endangered
Piping plover	Threatened
Fat pocketbook	Endangered
Eastern puma	Endangered
Northern riffleshell	Endangered
Tan riffleshell	Endangered
Pink ring	Endangered
Palezone shiner	Endangered
Kentucky cave shrimp	Endangered
Pallid sturgeon	Endangered
Least tern	Endangered
Red-cockaded woodpecker	Endangered

Flora	Status
Price's potato-bean	Threatened
Braun's rock-cress	Endangered
Cumberland sandwort	Endangered
Cumberland rosemary	Threatened
Eggert's sunflower	Threatened
White-haired goldenrod	Threatened
Short's goldenrod	Endangered
Virginia spiraea	Threatened
Running buffalo clover	Endangered

In the event of a release, MAP will coordinate with the United States Fish and Wildlife Service (USFWS), and state and local wildlife management groups to ensure the protection of all threatened and endangered species within a release area.

Recreational Areas

N/A

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Kentucky Critical/Sensitive Areas

Transportation Routes

Transportation Routes	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Matthew Welsh Bridge	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Matthew Welsh Bridge				

Utilities

N/A

Others Areas of Economic Importance

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Dreamland Church	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Hellmans Point				
Bours Points				
Rosewood Post Office (historical)				
Colvin Cemetery				
Geoghegan Cemetery				
McCormick Cemetery				
Iron Mountain				
Brown Cemetery				
Narrows, The				
Low Gap				
Graham Cemetery				
Froman Hollow				
Stephens Cemetery				
Crosie Cemetery				
Doe Run Gas Storage Field				
Blue River Church				
Hamilton Hill				
Atwell Cemetery				
Haunted Hollow				
Lopp Hollow				
Paradise Bottom				
Cold Friday Hollow				
Upper Blue River Island				
Thacker Cemetery				
Blue River Island				
Old Leavenworth Cemetery				
Indian Hollow				
Pophins Hollow				
Cedar Branch Hollow				
Owens Cemetery				
Bulls Point				
Orchard Hill Cemetery				
Buzzard Roost Lookout Tower				

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Kentucky Critical/Sensitive Areas

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Willets Bottom	[redacted]			
Boone Hollow				
Flint Island				
Derby Cemetery				

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

LOUISVILLE KRAMERS LANE, KY TERMINAL - CRITICAL / SENSITIVE AREAS

Sensitive Areas Within Planning Distance of Facility

In order to determine specific vulnerable sites located within the planning distance of the facility, the Area Contingency Plan and the Geographic Names Information System (GNIS) database were reviewed and a comprehensive listing of vulnerable sites was compiled. The potential effect of an oil spill on each type of vulnerable site that is located within the planning distance is presented below. Additionally, the methods to prevent and/or minimize the impacts to the identified sensitive sites are discussed.

The specific actions considered to protect a vulnerable site, or to minimize the potential effects of a spill on a vulnerable site, would be tempered in a real spill event by the actual path of the spill and the actual hazards presented. The spilled product could be gasoline, diesel (including kerosene and No. 2 fuel oil), heavy fuel oil, asphalt, or petroleum pitch. For specific guidance on the actual hazards of a release, the MSDS and the DOT Emergency Response Planning Guidebook can be consulted for hazards and recommended evacuation distances. The specific actions taken should be as directed by the Unified Command under the Incident Command System.

Water Intakes

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



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

[redacted]

Schools

There are two potential effects from a release, direct contact with spilled material or exposure to flammable or irritating vapors. Direct contact with the spilled material would occur if the school was located in the spill pathway. In the event that a spill directly impacts the property of an educational institution, the effects may include: oiling of the school facility, equipment, and property; interruption of traffic flow to and from the facility; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If confined in a waterway or low area, vapor impingement may occur on downwind areas. In this event, air monitoring for potential fire hazards and irritating vapors is the response requirement, depending on the nature of the released material. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include source control, strategic booming immediately around the spill area, evacuation of students and personnel, rerouting of traffic near the facility, excavation of contaminated soil, monitoring and possible suppression of flammable/irritating vapors, and decontamination of oiled equipment, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

Medical Facilities

Medical facilities are more likely affected by vapors downwind of the spill path than by direct contact with released product. In the event that a spill impacts the property of a medical facility, the effects may include: oiling of the facility, equipment, and property; interruption of traffic flow to/from the medical facility; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. Air monitoring for flammable and/or irritating vapors should be considered, depending on the nature of the released material. In addition to the emergency notifications detailed in the Action Plan, responses to these potential problems might include the following: source control, strategic booming immediately around the spill area, rerouting of traffic near the facility, excavation of contaminated soil, monitoring and possible suppression of flammable/irritating vapors, and decontamination of oiled equipment, buildings,

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pavement. Potential effects and specific response actions will depend on the nature of the released material.

Residential Areas

A release of oil in the vicinity of a residential area may affect property, structures, and inhabitants. Specific effects may include oiled animals and vegetation, oiled homes and associated structures, and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If the spill has reached a waterway, or has been confined to a low area, vapor impingement is a potential problem downwind of the spill path. Vapors can be flammable, irritating, or may only pose an odor problem. Air monitoring should be conducted downwind of the spill path to monitor for vapors, depending on the nature of the released material. Responses to these effects may include strategic booming immediately around the spill area, evacuation of residents, rerouting of traffic, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled buildings, structures, pavement, etc. Potential effects and specific response actions will depend on the nature of the released material.

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Bridgeport	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Locust Point				
Salina				
Sugar Grove				
Fishtown				
Kosmosdale				
West Point				
Evans Landing				
New Boston				
Pilcher Landing				
Hughes Landing				
Gurley Landing				
Cedar Farm Landing				
Tobacco Landing				
Morvins Landing				
Mauckport				
Titus				
Oolite				
New Amsterdam				
Leavenworth				
Fredonia				
Artist Point				
Schooler Point Landing				
Wolf Creek				
Alton				
Magnet				
Concordia				

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Kentucky Critical/Sensitive Areas

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Derby	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Chenaultt				

Businesses

In the event that a spill impacts the property of a business, the effects may include: oiling of the facility, equipment, inventory, and property; interruption of traffic flow to/from the business; and potential fire hazards. A spill event that results in the closure of roads surrounding a business may also indirectly affect the business by the loss of revenue. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If the spill has reached a waterway, or has been confined to a low area, vapor impingement is a potential problem downwind of the spill path. Vapors can be flammable, irritating, or may only pose an odor problem. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, protective booming of docks and marinas, evacuation of business owners, employees, and patrons, rerouting of traffic near the business, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled buildings, structures, pavement, etc. Air monitoring should be conducted downwind of the spill path to monitor for vapors. Potential effects and specific response actions will depend on the nature of the released material.

Businesses	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Mulzer Crushed Stone, Inc.				
Mulzer Crushed Stone, Inc.				
Citgo Terminal				

Wetlands

The effects of a release of oil into a wetland area might include oiling of animals, vegetation, and sediment and the creation of an oil slick on areas of open water. Because water movement within a wetland habitat is minimal, oil spilled in these areas may pool and may persist. Swamps and marshes often serve as nurseries for fish and shellfish and exhibit high biodiversity. Due to the typically soft sediments that underlie wetland areas, the use of mechanized equipment for clean up efforts may cause more harm than the initial oiling. Responses to these effects include strategic booming immediately around the spill area and protective booming around identified sensitive wetland areas, and will depend heavily on the nature of the wetlands and potential routes of access for collection

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equipment. Potential effects and specific response actions will depend on the nature of the released material.

Fish and Wildlife Areas

Fish and wildlife species may be impacted directly or indirectly by an oil spill. A direct impact on wildlife would include physical contact with the released oil (oiling of a bird's feathers or an otter's fur) and toxic contamination (inhalation of petroleum vapors or ingestion of oil). Indirect impacts on wildlife would include the destruction of a species' habitat or food source or the displacement of the species or food source.

Direct effects of oil on fish populations include fish kills, specifically the egg and larval stages, which are more vulnerable to oil pollution than those in the adult stage. Spills to rivers used for spawning or used for migration to spawning grounds can affect future populations. Fish that have been tainted by an oil spill may not be fit to eat, thus affecting animals higher in the food chain.

Depending on the life cycle, behavior, and physiology of a particular wildlife species, the effects of an oil spill can vary. Otters and beavers are vulnerable due to the structure of their fur as well as their swimming behaviors. Birds that utilize the water-surface interface are at risk of contamination. Heavily oiled birds typically die as a result of their contamination. The specific effects on wildlife will depend on the nature of the released material.

Responses to these effects include strategic booming immediately around the spill area, protective booming around identified fish and wildlife habitat, and cleaning of affected animals by properly trained professionals. The response efforts in the direct vicinity of the impacted habitat depend heavily on the nature of the habitat and potential routes of access for collection equipment. Potential effects and specific response actions will depend on the nature of the released material.

Wildlife Rehabilitation

In an oil spill incident, it is possible that birds, aquatic life, and/or other wildlife may come in contact with the spilled material. If wildlife becomes involved in the spilled material, it will be necessary to perform wildlife rescue and rehabilitation operations. The capture and treatment of wildlife, especially endangered species, is highly regulated by the U.S. Department of the Interior. To conduct these operations, it will be necessary to obtain assistance from properly trained, licensed, and permitted organizations and personnel. It is important to ensure that any personnel involved in wildlife rescue and rehabilitation operations, including volunteers, have received the appropriate level of Hazardous Waste Operations and Emergency Response (HAZWOPER) training.

In the event that wildlife is impacted, advice and assistance from trained and experienced persons in the area of wildlife rescue and rehabilitation may be requested.

The Corporate Emergency Response Team (CERT) will arrange for various agencies to be available for this service, such as:

- Tri-State Bird Rescue and Research, Inc.
  Wilmington, DE
  Administrative: 302/737-7241
  24-hour pager: 800/710-0695 (Eileen M Gilbert)
  800/710-0696 (Dr. Erica Miller)

- International Bird Rescue and Research Center
  Berkeley, CA
  Administrative: 510/841-9086
  (Recorded menu for emergencies)

Lakes and Streams

Lakes are characterized by generally very low wave and current energy, although the surface may often become choppy. Water levels may fluctuate widely throughout the seasons and over time. Often other sensitive environments are in close proximity to lakes, such as wetlands, habitat for migratory birds, nesting birds and mammals, and fish nursery grounds. Lakes also often support various recreational activities. Depending on the severity of the spill, the effects may range from shoreline damages to fish and wildlife kills. Wind and tidal exchange will control the distribution of a slick, and can either hold the slick against a lee shore or spread it along shores or even into previously clean areas.

Small rivers and streams are characterized by shallow water (one to two meters in depth) and narrow channels. These systems are highly variable. The flow rates can range from fast-flowing to slow-moving. The channels may be free of debris or choked with log jams, mid-channel sand bars, and islands. The shoreline may have a high slope or a low bank fringed with vegetation or wetlands. Slicks typically contaminate both banks. The oil may mix throughout the entire water column in shallower streams, thus potentially affecting both aquatic and benthic organisms.

Responses to these effects include strategic booming immediately around the spill area and protective booming around vulnerable areas such as the mouths of creeks and inlets, and will depend heavily on the nature of the habitat and potential routes of access for collection equipment. Deflection boom can also be used to direct floating spills from vulnerable areas. Potential effects and specific response actions will depend on the nature of the released material.

Lakes and Streams	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Cane Run	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	

Kentucky Critical/Sensitive Areas

Lakes and Streams	UTM Coordinates	Standard Coordinates	
	(b) (3), (b) (7)(F)	Latitude (N)	Longitude (W)
Mill Creek		(b) (7)(F), (b) (3)	
Mill Creek Cutoff			
Knob Creek			
Eversole Creek			
Mill Creek			
Macauley Creek			
Fourmile Creek			
Bee Branch			
Salt River			
Prewitts Lake			
Abrahams Run			
Mosquito Creek			
Otter Creek			
Big Run			
Doe Run			
Flippins Run			
Buck Creek			
Lick Run			
French Creek			
Indian Creek			
Potato Run			
Blue River			
Wolf Creek			
Little Blue River			
Watson Run			
Spring Creek			
Mill Creek			
Oil Creek			
Knob Creek			
Yellowbank Creek			
Little Poison Creek			
Poison Creek			

Endangered Flora and Fauna

Oil spills affect endangered flora and fauna by either directly impacting the individual or by destroying the habitat in which the species lives. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, excavation of contaminated soil, suppression of flammable vapors, and cleaning of affected animals by properly trained professionals. Protective booming around vulnerable areas, as well as booming the mouths of creeks where sensitive species have been identified, should be conducted. Deflection boom can also be used to direct floating spills from vulnerable areas. Potential effects and specific response actions will depend on the nature of the released material.

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Kentucky Critical/Sensitive Areas

Based on our current findings, there are no known endangered flora or fauna species within the worst case discharge planning distance of the Terminal. Kentucky has an Endangered and Threatened Species listing of 47 species. Also included in this list are experimental populations of species that have been reintroduced to Kentucky. Experimental populations are denoted by "XN". These species are provided for informational purposes only.

* Indicates experimental populations introduced into the free-flowing reach of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, AL

Fauna		
Common Name	**Scientific Name**	**Status**
Gray bat	*Myotis grisescens*	Endangered
Indiana bat	*Myotis sodalis*	Endangered
Virginia big-eared bat	*Corynorhinus townsendii virginianus*	Endangered
Cumberland bean	*Villosa trabalis*	Endangered, except where XN
Cumberland bean	*Villosa trabalis*	XN*
Tubercled blossom	*Epioblasma torulosa torulosa*	Endangered, except where XN
Tubercled blossom	*Epioblasma torulosa torulosa*	XN*
Catspaw	*Epioblasma torulosa obliquata*	Endangered, except where XN
Catspaw	*Epioblasma torulosa obliquata*	XN*
Clubshell	*Pleurobema clava*	Endangered
Cumberlandian combshell	*Epioblasma brevidens*	Endangered, except where XN
Cumberlandian combshell	*Epioblasma brevidens*	XN*
Blackside Dace	*Phoxinus cumberlandensis*	Threatened
Duskytail darter	*Etheostoma percnurum*	Endangered
Relict darter	*Etheostoma chenense*	Endangered
Bald eagle	*Haliaeetus leucocephalus*	Threatened
Cumberland elktoe	*Alasmidonta atropurpurea*	Endangered
Fanshell	*Cyprogenia stegaria*	Endangered
Winged mapleleaf	*Quadrula fragosa*	Endangered
Pink mucket	*Lampsilis abrupta*	Endangered
Oyster mussel	*Epioblasma capsaeformis*	Endangered, except where XN
Oyster mussel	*Epioblasma capsaeformis*	XN*
Cracking pearlymussel	*Hemistana lata*	Endangered
Dromedary pearlymussel	*Dromus dromas*	Endangered
Littlewing pearlymussel	*Pegia fabula*	Endangered
Rough pigtoe	*Pleurobema plenum*	Endangered
Orangefoot pimpleback	*Plethobasus cooperianus*	Endangered
Piping plover	*Charadrius melodus*	Threatened

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Kentucky Critical/Sensitive Areas

Fauna		
Common Name	**Scientific Name**	**Status**
Fat pocketbook	*Potamilus capax*	Endangered
Eastern puma	*Puma concolor couguar*	Endangered
Northern riffleshell	*Epioblasma torulosa rangiana*	Endangered
Tan riffleshell	*Epioblasma florentina walkeri*	Endangered
Pink ring	*Obovaria retusa*	Endangered
Palezone shiner	*Notropis albizonatus*	Endangered
Kentucky cave shrimp	*Palaemonias ganteri*	Endangered
Pallid sturgeon	*Scaphirhynchus albus*	Endangered
Least tern	*Sterna antillarum*	Endangered
White wartyback	*Plethobasus cicatricosus*	Endangered

Flora		
Common Name	**Scientific Name**	**Status**
Price's potato-bean	*Apios priceana*	Threatened
Braun's rock-cress	*Arabis perstellata*	Endangered
Cumberland sandwort	*Arenaria cumberlandensis*	Endangered
Cumberland rosemary	*Conradina verticillata*	Threatened
Eggert's sunflower	*Helianthus eggertii*	Threatened
White-haired goldenrod	*Solidago albopilosa*	Threatened
Short's goldenrod	*Solidago shortii*	Endangered
Virginia spiraea	*Spiraea virginiana*	Threatened
Running buffalo clover	*Trifolium stoloniferum*	Endangered

In the event of a release, MAP will coordinate with the United States Fish and Wildlife Service (USFWS), and state and local wildlife management groups to ensure the protection of all threatened and endangered species within a release area.

Recreational Areas

In the event that a spill impacts a recreational area, the effects may include: oiling of the area, structures, and property; interruption of traffic flow to/from the area; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of visitors and employees of the areas, rerouting of traffic near the recreational area, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

Recreational Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Wilderness Camp Area	(b) (3), (b) (7)(F)	b) (7)(F), (b) (3)		

Kentucky Critical/Sensitive Areas

Recreational Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Van Buren Lodge	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Mano Point Recreation Site				

Transportation Routes

Transportation routes are typically indirectly affected by a spill event through the interruption of traffic flow. Other effects may include: oiling of pavement, vegetation, and soil; the creation of an oil slick on areas of open water; and potential fire hazards. Should human contact result from the spill, the potential route of exposure might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of persons traveling the route, rerouting of traffic by authorized personnel, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement, etc. The halting of river traffic in the case of a spill to a major waterway or rerouting vehicular traffic from business areas would likely result in economic impacts. Potential effects and specific response actions will depend on the nature of the released material.

Transportation Routes	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Matthew Welsh Bridge	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Matthew Welsh Bridge				
Hughes Campground Road				

Utilities

In the event that a spill impacts a utility line or right-of-way, the effects may include: oiling of pavement, vegetation, and structures; interruption of utility services to homes and businesses; the creation of an electrical hazard; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of persons near the utility line or right-of-way, rerouting of traffic by authorized personnel away from the utility line or right-of-way, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement, etc. Potential effects and specific response actions will depend on the nature of the released material.

Others Areas of Economic Importance

In the event that a spill impacts an area of economic concern, the effects may include: oiling of vegetation, soil, and structures; interruption of traffic flow to/from the area; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. Responses to these effects depend heavily on the nature of the sensitive area and potential routes of

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access for collection equipment, but may include strategic booming immediately around the spill area, evacuation, rerouting of traffic, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled equipment, buildings, pavement, etc. Potential effects and specific response actions will depend on the nature of the released material.

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Farnsley Cemetery	[redacted]	[redacted]	[redacted]	[redacted]
Hellmans Point				
Bours Points				
Riverside Church				
Donners Landing (historical)				
Rosewood				
Rosewood Post Office (historical)				
Colvin Cemetery				
Geoghegan Cemetery				
McCormick Cemetery				
Iron Mountain				
Brown Landing				
Brown Cemetery				
Narrows, The				
Graham Cemetery				
Froman Hollow				
Stephens Cemetery				
Crosie Cemetery				
Blue River Church				
Boones Landing (historical)				
Hamilton Hill				
Atwell Cemetery				
Haunted Hollow				
Lopp Hollow				
Lopps Landing (historical)				
Cold Friday Hollow				
Upper Blue River Island				
Thacker Cemetery				
Blue River Island				
Old Leavenworth Cemetery				
Indian Hollow				
Pophins Hollow				
Cedar Branch Hollow				
Owens Cemetery				
Orchard Hill Cemetery				
Buzzard Roost Overlook				
Boone Hollow				
Peters Landing				
Flint Island				
Derby Cemetery				

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

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

Kentucky Critical/Sensitive Areas

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Idle George Cliff	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	

LEXINGTON, KY LP TERMINAL

Sensitive Areas Within Planning Distance of Facility

In order to determine specific vulnerable sites located within the planning distance of the facility, the Area Contingency Plan and the Geographic Names Information System (GNIS) database were reviewed and a comprehensive listing of vulnerable sites was compiled. The potential effect of an oil spill on each type of vulnerable site that is located within the planning distance is presented below. Additionally, the methods to prevent and/or minimize the impacts to the identified sensitive sites are discussed.

The specific actions considered to protect a vulnerable site, or to minimize the potential effects of a spill on a vulnerable site, would be tempered in a real spill event by the actual path of the spill and the actual hazards presented. The spilled product could be gasoline, diesel (including kerosene and No. 2 fuel oil), heavy fuel oil, asphalt, or petroleum pitch. For specific guidance on the actual hazards of a release, the MSDS and the DOT Emergency Response Planning Guidebook can be consulted for hazards and recommended evacuation distances. The specific actions taken should be as directed by the Unified Command under the Incident Command System.

Water Intakes

Water intakes are underwater structures used to collect water for public drinking water, public utilities, or private industry. In the event that a spill enters a body of water on which water intakes are present, the direct effects may include petroleum contamination of intake water, intake structures, and facility equipment. Indirectly, oiled vegetation or wildlife may be impinged onto or entrained into the structure resulting in damages to the intake structure. In addition to the emergency notifications detailed in the Action Plan, response efforts may include strategic booming immediately around the spill area (source control), shutting down the water intake, or exclusion (protective) booming around potentially affected intake structures. The shutdown of water intakes as a preventative measure may result in social and economic impacts. Potential effects and specific response actions will depend on the nature of the released material.

Downstream water intakes on the Kentucky River are as follows:

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

Schools

There are two potential effects from a release, direct contact with spilled material or exposure to flammable or irritating vapors. Direct contact with the spilled material would occur if the school was located in the spill pathway. In the event that a spill directly impacts the property of an educational institution, the effects may include: oiling of the

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school facility, equipment, and property; interruption of traffic flow to and from the facility; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If confined in a waterway or low area, vapor impingement may occur on downwind areas. In this event, air monitoring for potential fire hazards and irritating vapors is the response requirement, depending on the nature of the released material. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include source control, strategic booming immediately around the spill area, evacuation of students and personnel, rerouting of traffic near the facility, excavation of contaminated soil, monitoring and possible suppression of flammable/irritating vapors, and decontamination of oiled equipment, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

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

Medical Facilities

Medical facilities are more likely affected by vapors downwind of the spill path than by direct contact with released product. In the event that a spill impacts the property of a medical facility, the effects may include: oiling of the facility, equipment, and property; interruption of traffic flow to/from the medical facility; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. Air monitoring for flammable and/or irritating vapors should be considered, depending on the nature of the released material. In addition to the emergency notifications detailed in the Action Plan, responses to these potential problems might include the following: source control, strategic booming immediately around the spill area, rerouting of traffic near the facility, excavation of contaminated soil, monitoring and possible suppression of flammable/irritating vapors, and decontamination of oiled equipment, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

There are no identified medical facilities at risk within the planning distance.

Residential Areas

A release of oil in the vicinity of a residential area may affect property, structures, and inhabitants. Specific effects may include oiled animals and vegetation, oiled homes and associated structures, and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If the spill has reached a waterway, or has been confined to a low area, vapor impingement is a potential problem downwind of the spill path. Vapors can be flammable, irritating, or may only pose an odor problem. Air monitoring should be conducted downwind of the spill path to monitor for vapors, depending on the nature of

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the released material. Responses to these effects may include strategic booming immediately around the spill area, evacuation of residents, rerouting of traffic, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled buildings, structures, pavement, etc. Potential effects and specific response actions will depend on the nature of the released material.

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Viley	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Bracktown				
Yarnallton				
Zion Hill				
Davistown				

Businesses

In the event that a spill impacts the property of a business, the effects may include: oiling of the facility, equipment, inventory, and property; interruption of traffic flow to/from the business; and potential fire hazards. A spill event that results in the closure of roads surrounding a business may also indirectly affect the business by the loss of revenue. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If the spill has reached a waterway, or has been confined to a low area, vapor impingement is a potential problem downwind of the spill path. Vapors can be flammable, irritating, or may only pose an odor problem. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, protective booming of docks and marinas, evacuation of business owners, employees, and patrons, rerouting of traffic near the business, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled buildings, structures, pavement, etc. Air monitoring should be conducted downwind of the spill path to monitor for vapors. Potential effects and specific response actions will depend on the nature of the released material.

Chevron Oil USA Terminal
Norfolk Southern Railroad
Woodall Construction Company

Wetlands

The effects of a release of oil into a wetland area might include oiling of animals, vegetation, and sediment and the creation of an oil slick on areas of open water. Because water movement within a wetland habitat is minimal, oil spilled in these areas may pool and may persist. Swamps and marshes often serve as nurseries for fish and shellfish and exhibit high biodiversity. Due to the typically soft sediments that underlie wetland areas, the use of mechanized equipment for clean up efforts may cause more harm than the initial oiling. Responses to these effects include strategic booming immediately around the spill area and protective booming around identified sensitive wetland areas, and will

depend heavily on the nature of the wetlands and potential routes of access for collection equipment. Potential effects and specific response actions will depend on the nature of the released material.

There are no identified wetland areas at risk within the planning distance.

Fish and Wildlife Areas

Fish and wildlife species may be impacted directly or indirectly by an oil spill. A direct impact on wildlife would include physical contact with the released oil (oiling of a bird's feathers or an otter's fur) and toxic contamination (inhalation of petroleum vapors or ingestion of oil). Indirect impacts on wildlife would include the destruction of a species' habitat or food source or the displacement of the species or food source.

Direct effects of oil on fish populations include fish kills, specifically the egg and larval stages, which are more vulnerable to oil pollution than those in the adult stage. Spills to rivers used for spawning or used for migration to spawning grounds can affect future populations. Fish that have been tainted by an oil spill may not be fit to eat, thus affecting animals higher in the food chain.

Depending on the life cycle, behavior, and physiology of a particular wildlife species, the effects of an oil spill can vary. Otters and beavers are vulnerable due to the structure of their fur as well as their swimming behaviors. Birds that utilize the water-surface interface are at risk of contamination. Heavily oiled birds typically die as a result of their contamination. The specific effects on wildlife will depend on the nature of the released material.

Responses to these effects include strategic booming immediately around the spill area, protective booming around identified fish and wildlife habitat, and cleaning of affected animals by properly trained professionals. The response efforts in the direct vicinity of the impacted habitat depend heavily on the nature of the habitat and potential routes of access for collection equipment. Potential effects and specific response actions will depend on the nature of the released material.

Wildlife Rehabilitation

In an oil spill incident, it is possible that birds, aquatic life, and/or other wildlife may come in contact with the spilled material. If wildlife becomes involved in the spilled material, it will be necessary to perform wildlife rescue and rehabilitation operations. The capture and treatment of wildlife, especially endangered species, is highly regulated by the U.S. Department of the Interior. To conduct these operations, it will be necessary to obtain assistance from properly trained, licensed, and permitted organizations and personnel. It is important to ensure that any personnel involved in wildlife rescue and rehabilitation operations, including volunteers, have received the appropriate level of Hazardous Waste Operations and Emergency Response (HAZWOPER) training.

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In the event that wildlife is impacted, advice and assistance from trained and experienced persons in the area of wildlife rescue and rehabilitation may be requested.

The Corporate Emergency Response Team (CERT) will arrange for various agencies to be available for this service, such as:

- Tri-State Bird Rescue and Research, Inc.
  Wilmington, DE
  Administrative: 302/737-7241
  24-hour pager: 800/710-0695 (Eileen M Gilbert)
  800/710-0696 (Dr. Erica Miller)

- International Bird Rescue and Research Center
  Berkeley, CA
  Administrative: 510/841-9086
  (Recorded menu for emergencies)

There are no identified fish and wildlife areas at risk within the planning distance.

Lakes and Streams

Lakes are characterized by generally very low wave and current energy, although the surface may often become choppy. Water levels may fluctuate widely throughout the seasons and over time. Often other sensitive environments are in close proximity to lakes, such as wetlands, habitat for migratory birds, nesting birds and mammals, and fish nursery grounds. Lakes also often support various recreational activities. Depending on the severity of the spill, the effects may range from shoreline damages to fish and wildlife kills. Wind and tidal exchange will control the distribution of a slick, and can either hold the slick against a lee shore or spread it along shores or even into previously clean areas.

Small rivers and streams are characterized by shallow water (one to two meters in depth) and narrow channels. These systems are highly variable. The flow rates can range from fast-flowing to slow-moving. The channels may be free of debris or choked with log jams, mid-channel sand bars, and islands. The shoreline may have a high slope or a low bank fringed with vegetation or wetlands. Slicks typically contaminate both banks. The oil may mix throughout the entire water column in shallower streams, thus potentially affecting both aquatic and benthic organisms.

Responses to these effects include strategic booming immediately around the spill area and protective booming around vulnerable areas such as the mouths of creeks and inlets, and will depend heavily on the nature of the habitat and potential routes of access for collection equipment. Deflection boom can also be used to direct floating spills from vulnerable areas. Potential effects and specific response actions will depend on the nature of the released material.

Kentucky Critical/Sensitive Areas

Lakes and Streams	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Vaughns Branch	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Wolf Run				
Town Branch				
Steeles Run				

Endangered Flora and Fauna

Oil spills affect endangered flora and fauna by either directly impacting the individual or by destroying the habitat in which the species lives. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, excavation of contaminated soil, suppression of flammable vapors, and cleaning of affected animals by properly trained professionals. Protective booming around vulnerable areas, as well as booming the mouths of creeks where sensitive species have been identified, should be conducted. Deflection boom can also be used to direct floating spills from vulnerable areas. Potential effects and specific response actions will depend on the nature of the released material.

Based on our current findings, there are no known endangered flora or fauna species within the worst case discharge planning distance of the Terminal. Kentucky has an Endangered and Threatened Species listing of 47 species. Also included in this list are experimental populations of species that have been reintroduced to Kentucky. Experimental populations are denoted by "XN". These species are provided for informational purposes only.

* Indicates experimental populations introduced into the free-flowing reach of the Tennessee River below the Wilson Dam in Colbert and Lauderdale Counties, AL

Fauna		
Common Name	**Scientific Name**	**Status**
Gray bat	*Myotis grisescens*	Endangered
Indiana bat	*Myotis sodalis*	Endangered
Virginia big-eared bat	*Corynorhinus townsendii virginianus*	Endangered
Cumberland bean	*Villosa trabalis*	Endangered, except where XN
Cumberland bean	*Villosa trabalis*	XN*
Tubercled blossom	*Epioblasma torulosa torulosa*	Endangered, except where XN
Tubercled blossom	*Epioblasma torulosa torulosa*	XN*
Catspaw	*Epioblasma obliquata obliquata*	Endangered, except where XN
Catspaw	*Epioblasma obliquata obliquata*	XN*
Clubshell	*Pleurobema clava*	Endangered

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Kentucky Critical/Sensitive Areas

Fauna		
Common Name	**Scientific Name**	**Status**
Cumberlandian combshell	*Epioblasma brevidens*	Endangered, except where XN
Cumberlandian combshell	*Epioblasma brevidens*	XN*
Blackside dace	*Phoxinus cumberlandensis*	Threatened
Duskytail darter	*Etheostoma percnurum*	Endangered
Relict darter	*Etheostoma chienense*	Endangered
Bald eagle	*Haliaeetus leucocephalus*	Threatened
Cumberland elktoe	*Alasmidonta atropurpurea*	Endangered
Fanshell	*Cyprogenia stegaria*	Endangered
Winged mapleleaf	*Quadrula fragosa*	Endangered
Pink mucket	*Lampsilis abrupta*	Endangered
Oyster mussel	*Epioblasma capsaeformis*	Endangered, except where XN
Oyster mussel	*Epioblasma capsaeformis*	XN*
Cracking pearlymussel	*Hemistena lata*	Endangered
Dromedary pearlymussel	*Dromus dromas*	Endangered
Littlewing pearlymussel	*Pegias fabula*	Endangered
Rough pigtoe	*Pleurobema pelnum*	Endangered
Orangefoot pimpleback	*Plethobasus cooperianus*	Endangered
Piping plover	*Charadrius melodus*	Threatened
Fat pocketbook	*Potamilus capax*	Endangered
Eastern puma	*Puma concolor couguar*	Endangered
Northern riffleshell	*Epioblasma torulosa rangiana*	Endangered
Tan riffleshell	*Epioblasma florentina walkeri*	Endangered
Pink ring	*Obovaria retusa*	Endangered
Palezone shiner	*Notropis albizonatus*	Endangered
Kentucky cave shrimp	*Palaemonia ganteri*	Endangered
Pallid sturgeon	*Scaphirhynchus albus*	Endangered
Least tern	*Sterna antillarum*	Endangered
White wartyback	*Plethobasus cicatricosus*	Endangered

Flora		
Common Name	**Scientific Name**	**Status**
Price's potato-bean	*Apios priceana*	Threatened
Braun's rock-cress	*Arabis perstellata*	Endangered
Cumberland sandwort	*Arenaria cumberlandensis*	Endangered
Cumberland rosemary	*Conradina verticillata*	Threatened
Eggert's sunflower	*Helianthus eggerti*	Threatened
White-haired goldenrod	*Solidago albopilosa*	Threatened
Short's goldenrod	*Solidago shortii*	Endangered
Virginia spiraea	*Spiraea virginiana*	Threatened
Running buffalo clover	*Trifolium stoloniferum*	Endangered

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In the event of a release, MAP will coordinate with the United States Fish and Wildlife Service (USFWS), and state and local wildlife management groups to ensure the protection of all threatened and endangered species within a release area.

Recreational Areas

In the event that a spill impacts a recreational area, the effects may include: oiling of the area, structures, and property; interruption of traffic flow to/from the area; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of visitors and employees of the areas, rerouting of traffic near the recreational area, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

There are no identified recreational areas at risk within the planning distance.

Transportation Routes

Transportation routes are typically indirectly affected by a spill event through the interruption of traffic flow. Other effects may include: oiling of pavement, vegetation, and soil; the creation of an oil slick on areas of open water; and potential fire hazards. Should human contact result from the spill, the potential route of exposure might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of persons traveling the route, rerouting of traffic by authorized personnel, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement, etc. The halting of river traffic in the case of a spill to a major waterway or rerouting vehicular traffic from business areas would likely result in economic impacts. Potential effects and specific response actions will depend on the nature of the released material.

Old Frankfort Pike Road
New Circle Road
Viley Road
Leestown Road
Brownsmills Road
Mooreville Road

Utilities

In the event that a spill impacts a utility line or right-of-way, the effects may include: oiling of pavement, vegetation, and structures; interruption of utility services to homes and businesses; the creation of an electrical hazard; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin

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Lima Area Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the Lima Operations Area are shown in the Response Maps located in the Findlay M&TE Drafting room and in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

There are two threatened or endangered species documented in the Lima Operations Area. The Running Buffalo Clover is found in Marion County, OH and the Indiana Bat was seen throughout the area.

Wetlands in much of the response area have not been delineated by the federal government.

The Lima Operations Area includes a variety of areas of concern. These include: Mount Gilead State Park (six miles southwest of Williamsport), Mohican State Forest and Mohican State Park (in Ashland County), Grand Lake St. Mary's State Park (extends from Celina to St. Mary's Campground); Ft. Recovery State Memorial (Ft. Recovery); Ft. Amanda Monument (four miles southwest of Hume); Indiana State Memorial (three miles north of Nevada).

ACCESS/STAGING AREAS

Airports

Lakefield Airport, Montezuma, OH
Van Wert Airport, Van Wert, OH
Armstrong Airport, New Knoxville, OH
Allen Co. Airport, Lima, OH
Toledo Express Airport, Toledo, OH
Indianapolis International Airport, Indianapolis, IN
Dayton International Airport, Dayton, OH
Fort Wayne International Airport, Fort Wayne, IN

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

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Lima Area Critical/Sensitive Areas

ACCESS/STAGING AREAS

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted waterway. The Cleanup Unit Leader and his people along with an aerial surveillance will identify possible launch and access sites.

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

[redacted]

SEE TELEPHONE NUMBER SECTION

APPROX.

CRITICAL AREAS	CONTACT PERSON	DISTANCE FROM PIPELINE
Mendon	Dennis Clay Fire Chief	2 mile
	Paul Gray Sheriff	2 mile
Rockford	Ralph Rhodes	1/4 mile
	Fire Chief/HAZMAT	1/4 mile
Wilshire	Dave Carr Water Treatment	1/4 mile
	Dean King Mayor	1/4 mile

Lima Area Critical/Sensitive Areas

ST. MARY'S RIVER CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Decatur, Indiana	Jim Inskeep (Water Supt.)	1/4 mile
	Police Department	
	City Hall	1/4 mile
Ft. Wayne	Roger Powers Allen County Emergency Preparedness	
	Doug Pooler Fresh Water Treatment Water Dept.	

DESCRIPTION OF SPECIAL ENVIRONMENTAL CHARACTERISTICS

Small scale recreational fishing and canoeing occurs along the entire length of the river. Agricultural land borders both shores of the river.

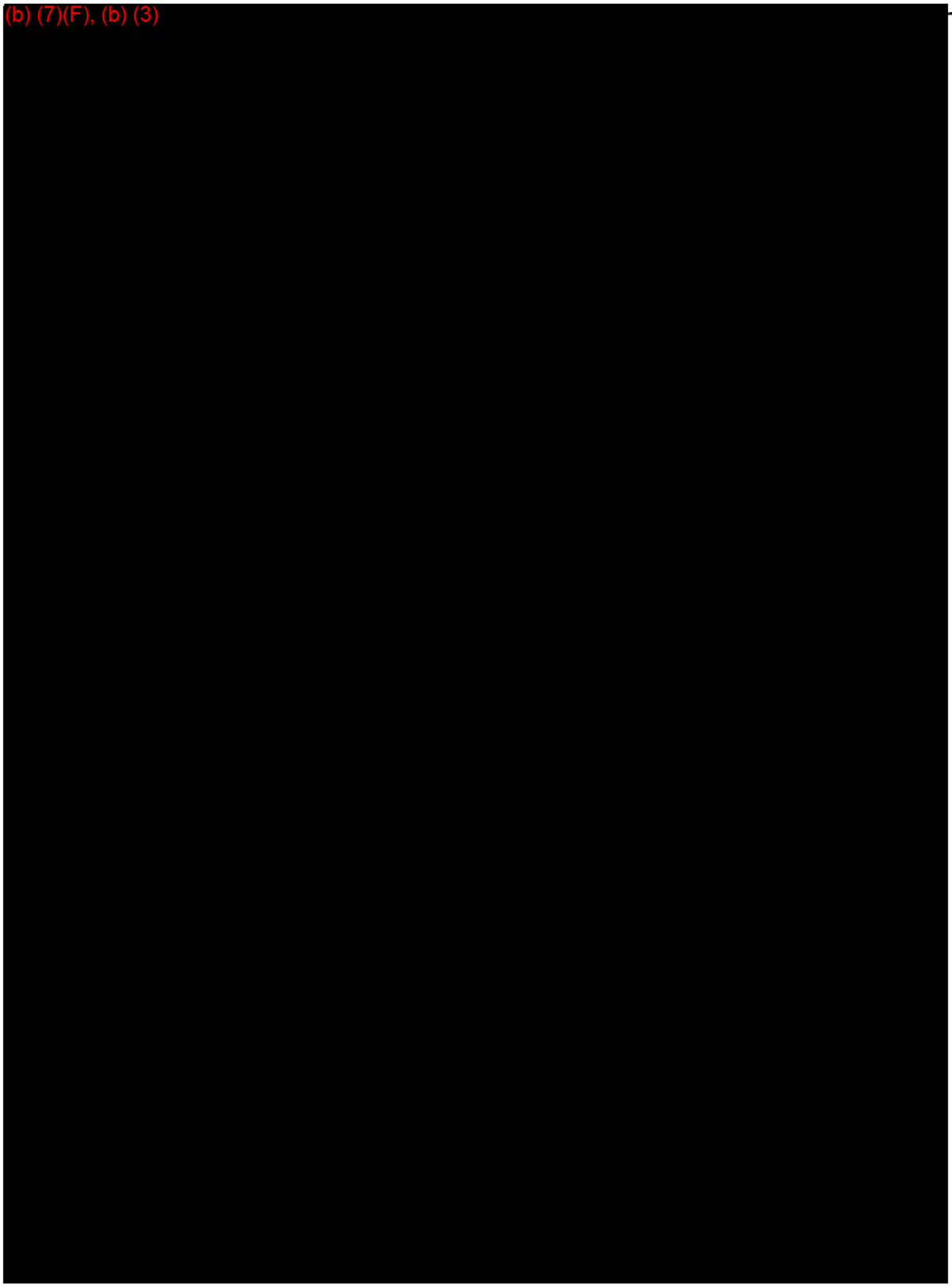
CRITICAL AREAS

#2-10" Products System from Ohio State Line

1076-1096	Wabash River Conservancy District West Boundary to East Boundary
1079	SR 49
1092	Wabash River
1103A, 1104A	Branch of Beaver Creek
1106	SR 29
1111A	Beaver Creek
1114B	Unnamed Creek

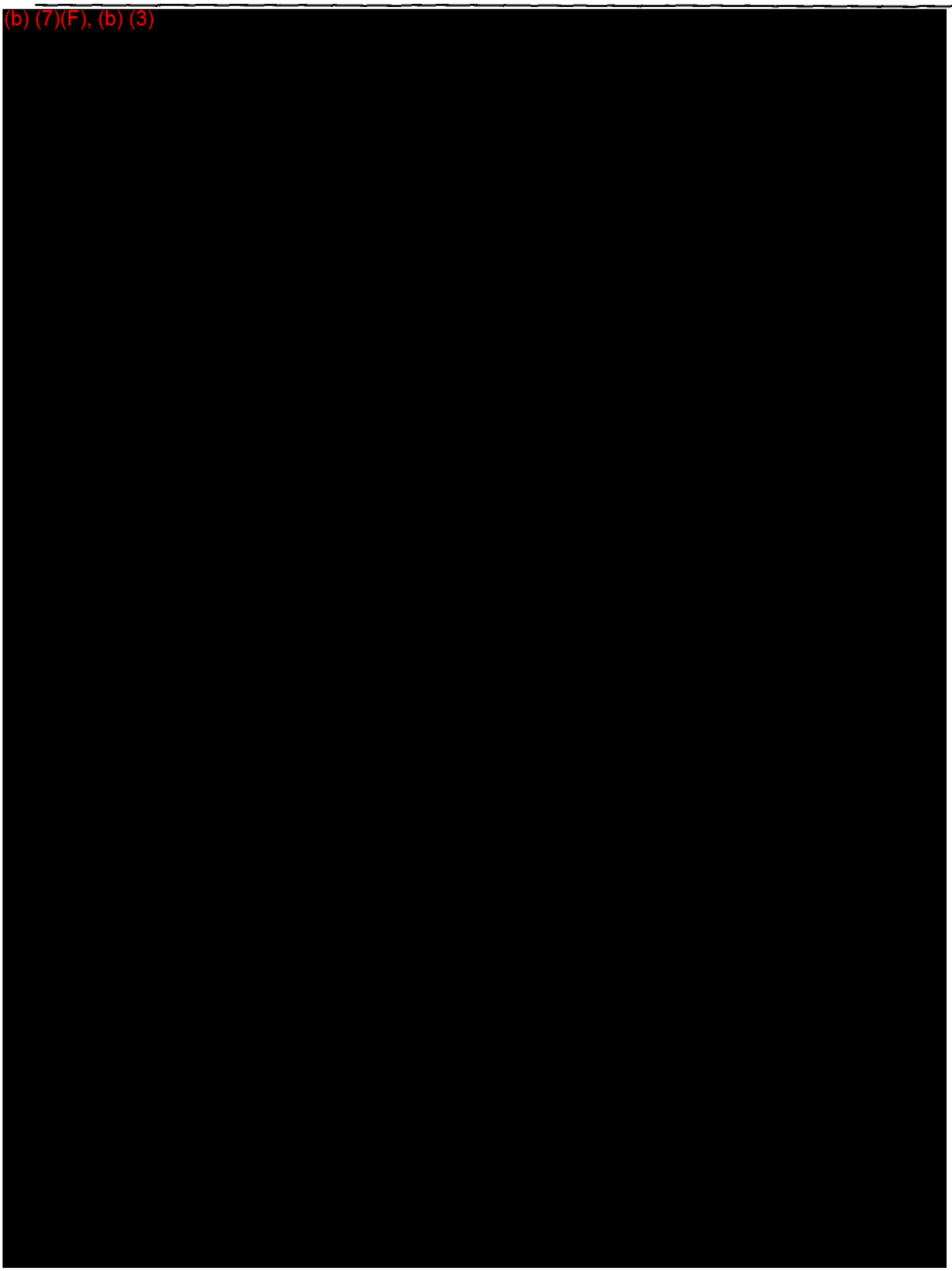
Lima Area Critical/Sensitive Areas

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



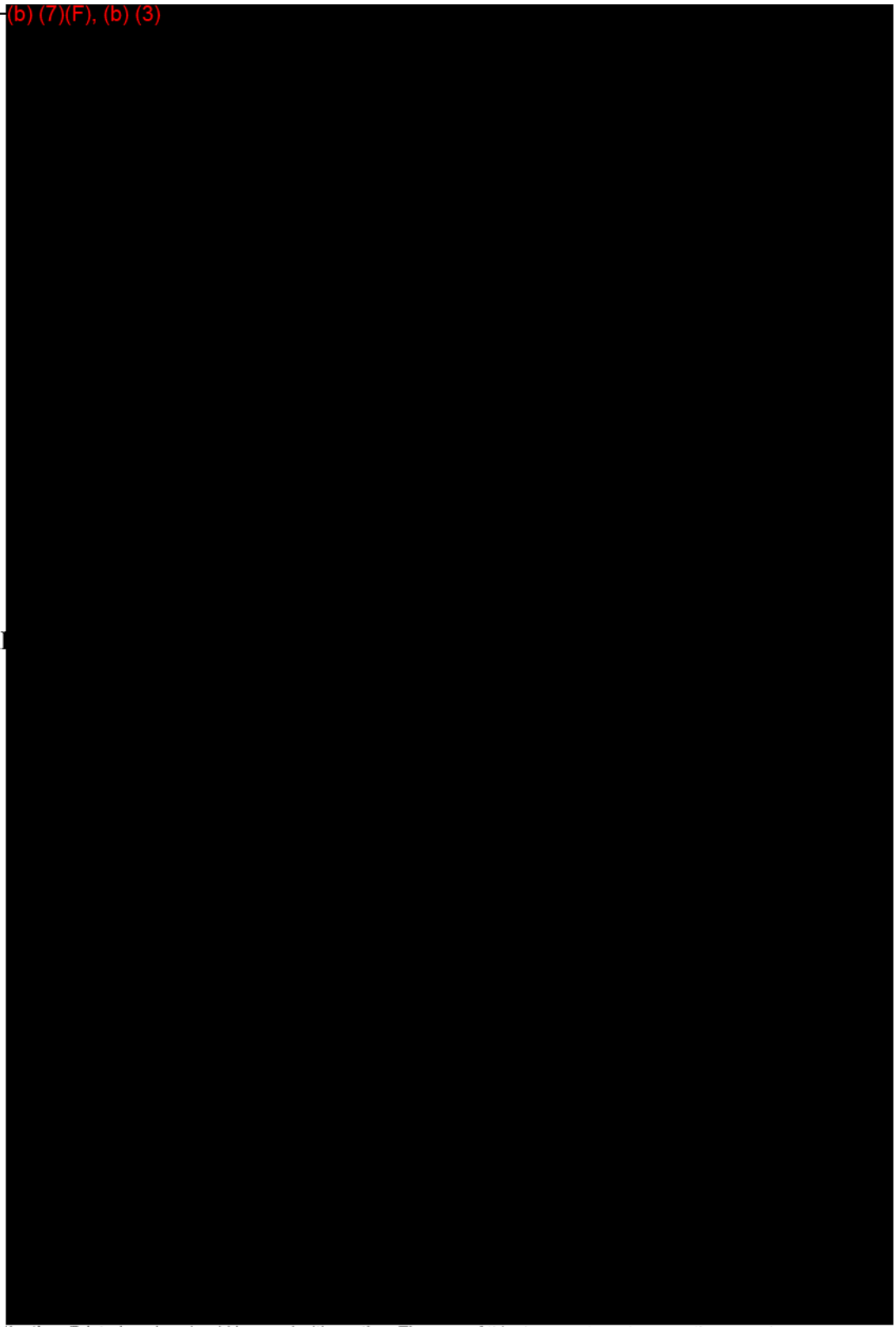
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Lima Area Critical/Sensitive Areas

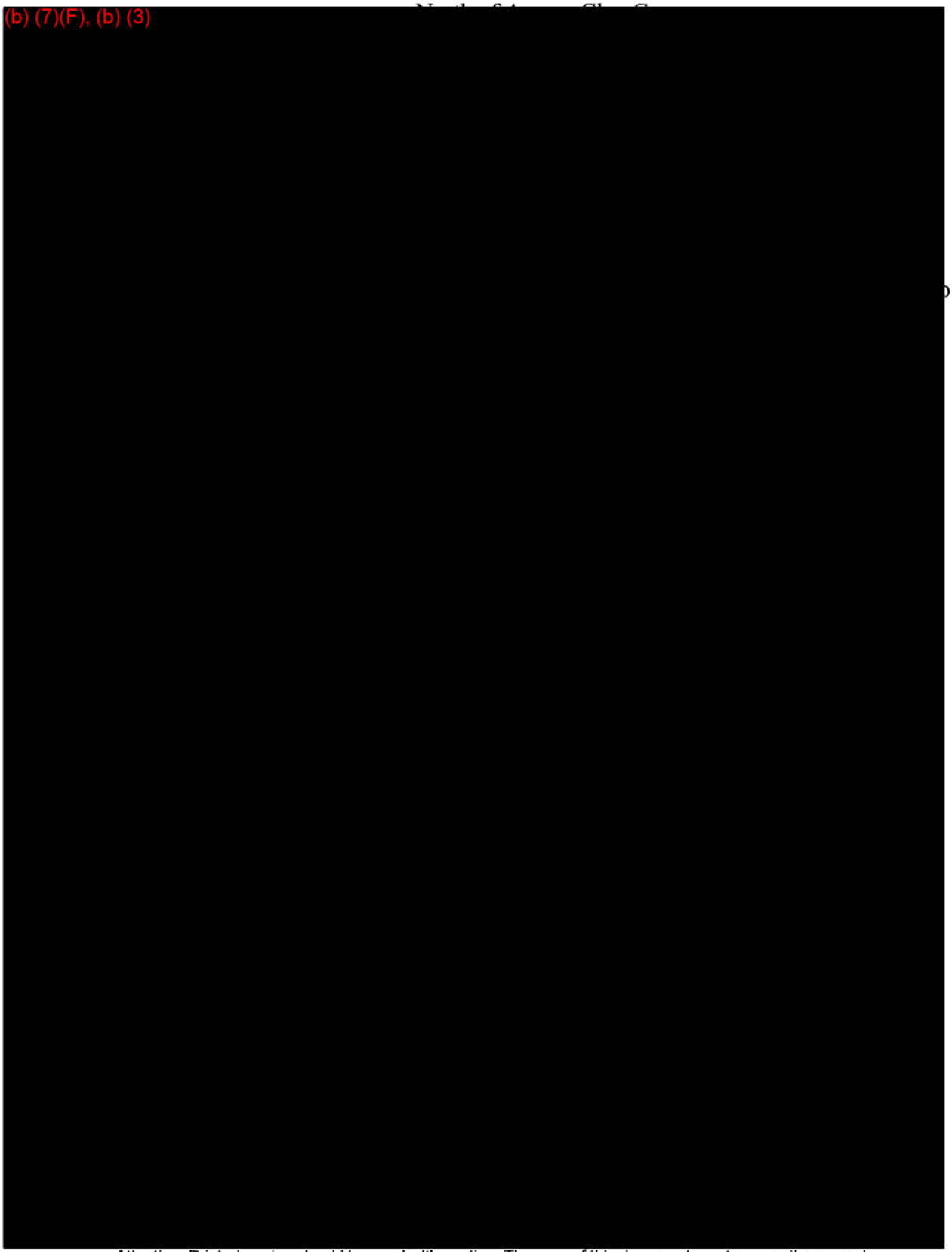
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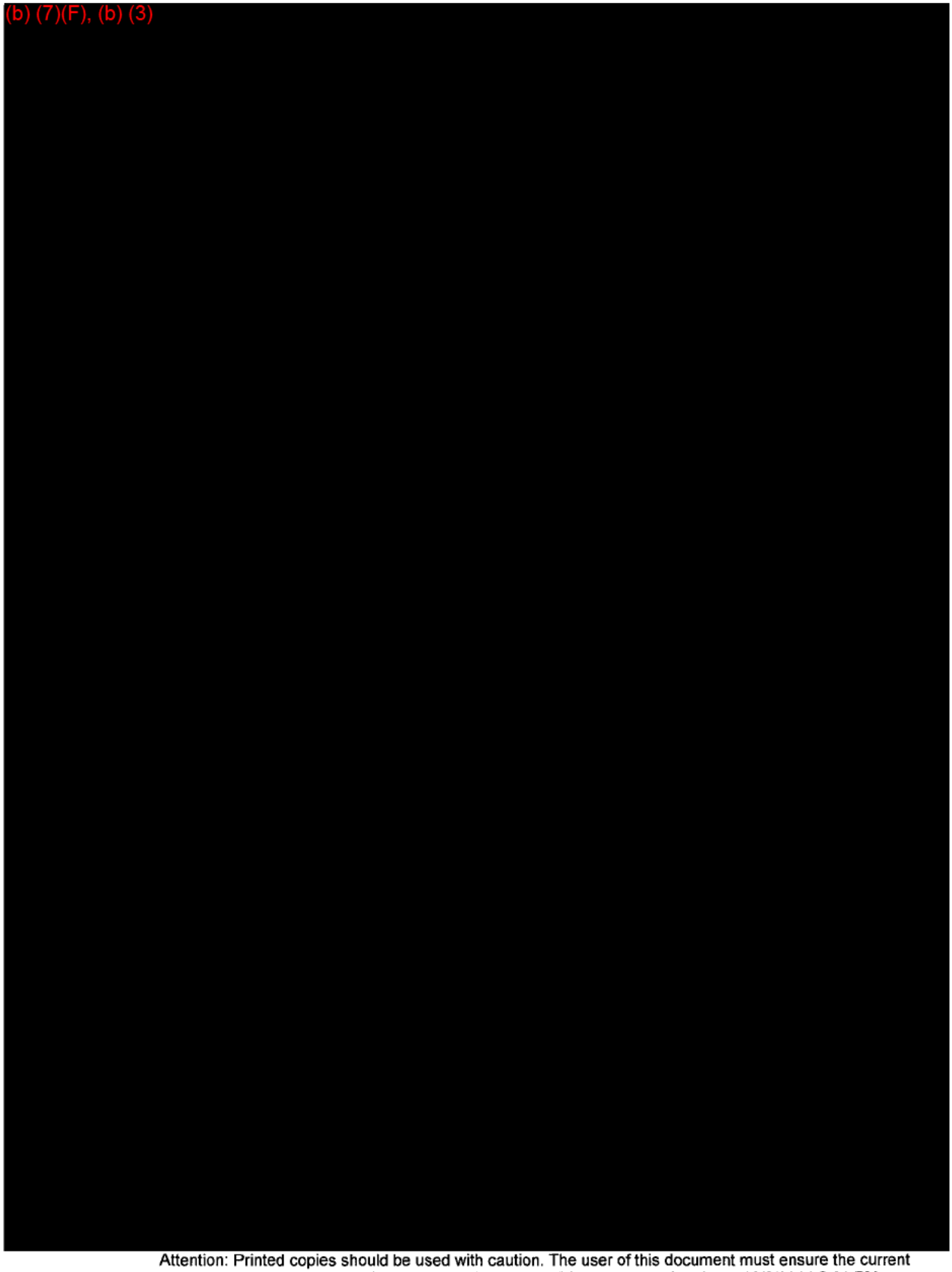
Lima Area Critical/Sensitive Areas

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Lima Area Critical/Sensitive Areas

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Lima Area Critical/Sensitive Areas

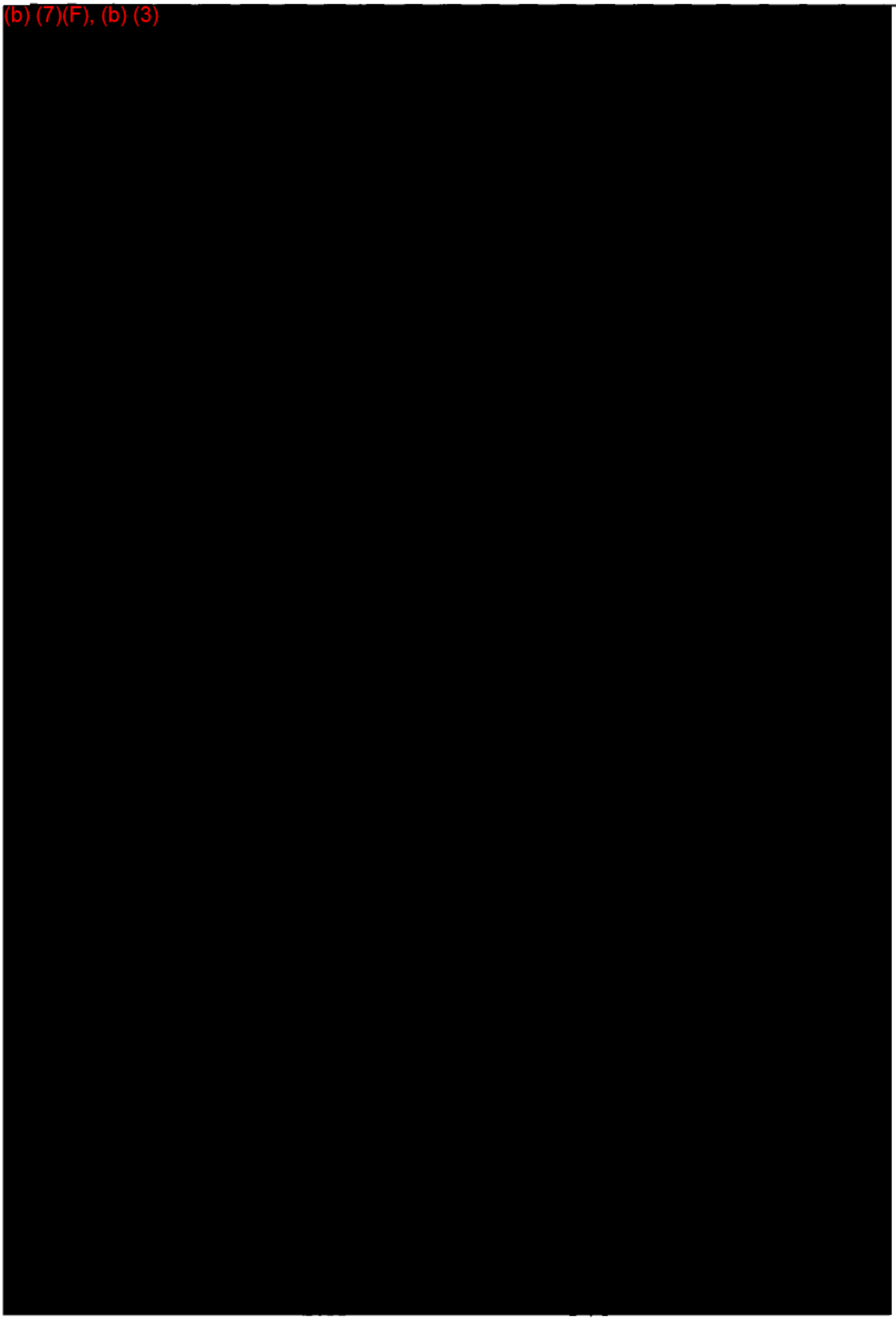
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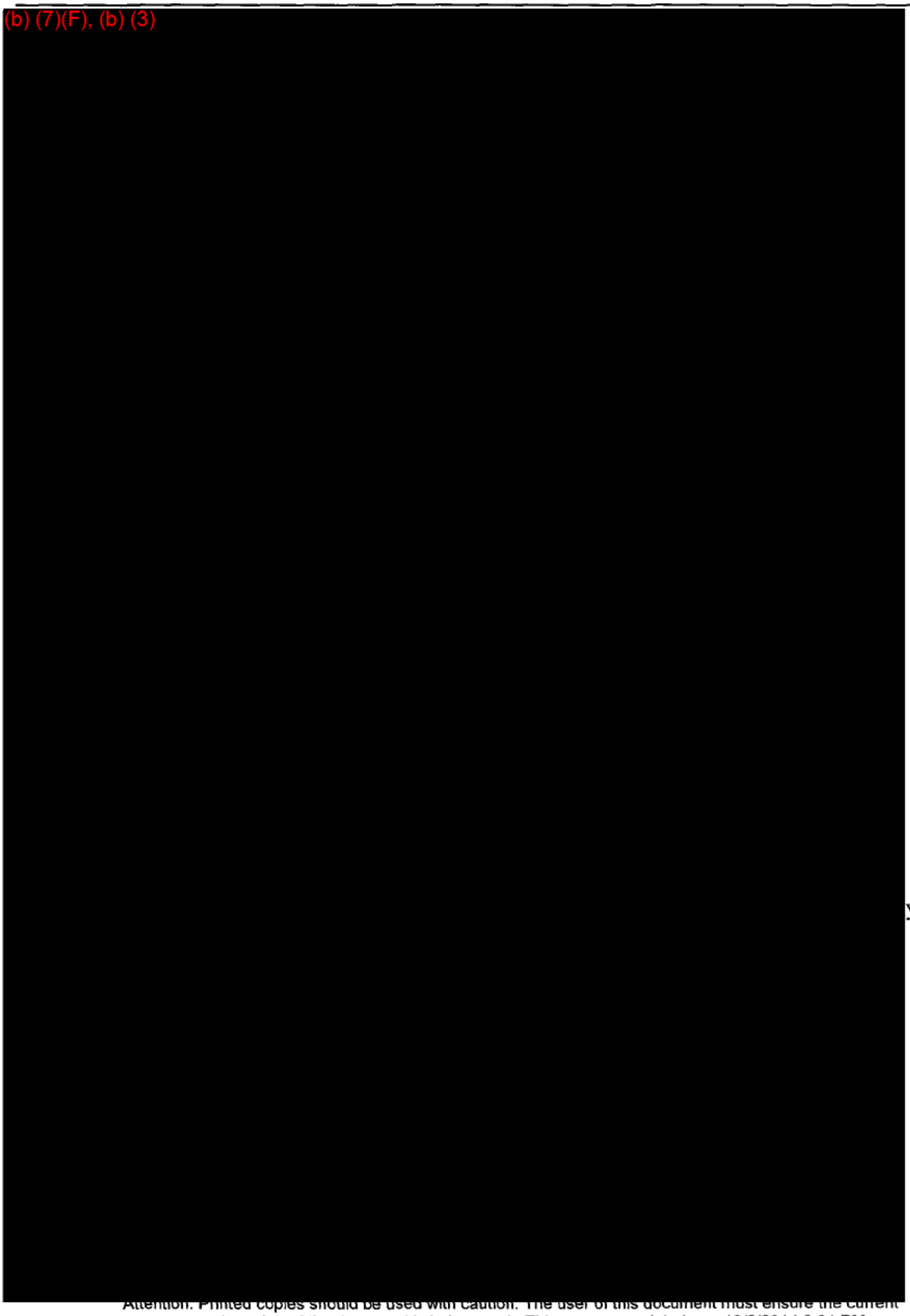
Lima Area Critical/Sensitive Areas

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Lima Area Critical/Sensitive Areas

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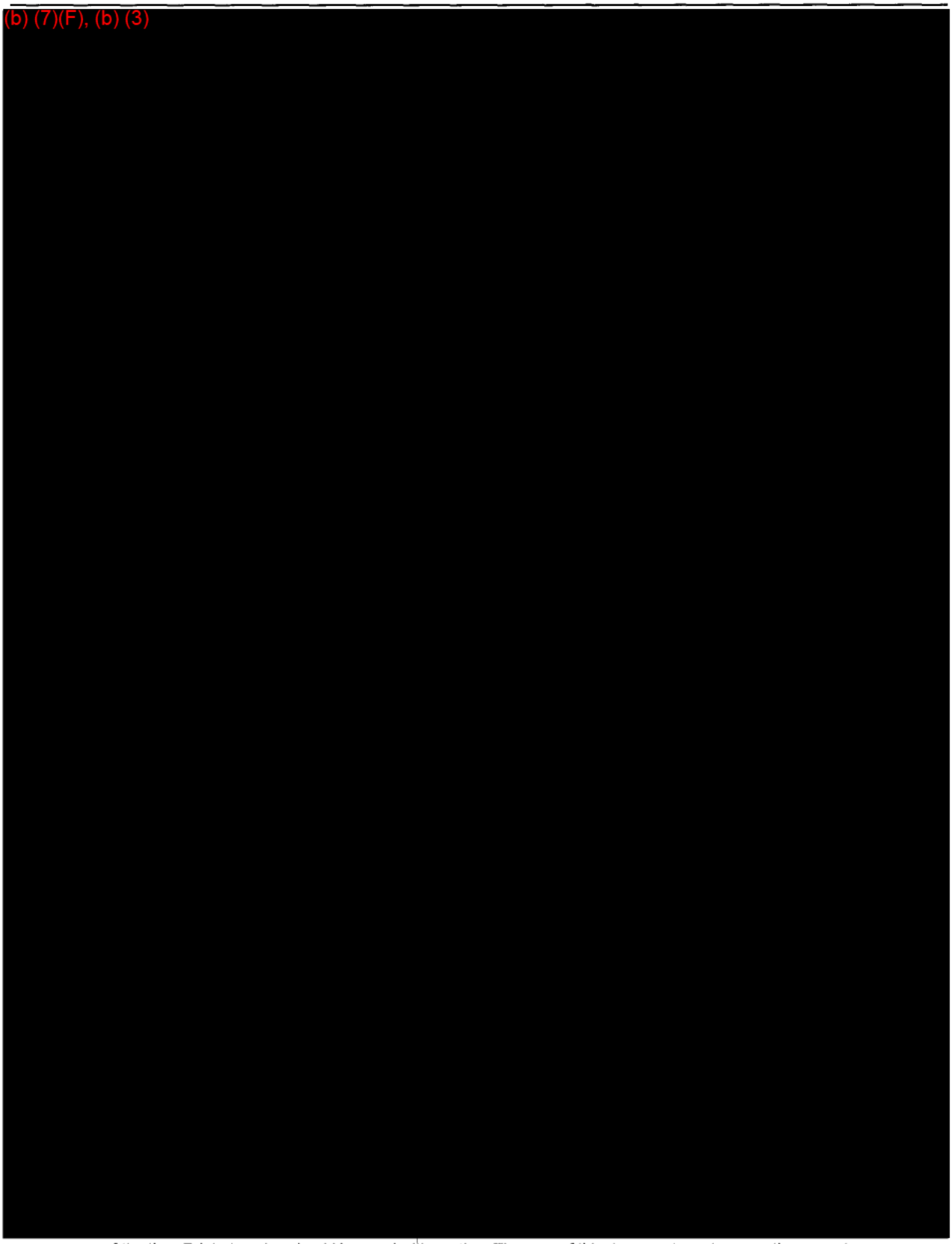


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Lima Area Critical/Sensitive Areas

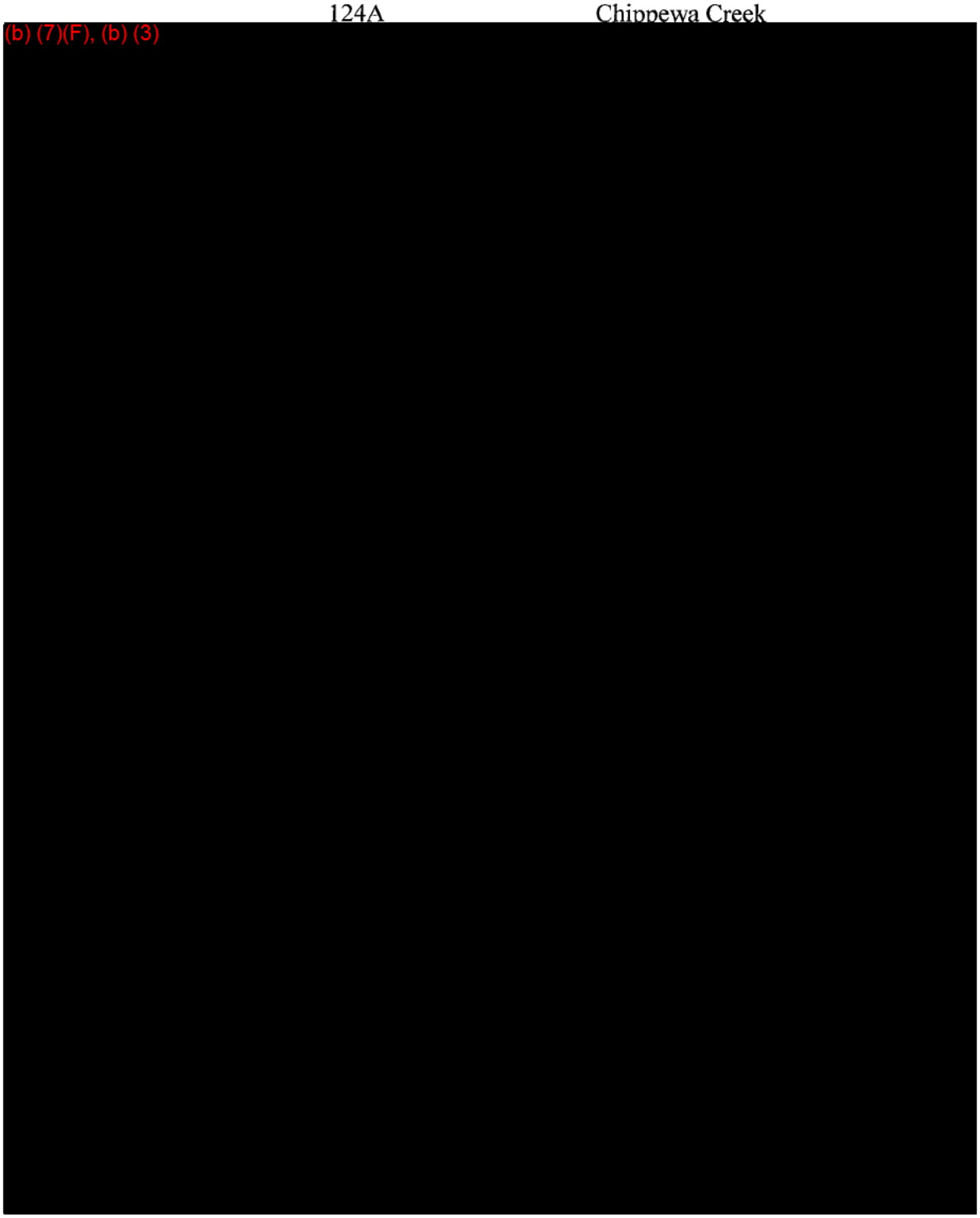
(b) (7)(F), (b) (3)



Lima Area Critical/Sensitive Areas

124A Chippewa Creek

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



Sensitive Areas Within Planning Distance of Facility

In order to determine specific vulnerable sites located within the planning distance of the facility, the Area Contingency Plan, EPA Region 5 Inland Sensitivity Atlas, and the Geographic Names Information System (GNIS) database were reviewed and a comprehensive listing of vulnerable sites was compiled. The potential effect of an oil spill on each type of vulnerable site that is located within the planning distance is presented below. Additionally, the methods to prevent and/or minimize the impacts to the identified sensitive sites are discussed.

The specific actions considered to protect a vulnerable site, or to minimize the potential effects of a spill on a vulnerable site, would be tempered in a real spill event by the actual path of the spill and the actual hazards presented. The spilled product could be gasoline, diesel (including kerosene and No. 2 fuel oil), heavy fuel oil, asphalt, or petroleum pitch. For specific guidance on the actual hazards of a release, the MSDS and the DOT Emergency Response Planning Guidebook can be consulted for hazards and recommended evacuation distances. The specific actions taken should be as directed by the Unified Command under the Incident Command System.

Water Intakes

Water intakes are underwater structures used to collect water for public drinking water, public utilities, or private industry. In the event that a spill enters a body of water on which water intakes are present, the direct effects may include petroleum contamination of intake water, intake structures, and facility equipment. Indirectly, oiled vegetation or wildlife may be impinged onto or entrained into the structure resulting in damages to the intake structure. In addition to the emergency notifications detailed in the Action Plan, response efforts may include strategic booming immediately around the spill area (source control), shutting down the water intake, or exclusion (protective) booming around potentially affected intake structures. The shutdown of water intakes as a preventative measure may result in social and economic impacts. Potential effects and specific response actions will depend on the nature of the released material.

Schools

There are two potential effects from a release, direct contact with spilled material or exposure to flammable or irritating vapors. Direct contact with the spilled material would occur if the school was located in the spill pathway. In the event that a spill directly impacts the property of an educational institution, the effects may include: oiling of the school facility, equipment, and property; interruption of traffic flow to and from the facility; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If confined in a waterway or low area, vapor impingement may occur on downwind areas. In this event, air monitoring for potential fire hazards and irritating vapors is the response requirement, depending on the nature of the released material. In

addition to the emergency notifications detailed in the Action Plan, responses to these effects may include source control, strategic booming immediately around the spill area, evacuation of students and personnel, rerouting of traffic near the facility, excavation of contaminated soil, monitoring and possible suppression of flammable/irritating vapors, and decontamination of oiled equipment, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

Medical Facilities

Medical facilities are more likely affected by vapors downwind of the spill path than by direct contact with released product. In the event that a spill impacts the property of a medical facility, the effects may include: oiling of the facility, equipment, and property; interruption of traffic flow to/from the medical facility; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. Air monitoring for flammable and/or irritating vapors should be considered, depending on the nature of the released material. In addition to the emergency notifications detailed in the Action Plan, responses to these potential problems might include the following: source control, strategic booming immediately around the spill area, rerouting of traffic near the facility, excavation of contaminated soil, monitoring and possible suppression of flammable/irritating vapors, and decontamination of oiled equipment, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

Residential Areas

A release of oil in the vicinity of a residential area may affect property, structures, and inhabitants. Specific effects may include oiled animals and vegetation, oiled homes and associated structures, and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If the spill has reached a waterway, or has been confined to a low area, vapor impingement is a potential problem downwind of the spill path. Vapors can be flammable, irritating, or may only pose an odor problem. Air monitoring should be conducted downwind of the spill path to monitor for vapors, depending on the nature of the released material. Responses to these effects may include strategic booming immediately around the spill area, evacuation of residents, rerouting of traffic, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled buildings, structures, pavement, etc. Potential effects and specific response actions will depend on the nature of the released material.

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Allentown	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Gomer				

Businesses

In the event that a spill impacts the property of a business, the effects may include: oiling of the facility, equipment, inventory, and property; interruption of traffic flow to/from the business; and potential fire hazards. A spill event that results in the closure of roads surrounding a business may also indirectly affect the business by the loss of revenue. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. If the spill has reached a waterway, or has been confined to a low area, vapor impingement is a potential problem downwind of the spill path. Vapors can be flammable, irritating, or may only pose an odor problem. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, protective booming of docks and marinas, evacuation of business owners, employees, and patrons, rerouting of traffic near the business, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled buildings, structures, pavement, etc. Air monitoring should be conducted downwind of the spill path to monitor for vapors. Potential effects and specific response actions will depend on the nature of the released material.

Businesses	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Shawnee Country Club	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	

Wetlands

The effects of a release of oil into a wetland area might include oiling of animals, vegetation, and sediment and the creation of an oil slick on areas of open water. Because water movement within a wetland habitat is minimal, oil spilled in these areas may pool and may persist. Swamps and marshes often serve as nurseries for fish and shellfish and exhibit high biodiversity. Due to the typically soft sediments that underlie wetland areas, the use of mechanized equipment for clean up efforts may cause more harm than the initial oiling. Responses to these effects include strategic booming immediately around the spill area and protective booming around identified sensitive wetland areas, and will depend heavily on the nature of the wetlands and potential routes of access for collection equipment. Potential effects and specific response actions will depend on the nature of the released material.

Fish and Wildlife Areas

Fish and wildlife species may be impacted directly or indirectly by an oil spill. A direct impact on wildlife would include physical contact with the released oil (oiling of a bird's feathers or an otter's fur) and toxic contamination (inhalation of petroleum vapors or ingestion of oil). Indirect impacts on wildlife would include the destruction of a species' habitat or food source or the displacement of the species or food source.

Direct effects of oil on fish populations include fish kills, specifically the egg and larval stages, which are more vulnerable to oil pollution than those in the adult stage. Spills to rivers used for spawning or used for migration to spawning grounds can affect future populations. Fish that have been tainted by an oil spill may not be fit to eat, thus affecting animals higher in the food chain.

Depending on the life cycle, behavior, and physiology of a particular wildlife species, the effects of an oil spill can vary. Otters and beavers are vulnerable due to the structure of their fur as well as their swimming behaviors. Birds that utilize the water-surface interface are at risk of contamination. Heavily oiled birds typically die as a result of their contamination. The specific effects on wildlife will depend on the nature of the released material.

Responses to these effects include strategic booming immediately around the spill area, protective booming around identified fish and wildlife habitat, and cleaning of affected animals by properly trained professionals. The response efforts in the direct vicinity of the impacted habitat depend heavily on the nature of the habitat and potential routes of access for collection equipment. Potential effects and specific response actions will depend on the nature of the released material.

Wildlife Rehabilitation

In an oil spill incident, it is possible that birds, aquatic life, and/or other wildlife may come in contact with the spilled material. If wildlife becomes involved in the spilled material, it will be necessary to perform wildlife rescue and rehabilitation operations. The capture and treatment of wildlife, especially endangered species, is highly regulated by the U.S. Department of the Interior. To conduct these operations, it will be necessary to obtain assistance from properly trained, licensed, and permitted organizations and personnel. It is important to ensure that any personnel involved in wildlife rescue and rehabilitation operations, including volunteers, have received the appropriate level of Hazardous Waste Operations and Emergency Response (HAZWOPER) training.

In the event that wildlife is impacted, advice and assistance from trained and experienced persons in the area of wildlife rescue and rehabilitation may be requested.

The Corporate Emergency Response Team (CERT) will arrange for various agencies to be available for this service, such as:

- Tri-State Bird Rescue and Research, Inc.
  Wilmington, DE
  Administrative: 302/737-7241
  24-hour pager: 800/710-0695 (Eileen M Gilbert)
  800/710-0696 (Dr. Erica Miller)

- International Bird Rescue and Research Center
  Berkeley, CA
  Administrative: 510/841-9086
  (Recorded menu for emergencies)

Lakes and Streams

Lakes are characterized by generally very low wave and current energy, although the surface may often become choppy. Water levels may fluctuate widely throughout the seasons and over time. Often other sensitive environments are in close proximity to lakes, such as wetlands, habitat for migratory birds, nesting birds and mammals, and fish nursery grounds. Lakes also often support various recreational activities. Depending on the severity of the spill, the effects may range from shoreline damages to fish and wildlife kills. Wind and tidal exchange will control the distribution of a slick, and can either hold the slick against a lee shore or spread it along shores or even into previously clean areas.

Small rivers and streams are characterized by shallow water (one to two meters in depth) and narrow channels. These systems are highly variable. The flow rates can range from fast-flowing to slow-moving. The channels may be free of debris or choked with log jams, mid-channel sand bars, and islands. The shoreline may have a high slope or a low bank fringed with vegetation or wetlands. Slicks typically contaminate both banks. The oil may mix throughout the entire water column in shallower streams, thus potentially affecting both aquatic and benthic organisms.

Responses to these effects include strategic booming immediately around the spill area and protective booming around vulnerable areas such as the mouths of creeks and inlets, and will depend heavily on the nature of the habitat and potential routes of access for collection equipment. Deflection boom can also be used to direct floating spills from vulnerable areas. Potential effects and specific response actions will depend on the nature of the released material.

Lakes and Streams	UTM Coordinates	Standard Coordinates	
	(b) (3), (b) (7)(F)	Latitude (N)	Longitude (W)
Little Ottawa River		) (7)(F), (b) (3)	
McClintock Lake			
Long Pool			
Kessler Run			
Dug Run			
Honey Run			
Pike Run			

Endangered Flora and Fauna

Oil spills affect endangered flora and fauna by either directly impacting the individual or by destroying the habitat in which the species lives. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, excavation of contaminated soil, suppression of flammable vapors, and cleaning of affected animals by properly trained professionals. Protective booming around vulnerable areas, as well as booming the mouths of creeks where sensitive species have been identified, should be conducted. Deflection boom can also be used to direct floating spills from vulnerable areas. Potential effects and specific response actions will depend on the nature of the released material.

There are no known endangered flora or fauna species within the planning distance of the Terminal based on our current findings. Ohio has an Endangered and Threatened Species listing of 23 species. These species are as follows:

Fauna		
Common Name	**Scientific Name**	**Status**
Indiana bat	Myotis sodalis	Endangered
American burying beetle	Nicrophorus americanus	Endangered
Karner blue butterfly	Lycaeides melissa samuelis	Endangered
Mitchell's satyr butterfly	Neonympha mitchellii mitchellii	Endangered
Catspaw	Epioblasma obliquata obliquata	Endangered
White catspaw	Epioblasma obliquata perobliqua	Endangered
Clubshell	Pleurobema clava	Endangered
Hine's emerald dragonfly	Somatochlora hineana	Endangered
Bald eagle	Haliaeetus leucocephalus	Threatened
Fanshell	Cyprogenia stegaria	Endangered
Scioto madtom	Noturus trautmani	Endangered
Pink mucket	Lampsilis abrupta	Endangered
Piping plover	Charadrius melodus	Endangered
Eastern puma	Puma concolor couguar	Endangered
Northern riffleshell	Epioblasma torulosa rangiana	Endangered
Copperbelly water snake	Nerodia erythrogaster neglecta	Threatened
Lake Erie water snake	Nerodia sipedon insularum	Threatened
Gray wolf	Canis lupis	Threatened

Flora		
Common Name	**Scientific Name**	**Status**
Nothern wild monkshood	Aconitum noveboracense	Threatened
Lakeside daisy	Hymenoxys herbacia	Threatened
Small whorled pogonia	Isotria medeoloides	Threatened
Eastern prairie fringed orchid	Platanthera leucophaea	Threatened

Flora		
Common Name	**Scientific Name**	**Status**
Virginia spiraea	Spiraea virginiana	Threatened
Running buffalo clover	Trifolium stoloniferum	Endangered

In the event of a release, MAP will coordinate with the United States Fish and Wildlife Service (USFWS), and state and local wildlife management groups to ensure the protection of all threatened and endangered species within a release area.

Recreational Areas

In the event that a spill impacts a recreational area, the effects may include: oiling of the area, structures, and property; interruption of traffic flow to/from the area; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of visitors and employees of the areas, rerouting of traffic near the recreational area, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement. Potential effects and specific response actions will depend on the nature of the released material.

Recreational Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Heritage Park	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	

Transportation Routes

Transportation routes are typically indirectly affected by a spill event through the interruption of traffic flow. Other effects may include: oiling of pavement, vegetation, and soil; the creation of an oil slick on areas of open water; and potential fire hazards. Should human contact result from the spill, the potential route of exposure might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of persons traveling the route, rerouting of traffic by authorized personnel, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement, etc. The halting of river traffic in the case of a spill to a major waterway or rerouting vehicular traffic from business areas would likely result in economic impacts. Potential effects and specific response actions will depend on the nature of the released material.

Utilities

In the event that a spill impacts a utility line or right-of-way, the effects may include: oiling of pavement, vegetation, and structures; interruption of utility services to homes

and businesses; the creation of an electrical hazard; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. In addition to the emergency notifications detailed in the Action Plan, responses to these effects may include strategic booming immediately around the spill area, evacuation of persons near the utility line or right-of-way, rerouting of traffic by authorized personnel away from the utility line or right-of-way, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled structures, buildings, pavement, etc. Potential effects and specific response actions will depend on the nature of the released material.

Others Areas of Economic Importance

In the event that a spill impacts an area of economic concern, the effects may include: oiling of vegetation, soil, and structures; interruption of traffic flow to/from the area; and potential fire hazards. Should human contact result from the spill, the potential exposure routes might include skin contamination, inhalation, or accidental ingestion. Responses to these effects depend heavily on the nature of the sensitive area and potential routes of access for collection equipment, but may include strategic booming immediately around the spill area, evacuation, rerouting of traffic, excavation of contaminated soil, suppression of flammable vapors, and decontamination of oiled equipment, buildings, pavement, etc. Potential effects and specific response actions will depend on the nature of the released material.

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Shawnee Church	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Shawnee Cemetery				
McClintock Lake Dam				
Allentown United Methodist Church				
Allentown Cemetery				
Allentown Post Office (historical)				
Greenlawn Cemetery				
Hadding Cemetery				

CRITICAL AREAS **Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database.**

Auglaize County, OH
St. Marys Municipal Power Plant, St. Marys, Miami-Erie Canal
St. Mary's City Building

Allen County, OH
Johnny Appleseed Park Dist., Kendrick Woods

Mercer County, OH

Celina Water Treatment, Celina, Grand Lake St. Marys
Celina City Building

Marion County, OH
Caledonia Water Dept., Olentangy River
Ohio-Am Water Co. Marion Dist., Scioto River

Morrow County, OH
Galion Country Club, Unnamed Lake

Richland County, OH
Mansfield Water Treatment, Clear Fork Reservoir
Shelby Water Works, City of Shelby, Black Fork
Bolin & Bartley S&G, Black Fork
Fruit Farm Irrigation System, Kenneth Burrer, Black Fork
Snow Trails Ski Resort, Drainage Ditch

OHIO

USGS Topographical Quadrangle Maps (1:24,000 Scale)

OHIO

Ashland North
Ashland South
Bellvue
Blooming Grove
Bucyrus
Cairo
Caledonia
Carey
Celina
Clyde
Columbia
Crestline
Cridersville
Delphos
Elgin
Elida
Erastus
Fireside
Fort Recovery
Galion
Gavers
Geneva
Gerard
Jeromesville
Lima
Lucas
Mansfield North
Mansfield South
Marion
McCutchenville
Meeker
Mendon
Monnet
Moral

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Lima Area Critical/Sensitive Areas

Moulton
Mount Gilead
Nevada
New Bloomington
New Corydon
North
RobinsonOlivesburg
Pavonia
Perrysville
Polk
Portland
Shiloh
Spencerville
St. Mary

Woodhaven Area Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the Northeast Operations Area are shown in the Response in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

A number of threatened or endangered species are found in the Northeast Operations Area. The Indiana Bat is found throughout the entire response zone. In addition, the Bald Eagle is established in Wayne County, MI. and Lucas, Sandusky, Seneca, and Erie Counties in Ohio. The Peregrine Falcon has been noted in Toledo, OH, and the Eastern Prairie Fringed Orchid has been documented in both Wayne County and Lucas County.

The National Wetlands, Inventory has delineated wetlands throughout the Northeast Response Zone, with the exception of Wyandot County, Ohio. The pipeline crosses the Raisin River, which has been classified as a permanently flooded, riverine (generally described as places where water flows within a channel) wetland. Just to the east of the crossing, the Willow Run Stream joins the Raisin River, and it is classified as an intermedin, riverine wetland. Islands in the Raisin River in the vicinity of the pipeline crossing have been designated upland, or nonwetland. A small, forested, saturated, semi-permanent/seasonal/palustrine (generally freshwater, vegetated wetland; would include marshes and swamps) wetland exists along the north bank of the Raisin River, just to the east of where the Willow Run stream joins the Raisin River. This small strip is approximately 2/10 of a mile long. Approximately 8/10 of a mile to the south of the Raisin River, the pipeline crosses through a seasonal palustrine wetland.

There are a number of areas of concern within the operations area. These include: the Walter J. Hayes State Park and the Waterloo State Recreation Area in Jackson County, MI; the Cambridge State Historical Park on the Lenawee/Jackson County lines; the Lake Hudson State Recreation Area in Lenawee County, MI, the Sterling State Park in the northwest corner of Monroe County; and the Maybury Urban State Park in Wayne County, MI.

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Woodhaven Area Critical/Sensitive Areas

ACCESS/STAGING AREAS

Airports

Detroit City Airport, Detroit, MI
Detroit Metro Airport, Romulus, MI
Hillsdale Arrow Inc.
Reynolds Field Airport, Jackson, MI
Monroe Co./City Custer Airport, Monroe, MI
Toledo Express Airport, Swanton, OH

Staging Areas

The station nearest to the oil spill site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The Cleanup unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

RIVER RAISIN CROSSING SCENARIO

River Raisin Crossing
Station #: 633+87 Mile Post: 11.9-12.2
Right-of-way: 58-60
Ave. Width: 500' Ave. Depth: 3' - 7' Ave. Speed: 4-7 mph

CITY: Monroe
COUNTY: Monroe
STATE: Michigan
POPULATION: 133,600

SEE TELEPHONE NUMBER SECTION

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Woodhaven Area Critical/Sensitive Areas

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
E. Raisinville United Methodist Church 4010 N. Custer Rd.	Rev. David Harris	0.10
Home surrounded by moat or canals 3861 N. Custer Rd.	Dr. David Lieberman	0.15
Road/Bridge N. Raisinville Rd. Co. Highway Eng. Rick Saporsky Bridge Eng.	Monroe Co. Rd. Comm. Paul Bockstahler	0.25
Monroe Co. Historical Comm.	Maratha Barker	0.30
Monroe Co/City Custer Airport 2800 N. Custer Rd.	Mike Ala Airport Manager	1.55
Monroe City Park Munson Park 2770 N. Custer Rd.	Monroe City Parks Maureen Carter Director	1.70

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Monroe City Park Cranbrook Park N. Custer Rd.	Monroe City Parks Maureen Carter Director	2.00
Monroe City Fire Dept. #3 1755 N. Custer Rd.	Monroe City Fire Dept. Donald Monday Captain	2.60
Monroe City Park Veterans Park	Monroe City Parks Maureen Carter	2.60

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	Korean War Memorial N. Custer Rd.	Director	2.75
	Road/Bridge N. Telegraph Rd.	Monroe Co. Rd. Paul Bochstahler	2.90
	U. S. 24	Co. Hwy. Eng. Rick Saporsky Bridge Eng.	
	Vinces Drive Inn Outside Riverbank Seating 1305 W. Elm St.	Vince	3.00
	Monroe Family	Monroe Family	3.10
	Y.M.C.A. 1111 W. Elm St.	Y.M.C.A. Keith Askan Ex. Director	
	C.S.X.R.R. crossing/bridge W. Elm St.	C.S.X. R.R. Jim Mckinstry	3.20
	Riverside Elementary 77 N. Roessler	Monroe Public Principal	3.20

RIVER RAISIN CROSSING SCENARIO

	CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
	Monroe City Park	Monroe City	3.30
	Roessler Park N. Roessler St.	Parks Maureen Carter Director	
	Road/Bridge N. Roessler	Monroe City Eng. Donald Link City Engineer	3.30

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Woodhaven Area Critical/Sensitive Areas

Norman Towers 810 W. Elm St. Apts.	Norman Towers	3.45
St. Mary's Academy 108 W. Elm St.	St. Mary's Brother Robert Livernois Principal	3.65
Monroe City Parking Lot & Custer Statue	Monroe City Park Donald Link City Eng.	4.00
St. Mary's Parish & Rectory Catholic Church 127 N. Monroe St.	St. Mary's Father Brian Chabala	4.00
Road/Bridge N. Monroe St.	Monroe City Eng. Donald Link City Eng.	4.00
Masonic Temple 8 N. Monroe St.	Masonic Temple	4.10
Monroe City Parking Lot N. Monroe St.	Monroe City Eng. Donald Link Eng.	4.10

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
First Church of Christ Scientist 3 N. Macomb St.	First Church of Christ Scientist	4.20
Road/Bridge N. Macomb St.	Monroe City Eng. Donald Link	4.20
Monroe Executive 214 E. Elm St.	Centre Business Complex	4.20
Construction Co. Parking Lot E. Elm St.		4.30

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Woodhaven Area Critical/Sensitive Areas

Conrail R.R. Crossing/bridge E. Elm St.	Conrail R. R. Todd Strauss	4.80
Ray Noble Tank Service (septic) 1010 E. Elm St.	Ray Noble Tank Ray Noble or Bob & Nancy Vadasz	4.85
Road/Bridge Winchester St. (M-50) N. Dixie Hwy.	Monroe Co. Rd. Comm Paul Bockstahler Co. Hwy. Eng. Rick Saporsky Bridge Eng.	5.00
Conrail R.R. crossing/bridge E. Elm St.	Conrail R.R. Todd Strauss	5.00
Grand Trunk & Western R.R. crossing/bridge	Grand Trunk & Western R. R. David Rushing	5.00

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Jefferson Smurfit Factory 1220 &1225 Elm St.	Jefferson Smurfit Company Tom Doss Plant Manager	5.05
T.L.R. Marina Boat Launch/Docks E. Elm St.	T.L.R. Marina Mr. Runyon	5.40
Monroe Auto Credit Union 1510 E. Elm St.	Monroe Auto Credit Union	5.45

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Riverfront Klipper Hair Salon 1530 E. Elm St.	Riverfront Klipper Bill Gross Landlord/owner	5.50
Riverfront Lounge Restaurant & lounge 1530 E. Elm St.	Riverfront Lounge Bill Gross	5.50
Clamdigger's Pizzaria & Lounge 1540 E. Elm St.	Clamdigger's Bill Gross	5.50
Dock Inlet & Lighthouse Partyhouse	Riverfront Marina Bill Gross Landlord/owner	5.55
Party Store 1560 E. Elm St.	Riverfront Marina Bill Gross Landlord/owner	5.60
Riverfront Marina Docks & boat Storage 1560 E. Elm St.	Riverfront Marina Bill Gross Landlord/owner	5.65

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Highway/bridge (overpass) I-75 Detroit-Toledo Expressway	Monroe Co. Rd. Comm. Paul Bockstahler Hwy. Eng. Rick Saporsky Bridge Eng.	5.90
Mason Run Cross Bridge (covers inlet to marsh-wetlands) E. Elm St.	Ford Motor Co. Duane Hearn-Plant Engineering Manager	6.50

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Ford Motor Co. R.R. Track crossing E. Elm St.	Ford Motor Co. Duane Hearn-plant Eng. Manager Joe Durbin-chief Construction Eng.	6.60
Ford Motor Co. Entrance Gate 3200 E. Elm St.	Ford Motor Co. Duane Hearn-Plant Eng. Manager Joe Curbin -chief Construction Eng.	6.60
Ford Motor Co. Wetlands-wildlife Sanctuary		
Bay to Lake Erie Residence/New Home closest to mile Marker 11.9 4040 S. Custer Rd.	T. Heien	0.15

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Residence Last Property W. of Raisinville Rd. 3808 S. Custer Rd.	M. Paul	0.40
Road/Bridge N. Raisinville Rd.	Monroe Co. Rd. Comm. Paul Bockstahler Co. Hwy. Eng. Rick Saporsky Bridge Eng.	0.45

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Monroe Co. Fairgrounds Merchants Building 3775 S. Custer Rd.	Monroe Co. Fair Assoc. Glenn Stock Manager	0.50
Ellis Library Branch 3700 S. Custer Rd.	Monroe Co. Library System Tim Carr Head of Maintenance	0.50
Monroe Co. Fairview Center Youth Center 3600 S. Custer Rd.	Monroe Co. Youth Daniel Gentner Superintendent	0.55
Harbor Light Rehabilitation Center 3580 S. Custer Rd.	Salvation Army Bill Shelton Assistant Director	0.65
Monroe Co. Waterloo Park S. Custer Rd.	Monroe Co. Drain Commission Ronald Webb Commissioner	2.60

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Waterloo Elementary School 1933 S. Custer Rd.	Monroe Public Schools	2.70
Mobil Service Station 484 S. Telegraph Rd.	Mobil	3.30
Road/Bridge S. Telegraph Rd U.S. 24	Monroe Co. Rd. Commission Paul Bockstahler Co. Hwy. Eng.	3.35

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Woodhaven Area Critical/Sensitive Areas

	Rick Saporsky	
C.S.X.R.R. crossing/bridge W. Front St.	C.S.X. Railroad Jim Mckinstry	3.60
Dominos 906 W. Front St.	Dominos Pizza	3.80
Road/Bridge S. Roessler St.	Monroe City Eng. Donald Link City Eng.	3.80
Zelda 830 W. Front St.	Zelda's Ice Cream	3.80
Monroe Welding Company 810 W. Front St.	Monroe Welding Co.	4.00
St. Michaels School 502 W. Front St.	St. Michaels School Karen Pilon	4.05

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
St. Michaels Church 502 W. Front St.	St. Michaels Church Father Jay Samonie	4.10
Marian Place Apartments 422 & 408 W. Front St.	Marian Place Apts. Sister Norma Thelen Administrator	4.10
Monroe Correction (half-way house) 230 W. Front St.	Monroe Correction Tom Moyer Parole Supervisor	4.20

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	U.S. Post Office 210 W. Front St.	U.S. Post Office, Paul Kenney Postmaster	4.30
	Knights of Columbus Catholic youth Organization 202 W. Front St.	Knights of Columbus Council Jerry Liedel Council Manager	4.30
	American Legion Post 60 (riverbank parking) 103 W. Front St.	American Legion Post 60	4.40
	Steve's Tavern (riverbank parking) 78 W. Front St.	Steve's Tavern	4.45
	Monroe Club (riverbank parking) 56 W. Front St.	Monroe Club Richard Pinchoff President	4.45
RIVER RAISIN CROSSING SCENARIO			
	CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
	Fox Club (niteclub) (riverbank parking) 16 W. Front St.	Fox Club	4.50
	Uptown Bar (riverbank parking) 8 W. Front St.	Uptown Bar	4.60
	Road/Bridge N. Monroe St.	Monroe City Eng. Donald Link City Engineer	4.60

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Woodhaven Area Critical/Sensitive Areas

	Society Bank Tower 25 (office complex) 25 S. Monroe St.	Society Bank	4.60
	Christian Missionary Church 317 E. Front St.	Christian & Missionary	4.80
	Monroe City Park Soldiers & sailors E. Front St.	Monroe City Park Maureen Carter Director	4.90
	City Water Dept. Filtration Pit 915 E. Front St.	Monroe City Water Department Wilfred LePage General Superintendent Donald Link	5.20
	Conrail R.R. crossing/bridge E. Front St.	Conrail Railroad Todd Strauss	5.30

RIVER RAISIN CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Conrail R. R. crossing/bridge E. Front St.	Conrail Railroad Todd Strauss	5.45

DESCRIPTION OF SPECIAL ENVIRONMENTAL CHARACTERISTICS

Small scale private fishing occurs for the entire length of the river. Small boats navigate the river from a point east of the last dam to the bay. The major environmental consideration is to keep the product out of lake Erie.

There is also the marsh land east of I-75 and north of E. Elm St. That runs all the way to the lake Erie shore. This area could be breached if we do not secure the inlet by the cross bridge over the mason run.

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The swamp on both sides is somewhat of a sanctuary for wildlife. There is an abundance of water fowl & other birds including eagles, foxes, squirrels, and other small mammals also seek refuge there and of course there are plenty of fish in residence.

The channel that runs by McMillan St. on the south side of the River Raisin may lead to the pollution of the Plum Creek Bay. The bay also has similar marsh land.

The river itself has been known to flood quite often in the past decades.

CRITICAL AREAS Mosherville - Samaria 8" Crude Line

ROW DESCRIPTION

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

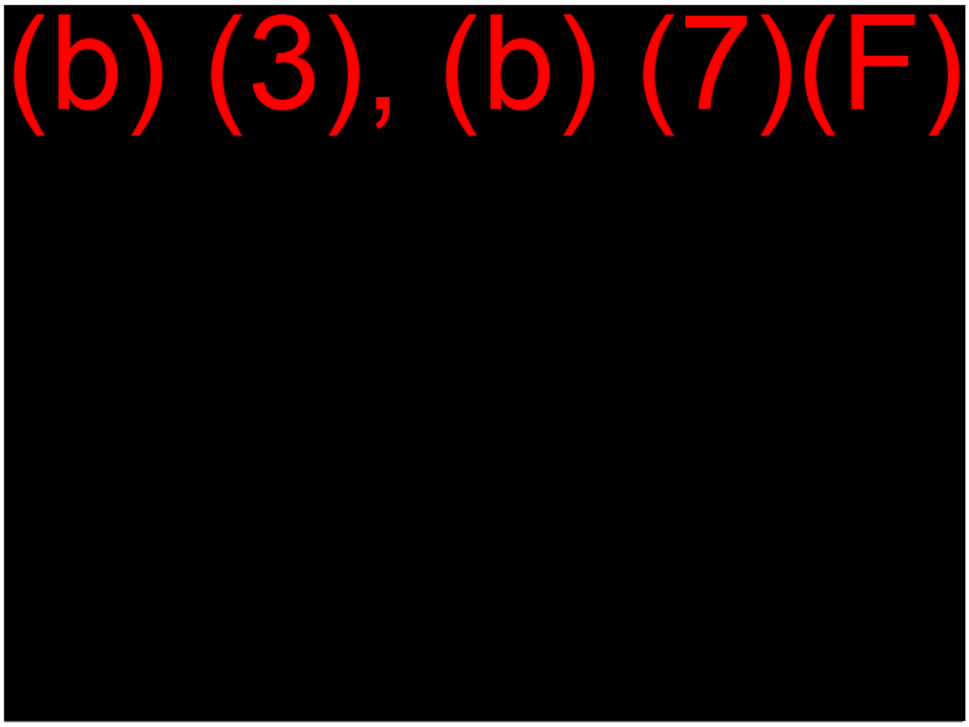
[redacted]

CRITICAL AREAS

Woodhaven Area Critical/Sensitive Areas



CRITICAL AREAS Samaria - Detroit 16" Crude Line (Cont'd)



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Woodhaven Area Critical/Sensitive Areas

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

CRITICAL AREAS [redacted] to Woodhaven, MI

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27-009 Stream

CRITICAL AREAS **Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database.**

Calhoun County, MI
Albion, Albion WWTP
Albion, Albion-Pump Test
Albion, Cooper Industries Inc
Albion, Decamp Grocery
Calhoun Modert Duck Lake

Hillsdale County, MI
Hillsdale, Hillsdale WWTP
Hillsdale County, ANR Pipeline Co-Litchfield
Hillsdale, Baw Beese Marina, Baw Beese Lake
Hillsdale, Jamies Lakeside Sports, Baw Beese Lake
Hillsdale, Lakeshore Marina, Patrick R. Flynn, Baw Beese Lake
Hillsdale, Lakeview Marina, Donald J. Kobash, Boot Lake
Hillsdale, Municipal Boat Launch, Michael Pilarski, Baw Beese Lake

Jackson County, MI
Brooklyn, Rogers Channel Marine, Wamplers Lake
Brooklyn, Jerry's Pub on the Lake, Wamplers Lake
Clark Lake, Eagle Point Marine and Yacht Club
Clark Lake, Pro Boat Shop,
Hanover, Pine Hill Lake Marina, Pine Hill Lake
Wolf Lake Marina, Big Wolf Lake
Michigan Center, O'Briens Trading Post, Center Lake

Lenawee County, MI
Adrain, Adrain WWTP
Water Plant Blissfield, River Raisin
Water Plant Deerfield, River Rasin
Tecumseh, Lous Landing Manistee River
Manitou Beach, Sun & Snow Marina, Devils Lake

Monroe County, MI
Enrico Fermi Water Plant, Detroit Edison, Lake Erie
Water Plant Dundee, River Rasin
Water Plant Monroe, Lake Erie

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Erie, American Marine, Hoopers Run Creek, Lake Erie
Erie, Andrews Boat Dock, Morin Creek
Erie, Bay Harbor Marina of Monroe, Lake Erie
Erie, Bi-State Marine, Hoppers Run, Lake Erie
Erie, Clark's Landing II, Halfway Creek
Erie, Helen Miscikoski, Hoopers Run Creek
Erie, John Fisher Marina, Hoppers Run Creek
Erie, Laurel Marine, Detroit River
Erie, Stateline Marina, Hooper Run Creek
Erie, Tom's Boat Dock, Morin Creek
Luna Pier, CPCO-J R Whiting Power Plt, Detriot Edison Co

CRITICAL AREAS **Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database. (Cont'd)**

Monroe County, MI (Cont'd)
La Salle, Mike's Marine Supply, Lake Erie
La Salle, Otter Creek Marina Inc. Otter Creek, Lake Erie
La Salle, Toledo Beach Marina, Lake Erie
Luna Pier, Lot M Acquisitions, Lapointe Drain
Luna Pier, Luna Pier Harbour Club, Lake Erie
Monroe, Deco-Monroe Plt, Detroit Edison Co
Monroe, France Stone Co-Monroe
Monroe, Charlies Boat & Bait, Woodchuck Creek
Monroe, Harbor Marine, Laplaisance Creek
Monroe, Lajiness Docks, Raisin River
Monroe, Lajiness Fish & Bait, River Raisin
Monroe, Miller Boat Livery, Laplaisance Creek
Monroe, Monroe Marina, Laplaisance Creek
Monroe, River Front Marina, River Raisin Lake Erie
Monroe, Riverfront Lounge, River Raisin
Monroe, Riverfront Party Port, Raisin River
Monroe, Trouts Yacht Basin, Laplaisance Crk Lake Erie
Newport, Deco-Enrico Fermi Plt, Detroit Edison Co
Newport, Brest Bay Marina, Stony Creek
Newport, Swan Boat Club, Swan Creek
Newport, Swan Yacht Basin Inc., Swan Creek
South Rockwood, Sylvania Silica Co. LTD,
South Rockwood, Lake Pointe Marina, Huron River
Erie Marsh Preserve, The Nature Conservancy, Lake Erie
Sterling State Park, Michigan DNR Lake Erie
Woodhaven, Ford-Woodhaven Stamping Plt, Ford Motor Co,

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Woodhaven Area Critical/Sensitive Areas

St. Clair County, MI
Water Plant, Detroit Water & Sewerage Dept., Lake Huron

Wayne County, MI
Water Plant, Wyandotte, Detroit River
Wyandotte, Elf Atochem, North America Inc, Elf Atochem
Ann Arbor, Fisherman's Marina, Fox Creek
Belleville, Doane Battery & Marine Supply, Belleville Lake
Belleville, Lakeside Marina Inc., Belleville Lake
Belleville, Sandy's Marina, Belleville Lake
Dearborn, Dearborn Island Marina Co, Inc, Rouge River
Detroit, Bayview Yacht Club, Detroit River
Detroit, Detroit Boat Basin, Detroit River
Detroit, Edison Boat Club, Detroit River
Detroit, Franchise Expositions Inc., Walled Lake
Detroit, Gregory's Marina, Detroit River
Detroit, Keans Detroit Yacht Harbor, Detroit River
Detroit, Klenk Boat Livery, Canal Off Fox Creek
Detroit, Lake Marina Links Estates, Lake Marina
Detroit, Newport Beach Marina, Swan Creek
Detroit, Porterfield Marina Village, Detroit River
Detroit, Roostertail Marina, Detroit River
Detroit, Sinbads Inc., Detroit River
Detroit, Detroit WWTP, Detroit Water & Sewerage Dept
Ecorse, Great Lakes Steel Boat Club, Detroit River
Gibraltar, Gibraltar Boat Yard Inc., Detroit River
Grosse Isle, Smiths Boat Livery Detroit River
Grosse Isle, Elba Mar Boat Club Detroit River
Grosse Isle, Ford Yacht Club Frenchmans Creek
Grosse Isle, Grosse Ile Marina Detroit River
River Rouge, Nat Steel Corp-GLS-Zug Island Great Lakes Steel
Rockwood, US Silica Company
Rockwood, Wayne Co-Huron Valley WWTP
Rockwood, Lake Erie Metropark-SP
Rockwood, Pt Mouillee Marina MDNR Huron River
Trenton, Deco-Trenton PLT Detroit Edison Co
Wyandotte, Frank Gasiorer, Detroit River
Wyandotte, Hidden Boat Harbor, Detroit River
Wyandotte, Wyandotte Municipal Boat Ramp, Detroit River
Wyandotte , Wyandotte Yacht Club, Detroit River
Oakwoods Metropark, Michigan DNR, Huron River
Wyandotte National Wildlife Refuge USFWS, Detroit River
Maybury State Park, Michigan DNR Sump Drain

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MICHIGAN

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Addison
Adrian
Belle Isle
Blissfield
Carleton
Cement City
Clayton
Dearborn
Deerfield
Detroit
Dundee
Erie
Flat Rock
Flat Rock NE
Grosse Point
Hanover
Highland Park
Hillsdale
Hudson
Ida
Iukster
Jasper
Lambertville East
Lambertville West
Manchester
Maybee
Monroe
Mosherville
North Adams
Palmyra
Pittsford
Rockwood
Rome Center
Royal Oak
Somerset Center
Spring Arbor
Southeast Albion
Stoney Point
Sylvania
Tecumseh South
Wheatland
Wyandotte

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HOUSTON RESPONSE ZONE

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- Operator Contact Information
- Description of Pipeline
- Qualified Individual Information
- Basis for Significant and Substantial Harm
- Location of Response Zone

OPERATIONAL AREAS

- Garyville Operational Area
  - MPL Contacts
  - Assets
  - OSRO's
  - Construction
  - Federal Government Contacts
  - State Contacts
    - Louisiana
  - Air Patrol
  - Local Contacts
    - Louisiana
      - LaFourche Parish
      - St. John The Baptist Parish
- Mid-South Operational Area
  - MPL Contacts
  - Trunkline Gas Company Contacts
  - Assets
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  - Federal Government Contacts
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    - Arkansas
    - Kentucky
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  - Air Patrol
  - Local Contacts
    - Arkansas
      - Chicot County
    - Kentucky

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- Ballard County
- Carisle County
- Fulton County
- Hickman County
- McCracken County

Louisiana

- Beauregard Parish
- Caldwell Parish
- East Carroll Parish
- Grant Parish
- LaSalle Parish
- Rapides Parish
- Richland Parish
- Vernon Parish
- West Carroll Parish

Mississippi

- Bolivar County
- Carroll County
- DeSoto County
- Grenada County
- Holmes County
- Madison County
- Marshall County
- Panola County
- Quitman County
- Sunflower County
- Tallahatchie County
- Tate County
- Washington County
- Yalobusha County
- Yazoo County

Tennessee

- Crockett County
- Dyer County
- Fayette County
- Gibson County
- Haywood County
- Lauderdale County
- Obion County
- Shelby County
- Tipton County

Texas

- Jasper County
- Jefferson County
- Newton County

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Orange County

Pasadena Operational Area
MPL Contacts
Assets
OSROs
Construction
Federal Government Contacts
State Contacts
Texas
Air Patrol
Local Contacts
Texas
Brazoria County
Chambers County
Galveston County
Harris County

St. James Operational Area
MPL Contacts
Assets
OSRO's
Construction
Federal Contacts
State Contacts
Louisiana
Mississippi
Air Patrol
Local Contacts
Louisiana
Ascension Parish
East Baton Rouge Parish
East Feliciana Parish
Livingston Parish
St. Helena Parish
St. James Parish
Railroad Contact
Mississippi
Amite County
Copiah County
Franklin County
Hinds County
Lincoln County

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SEISMIC EVENT RESPONSE PLAN

ENVIRONMENTAL SENSITIVITIES
- High Consequence Areas
  - Introduction
  - Worst Case Discharge
  - Commercially Navigable Waterways
  - High Populated Areas
  - Other Populated Areas
  - Unusually Sensitive Areas

RESPONSE PLAN MAP SET

REVISION INFORMATION

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HOUSTON RESPONSE ZONE
GENERAL INFORMATION

Operator Contact Information:

Marathon Pipe Line Pipe LLC
539 South Main Street
Findlay, Ohio 45840-3295
419-421-4002 (Voice)
419-421-4018 (Fax)

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HOUSTON RESPONSE ZONE
GENERAL INFORMATION

Description of Pipeline:

The Houston Response Zone is broken into five (5) operational areas: Garryville Operational Area, Mid-South Operational Area, Pasadena Operational Area, Patoka Operational Area, and St. James Operational Area. See maps in the Response Plan Map Set for the location of the different Operational Areas.

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HOUSTON RESPONSE ZONE
GENERAL INFORMATION

Qualified Individual Information

Qualified Individual Name and Position	Shawn M. Lyon Vice President, Operations
Qualified Individual Office and Telephone Number	539 South Main Street Findlay, Ohio 45840 Office Telephone: (419) 421-4002
Qualified Individual Home Address and Telephone Number	(b) (6) [redacted]
Qualified Individual Specific Response Training Experience	24 Hour HAZWOPER 8 Hour QI/IC E.R. Training Annual HAZWOPER E.R. Refresher Annual PREP SMT Exercises
Qualified Individual 24 Hour Cell Number	(b) (6) [redacted]
Alternate Qualified Individual Name and Position	Randy Stansberry Houston Region Manager
Alternate Qualified Individual Office and Telephone Number	Marathon Pipe Line LLC 5555 San Felipe Houston, Texas 77056 Office Telephone: (713) 920-4443 Office Cell: (b) (6) [redacted]
Alternate Qualified Individual Home Address and Telephone Number	(b) (6) [redacted]
Alternate Qualified Individual 24 Hour Cell Number	

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HOUSTON RESPONSE ZONE
GENERAL INFORMATION

Basis for Significant and Substantial Harm:

Pipeline is near water intakes and environmentally sensitive areas. It also crosses waterways.

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HOUSTON RESPONSE ZONE
GENERAL INFORMATION

Location of Response Zone:	Within the states of Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Tennessee, and Texas. See maps in the Response Plan Map Set for details.

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

MPL CONTACTS

Emergency Number		800-537-6644
Operations Vice President		
Shawn Lyon	Office:	419-421-4002
Findlay, OH	Home:	(b) (6)
	Cell:	
Region Manager		
Randy Stansberry	Office:	713-920-4443
Pasadena, TX	Cell:	(b) (6)
ES&R Representatives - Safety		
Partick Williams	Office:	985-535-6127
Garyville LA		
ES&R Representatives - Environmental		
Wyatt Kintner	Office:	985-535-6127
Garyville, LA	Cell:	(b) (6)
Operations Superintendent		
Jeremy Jaquillard	Office:	985-535-6127
Pasadena, TX	Cell:	(b) (6)
Operations Supervisor		
Ryan Cole	Office:	225-654-8854
Garyville, LA	Cell:	(b) (6)
Region Engineer		
Rick Mitchell	Office:	713-920-4445
Pasadena, TX	Cell:	(b) (6)
Area Manager		
Tara Hensley	Office:	985-535-6127
Garyville, LA	Cell:	(b) (6)
Human Resources Representative		
Nicole Hall	Office:	419-421-3398
Findlay, OH	Cell:	(b) (6)

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

Operational Accounting
Mike Kundrat — Office: 419-421-4435
Findlay, OH

Logistics Representative
Craig Kuhlman — Office: 419-421-4508
Findlay, OH — Cell: (b) (6)

Corporate Emergency Response Team — 1-877-MAPLINE
(CERT activates EST)

MPL LLC Counsel
Woody Gearheart — Office: 419-421-2386
Findlay, OH — Cell: (b) (6)

Right of Way Specialist
Jeff Erwin — Office: 270-926-5579
Owensboro, KY

Field Services Manager
Ed May — Office: 419-421-3704
Findlay, OH — Cell: (b) (6)

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

ASSETS

- 20" products system from the Garyville Station to Tiger Bend, Plantation and including the Zachary Terminal
- 30" system from the St. James Station to the Garyville Station
- Zachary Station, Tank 268-5, Fixed Roof
- Zachary Station, Tank 268-6, Fixed Roof
- Zachary Station, Tank 150-11, Internal Floating Roof
- Zachary Station, Tank 268-10, Internal Floating Roof
- Zachary Station, Tank 268-2, Internal Floating Roof
- Zachary Station, Tank 268-7, Internal Floating Roof
- Zachary Station, Tank 268-3, Internal Floating Roof
- Zachary Station, Tank 80-8, Internal Floating Roof
- Zachary Station, Tank T-12, Internal Floating Roof
- Zachary Station, Tank T-13, Internal Floating Roof
- Plantation Station, Tank 5-1, Internal Floating Roof

Garyville Refinery

- Tank 500-6

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

OSRO's

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
Oil Mop Gonzales, LA Houma, LA Belle Chasse, LA Port Allen, LA	800-645-6671	Small/ Medium /WCD	1hr	New Orleans COTP Rivers: MM, W1, W2, W3 Inland: MM, W1, W2, W3 Lower Mississippi COTP Rivers: MM, W1, W2, W3 Inland: MM, W1, W2, W3
ES&H LaPlace, LA Belle Chasse, LA Baton Rouge, LA	877-437-2634	Small/ Medium /WCD	1hr	New Orleans COTP Rivers: MM, W1, W2, W3 Inland: MM, W1, W2, W3
SWS Gonzales, LA	800-852-8878	Small	1 hr	Lower Mississippi COTP River: MM, W1, W2, W3 Inland: MM, W2,W3
US Environmental Geismar, LA Meraux, LA New Orleans, LA Jackson, MS	888-279-9930	Medium / WCD	2hr	New Orleans COTP Rivers: MM, W1, W2, W3 Inland: MM, W1, W2 Lower Mississippi COTP Rivers: MM, W1, W2, W3 Inland: MM, W1, W2
Clean Harbors Baton Rouge, LA	800-645-8265	WCD	2 hr	New Orleans COTP River: MM, W1, W2, W3 Inland: MM, W2, W3
Garner Deer Park, TX Port Arthur, TX Lamarque, TX	800-424-1716	WCD	6hr	Houston COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3

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				Lower Mississippi COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3

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CONSTRUCTION

Cain's Hydrotesting	225-687-7080	Construction
Premiere Industries	504-564-3440	Construction

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

FEDERAL GOVERNMENT CONTACTS

National Response Center	800-424-8802 202-267-2675
PHMSA Pipeline Safety Southwest Region Office	713-272-2859
U.S. Fish and Wildlife Houston, TX	800-344-WILD 281-286-8282
OSHA	800-321-OSHA (6742)
ORSANCO	513-231-7719

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

STATE CONTACTS

Dept. of Environmental Quality	866-896-5337 or
SPOC-Single Point of Contact	225-219-3640 Bus. Hrs. Reporting Hotline 225-342-1234 After Hrs Spill Hotline
Office of Environmental Compliance	225-219-3715
Louisiana Wildlife and Fisheries	225-765-2800 800-256-2749
State Police	225-925-6595HazMat 24hr
Department of Natural Resources	225-342-4500 Bus Hrs 225-342-5505 24 Hr
One Call	800-272-3020 or 811

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

AIR PATROL

KCSI - Management
SHANE Ellis (661) 577-2047

*NOTE: In addition to those listed above, the **Civil Air Patrol (CAP)** may also be used for aerial patrol, but they must be requested through the Coast Guard. CAP has varying capabilities in each state.*

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

LOCAL CONTACTS

LOUSIANA

Lafourche Parish

EOC	985-537-7603
Sheriff's Office	985-449-2255
La Fourche Ambulance District	985-632-7192

St. John the Baptist Parish

LEPC	504-652-2222
Garyville Vol. Fire	985-535-6499
LaPlace Vol. Fire	985-652-9445
Reserve Vol. Fire	985-536-7550
St. John Westside Vol. Fire	985-497-3441
Sheriff's Office	985-652-9513
Ambulance	Dispatch Sheriff
Waterworks Warning Network (Mississippi River)	
Downriver of MM 167.4	504-599-0100
(Clyde Carlson-District Engineer)	(b) (6) (cell) 504-423-7316 (pager) (b) (6) (home) (cell)
(John Williams-Regional Engineer)	504-364-7293 (pager) (b) (6) (home) (cell)
(Effie Michalos-Program Coord.)	504-679-7797 (pager) (b) (6) (home) (cell)
(Burma Smith-Program Coord)	504-679-7795 (pager)
Upriver of MM 167.4	225-925-7228 225-925-7230

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HOUSTON RESPONSE ZONE
GARYVILLE OPERATIONAL AREA

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

MPL CONTACTS

Emergency Number 800-537-6644

Operations Vice President
Shawn Lyon — Office: 419-421-4002
Findlay, OH — Home: (b) (6)
Cell:

Region Manager – Incident Commander
Randy Stansberry — Office: 713-920-4443
Pasadena, TX — Cell: (b) (6)

ES&R Representatives - Safety
John King — Office: 662-893-6894
Byhalia, MS — Cell: (b) (6)

ES&R Representatives - Environmental
Wyatt Kintner — Office: 985-535-6127
Garyville, LA — Cell: (b) (6)

Operations Superintendent – Planning Section Chief
Jeremy Jaquillard — Office: 713-920-4428
Pasadena, TX — Cell: (b) (6)

Operations Supervisor – Operations Section Chief
Jeffrey Steele — Office: 662-449-0680
Nesbit, MS — Cell: (b) (6)

Operations Specialist
Doug Swales — Office: 662-449-0704
Nesbit, MS — Cell: (b) (6)

Region Engineer
Rick Mitchell — Office: 713-920-4445
Pasadena, TX — Cell: (b) (6)

Area Manager – Deputy Incident Commander
Brad Burson — Office: 662-449-0630
Nesbit, MS — Cell: (b) (6)

Human Resources Representative
Nicole Hall — Office: 419-421-3398
Findlay, OH — Cell: (b) (6)

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

Operational Accounting
Brad Jackson — Office: 419-421-4060
Findlay, OH

Logistics Representative
Craig Kuhlman — Office: 419-421-4508
Findlay, OH — Cell: (b) (6)

Corporate Emergency Response Team — 1-877-MAPLINE
(CERT activates EST)

MPL LLC Counsel
John Staler — Office: 419-306-0482
Findlay, OH — Cell: (b) (6)

Right of Way Specialist
Brad Harris — Office: 419-306-0482
St. James, LA — Cell: (b) (6)

Field Services Manager
Ed May — Office: 419-421-3704
Findlay, OH — Cell: (b) (6)

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

Trunkline Gas Company Contacts

Houston Gas Control 800-225-3913
5444 Westheimer Court
Houston, Texas 77056-5306

Area Director – Longville/Pollock/Erath
Bobby McDonald
Trunkline Gas Company
15910 LA Hwy 331
Erath, LA 70533
Office: 337-937-5007 x5711
Home: (b) (6)
Cell:

Operations Manager – Longville/Pollock
Rick Chapman
Trunkline Gas Company
11383 Highway 171
Longville, LA 70652
Office: 337-725-4921 x7221
Home: (b) (6)
Cell:

Area Director – Epps/Shaw/Independence/Dyersburg
Scott Taylor
Trunkline Gas Company
8354 Hwy 305
Coldwater, MS 38618
Office: 662-233-2404 x4011
Home: (b) (6)
Cell:

Area Director – Joppa/Johnsonville
David Noyes
Trunkline Gas Company
927 North County Road 800 East
Tuscola, IL 61953
Office: 217-253-3212 x4411
Home: (b) (6)
Cell:

Operations Manager - Tuscola
Mick Braddock
Trunkline Gas Company
10483 W 600S
Ambia, IN 47917
Office: 765-869-5521 x4511
Home: (b) (6)
Cell:

Area Director – Cypress/Kountze
Homer Stevens
Trunkline Gas Company
14914 Spring Cypress Road
Cypress, TX 77429
Office: 281-516-4211
Home: (b) (6)
Cell:

Operations Manager – Joppa/Johnsonville
Dave Roybal
Trunkline Gas Company
2101 Portland Road
Office: 618-543-7546 x4221
Home: (b) (6)
Cell:

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Grand Chain, IL 62941

Operations Manager – Independence/Dyersburg

Tony Couch	Office:	662-233-2404 x4021
Trunkline Gas Company	Home:	(b) (6)
8354 Highway 305	Cell:	
Coldwater, MS 38618		

Operations Manager – Epps/Shaw

Doug Duzan	Office:	662-754-5421 x3921
Trunkline Gas Company	Home:	(b) (6)
1069 Sandpit Road	Cell:	
Shaw, MS 38773		

Operation Manager – Cypress/Kountze

Thomas Treadway	Office:	281-516-4221
Trunkline Gas Company	Home:	(b) (6)
14914 Spring Cypress Road	Cell:	
Cypress, TX 77429		

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

ASSETS

- 26" Centennial Products System
  - Approximately 74 miles of 24-inch diameter pipeline which is tied into approximately 570 miles of 26-inch diameter pipeline used for transmission of refined petroleum products. The average daily throughput ranges from 50,000 bbls/day to 200,000 bbls/day (actual rates vary according to operating conditions).
- 40" Capline Crude System from Madison, Yazoo County Lines, MS to the Ohio River IL

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OSRO's

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
U.S. Environmental Services (USES) Geismar, LA Meraux, LA New Orleans, LA Baton Rouge, LA Jackson, MS Memphis, TN	888-279-9930	Small	1 hr	New Orleans COTP River: MM, W1,W2,W3 Inland: MM, W1,W2
SWS Gonzales, LA Memphis, TN Paducah, KY	877-742-4215	Small	1 hr	Lower Mississippi COTP River: MM, W1, W2, W3 Inland: MM, W2,W3
Oil Mop LLC (OMI) Gonzales, LA Houma, LA Belle Chasse, LA	800-645-6671 (24 hr)	Medium/WCD	2 hr	New Orleans COTP River: MM, W1, W2, W3 Inland: MM, W1,W2, W3
Environmental Safety & Health Consulting Services New Orleans, LA Sulphur, LA	877-437-2634 (24 hr)	Medium	2 hr	New Orleans COTP River: MM, W1, W2, W3 Inland: MM, W1,W2, W3
HEPACO Memphis, TN Nashville, TN	1-800-888-7689		2 hr	Upper Mississippi COTP River: MM, W1, W2, W3 Inland: W2, W3
Veolia St. Louis, MO	800-688-4005	Medium/WCD	2 hr	Upper Mississippi COTP River: MM, W1, W2, W3

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

Bridgeport, IL Louisville, KY				Inland: MM, W2, W3
Summit Evansville, IN Indianapolis, IN	877-421-1744	Medium	2 hr	
Clean Harbors Baton Rouge, LA Memphis, TN	800-645-8265	WCD	2 hr	New Orleans COTP River: MM, W1, W2, W3 Inland: MM, W2, W3 Upper Mississippi COTP River: MM, W1, W2, W3 Inland, MM, W2, W3
Garner Dear Park, TX Port Arthur, TX Lamarque, TX	800-424-1716	WCD	6hr	Houston COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Lower Mississippi COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3

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CONSTRUCTION

Bolin Enterprises	800-650-7834	Construction
Foltz Welding	618-432-7777	Construction

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

FEDERAL GOVERNMENT CONTACTS

National Response Center	800-424-8802 202-267-2675
PHMSA Pipeline Safety Southern Region Office	404-832-1147
U.S. Fish and Wildlife (Houston,TX)	281-286-8282
OSHA	800-321-OSHA (6742)
ORSANCO	513-231-7719

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

STATE CONTACTS

ARKANSAS

Dept. of Environmental Quality	501-682-0744
Dept. of Emergency Management	501-683-6700
Oil and Gas Commission	870-862-4965
One Call	800-482-8998 or 811

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

KENTUCKY

Environmental Response Team	800-928-2380 (24 Hr Hotline)
	502-564-2380 (24Hr Hotline)
Dept. of Environmental Protection	502-564-2150
	800-928-2380 (24 hr Hotline)
Div. of Emergency Management	800-255-2587
Division of Water	502-564-3410
Public Service Commission	502-564-3940
Columbia- EPA Office	270-384-4735
Frankfort – EPA Region Office	502-564-3358
Hazard – EPA Office (Air, Waste, Water)	800-928-2380
Madisonville – EPA Office	270-824-7532
Morehead – EPA Office	606-783-8655
Ashland – Dept. of EPA, Air & Water Quality	606-929-5285
Frankfort – Central Office	502-564-3999
Owensboro EPA Office – Div. of Air	270-687-7304

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

LOUISIANA

Dept. of Environmental Quality SPOC-Single Point of Contact	866-896-5337 or 225-219-3640 Bus. Hrs. Reporting Hotline 225-342-1234 After Hrs Spill Hotline
Office of Environmental Compliance Louisiana Wildlife and Fisheries	225-219-3715 225-765-2800 225-765-2749 After Hrs.
State Police Department of Natural Resources Pipeline Division of Office of Conservation	225-925-6595 HazMat 24hr 225-342-4500 Bus Hrs 225-342-5505 24 Hr 225-342-5505 (24 hr)
One Call	800-272-3020 or 811

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

MISSISSIPPI

Mississippi Department of Environmental Quality	601-961-5171 Bus Hrs 800-222-6362 24 hr 888-786-0661
MS Emergency Management Agency (MEMA)	601-933-6362
Mississippi Oil and Gas Board	601-576-4900 24 hour
One Call	800-227-6477 or 811

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

TENNESSEE

Dept. of Environment & Conservation	888-891-8332 Bus Hrs
Jackson, TN Environmental Field Office *Crockett, Dyer, Haywood,* *and Obion Counties:*	731-512-1300 Bus Hrs
Memphis, TN Environmental Field Office *Fayette and Tipton Counties:*	901-371-3000 Bus.
Emergency Management Agency	615-741-0001 24 hour
One Call	800-351-1111 or 811

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

TEXAS

Texas Railroad Commission	877-228-5740 800-832-8224 24 hour
- 24 Hr Emergency Reporting #	512-463-6788
- District Director	432-684-5581 24 hour
- District 1 & 2 – San Antonio	210-227-1313 24 hour
- District 3 – Houston	713-869-5001 24 hour
- District 4 – Corpus Christi	361-242-3113 24 hour
- Gas Services	512-463-7167 Bus. Hrs.
- Pipeline Safety Division	512-463-7058 Bus. Hrs.
Texas General Land Office (Austin, TX HQ)	800-832-8224 24 hour 512-475-1575 Bus. Hrs.
Oil Spill Prevention and Response	
Region I - Nederland, Texas	409-727-7481 Bus. hrs
Region II – LaPorte, Texas	281-470-6597 Bus. hrs
Texas Commission on Environmental Quality	800-832-8224 24 hour 512-239-1000 Bus Hrs
Texas Parks & Wildlife- Austin	512-389-4848 24 hour
Jack Ralph, Head of Spill Team	512-389-8153
Wildlife Rehab & Education	281-332-8319 24 hour
Pager # for Oil Spills	713-279-1417
Wildlife Center	713-861-9453
One Call	811 or 800-344-8377 Dig Tess 800-245-4545 TX One Call

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

AIR PATROL

KCSI - Management
SHANE Ellis (661) 577-2047

*NOTE: In addition to those listed above, the **Civil Air Patrol (CAP)** may also be used for aerial patrol, but they must be requested through the Coast Guard. CAP has varying capabilities in each state.*

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LOCAL CONTACTS

ARKANSAS

Chicot County

LEPA	870-265-8014
Sheriff	870-265-8020
State Police, Troop F	870-226-3713
Eudora Police	870-355-4412
Lake Village Police	870-265-5055
West Carroll Parish Ambulance	318-428-8979 or 911

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

KENTUCKY

Ballard County	
EMA/LEPC	270-665-9928
Sheriff	270-335-3561
Hwy Dept	270-665-5171
State Police	270-856-3721 or 800-222-5555
Blandville Rural VFD	270-876-7878
Ballard Ambulance Service	270-665-5000
Carlisle County	
EMA	270-628-3355
911 Dispatch	270-628-5420
Sheriff	270-628-3377
Hwy Dept	270-628-5441
State Police	270-856-3721 or 800-222-5555
Ambulance	270-628-0248
Fulton County	
EMA/LEPC	270-236-3480
Sheriff	270-236-2545
Fulton Police	270-472-3465
Fulton Fire	270-472-1422
State Police	270-856-3721 or 800-222-5555
Hickman County	
EMA	270-653-5811
Sheriff	270-653-2241
Hwy Dept:	270-653-6517
Fire & Rescue Squad	270-653-5871
State Police	270-856-3721 or 800-222-5555
Ambulance	270-653-4620
McCracken County	
EMA/LEPC	270-442-6381
Sheriff	270-444-4719
911 Dispatch	270-444-8550
Paducah Police	270-444-8548
Paducah Fire	270-444-8521
State Police	270-856-3721 or 800-222-5555
Ambulance	Dispatch

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

LOUISIANA

Beauregard Parish

Emergency Preparedness	337-463-3282 x1142
Sheriff	337-463-3281
LA State Police Troop D	337-491-2511
Fire District	337-462-4848
DeRidder Fire	337-462-8929
Acadian Ambulance Services	337-463-5400

Caldwell Parish

Emergency Preparedness	318-649-3764
Sheriff	318-649-2345
LA State Police Troop F	318-345-0000 or 866-292-8320
Columbia VFD	318-649-6174
Ambulance	Dispatch Sheriff

East Carroll Parish

LEPC	318-559-2256
Sheriff's Office	318-559-2800
Ambulance	318-559-3000

Grant Parish

LEPC	318-627-3041
Sheriff	318-627-3261
LA State Police Troop E	318-487-5911 or 800-256-4160
Colfax Police	318-627-5357
Colfax Fire	318-627-2649
Pollock Fire	318-765-9730
Ambulance	Dispatch Sheriff

La Salle Parish

LEPC	(b) (6) Cell 318-992-0673 Office
Sheriff	318-992-2151
Police Olla	318-495-5128
LA State Police Troop E	318-487-5911 or 800-256-4160
Jena Town Police	318-992-5111
Jena Fire Department	911 or 318-992-6931
LaSalle Parrish Ambulance	318-992-8702
Olla Ambulance Service	318-495-3616

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

Rapides Parish	
LEPC	318-445-5141
Sheriff	318-473-6700
LA State Police Troop E	318-487-5911 or 800-256-4160
Alexandria Police	318-449-5099
Alexandria Fire	318-441-6600
Rapides Fire District	318-445-8124
Ambulance	Dispatch Sheriff
Richland Parish	
LEPC	318-728-2071
LA State Police Troop F	318-345-0000 or 866-292-8320
Sheriff	318-728-2071
Rayville Police	318-728-4431
Rayville Fire	318-728-7515
Delhi Fire	318-878-9008
Med Life Ambulance	318-728-3009
Vernon Parish	
LEPC	337-238-0815
Sheriff	337-238-1311
LA State Police Troop E	318-487-5911 or 800-256-4160
Leesville Police	337-238-0331 or 337-238-0332
Leesville Fire	337-239-2722
or 337-239-7950 Non-Emer.	
Acadian Ambulance Services	800-259-1111
West Carroll Parish	
LEPC	318-428-8020
Sheriff	318-428-2331
LA State Police Troop F	318-345-0000 866-292-8320
Oak Grove Police	318-428-3275
Ambulance Service District	318-428-8979

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

MISSISSIPPPI

Bolivar County

EMA	662-843-2300
911 Commission	662-723-0053
Sheriff	662-843-5378
Fire Department	662-843-2300
Ambulance	662-846-1110

Carroll County

EMA	662-237-9386
	662-237-1122
Sheriff	662-464-5221
Fire Coordinator	662-392-8481
Ambulance	911

DeSoto County

EMA	662-429-1359
Sheriff	662-469-8027
Hernando Police	662-449-4293
Hernando Fire	662-429-9096
EMS	662-469-8017

Grenada County

EMA	662-226-1076
Sheriff (Non Emergency)	662-227-2877
Central Emergency Dispatch	662-226-2721
	662-226-1211
Elliott VFD	662-226-1398
Grenada Fire	662-227-3447
Ambulance	911

Holmes County

EMA	662-235-5126
Sheriff	662-834-1511
Lexington Fire & police	662-834-1431
Tchula VFD	662-235-4056
Ambulance	662-834-1616

Madison County

EMA	601-859-4188
Sheriff	601-859-2345
Fire Department	Sheriff will Dispatch
Ambulance	Sheriff will Dispatch

Marshall County

EMA	662-5440760

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Sheriff	662-252-1311
Holly Springs Police	662-252-2121
Holly Springs Fire	662-252-3938
Ambulance	Dispatch Sheriff
Panola County	
EMA	662-487-2430
Sheriff	662-563-6230
Batesville Police	662-563-5653
Batesville Fire	662-563-4703
Ambulance	662-563-7626
Quitman County	
EMA	662-326-7909
Sheriff	662-326-3131
Marks Police	662-326-3424
Marks Fire	662-326-2121
Ambulance	662-326-8415
Sunflower County	
EMA	662-887-6253
Sheriff	662-887-2121
Drew Fire	662-745-2323
Indianola Fire	662-887-4955
Ambulance	Dispatch Sheriff
Tallahatchie County	
EMA	662-647-2540
Sumner Sheriff	662-375-8676
Sumner Police	662-375-8447
Sumner Fire	662-375-8676
Tutwiler Ambulance	662-345-0100
Tate County	
EMA	662-562-5012
Sheriff	662-562-4434
Senatobia Police	662-562-5642
Senatobia Fire	662-560-6421(Station1) 662-562-5631(Station2)
Ambulance	Sheriff will dispatch
Washington County	
EMA	662-335-1945
Sheriff	662-334-4523
Riverside Fire	662-335-4012
Greenville Fire	911 or 662-378-1521
Hollandale Fire	662-347-4895

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Leland Fire	662-820-8782
Metcalfe Fire	662-390-3892
Ambulance	Sheriff will Dispatch
Yalobusha County	
EMA	662-675-2902
Sheriff	662-473-2722
Enid Fire	662-623-7961
Tillatoba Fire	662-473-2722
Ambulance	662-473-2722
Yazoo County	
EMA	662-746-1569
Sheriff	662-746-5611
Yazoo Fire	662-746-2841
Eden Fire	662-571-6194
Central Dispatch for Fire & Ambulance	662-746-0013

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

TENNESSEE

Crockett County

EMA	731-696-2459
Sheriff	731-696-2104
State Police	901-543-6256
Alamo VFD	731-696-4515
Ambulance	731-696-5571

Dyer County

EMA	731-286-7831
Sheriff	731-285-2802
Dyersburg Police	731-285-1212
Newbern Police	731-627-2571
Trimble Police	731-285-2802
State Police	901-543-6256
TN Dept. of Transportation	731-627-2503
Dyersburg Fire - Central Dispatch	731-285-4019
Newbern Fire	731-627-2266
Dyer Rescue Squad	901-285-2802
Ambulance	731-285-2222

Fayette County

EMA	901-465-5239
Sheriff	901-465-3456
State Police	901-543-6256
Somerville Fire	901-465-3332
Ambulance	901-465-3456
	901-465-2755

Gibson County

EMA	731-855-7688
Sheriff	731-855-1121
State Police	731-423-6635
Fire Dept	731-723-9228
EMS	731-855-7614

Haywood County

EMA	731-772-1227
Central Dispatch Fire, Ambulance	731-772-1215
Sheriff	731-772-2412
State Police	901-543-6256
Hwy Dept	731-772-4581
Brownsville Fire Dept	731-772-1396
Ambulance	731-772-1215
	731-772-4979

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Lauderdale County

EMA	731-635-3243
Sheriff	731-635-1311
Dispatch for Fire & Ambulance	731-635-2278
State Police	901-543-6256
Ripley FD	731-635-2284
Ambulance	731-635-2278

Obion County

EMA	731-599-4347
Sheriff	731-885-5832
Obion Sheriff Dispatch	731-855-3316
Hwy Dept	731-536-4250
Union City Police	731-885-1515
Obion Police	731-536-6244
Troy Police	731-536-4342
State Police	901-543-6256
Troy Fire	731-536-4543
Central Dispatch for Ambulance	731-885-7935

Shelby County

EMA	901-515-2525
Sheriff	901-379-7625
State Police	901-543-6256
Fire Dept	901-222-8010
Ambulance	901-386-1728

Tipton County

EMA	901-476-0222
Sheriff	901-475-3300
State Police	901-543-6256
Hwy Dept	901-475-2518
Central Dispatch (Fire, Ambulance, Police)	901-475-4300

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HOUSTON RESPONSE ZONE
MID-SOUTH OPERATIONAL AREA

TEXAS

Jasper County	
EMA	409-994-2543
Sheriff	409-384-5417
Jasper VFD	911
Ambulance	Dispatch Sheriff
Jefferson County	
EMA	409-835-8757
Sheriff	409-835-8411
Beaumont Fire Department	409-838-6371
Nederland Fire & Rescue	409-723-1531
Ambulance	Dispatch Sheriff
Newton County	
EMA	409-699-7313
Sheriff	409-379-3636
Fire Department:	409-379-3636
Ambulance	Dispatch Sheriff
Orange County	
EMA	409-882-7895 Bus. Hrs 409-883-2612
Sheriff	409-883-2612
City of Orange Fire Dept.	409-883-1039
City of Orange Police Dept.	409-883-1026
Ambulance	800-259-111

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HOUSTON RESPONSE ZONE
PASADENA OPERATIONAL AREA

MPL CONTACTS

Emergency Number		800-537-6644
Operations Vice President		
Shawn Lyon	Office:	419-421-4002
Findlay, OH	Home:	(b) (6)
	Cell:	
Region Manager		
Randy Stansberry	Office:	713-920-4443
Pasadena, TX	Cell:	(b) (6)
ES&R Representatives - Safety		
Patrick Williams	Office:	985-535-6127
Garyville LA		
ES&R Representatives - Environmental		
Wyatt Kintner	Office:	985-535-6127
Garyville, LA	Cell:	(b) (6)
Operations Superintendent		
Jeremy Jaquillard	Office:	985-535-6127
Pasadena, TX	Cell:	(b) (6)
Operations Supervisor		
Derrick Rankin	Office:	713-472-3625
Pasadena, TX	Cell:	(b) (6)
Region Engineer		
Rick Mitchell	Office:	713-920-4445
Pasadena, TX	Cell:	(b) (6)
Area Manager		
Steve Taggart	Office:	713-472-3625
Pasadena, TX	Cell:	(b) (6)
Human Resources Representative		
Nicole Hall	Office:	419-421-3398
Findlay, OH	Cell:	(b) (6)
Operational Accounting		
Mike Kundrat	Office:	419-421-4435
Findlay, OH		

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Logistics Representative
Craig Kuhlman — Office: 419-421-4508
Findlay, OH — Cell: (b) (6)

Corporate Emergency Response Team — 1-877-MAPLINE
(CERT activates EST)

MPL LLC Counsel
Woody Gearheart — Office: 419-421-2386
Findlay, OH — Cell: (b) (6)

Right of Way Specialist
Jeff Erwin — Office: 270-926-5579
Owensboro, KY

Field Services Manager
Ed May — Office: 419-421-3704
Findlay, OH — Cell: (b) (6)

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HOUSTON RESPONSE ZONE
PASADENA OPERATIONAL AREA

ASSETS

- 16" products line from the MPC (Texas City Refining Division), MPC (Galveston Bay Refining Division) and Valero Texas City Refinery to the Pasadena Terminal
- 36" Pasadena to Colonial Product Lines(2)
- 16" Pasadena to Kinder Morgan Products
- 16" Pasadena to Shell Products
- 16" Pasadena to Enterprise Products Red Bluff Station Products
- 30" Pasadena Colonial to Explorer Product Lines (2)
- 16" Pasadena Explorer to Pasadena Purge Products Lines
- 8" Galveston Bay Refinery to Chocolate Bayou LPG Product Line
- 8" Galveston Bay Refinery to Baytown Butane Product Line
- 8" Mount Belvieu 1942 Junction to Galveston Bay Refinery Butane Product Line
- 8" Targa Resources to Mount Belvieu 1942 Junction
- 8" Lone Star to Mount Belvieu 1942 Junction
- Pasadena Station, Tank 100-3, Internal Floating Roof
- Pasadena Station, Tank 268-2, Fixed Roof
- Pasadena Station, Tank 100-10, Internal Floating Roof
- Pasadena Station, Tank 120-9, Internal Floating Roof
- Pasadena Station, Tank 100-11, Internal Floating Roof
- Pasadena Station, Tank 100-13, Internal Floating Roof
- Pasadena Station, Tank 268-7, Internal Floating Roof
- Pasadena Station, Tank T-8, Internal Floating Roof
- Pasadena Station, Tank 150-12, Internal Floating Roof

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- Pasadena Station, Tank 268-14, Internal Floating Roof
- Pasadena Station, Tank 80-4, Internal Floating Roof
- Pasadena Station, Tank 210-6, Fixed Roof

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OSRO's

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
T and T Marine Galveston, TX Houston, TX	409-744-1222	Small/ Medium/ WCD	1hr	Houston COTP Rivers MM,W3 Inland MM,W3 Near shore MM Off shore MM,
Garner Deer Park, TX Port Arthur, TX Lamarque, TX	800-424-1716	Small/ Medium/ WCD	1hr	Houston COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline
Oil Mop Houston, TX	800-645-6671	Small/ Medium/ WCD	1hr	Houston COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline
Clean Harbors Pasadena, TX Deer Park, TX	800-645-8265	WCD	1hr	Houston COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3

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CONSTRUCTION

EMS formally Cypress Creek Pipeline Maint Inc	281-412-2400	Construction

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HOUSTON RESPONSE ZONE
PASADENA OPERATIONAL AREA

FEDERAL GOVERNMENT CONTACTS

National Response Center	800-424-8802 202-267-2675
PHMSA Pipeline Safety Southwest Region Office	713-272-2859
U.S. Fish and Wildlife (Houston,TX)	281-286-8282
OSHA	800-321-OSHA (6742)
ORSANCO	513-231-7719

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HOUSTON RESPONSE ZONE
PASADENA OPERATIONAL AREA

STATE CONTACTS

Texas Railroad Commission	877-228-5740
- 24 Hr Emergency Reporting #	512-463-6788
- District Director	432-684-5581 24 hour
- District 1 & 2 – San Antonio	210-227-1313 24 hour
- District 3 – Houston	713-869-5001 24 hour
- District 4 – Corpus Christi	361-242-3113 24 hour
- Gas Services	512-463-7167 Bus. Hrs.
- Pipeline Safety Division	512-463-7058 Bus. Hrs.
Texas General Land Office	800-832-8224 24 hour
	512-475-1575 Bus. Hrs.
Austin, TX HQ	
Region I - Nederland, Texas	409-727-7481 Bus. Hrs.
Region II – LaPorte, Texas	281-470-6597 Bus. Hrs.
Texas Commission on	800-832-8224 24 hour
Environmental Quality	512-239-1000 Bus Hrs
Texas Parks & Wildlife- Austin	512-389-4848 24 hour
Jack Ralph, Head of Spill Team	512-389-8153
Wildlife Rehab & Education	281-332-8319 24 hour
	713-861-9453
One Call	811 or
	800-344-8377 Dig Tess
	800-245-4545 TX One Call

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HOUSTON RESPONSE ZONE
PASADENA OPERATIONAL AREA

AIR PATROL

KCSI - Management	
Shane Ellis	(661) 577-2047
Barr – Management	
Cort Andrews	(214) 629-8543

*NOTE: In addition to those listed above, the **Civil Air Patrol (CAP)** may also be used for aerial patrol, but they must be requested through the Coast Guard. CAP has varying capabilities in each state.*

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LOCAL CONTACTS

Brazoria County, Texas	
EMA	979-864-1801
Fire Marshal	979-864-1121
Sheriff	979-864-2338
Angleton VFD	979-849-1265
Brazoria VFD	979-798-2277
EMS	979-230-9670
Texas Commission on Environmental Quality - Spills	512-239-1000
Chambers County, Texas	
EMA	409-267-2445
Sheriff	409-267-2500
Fire Marshal	409-267-2445
Anahuac FD	409-267-6620
Anahuac EMS	409-267-6080
Bay Star Ambulance Service	281-422-7200
Galveston County, Texas	
Highway Patrol	409-938-7899
EMA/LEPC	281-309-5002
	888-384-2000
(24hr)	
Galveston City EMA	409-797-3710
Sheriff	409-766-2322
Dickenson Police	281-337-4700
Friendswood Police	281-996-3300
Galveston City Police	409-766-2100
Houston Police	713-222-3131
Houston Fire	832-394-6700
Houston EMS	832-394-6800
La Marque Police	409-938-9269
LaPorte Police	281-471-2141
League City Police	281-332-2566
Texas City Police	409-948-2525
Webster Police	281-332-2426

Note: Galveston County has two LEPC's. LEPC can be notified through EMA.

Harris County, Texas

Highway Patrol	409-938-7899
Department of Public Safety	713-957-6192 24 hr
Houston Fire	713-247-5000
Houston EMA	713-884-4500
Harris County EMA	713-881-3083
	713-881-3100
Sheriff	713-221-6000
Bay Area LEPC	281-474-6500
Lakeview Police Department	281-326-5900
El Lago Fire (Seabrook)	281-291-5650
Pasadena Fire	713-477-1122
Clear Lake Fire	281-488-0022
Clear Lake EMS	281-488-3078
Deer Park LEPC	281-478-7247
Deer Park Fire	281-478-7281
Pasadena LEPC	713-475-5588
Pasadena Fire/EMS	713-475-5554

Note: Harris County has 18 LEPC's. LEPC's can be notified by calling the EMA or specific LEPC.

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HOUSTON RESPONSE ZONE
SEISMIC EVENT RESPONSE PLAN

MPL CONTACTS

Emergency Number		800-537-6644
Operations Vice President		
Shawn Lyon	Office:	419-421-4002
Findlay, OH	Home:	(b) (6)
	Cell:	
Region Manager		
Randy Stansberry	Office:	713-920-4443
Pasadena, TX	Cell:	(b) (6)
ES&R Representatives - Safety		
Patrick Williams	Cell:	(b) (6)
Garyville, LA		
ES&R Representatives - Environmental		
Wyatt Kintner	Office:	985-535-6127
Garyville, LA	Cell:	(b) (6)
Operations Superintendent		
Jeremy Jaquillard	Office:	985-535-6127
Pasadena, TX	Cell:	(b) (6)
Operations Supervisor		
Douglas Barnes	Office:	225-654-8854
St. James, LA	Cell:	(b) (6)
Region Engineer		
Rick Mitchell	Office:	713-920-4445
Pasadena, TX	Cell:	(b) (6)
Area Manager		
Paul Witte	Office:	225-265-1140
St. James, LA	Cell:	(b) (6)
Human Resources Representative		
Nicole Hall	Office:	419-421-3398
Findlay, OH	Cell:	(b) (6)
Operational Accounting		
Mike Kundrat	Office:	419-421-4435
Findlay, OH		

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Logistics Representative
Craig Kuhlman — Office: 419-421-4508
Findlay, OH — Cell: (b) (6)

Corporate Emergency Response Team — 1-877-MAPLINE
(CERT activates EST)

MPL LLC Counsel
Woody Gearheart — Office: 419-421-2386
Findlay, OH — Cell: (b) (6)

Right of Way Specialist
Jeff Erwin — Office: 270-926-5579
Owensboro, KY

Field Services Manager
Ed May — Office: 419-421-3704
Findlay, OH — Cell: (b) (6)

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ASSETS

- 40" crude line from St. James Station, LA. to the Madison, Yazoo County Line, MS.
- St. James Station, Tank 500, External Floating Roof
- St. James Station, Tank 501, External Floating Roof
- St. James Station, Tank 502, External Floating Roof
- St. James Station, Tank 503, External Floating Roof
- St. James Station, Tank 505, External Floating Roof
- St. James Station, Tank 506, External Floating Roof
- St. James Station, Tank 507, External Floating Roof
- St. James Station, Tank 508, External Floating Roof
- St. James Station, Tank 509, External Floating Roof
- St. James Station, Tank 510, External Floating Roof
- St. James Station, Tank 511, External Floating Roof
- St. James Station, Tank 512, External Floating Roof
- St. James Station, Tank 514, External Floating Roof
- St. James Station, Tank 516, External Floating Roof
- St. James Station, Tank 517, External Floating Roof
- St. James Station, Tank 519, External Floating Roof
- St. James Station, Tank 520, External Floating Roof
- Liberty Station, Tank 550, External Floating Roof
- Liberty Station, Tank 551, External Floating Roof

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HOUSTON RESPONSE ZONE
SEISMIC EVENT RESPONSE PLAN

OSRO's

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
U.S. Environmental Services (USES) Geismar, LA Meraux, LA	888-279-9930	Small	1 hr	New Orleans COTP River: MM, W1,W2,W3 Inland: MM, W1,W2
SWS Gonzales, LA	877-742-4215	Small	1 hr	Lower Mississippi COTP River: MM, W1, W2, W3 Inland: MM, W2,W3
Environmental Safety & Health Consulting Services LaPlace, LA Belle Chasse, LA	877-437-2634 (24 hr)	Medium	2 hr	New Orleans COTP River: MM, W1, W2, W3 Inland: MM, W1,W2, W3
Oil Mop LLC (OMI) Gonzales, LA Houma, LA Belle Chasse, LA	800-645-6671 (24 hr)	Medium/WCD	2 hr	New Orleans COTP River: MM, W1, W2, W3 Inland: MM, W1,W2, W3
Clean Harbors Baton Rouge, LA	800-645-8265	WCD	2 hr	New Orleans COTP River: MM, W1, W2, W3 Inland: MM, W2, W3
Garner Dear Park, TX Port Arthur, TX Lamarque, TX	800-424-1716	WCD	6hr	Houston COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3

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CONSTRUCTION

Cain's Hydrotesting	225-687-7080	Construction
Premiere Industries	504-564-3440	Construction

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HOUSTON RESPONSE ZONE
SEISMIC EVENT RESPONSE PLAN

FEDERAL GOVERNMENT CONTACTS

National Response Center	800-424-8802 202-267-2675
PHMSA Pipeline Safety Southwest Region Office	713-272-2859
U.S. Fish and Wildlife Houston, TX	800-344-WILD 281-286-8282
OSHA	800-321-OSHA (6742)
ORSANCO	513-231-7719

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STATE CONTACTS

LOUISIANA

Dept. of Environmental Quality SPOC-Single Point of Contact	866-896-5337 or 225-219-3640 Bus. Hrs. Reporting Hotline 225-342-1234 After Hrs Spill Hotline
Office of Environmental Compliance	225-219-3715
Louisiana Wildlife and Fisheries	225-765-2800 225-765-2749 After Hrs.
State Police	225-925-6595 HazMat 24hr
Department of Natural Resources	225-342-4500 Bus Hrs 225-342-5505 24 Hr
One Call	800-272-3020 or 811

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MISSISSIPPI

Mississippi Department of Environmental Quality	601-961-5171 Bus Hrs 888-786-0661
Mississippi Emergency Management Agency (MEMA)	800-222-6362 24 hour 601-933-6362
Mississippi Oil and Gas Board One Call	601-354-7142 24 hour 800-227-6477 or 811

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AIR PATROL

KCSI - Management
SHANE Ellis (661) 577-2047

*NOTE: In addition to those listed above, the **Civil Air Patrol (CAP)** may also be used for aerial patrol, but they must be requested through the Coast Guard. CAP has varying capabilities in each state.*

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HOUSTON RESPONSE ZONE
SEISMIC EVENT RESPONSE PLAN

LOCAL CONTACTS

LOUISIANA

Ascension Parish	
LEPC	225-621-8360
Sheriff's Office	225-621-8300
Acadian Ambulance Service	225-644-2078
Waterworks Warning Network (Mississippi River)	
Downriver of MM 167.4	504-599-0100
(Clyde Carlson-District Engineer)	(b) (6) (cell)
	504-423-7316 (pager)
	(b) (6) (home)
(John Williams-Regional Engineer)	(cell)
	504-364-7293 (pager)
	(b) (6) (home)
(Effie Michalos-Program Coord.)	(cell)
	504-679-7797 (pager)
	(b) (6) (home)
(Burma Smith-Program Coord)	(cell)
	504-679-7795 (pager)
Upriver of MM 167.4	225-925-7228
	225-925-7230
East Baton Rouge Parish	
Emergency Preparedness	504-389-2100
Sheriff's Office	225-389-5000
Baton Rouge	
City Police	225-389-3800
Central Dispatch	225-389-2000
Fire	225-354-1400
EMS	225-389-3300
East Feliciana Parish	
Emergency Preparedness	504-683-1014
Sheriff's Office	225-683-8572
Ambulance	225-683-3999
Livingston Parish	
LEPC	225-686-3066
Sheriff's Office	225-686-2241
Ambulance	225-324-1221
St. Helena Parish	
LEPC	225-222-3544

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Sheriff's Office	225-222-4413
Southern Emergency & Rescue	225-683-3999
St. James Parish	
Emergency Preparedness	225-562-2364
Sheriff's Office	225-562-2377
Lutcher Vol. Fire Dept	225-869-8067
Lutcher Police	225-869-4163
Ambulance	Dispatch Sheriff
Waterworks Warning Network (Mississippi River)	
Downriver of MM 167.4	504-599-0100
(Clyde Carlson-District Engineer)	(b) (6) (cell)
	504-423-7316 (pager)
	(b) (6) (home)
(John Williams-Regional Engineer)	(cell)
	504-364-7293 (pager)
	(b) (6) (home)
(Effie Michalos-Program Coord.)	(cell)
	504-679-7797 (pager)
504-833-1853 (home)	
(Burma Smith-Program Coord)	(b) (6) (cell)
	504-679-7795 (pager)
Upriver of MM 167.4	225-925-7228
	225-925-7230
Railroad Emergency Contact	
Kansas City Southern	877-527-9464

MISSISSIPPI

Amite County	
EMA	601-657-1011
Sheriff	601-657-8057
Fire Department	601-657-8022
Liberty Ambulance Service	601-657-8021
Copiah County	
EMA	601-894-1658
Sheriff	601-892-2023
Fire Department	Dispatch
Sheriff	
American Medical Response	601-713-4340

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Franklin County	
EMA	601-384-1720
Sheriff	601-384-2323
East Franklin VFD	601-532-7131
District 5 VFD Meadville	601-384-2544
Ambulance	Dispatch
Sheriff	
Hinds County	
EMA	601-960-1476
Sheriff	601-974-2900
Clinton Fire	601-925-1011
West Hinds VFD	601-852-2660
Bench FD	601-885-9744
Crossroads VFD	601-878-9554
American Medical Response	601-713-4340
Lincoln County	
EMA	601-833-8561
Sheriff	601-833-5231
East Franklin FD	601-532-7131
Mc Comb FD	601-684-8881
Smyrna FD	601-277-3200
Hazlehurst Ambulance Service	601-894-2222

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Marathon Pipe Line LLC
Seismic Event Response Plan

Houston Response Zone

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HOUSTON RESPONSE ZONE
SEISMIC EVENT RESPONSE PLAN

Affected Pipeline Segments:

This plan is applicable to the sections of the Centennial and Capline Pipeline Systems affected by seismic activity due to its proximity to the New Madrid and Wabash Valley seismic zones (see below).

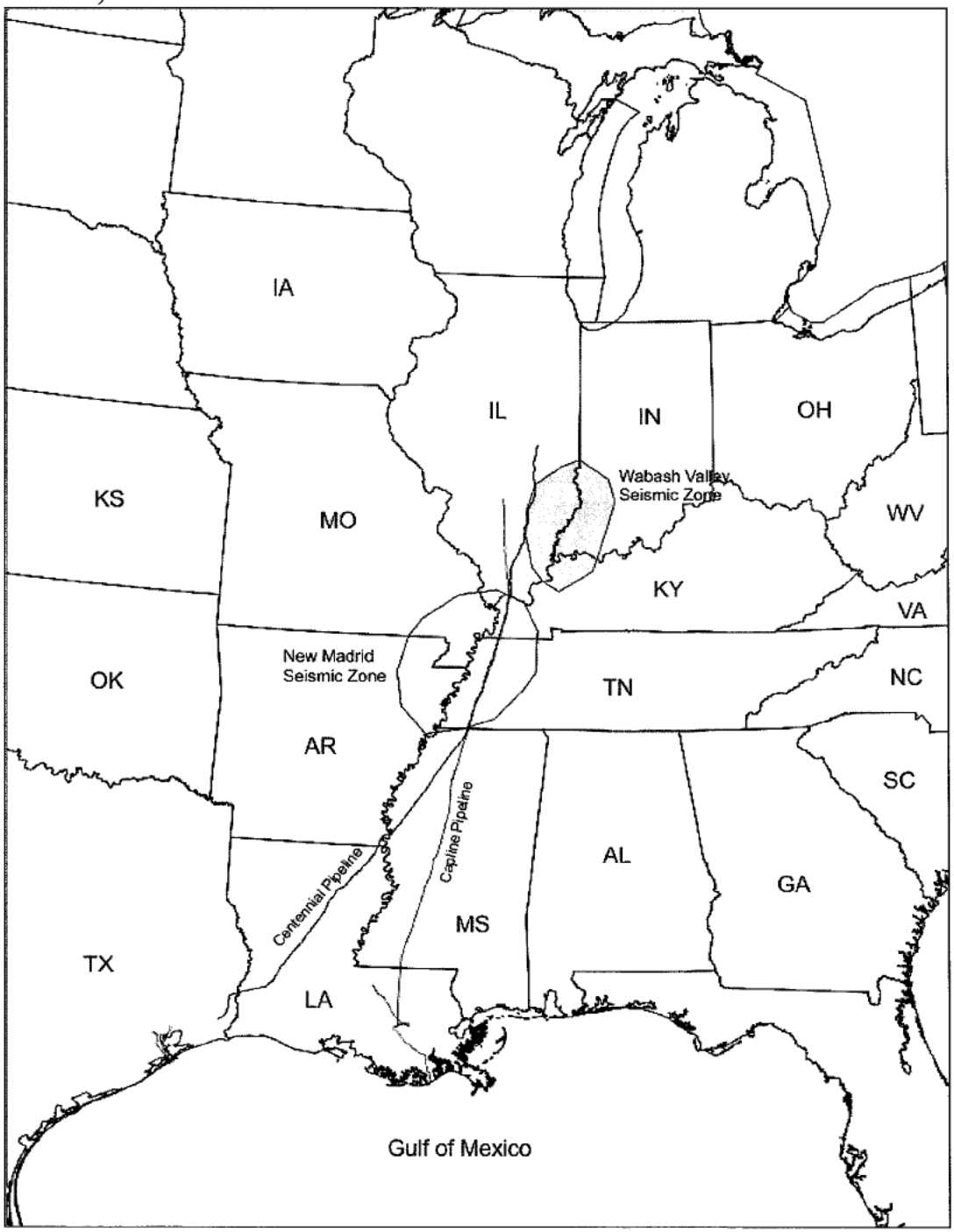


Figure 1 - Pipeline Routes within Seismic Zones

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The Centennial segment affected by a high to moderate probability is the Tutwiler – Creal Springs segment. More precisely within this segment the pipeline between Independence, MS and Creal Springs, IL is within the higher risk areas. The Capline segment affected by a high to moderate probability is the Oakland – Patoka segment.

Additional historical and technical information about the New Madrid Fault Zone can be found in the Attachments and *Resources* portion of this plan.

Response Strategy:

To quickly respond to a first-hand experienced or reported seismic event, to evaluate the event and ensure safe operation of the Centennial Pipeline system.

Background:

A pipeline integrity threat study derived from seismic activity was performed for Centennial by D.J. Nyman & Associates. In their January 2003 report, was an identified primary specific integrity threat of pipe movement due to sedimentary deposit liquefaction near water crossings. Also identified were risk ranked Centennial water crossings, based upon the known geology at these locations.

Capline Pipeline parallels Centennial through the New Madrid and Wabash Valley Fault Zone areas. A 1992 threat study and soils investigation performed for Capline by Woodward Clyde Associates identified the primary threats as stream/river bank instability, sedimentary deposit liquefaction, and shaking of surface facilities. Their soils investigation ruled out slope instability as a threat and confirmed the liquefaction threat at Capline's highest risk location, the Obion River crossing. This crossing was also in Nyman's top 3 risk ranked locations for Centennial.

Woodward Clyde's recommendations included monitoring and inspection of water crossings after a significant event and consideration of retrofit of certain surface equipment and communications facilities. A potential risk reduction solution of redrilling waterway crossings below the liquefaction zones was ruled out as unreasonable due to the predicted long return period of a severe event similar to the 1811 - 1812 events (magnitude 8.5). The USGS predicted return of this size event is 500 years.

Tactics Supporting the Strategy:

1) Immediate Communication

Upon experiencing or learning of a seismic event of magnitude **4.0** or greater located within a county traversed by the Centennial Pipeline or any event of **5.0** magnitude or greater involving the New Madrid seismic zone, the Centennial

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Operations Supervisor will receive call from Trunkline Gas and will receive a text message from the USGS Earthquake Notification Service (ENS). (A listing of relevant counties is included in this plan.)

If similar magnitude events involve the Wabash Valley seismic zone affecting the pipeline north of Creal Springs, the Patoka Area Operations Supervisor shall **also** be contacted.

2) Immediate Response

Once contacted the Operations Supervisor shall immediately call the Operation Center analyst and instruct the Centennial system to be shut down with pressure locked in. The Operations and Logistics Organization shall initiate "Stop-Help-Start" procedures.

3) Second Line Communication

The Operations Supervisor shall inform the affected Area Manager(s) and the Centennial System Integrity Leader (SIL). The SIL shall investigate the intensity levels in the vicinity of the pipeline via the USGS website. (The USGS site is updated within 1 – 5 minutes of a significant event.)

4) Conference

The Stop-Help-Start Coordinator shall schedule a stakeholders/resource team meeting as soon as practical following the notification.

5) Plan Response

Depending upon the severity and proximity of the event to the pipeline, the stakeholders shall consider the following:

- If any facilities are impacted by a level VI or greater intensity
- If so, which facilities are affected/unaffected
- The duration of static pressure monitoring
- The need and scope of an aerial survey
- survey of nearby communities for reports of structural damage
- The need and scope of waterway crossing visual inspection (see prioritized listing in this plan)
- The need and extent of visual inspection of surface facilities
- If it can be determined that one of the pipeline segments into or out of Creal Springs is unaffected, can shipments into or out of Creal Springs be resumed without further investigation of the integrity of that pipeline segment

6) Consensus

The stakeholders shall agree upon a plan of action and a timetable for those actions to be completed.

7) Implement Plan

Plan shall then be executed using a combination of MPL and contract resources as necessary. Some available resources are identified in this plan.

8) Feedback

Upon completion of the action items, the Stop-Help-Start Coordinator shall reconvene the stakeholders to discuss the findings, to include:

- If it is determined by the stakeholders that the integrity of the affected pipeline segment has not been compromised, a discussion of resumption of business shall follow.
- If it appears that the pipeline may have suffered damage, the stakeholders shall discuss strategies to locate, define, and repair such damage. This could involve above ground surveys, excavation of the pipeline at one or more locations, repair of obvious damage, and/or the implementation of an inertial ILI survey. An Incident Emergency Response may also be initiated if the threat rises to such a level.
- Once the stakeholders and MPL management are satisfied that all known potential integrity threats have been investigated and addressed, a plan for the resumption of business can be put in place.

Counties Traversed by Centennial Pipeline Subject to Seismic Activity

Mississippi	**Tennessee**	**Kentucky**	**Illinois**
Desoto	*Shelby*	*Fulton*	*Massac*
Tate	*Fayette*	*Hickman*	*Johnson*
Panola	*Tipton*	*Carlisle*	*Williamson*
Quitman	*Haywood*	*Ballard*	*Franklin*
	Lauderdale	*McCracken*	*Hamilton*
	Crockett		*Wayne*
	Dyer		*Clay*
	Obion		*Effingham*

HOUSTON RESPONSE ZONE
SEISMIC EVENT RESPONSE PLAN

Counties Traversed by Capline Pipeline Subject to Seismic Activity

Mississippi	**Tennessee**	**Kentucky**	**Illinois**
Desoto	*Shelby*	*Fulton*	*Massac*
Tate	*Fayette*	*Hickman*	*Johnson*
Panola	*Tipton*	*Carlisle*	*Williamson*
Quitman	*Haywood*	*Ballard*	*Franklin*
	Lauderdale	*McCracken*	*Jefferson*
	Crockett		*Marion*
	Dyer		*Pulaski*
	Obion		

High Risk Liquefaction Waterway Listing:

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

[redacted]

Resources

USGS Earthquake Site - http://earthquake.usgs.gov/recenteqsUS/

USCG Earthquake Notification Service - https://sslearthquake.usgs.gov/ens/

New Madrid Facts - http://en.wikipedia.org/wiki/New_Madrid_Seismic_Zone

Construction Responders, Repairs, Welding and Earth Moving Contractors

Nesbit (Centennial South) Area

- Bolin Enterprises 800-650-7834
- Foltz Construction 618-432-7777

Patoka (Centennial North) Area

- Bolin Enterprises 800-650-7834
- Foltz Construction 618-432-7777

Testing and Isolation Responders (Hydrotesting and Freeze Plugging) Contractors

- Enerpipe (Universal Hydrotesting) 517-596-2629
- Greene's Pipeline Services 800-324-7633

Inertial ILI

- BJ Process and Pipeline Services 832-519-2000

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HOUSTON RESPONSE ZONE
SEISMIC EVENT RESPONSE PLAN

Attachments

The following map show the probability of a 5.0 or greater magnitude earthquake occurring within the next 50 years in the New Madrid Seismic Zone. Probabilities along the **Centennial and Capline** routes range from less than 1% to 25%.

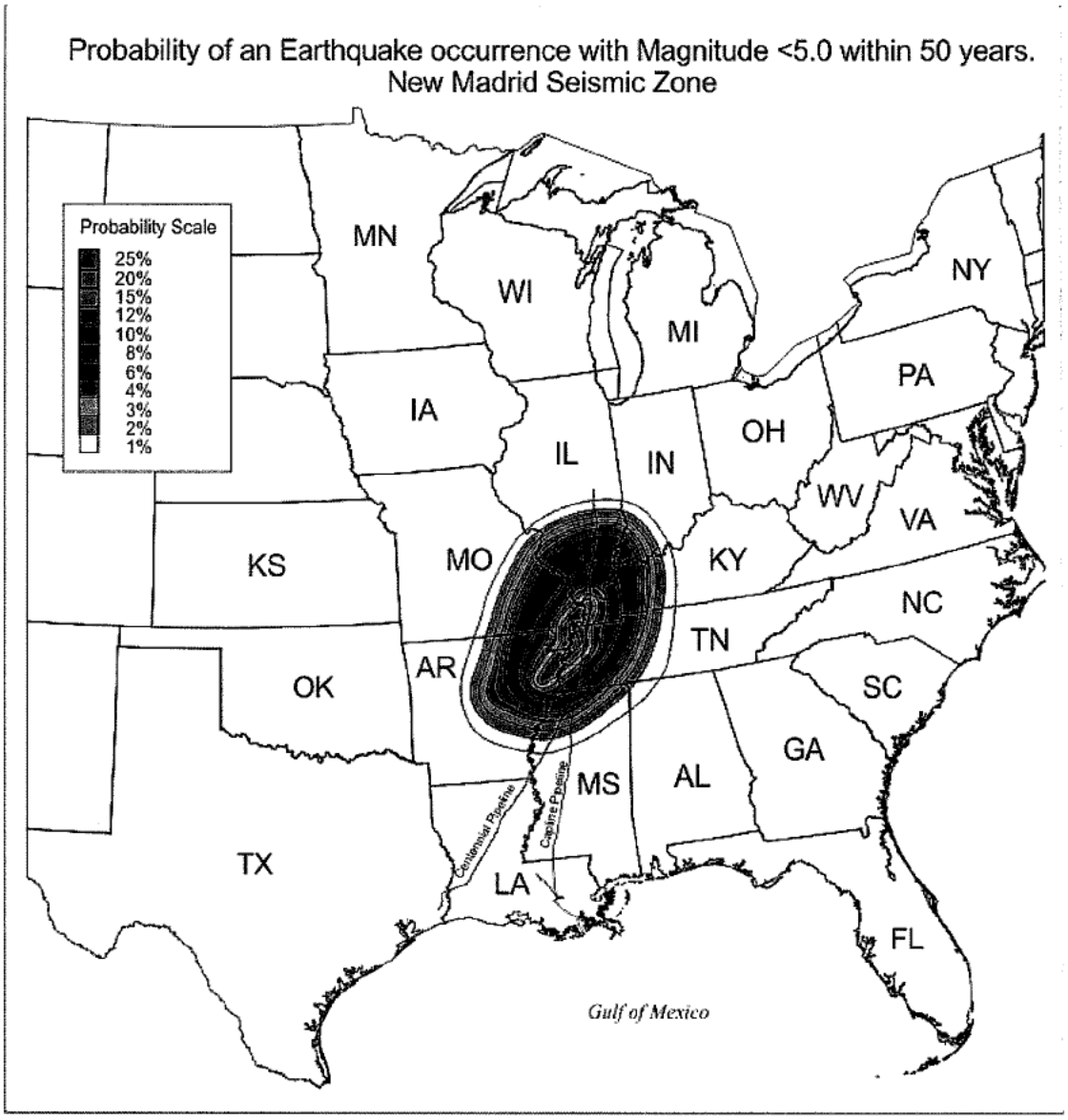


Figure 2 - Probability of Earthquake Occurrence Map

The following map show the epicenters of significant historical earthquakes recorded within the Houston Response Zone from 1568 to 2009.

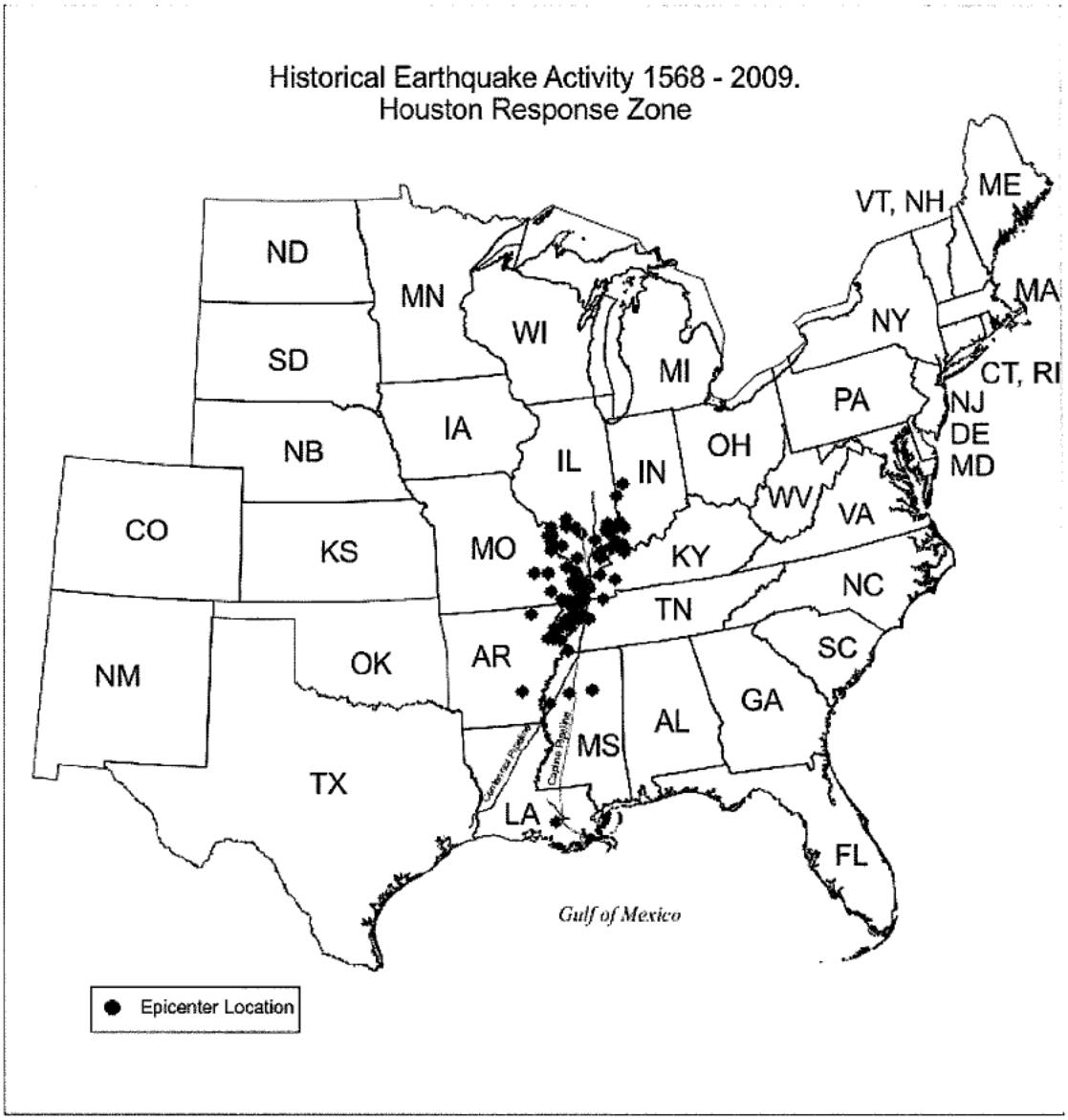


Figure 3 - Historical Earthquake Activity

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

Environmental Sensitivities

Worst Case Discharge / HCAs / USAs

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

High Consequence Areas

Introduction

This plan section contains information regarding the Worst Case Discharge and those areas which may possibly be affected by a release from a pipeline within the Houston Response Zone.

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

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

[redacted]

HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

Commercially Navigable Waterways

A Commercially Navigable Waterway is defined in CFR 195.450 as waterway where a substantial likelihood of commercial navigation exists. There are thirteen (13) Commercially Navigable Waterways associated with the Houston Response Zone and they are listed as follows.

Mississippi River

Map Sheet (s);	10, 20
Operational Areas:	St. James, Garyville, Mid-South
State(s):	Arkansas, Louisiana, Mississippi
County (ies)	AR – Chicot; MS - Washington
Parish (es):	LA – St. James, St. John the Baptist
Waterway Size:	Average width of 2,700 – 3,900 feet
Adjacent Land Use:	Rural and commercial with low density residential
Crossing Characteristics:	There are two (2) river crossings; one at the St. James Terminal and one just north of the Arkansas-Louisiana state line. The river shoreline is generally developed with a system of levees and control embankments throughout its path downstream of the facility. The natural riverbank has been replaced with the levees, access roads, and dock facilities. The most accessible points are along the levee access roads and the numerous dock facilities. The value of the riverbank/floodplain for wildlife habitat is moderate to high and recreational value is moderate due in part to the inaccessibility and high commercial traffic. The Mississippi River is classified as a high-volume commercial waterway which supports recreational use, irrigation, drinking water and industrial water intakes, fish and, and aquatic life.
Downstream Critical Areas:	None noted for the northernmost crossing

[redacted]

Red River

Map Sheet(s)	14

HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

Operational Area:	Mid-South
State(s):	Louisiana
Parish (es):	Rapides, Grant
Waterway Size:	Average width of 750 – 1,000 feet
Adjacent Land Use:	Rural with low density residential
Crossing Characteristics:	The Red River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands. The topographic profile of the area is relatively flat; however, any spill runoff would have the potential of flowing to the southeast within the channel of the river. The Red River crossing runs through the Kisatchie National Forest. The waterway is primarily used for recreational and irrigation purposes and supports fish and aquatic life.
Downstream Critical Areas:	England Air Force Base – 0.0 miles Alexandria – 8.5 miles

Ohio River

Map Sheet(s):	26
Operational Areas:	Mid-South, Patoka
State(s):	Kentucky, Illinois
County (ies)	KY – McCracken, Ballard; IL – Massac, Pulaski
Waterway Size:	Average width of 2,800 – 4,900 feet
Adjacent Land Use:	Rural and commercial with low density residential
Crossing Characteristics:	There are two (2) river crossing points; the Capline Pipeline and approximately 1.4 miles upstream the Centennial Pipeline. The river shoreline is generally undeveloped with significant floodplains downstream. The crossing location is approximately 25.0 miles upstream of the confluence with the Mississippi River. The recreational value in this area is moderate due in part to the inaccessibility and high commercial traffic. (b) (3), (b) (7)(F) [redacted]
Areas:	[redacted]

Gulf Intracoastal Waterway (GICW)

Map Sheet(s):	7
Operational Area:	Garyville
State(s):	Louisiana
Parish (es)	Lafourche
Waterway Size:	Average width of 250 – 400 feet

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Adjacent Land Use:	Rural with low density residential
Crossing Characteristics:	The Gulf Intracoastal Waterway (GICW) shoreline is generally undeveloped with significant adjacent wetland areas. The recreational value in this area is moderate due in part to the inaccessibility and high commercial traffic. The GICW is classified as a high-volume commercial waterway which supports commercial marine traffic, fish and, and aquatic life.
Downstream Critical Areas:	Larose, LA 1.5 miles

Ouachita River

Map Sheet(s):	18
Operational Area:	Mid-South
State(s):	Louisiana
Parish (es)	Caldwell
Waterway Size:	Average width of 500 – 600 feet
Adjacent Land Use:	Rural and agricultural
Crossing Characteristics:	The river shoreline is generally undeveloped with significant floodplains downstream. The recreational value in this area is moderate due in part to the inaccessibility and agricultural development. (b) (3), (b) (7)(F) [redacted]
Areas:	

Neches River

Map Sheet(s):	12
Operational Area:	Mid-South
State(s):	Texas
County (ies)	KY – McCracken, Ballard; IL – Massac, Pulaski
Waterway Size:	Average width of 2,800 – 4,900 feet
Adjacent Land Use:	Rural and commercial with low density residential
Crossing Characteristics:	This is the first waterway crossed by the Centennial Pipeline from its origin in Beaumont. The river shoreline is generally undeveloped to the east and heavy industrial/commercial development along the west shoreline. The crossing location is approximately 34.0 miles upstream from the Gulf of Mexico. The recreational value in this area is moderate due in part to the industrial development and high commercial traffic. The Neches River is classified as a

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commercial waterway which supports recreational use, irrigation, fish and, and aquatic life.

Downstream Critical Areas: (b) (7)(F), (b) (3) [redacted]

Beaumont, TX	0.0 miles
Nederland, TX	3.0 miles
Port Neches, TX	7.0 miles
Port Arthur, TX	12.0 miles

Galveston Bay – Clear Creek

Map Sheet(s): 9
Operational Area: Pasadena
State(s): Texas
County (ies) Harris, Galveston
Waterway Size: Average width of 200 – 4,800 feet
Adjacent Land Use: Commercial with high density residential
Crossing Characteristics: The pipeline crosses Clear Creek approximately 2,800 feet inland from Galveston Bay. The waterway shoreline is heavily developed and located within a High Population Area (HPA). The recreational value in this area is high. Galveston Bay and its associated commercial waterways are classified as high-volume commercial waterways which supports recreational use, fish and, and aquatic life.

Downstream Critical Areas:

Houston, TX		0.0 miles
LaPorte, TX	1.0 miles	
Texas City, TX	3.0 miles	
Baytown, TX	9.0 miles	
Galveston, TX	13.0 miles	

Galveston Bay – Dickinson Bayou

Map Sheet(s): 9
Operational Area: Pasadena
State(s): Texas
County (ies) Galveston
Waterway Size: Average width of 1,200 – 2,400 feet
Adjacent Land Use: Commercial with high density residential
Crossing

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Characteristics:	The pipeline crosses along the upper reaches of Dickinson Bay. The waterway shoreline is heavily developed and located within a High Population Area (HPA) and Other Populated Area (OPA). The recreational value in this area is high. Galveston Bay and its associated commercial waterways are classified as high-volume commercial waterways which supports recreational use, fish and, and aquatic life.	
Downstream Critical Areas:	Texas City, TX	0.0 miles
	Galveston, TX	3.0 miles

Galveston Bay – Moses Bayou

Map Sheet(s):	9
Operational Area:	Pasadena
State(s):	Texas
County (ies)	Galveston
Waterway Size:	Average width of 1,200 – 2,400 feet
Adjacent Land Use:	Commercial with high density residential
Crossing Characteristics:	The pipeline crosses along the upper reaches of Moses Lake. The waterway shoreline is heavily developed and located within an Other Populated Area (OPA). The recreational value in this area is high. Galveston Bay and its associated commercial waterways are classified as high-volume commercial waterways which supports recreational use, fish and, and aquatic life.

Downstream Critical Areas:	Texas City, TX	0.0 miles
	Galveston, TX	3.0 miles

Galveston Bay – Texas City Channel

Map Sheet(s):	9
Operational Area:	Pasadena
State(s):	Texas
County (ies)	Galveston
Waterway Size:	Average width of 500 – 1,500 feet
Adjacent Land Use:	Commercial with spoil areas
Crossing Characteristics:	The pipeline originates within the petroleum complex that borders this waterway. The waterway shoreline is heavily developed and located within a High Population Area (HPA) and Other Populated Area (OPA). The recreational value in this area is low. Galveston Bay and its associated commercial waterways are classified as high-volume commercial waterways which supports recreational use, fish and, and aquatic life.

Downstream Critical	Texas City, TX	0.0 miles

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Areas:	Galveston, TX	3.0 miles

Houston Ship Channel

Map Sheet(s):	9
Operational Area:	Pasadena
State(s):	Texas
County (ies)	Chambers, Galveston, Harris
Waterway Size:	Average width of 0.75 – 1.5 miles
Adjacent Land Use:	Industrial and commercial with high density residential development
Crossing Characteristics:	The waterway shoreline is generally developed with significant spoil areas and wetlands. The crossing location is at the upper end of Galveston Bay near LaPorte. The (b) (3), (b) (7)(F) [redacted].

Downstream Critical Areas:	LaPorte, TX	0.0 miles
	Baytown, TX	0.0 miles
	Houston, TX	1.0 miles
	Texas City, TX	20.0 miles

Bayou Lafourche

Map Sheet(s):	7
Operational Area:	Garyville
State(s):	Louisiana
Parish (es)	Lafourche
Waterway Size:	Average width of 250 feet
Adjacent Land Use:	Rural and commercial with moderate to low density residential in some areas
Crossing Characteristics:	The pipeline crosses adjoining waterways and runs adjacent to the bayou through much of its lower reaches. The bayou shoreline is a mix of developed and undeveloped with significant wetland and marshes adjacent and connected. This waterway discharges directly into the Gulf of Mexico. The bayou is classified as a high-volume commercial waterway which supports recreational use, fish and, and aquatic life.

Downstream Critical Areas:	Larose, LA	1.0 miles
	Cutoff, LA	3.0 miles
	Galliano, LA	10.0 miles
	Golden Meadow, LA	15.0 miles

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Amite River

Map Sheet(s):	10	
Operational Area:	St. James	
State(s):	Louisiana	
Parish (es)	Ascension, Livingston	
Waterway Size:	Average width of 250 feet	
Adjacent Land Use:	Rural and undeveloped wetland with scattered residential areas	
Crossing Characteristics:	The river shoreline is generally undeveloped with significant wetlands downstream. The crossing location is approximately 15.0 miles upstream of Lake Maurepas. The recreational value in this area is moderate due in part to the inaccessibility and commercial traffic. The Amite River is classified as a commercial waterway which supports recreational use, irrigation, fish and, and aquatic life.	
Downstream Critical Areas:	French Settlement, LA	1.0 miles
	Lake Maurepas	15.0 miles
	Lake Ponchartrain	29.0 miles

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High Population Areas

High Population Areas are defined in CFR 195.450 as an urbanized area, as defined and delineated by the Census Bureau that contains 50,000 or more people and has a population density of at least 1,000 people per square mile. High Population Areas in close proximity to the pipeline routes within the Houston Response Zone are listed in the table below.

High Population Area	Map Sheet (s)	State	County/Parish	Operating Area (s)
Baton Rouge	10	Louisiana	Ascension, East Baton Rouge	St. James
Beaumont	11, 12	Texas	Jefferson	Mid-South
Carbondale	26	Illinois	Williamson	Patoka
Houma	7	Louisiana	Lafourche	Garyville
Houston	9	Texas	Harris, Brazoria	Pasadena
Jackson	16, 17	Mississippi	Hinds, Madison	St. James, Mid-South
Memphis	21, 22, 23, 24	Tennessee, Mississippi	Shelby, Fayette – TN Desoto – MS	Mid-South
New Orleans	7, 10	Louisiana	St. John the Baptist	Garyville
Port Arthur	9, 11	Texas	Jefferson	Mid-South
Texas City	9	Texas	Harris, Brazoria	Pasadena

TABLE 2 - HIGH POPULATION AREAS (HPAS)

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Other Populated Areas

Other Populated Areas are defined in CFR 195.450 as a place, as defined and delineated by the Census Bureau that contains a concentrated population, such as an incorporated or unincorporated city, town, village, or other designated residential or commercial area. Other Populated Areas in close proximity to the pipeline routes within the Houston Response Zone are listed in the table below.

Other Populated Area	Map Sheet (s)	State	County (ies)/Parish (es)	Operating Area (s)
Eudora	20	Arkansas	Chicot	Mid-South
Mattoon	28	Illinois	Coles	Patoka
Neoga	28	Illinois	Cumberland	Patoka
Buckner	26	Illinois	Franklin	Patoka
Orient	26	Illinois	Franklin	Patoka
Sesser	27	Illinois	Franklin	Patoka
Thompsonville	26	Illinois	Franklin	Patoka
Waltonville	27	Illinois	Jefferson	Patoka
Woodlawn	27	Illinois	Jefferson	Patoka
Goreville	26	Illinois	Johnson	Patoka
Vienna	26	Illinois	Johnson	Patoka
Marion	26	Illinois	Johnson, Williamson	Patoka
Odin	27	Illinois	Marion	Patoka
Vernon	27	Illinois	Marion	Patoka
Walnut Hill	27	Illinois	Marion	Patoka
Joppa	26	Illinois	Massac	Patoka
Johnsonville	27	Illinois	Wayne	Patoka
Keenes	27	Illinois	Wayne	Patoka
Wayne City	27	Illinois	Wayne	Patoka
Herrin	26	Illinois	Williamson	Patoka
Pittsburg	26	Illinois	Williamson	Patoka
Freeman Spur	26	Illinois	Williamson, Franklin	Patoka
Bandana	26	Kentucky	Ballard	Mid-South
Arlington	25	Kentucky	Carlisle	Mid-South
Prairieville	10	Louisiana	Ascension	St. James
Sorrento	10	Louisiana	Ascension	St. James
Longville	11	Louisiana	Beauregard	Mid-South
Oretta	11	Louisiana	Beauregard	Mid-South
Sugartown	11	Louisiana	Beauregard	Mid-South
Banks Springs	18	Louisiana	Caldwell	Mid-South
Baker	10	Louisiana	East Baton Rouge	St. James
Baton Rouge	10	Louisiana	East Baton Rouge	St. James
Central City	10	Louisiana	East Baton Rouge	St. James
Old Jefferson	10	Louisiana	East Baton Rouge	St. James
Rock Hill	14	Louisiana	Grant	Mid-South
Chackbay	7	Louisiana	Lafourche	Garyville
Choctaw	7	Louisiana	Lafourche	Garyville
Cutoff	7	Louisiana	Lafourche	Garyville
Galliano	7	Louisiana	Lafourche	Garyville
Golden Meadow	7	Louisiana	Lafourche	Garyville
Larose	7	Louisiana	Lafourche	Garyville

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Other Populated Area	Map Sheet (s)	State	County (ies)/Parish (es)	Operating Area (s)
Raceland	7	Louisiana	Lafourche	Garyville
Olla	14	Louisiana	LaSalle	Mid-South
French Settlement	10	Louisiana	Livingston	St. James
Walker	10	Louisiana	Livingston	St. James
Rayville	17	Louisiana	Richland	Mid-South
Convent	7, 10	Louisiana	St. James	St. James
Grammarcy	10	Louisiana	St. James	St. James
Grand Point	10	Louisiana	St. James	St. James
Hester	10	Louisiana	St. James	St. James
Lutcher	10	Louisiana	St. James	St. James
Moonshine	7	Louisiana	St. James	St. James
Paulina	10	Louisiana	St. James	St. James
Romeville	10	Louisiana	St. James	St. James
St. James	7, 10	Louisiana	St. James	St. James
Edgard	10	Louisiana	St. John the Baptist	Garyville
Garyville	10	Louisiana	St. John the Baptist	Garyville
Reserve	10	Louisiana	St. John the Baptist	Garyville
Pitkin	11	Louisiana	Vernon	Mid-South
Forest	17	Louisiana	West Carroll	Mid-South
Kilbourne	17, 20	Louisiana	West Carroll	Mid-South
Oak Grove	17	Louisiana	West Carroll	Mid-South
Pioneer	17	Louisiana	West Carroll	Mid-South
Liberty	13	Mississippi	Amite	St. James
Holcomb	19	Mississippi	Grenada	Mid-South
Clinton	17	Mississippi	Hinds	St. James
Raymond	17	Mississippi	Hinds	St. James
Flora	17	Mississippi	Madison	Mid-South
Kearney Park	17	Mississippi	Madison	Mid-South
Byhalia	21	Mississippi	Marshall	Mid-South
Batesville	21	Mississippi	Panola	Mid-South
Lambert	22	Mississippi	Quitman	Mid-South
Drew	20	Mississippi	Sunflower	Mid-South
Senatobia	21, 22	Mississippi	Tate	Mid-South
Leland	20	Mississippi	Washington	Mid-South
Oakland	21	Mississippi	Yalobusha, Tallahatchie	Mid-South
Newbern	25	Tennessee	Dyer	Mid-South
Trimble	25	Tennessee	Dyer, Obion	Mid-South
Braden	23	Tennessee	Fayette	Mid-South
Oakland	23	Tennessee	Fayette	Mid-South
Piperton	23	Tennessee	Fayette	Mid-South
Mason	23	Tennessee	Fayette, Tipton	Mid-South
Obion	25	Tennessee	Obion	Mid-South
Troy	25	Tennessee	Obion	Mid-South
Union City	25	Tennessee	Obion	Mid-South
Woodland Mills	25	Tennessee	Obion	Mid-South
Collierville	23	Tennessee	Shelby	Mid-South
Alvin	9	Texas	Brazoria	Pasadena
Mont Belvieu	9	Texas	Chambers	Pasadena
Hitchcock	9	Texas	Galveston	Pasadena

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Other Populated Area	Map Sheet (s)	State	County (ies)/Parish (es)	Operating Area (s)
LaMarque	9	Texas	Galveston	Pasadena
League City	9	Texas	Galveston	Pasadena
Texas City	9	Texas	Galveston	Pasadena
Tiki Island Village	9	Texas	Galveston	Pasadena
Baytown	9	Texas	Harris	Pasadena
Houston	9	Texas	Harris	Pasadena
LaPorte	9	Texas	Harris	Pasadena
Morgan's Point	9	Texas	Harris	Pasadena
Pasadena	9	Texas	Harris	Pasadena
Seabrook	9	Texas	Harris	Pasadena
Beaumont	12	Texas	Jefferson	Mid-South
Nederland	9, 11, 12	Texas	Jefferson	Mid-South
Mauriceville	11	Texas	Orange	Mid-South
Vidor City	11	Texas	Orange	Mid-South

TABLE 3 - OTHER POPULATED AREAS (OPAS)

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Unusually Sensitive Areas

An Unusually Sensitive Area is defined in CFR 195.6 as a drinking water or ecological resource area that is unusually sensitive to environmental damage from a hazardous liquid pipeline release.

Drinking Water Resources

An Unusually Sensitive Area drinking water resource is defined in CFR 195.6 as:

- The water intake for a Community Water System (CWS) or a Non-transient Non-community Water System (NTNCWS) that obtains its water supply primarily from a surface water source and does not have an adequate alternative drinking water source;
- The Source Water Protection Area (SWPA) for a CWS or a NTNCWS that obtains its water supply from a Class I or Class IIA aquifer and does not have an adequate alternative drinking water source. Where a state has not yet identified the SWPA, the Wellhead Protection Area (WHPA) will be used until the state has identified the SWPA; or
- The sole source aquifer recharge area where the sole source aquifer is a karst aquifer in nature.

Potentially affected drinking water resources within a five mile radius of the pipeline are listed as follows:

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

[redacted]

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

[redacted]

** County or Parish is outside of the Response Zone*

*** Closest Response Zone*

Ecological Resources

An Unusually Sensitive Area ecological resource is defined in CFR 195.6 as:

- An area containing a critically imperiled species or ecological community;
- A multi-species assemblage area;
- A migratory water bird concentration area;
- An area containing an imperiled species, threatened or endangered species, depleted marine mammal species, or an imperiled ecological community where the species or community is aquatic, aquatic dependent, or terrestrial with a limited range; or An area containing an imperiled species, threatened or endangered species, depleted marine mammal species, or imperiled ecological community where the species or community occurrence is considered to be one of the most viable, highest quality, or in the best condition, as identified by an element occurrence ranking (EORANK) of A (excellent quality) or B (good quality).

Potentially affected ecological resources within a five mile radius of the pipeline are listed as follows:

Species of Concern

State	County/Parish	Species	State Status	Federal Status
Arkansas	Chicot	Gray Bat	E	E
		Indiana Bat	E	E
		Ozark big-eared Bat	E	E
		American burying Beetle	E	E
		Ozark Cavefish	T	T
		Cave Crayfish	E	E
		Leopard Darter	T	T
		Yellowcheek Darter	E	E

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State	County/Parish	Species	State Status	Federal Status
		Arkansas Fatmucket	T	T
		Ozark Hellbender	E	E
		Pink Mucket	E	E
		Curtis Pearlymussel	E	E
		Fat Pocketbook	E	E
		Ouachita Rock Pocketbook	E	E
		Speckled Pocketbook	E	E
		Pallid Sturgeon	E	E
		Least Interior Tern	E	E
		Red-cockaded Woodpecker	E	E
	AR State Codes: E = Endangered; T = Threatened; PE = Proposed Endangered; PT = Proposed Threatened; C = Candidate			
Illinois	Clay	Eastern Sand Darter	LT	
		Spike	LT	
		Loggerhead Shrike	LE	
		Blazing Star	LE	
		Shawnee Rocksnail	LE	
		Pugnose Shiner	LE	
		American Orpine	LT	
		Royal Catchfly	LE	
		Grass-leaved Lily	LE	
		Ornate Box Turtle	LT	
		Greater Prairie Chicken	LE	
		Barn Owl	LE	
		Little Spectaclecase	LT	
	Coles	Eastern Sand Darter	LT	
		Smooth Softshell	LE	
		Upland Sandpiper	LE	
		Northern Grape Fern	LE	
		Swamp Metalmark	LE	
		Fibrous-rooted Sedge	LT	
		Kirtland's Snake	LT	
		Spike	LT	
		Snuffbox	LE	
		Harlequin Darter	LE	
		Common Moorhen	LE	
		Least Bittern	LT	
		Loggerhead Shrike	LE	
		Bigeye Shiner	LE	
		Broomrape	LT	
		Kidneyshell	LE	
		Barn Owl	LE	
		Little Spectaclecase	LT	
	Cumberland	Eastern Sand Darter	LT	
		Smooth Softshell	LE	
		Blanding's Turtle	LE	
		Harlequin Darter	LE	
		Bigeye Chub	LE	
		Loggerhead Shrike	LE	

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State	County/Parish	Species	State Status	Federal Status
		Rice Rat	LT	
		Bead Grass	LE	
		Dull Meadow Beauty	LE	
		Carolina Whipgrass	LE	
		Spring Ladies' Tresses	LE	
		Bewick's Wren	LE	
		Green Trillium	LE	
		Barn Owl	LE	
	IL State Codes: LE = Listed Endangered; LT = Listed Threatened; PE = Proposed Endangered; PT = Proposed Threatened; C = Candidate			
Kentucky	Ballard	Alabama Shad	E	C
		Indiana Bat	E	LE
		Orangefoot Pimpleback	E	LE
		Sheepnose	E	LE
		Rabbitsfoot	T	LT
		Pallid Sturgeon	E	LE
		Least Interior Tern	E	LE
	Carlisle	Indiana Bat	E	Le
		Fat Pocketbook	E	LE
		Least Interior Tern	E	LE
	Fulton	Peregrine Falcon	E	LE
		Wood Stork		LE
		Least Interior Tern	E	LE
	Hickman	Relict Darter	E	LE
		Pink Mucket	E	LE
		Indiana Bat	E	LE
		Pallid Sturgeon	E	LE
		Least Interior Tern	E	LE
	McCracken	Peregrine Falcon	E	LE
		Pink Mucket	E	LE
		Wood Stork		LE
		Indiana Bat	E	LE
		Ring Pink	E	LE
		Orangefoot Pimpleback	E	LE
		Sheepnose	E	LE
		Fat Pocketbook	E	LE
		Rabbitsfoot	T	PT
		Least Interior Tern	E	LE
	KY State Codes: E = Endangered; T = Threatened; S = Special Concern			
Louisiana	Ascension	Gulf Sturgeon	T	T
		Bald Eagle	E	D
		Inflated Heelsplitter	T	T
		Pallid Sturgeon	E	E
		Manatee	E	E
	Beauregard	Bald Eagle	E	D
		American Chaffseed		E
		Alligator Snapping Turtle	RH	
		Red-cockaded Woodpecker	E	E
		Louisiana Pine Snake		C

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State	County/Parish	Species	State Status	Federal Status
		Louisiana Pine Snake		C
	West Carroll	None Noted		
	LA State Codes: E = Endangered; T = Threatened; T/E = Threatened/Endangered; RH = Restricted Harvest; Prohibited = Possession of these species is prohibited. No legal harvest or possession.			
Mississippi	Amite	Red-cockaded woodpecker	E	E
		Louisiana Black Bear	T	T
	Bolivar	Pondberry	E	E
		Least Tern	E	E
		Bald Eagle	T	D
		Pallid Sturgeon	E	E
	Carroll	None Noted		
	Copiah	Red-cockaded woodpecker	E	E
		Louisiana Black Bear	T	T
		Ringed Map Turtle	T	T
		Bayou Darter	T	T
		Gulf Sturgeon	T	T
	DeSoto	Least Tern	E	E
		Pallid Sturgeon	E	E
	Franklin	Red-cockaded Woodpecker	E	E
		Louisiana Black Bear	T	T
	Grenada	Bald Eagle	E	E
	Hinds	Bayou Darter	T	T
		Ringed Map Turtle	T	T
		Gulf Sturgeon	T	T
		Louisiana Black Bear	T	T
	Holmes	Louisiana Black Bear	T	T
	Lincoln	None Noted		
	Madison	Ringed Map Turtle	T	T
		Bald Eagle	T	T
		Louisiana Black Bear	T	T
	Marshall	None Noted		
	Panola	Bald Eagle	T	T
	Quitman	None Noted		
	Sunflower	Pondberry	E	E
		Bald Eagle	T	D
	Tallahatchie	Bald Eagle	T	T
		Pondberry	E	E
	Tate	Bald Eagle	T	T
	Washington	Louisiana Black Bear	T	T
		Least Tern	E	E
		Bald Eagle	T	D
		Pallid Sturgeon	E	E
	Yalobusha	Bald Eagle	T	T
		Red-cockaded Woodpecker	E	E
	Yazoo	Bald Eagle	T	T
		Pallid Sturgeon	E	E
		Louisiana Black Bear	T	T
	MS State Ranks: E = Endangered; T = Threatened; PE = Proposed Endangered; PT =			

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State	County/Parish	Species	State Status	Federal Status
	Proposed Threatened; C = Candidate			
Tennessee	Crocket	Swainson's Warbler	D	
		Reniform Sedge	S	
		Copper Iris	T	
	Dyer	Barking Tree frog	D	
		Great Egret	D	
		Little Blue Heron	D	
		Mississippi Kite	D	
		Interior Least Tern	E	LE
		Loggerhead Shrike	D	
		Swainson's Warbler	D	
		Pallid Sturgeon	E	LE
		Alligator Gar	D	
		Sicklefin Chub	D	
		Blue Sucker	T	
		Rafinesque's Big-eared Bat	D	
		Hatchie Burrowing Crayfish	E	
		Striped Whitelip	Rare	
		Water Purslane	T	
		Northern Prickly Ash	S	
		Tissue Sedge	S	
		Lake-bank Sedge	T	
		Copper Iris	T	
	Fayette	Barking Tree frog	D	
		Multiflowered Mud-plantain	S	
		Blue Mud-plantain	T	
		Cluster Rescue	S	
		Southern Twayblade	E	
		Copper Iris	T	
		Capillary Hairsedge	E-P	
		Small-flowered Beardtongue	S	
		Southern Rainbow	Rare	
		Southern Hickorynut	Rare	
		Fatmucket	Rare	
		Alligator Snapping Turtle	D	
		Meadow Jumping Mouse	D	
		Southern Bog Lemming	D	
		Southeastern Shrew	D	
		Piebald Madtom	D	
		Backman's Sparrow	E	
	Gibson	Least Bittern	D	
		Copper Iris	T	
		Reniform Sedge	S	
		Compass Plant	T	
		Hatchie Burrowing Crayfish	E	
		Alligator Snapping Turtle	D	
		Meadow Jumping Mouse	D	
		Rafinesque's Big-eared Bat	D	
		Southeastern Shrew	D	

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Species	State Status	Federal Status
		Lollypop Darter	Rare	
		Swainson's Warbler	D	
		Barn Owl	D	
		Sharp-shinned Hawk	D	
		Mississippi Kite	D	
	Haywood	Berwick's Wren	E	
		Reniform Sedge	S	
		Cedar Elm	S	
		Prairie False-foxglove	E	
		Prickly Hornwort	S	
		Creeping Spot-flower	S	
		Southern Rainbow	Rare	
		Tapered Pondhorn	Rare	
		Southern Hickorynut	Rare	
		Fatmucket	Rare	
		Eastern Woodrat	D	
		Rafinesque's Fat-eared Bat	D	
		Southeastern Shrew	D	
		Naked Sand Darter	D	
		Piebald Madtom	D	
		Blue Sucker	R	
		Swainson's Warbler	D	
	Lauderdale	Anhinga	D	
		Riparian Broomrape	S	
		Tissue Sedge	S	
		Ovate-leaved Arrowhead	S	
		Cedar Elm	S	
		Red Starvine	T	
		Featherfoil	S	
		Butternut	T	
		Lake Cress	S	
		Creeping Spot-flower	S	
		Striped Whitelip	Rare	
		Southern Rainbow	Rare	
		Southern Hickorynut	Rare	
		Southeastern Myotis	Rare	
		Blue Sucker	T	
		Plains Minnow	D	
		Alligator Gar	D	
		Swainson's Warbler	D	
		Cerulean Warbler	D	
		Interior Least Tern	E	LE
		Bald Eagle	D	
		Mississippi Kite	D	
		Little Blue Heron	D	
		Great Egret	D	
	Obion	Anhinga	D	
		Sweetscent Ladies'-tresses	E	
		Copper Iris	T	

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Species	State Status	Federal Status
		Nuttalls Waterweed	S	
		Bristly Sedge	T	
		Ovate-leaved Arrowhead	S	
		Choke Cherry	S	
		Yellow Water-crowfoot	T	
		Goldenseal	S-CE	
		Featherfoil	S	
		Lake Cress	S	
		American Ginseng	S-CE	
		Striped Whitelip	Rare	
		Mississippi Green Water snake	D	
		Meadow Jumping Mouse	D	
		Eastern Woodrat	D	
		Rafinesque's Big-eared Bat	D	
		Southeastern Shrew	D	
		Golden Topminnow	D	
		Piebald Madtom	D	
		Plains Minnow	D	
		Lake Sparrow	T	
		Bachman's Sparrow	E	
		Swainson's Warbler	D	
		Cerulean Warbler	D	
		Bell's Vireo	Rare	
		Bewick's Wren	E	
		Barn Owl	D	
		Common Moorhen	D	
		Peregrine Falcon	E	
		Bald Eagle	D	
		Mississippi Kite	D	
		Great Egret	D	
		Least Bittern	D	
	Shelby	Southern Cricket Frog	Rare	
		Bulbous Adder's-tongue	S	
		Multiflowered Mud-plantain	S	
		Copper Iris	T	
		Cedar Elm	S	
		Red Starvine	T	
		Goldenseal	S-CE	
		Featherfoil	S	
		Sweetbay Magnolia	T	
		Ovate Catchfly	E	
		Willow Aster	E	
		Creeping Spot-flower	S	
		Nodding Rattlesnake-root	S	
		American Ginseng	S-CE	
		Striped Whitelip	Rare	
		Southern Hickorynut	Rare	
		Fatmucket	Rare	
		Bronze Copper	Rare	

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Species	State Status	Federal Status
		Northern Pinesnake	T	
		Eastern Woodrat	D	
		Southeastern Shrew	D	
		Naked Sand Darter	D	
		Piebald Madtom	D	
		Blue Sucker	T	
		Lark Sparrow	T	
		Swainson's Warbler	D	
		Cerulean Warbler	D	
		Bell's Vireo	Rare	
		Berwick's Wren	E	
		Barn Owl	D	
		Interior Least Tern	E	LE
		Bald Eagle	D	
		Mississippi Kite	D	
		Barking Tree frog	D	
	Tipton	Mississippi Kite	D	
		Reniform Sedge	S	
		Earleaved False-foxglove	E	
		Red Starvine	T	
		Goldenseal	S-CE	
		Creeping Spot-flower	S	
		Nodding Rattlesnake-root	S	
		American Ginseng	S-CE	
		Southern Rainbow	Rare	
		Southern Hickorynut	Rare	
		Fatmucket	Rare	
		Scaly Sand Darter	D	
		Naked Sand Darter	D	
		Piebald Madtom	D	
		Blue Sucker	T	
		Sturgeon Chub	D	
		Bigmouth Shiner	D	
		Alligator Gar	D	
		Interior Least Tern	E	LE
	TN State Codes: E = Endangered; T = Threatened; PE = Proposed Endangered; PT = Proposed Threatened; CE = Commercially Exploited; S = Special Concern; D = Deemed in need of management			
Texas	Brazoria	American Peregrine Falcon	T	D
		Bald Eagle	T	D
		Eskimo Curlew	E	LE
		Piping Plover	T	LT
		Peregrine Falcon	T	D
		Reddish Egret	T	
		Sprague's Pipit		C
		Sooty Tern	T	
		Jaguarondi	E	LE
		Louisiana Black Bear	T	LT
		Ocelot	E	LE

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Species	State Status	Federal Status
		Red Wolf	E	LE
		West Indian Manatee	E	LE
		False Spike Mussel	T	
		Smooth Pimpleback	T	C
		Texas Fawnfoot	T	C
		Alligator Snapping Turtle	T	
		Atlantic Hawksbill Sea Turtle	E	LE
		Green Sea Turtle	T	LT
		Gulf Saltmarsh Snake	E	LE
		Kemp's Ridley Sea Turtle	E	LE
		Leatherback Sea Turtle	T	LT
		Texas Diamondback Terrapin	T	
		Timber/Canebrake Rattlesnake	T	
	Chambers	American Peregrine Falcon	T	D
		Bald Eagle	T	D
		Peregrine Falcon	T	D
		Piping Plover	T	LT
		Reddish Egret	T	
		Sprague's Pipit		C
		Swallow-tailed Kite	T	
		Louisiana Pigtoe	T	
		Alligator Snapping Turtle	T	
		Atlantic Hawksbill Sea Turtle	E	LE
		Green Sea Turtle	T	LT
		Gulf Saltmarsh Snake	E	LE
		Kemp's Ridley Sea Turtle	E	LE
		Loggerhead Sea Turtle	T	LT
		Northern Scarlet Snake	T	
		Smooth Green Snake	T	
		Texas Diamondback Terrapin	T	
		Texas Horned Lizard	T	
		Timber/Canebrake Rattlesnake	T	
	Galveston	American Peregrine Falcon	T	D
		Attwater's Greater Prairie Chicken	E	LE
		Bald Eagle	T	
		Eskimo Curlew	E	LE
		Peregrine Falcon	T	D
		Piping Plover	T	LT
		Reddish Egret	T	
		Louisiana Black Bear	T	LT
		Red Wolf	E	LE
		West Indian Manatee	E	LE
		Alligator Snapping Turtle	T	
		Atlantic Hawksbill Sea Turtle	E	LE
		Green Sea Turtle	T	LT
		Gulf Saltmarsh Snake	E	LE
		Kemp's Ridley Sea Turtle	E	LE
		Leatherback Sea Turtle	E	LE
		Loggerhead Sea Turtle	T	LT

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Species	State Status	Federal Status
		Texas Diamondback Terrapin	T	
		Texas Horned Lizard	T	
		Timber/Canebrake Rattlesnake	T	
	Harris	Houston Toad	E	LE
		American Peregrine Falcon	T	D
		Peregrine Falcon	T	D
		Bald Eagle	T	
		Red-cockaded Woodpecker	E	LE
		Louisiana Black Bear	T	LT
		Rafinesque's Big-eared Bat	T	
		Louisiana Pigtoe	T	
		Sandbank Pocketbook	T	
		Texas Pigtoe	T	
		Alligator Snapping Turtle	T	
		Green Sea Turtle	T	LT
		Kemp's Ridley Sea Turtle	E	LE
		Leatherback Sea Turtle	E	LE
		Loggerhead Sea Turtle	T	LT
		Smooth Green Snake	T	
		Texas Horned Lizard	T	
		Timber/Canebrake Rattlesnake	T	
		Texas Prairie Dawn	E	LE
	Jasper	American Peregrine Falcon	T	D
		Bachman's Sparrow	T	
		Bald Eagle	T	
		Peregrine Falcon	T	D
		Piping Plover	T	LT
		Red-cockaded Woodpecker	E	LE
		Sprague's Pitpit		C
		Swallow-tailed Kite	T	
		Black Bear	T	T/SA
		Louisiana Black Bear	T	LT
		Rafinesque's Big-eared Bat	T	
		Red Wolf	E	LE
		Louisiana Pigtoe	T	
		Sandbank Pocketbook	T	
		Southern Hickorynut	T	
		Texas Heelsplitter	T	
		Texas Pigtoe	T	
		Alligator Snapping Turtle	T	
		Louisiana Pine Snake	T	C
		Northern Scarlet Snake	T	
		Timber/Canebrake Rattlesnake	T	
		Navasota Ladies'-tresses	E	LE
		Neches River Rose-mallow		C
	Jefferson	American Peregrine Falcon	T	D
		Bald Eagle	T	
		Peregrine Falcon	T	D
		Piping Plover	T	LT

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Species	State Status	Federal Status
		Reddish Egret	T	
		Sprague's Pitpit		C
		Black Bear	T	T/SA
		Louisiana Black Bear	T	LT
		Rafinesque's Big-eared Bat	T	
		Red Wolf	E	LE
		Louisiana Pigtoe	T	
		Sandbank Pocketbook	T	
		Southern Hickorynut	T	
		Texas Heelsplitter	T	
		Texas Pigtoe	T	
		Alligator Snapping Turtle	T	
		Atlantic Hawksbill Sea Turtle	E	LE
		Green Sea Turtle	T	LT
		Gulf Saltmarsh Snake	E	LE
		Kemp's Ridley Sea Turtle	E	LE
		Leatherback Sea Turtle	E	LE
		Loggerhead Sea Turtle	T	LT
		Northern Scarlet Snake	T	
		Texas Horned Lizard	T	
		Timber/Canebrake Rattlesnake	T	
	Newton	American Peregrine Falcon	T	D
		Bachman's Sparrow	T	
		Bald Eagle	T	D
		Peregrine Falcon	T	D
		Piping Plover	T	LT
		Red-cockaded Woodpecker	E	LE
		Sprague's Pitpit		C
		Swallow-tailed Kite	T	
		Black Bear	T	T/SA
		Louisiana Black Bear	T	LT
		Rafinesque's Big-eared Bat	T	
		Red Wolf	E	LE
		Louisiana Pigtoe	T	
		Sandbank Pocketbook	T	
		Southern Hickorynut	T	
		Texas Heelsplitter	T	
		Texas Pigtoe	T	
		Alligator Snapping Turtle	T	
		Louisiana Pine Snake	T	C
		Northern Scarlet Snake	T	
		Timber/Canebrake Rattlesnake	T	
	Orange	American Peregrine Falcon	T	D
		Bald Eagle	T	D
		Peregrine Falcon	T	D
		Piping Plover	T	LT
		Sooty Tern	T	
		Sprague's Pitpit		C
		Swallow-tailed Kite	T	

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Species	State Status	Federal Status
		White-faced Ibis	T	
		Louisiana Pigtoe	T	
		Sandbank Pocketbook	T	
		Southern Hickorynut	T	
		Texas Heelsplitter	T	
		Texas Pigtoe	T	
		Alligator Snapping Turtle	T	
		Northern Scarlet Snake	T	
		Texas Horned Lizard	T	
		Timber/Canebrake Rattlesnake	T	
	TX State Codes: E = Endangered; T = Threatened			

TABLE 5 - SPECIES OF CONCERN

Federal Status Codes

Code	Description
LE	Listed Endangered
LT	Listed Threatened
C	Candidate for listing
D	Delisted
T/SA	Threatened by Similarity of Appearance

TABLE 6 - FEDERAL STATUS CODES

Wetlands

The following table identifies those wetlands in close proximity to pipelines within the Houston Response Zone. This listing should not be considered complete as classifications and declarations change. The National Wetlands Inventory database should be consulted for the most up to date information in the event of a pipeline release. The NWI can be found at: www.fws.gov/wetlands/data/google-earth.html/

State	County/Parish	Map Sheet (s)	*Wetland Code (s)
Arkansas	Chicot		PFO1A, PFO1/2F, PEMA, R2UBH
Illinois	Clay		PUBGh, PFO1A, PEMA, PFO1C, R2UBHx, L1UBHh
	Coles		PUBGh, PFO1A, PEMA, PFO1C, R2UBHx, L1UBHh
	Cumberland		PUBGh, PFO1A, PEMA, PFO1C, R2UBHx, L1UBHh
	Douglas		PEMAf, PUBGx, PFO1A, PFO1C, PEMA, PUBF, R2UBH
	Effingham		PUBGh, PFO1A, PEMA, PFO1C, R2UBHx, L1UBHh
	Franklin		PFO1A, PEMFH, PUBGH, R2UBH, PFO1C, L1UBHh
	Hamilton		PUBGh, PFO1A, PEMA, PFO1C
	Jefferson		PFO1A, PEMFH, PEMA, PUBGH, R2UBH, PFO1C, L1UBHh
	Johnson		PFO1A, PEM/SS1C, PFO1C, PFO/SS1C, PEMC, PFO6F, PEMA, PSS1A, L1UBHh
	Marion		PFO1A, PEMA, PUBGH

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Map Sheet (s)	*Wetland Code (s)
	Massac		PFO1A, PFO1Ah, PSS1Ch, L1UBHh
	Pulaski		PFO1A, PFO1C, PEM/SS1C, PFO1Ah, PSS1Ch, L1UBHh
	Shelby		L1UBHh
	Wayne		PUBGh, PFO1A, PEMA, PFO1C, R2UBHx, L1UBHh
	Williamson		PFO1A, PUBG, PEMA, L1UBHh
Kentucky	Ballard		PFO1A, PUBHx, PUBHh, PSS1C
	Carlisle		PFO1A, PUBHh, PSS1A, PEM1A, PFO/SS1F, PAB3H, PUBHx, PSS/EM1, PFO1A
	Fulton		PFO1A, PUBHx
	Hickman		PFO1A, PUBHh, PFO1C, PEM1C, PFO1/SS1F, PEM1F
	McCracken		PFO1A, PUBHx, L1UBHh, PFO1C, PEM1C, PSS1A, PEM1A
Louisiana	Ascension		PFO1A, PF O2/1F, FPO1/2C
	Beauregard		R2UBH, FPO1A, PFO1Ch, PSS1A
	Caldwell		PFO4/1A, PFO1A, R2ABH, POWF, PSS1A, PFO, R2UBH
	East Baton Rouge		PFO1Ad, PUBHx, PFO1A, POWF, R2OWH
	East Carroll		PFO4/1A, PFO1A, R2ABH, POWF, PSS1A, PFO, R2UBH
	East Feliciana		FPO1A, PEM1A, POWH, POWF, R2OWH
	Grant		PFO4/1A, PFO1A, R2ABH, POWF, PSS1A
	LaSalle		PFO4/1A, PFO1A, R2ABH, POWF, PSS1A
	Lafourche		PFO1Ad, PEM1Ch, FPO1A, PFO1C, R2UBH, PFO1F, PFO1/2F, PEM1C, PFO1C, PEM1F, L2UBH, PFO2/1F, PAB4H, E1UBL6, E2EM1P6, E1UBL5, E2EM1N4, E1UBL4, M1UBL4
	Livingston		PFO1A, PFO1C
	Rapides		R2UBH, FPO1A, PFO1Ch, PSS1A, R2OWH, PFO1/2F
	Richland		PFO4/1A, PFO1A, R2ABH, POWF, PSS1A, PFO, R2UBH
	St. Helena		PFO1A, PFO1C
	St. James		PFO1Ad, PEM1Ch, FPO1A, PFO1C, R2UBH, PFO1F, PFO1/2F, PEM1C, PFO1C
	St. John the Baptist		PAB4H, PFO1F, PFO2F, PFO1C, PSS1A, PFO1A, R2UBH, PEM1C, PUBHx
	Vernon		R2UBH, FPO1A, PFO1Ch, PSS1A
	West Carroll		PFO4/1A, PFO1A, R2ABH, POWF, PSS1A, PFO, R2UBH
Mississippi	Amite		PFO1A, PUBFh
	Bolivar		PFO1A
	Carroll		PFO1A, L1UBHh
	Copiah		PFO1A, PUBFh, PEMA
	DeSoto		PFO1A, PFO1Ad, R2UBHx
	Franklin		PFO1A, PUBFh, PEM1A

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HOUSTON RESPONSE ZONE
ENVIRONMENTAL SENSITIVITIES
WORST CASE DISCHARGE / HCAs / USAs

State	County/Parish	Map Sheet (s)	*Wetland Code (s)
	Grenada		PFO1A,R2UBH, L1UBKx, PUBF
	Hinds		PFO1A, PUBFh, PEMA
	Holmes		PFO1A, PEM1C, PUBHh, PSS1A, PEM1F, L1UBFx
	Lincoln		FO1A, PUBFh
	Madison		PFO1A, R2UBH, PUBH, PEMA
	Marshall		PFO1A, PUSAx
	Panola		PFO1A, PUBHh, R2USAx, R2UBH
	Quitman		PFO1A, R2UBHx, PFO1C, PEM1A
	Sunflower		PFO1A, PEMF, PUBKh, R2UBH
	Tallahatchie		PFO1A, R2UBHx, PFO1C, PSS1C, PSS1A, PSS1F, PEM1A
	Tate		PFO1A, PUSAx
	Washington		PFO1A, PEMA, PFO1/2F, R2UBH, PFO1Ad
	Yalobusha		PFO1A, R2UBHx, PFO1C, PSS1C, PSS1A, PSS1F, PEM1A
	Yazoo		PFO1A, R2UBH, PUBH, PEMA
Tennessee	Crocket		PFO1A, PFO2G, PFO6F, PEM1C, PFO6C
	Dyer		PFO1A, PFO1F, PUBHh, PFO6F, PFO5F, PEM1A, R2UBH
	Fayette		PFO1A, PFO1F, PFO1C, PFO6F, PUBHh, PEM1C, R2UBH, PEM1F, L1UBHh, PFO6Fh
	Gibson		PFO1A, PRO5F, PFO6C, PEM1A, PFO1C, PEM1F, PFO1C, PSS1F, PUB/FO2F, PSS6/EM1F, PFO5/6F
	Haywood		PFO1A, PFO1C, PEM1A, PFO6F, R2UBH
	Lauderdale		PFO1A, PEM1A, R2UBH, PFO1C
	Obion		PFO1A, PRO1C, PFO6C, PSS6F, PFO6F, PEM1F, R2UBHx, PUBF, PEM1A
	Shelby		PFO1A, PRO1F, PFO1C, PFO6F
	Tipton		PFO1A, PRO1C, PRO1F, PEM1A
Texas	Brazoria		E1UBL, E2EM1N, PEMF, PSS1A, E2EM1P, R1UBV, R2UBH
	Chambers		R2UBHx, PEM1Ah, PEM1Ax, PEM1A, PSS1A, PUBHx, L1UBKx
	Galveston		L1UBHh, PFO1A, R2UBHx, PSS1A, PEM1A, PUBFh, E2EM1N, E1UBL, PUBHx
	Harris		E1UBL, L1UBHx, PFO1A, PEM1A, PUBHx, R2UBHx, L2USKh, E2EM1Ps, E2USMh, PFO1A
	Jasper		PFO1C, PEM1C
	Jefferson		R2UBH, PEM1Khs, PFO1A, PEMHx, L1UBHx, PUMKx, PEM1Kx
	Newton		PFO1C, PEM1C, PFO1/2F
	Orange		PFO1A, PEM1A, PEM1Fx, PUBHx, PEM1F, L1UBH, R2UBH

TABLE 7 – WETLANDS

*For complete descriptions of the wetland codes in Table 7 please refer to the National Wetlands Inventory Codes at: www.fws.gov/wetlands/data/wetland-codes.html/

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Environmentally Sensitive Areas

There are a number of environmentally sensitive areas along the pipeline route within the Houston Response Zone. Potentially affected area within a five mile radius of the pipeline are listed as follows

Area	Map Sheet (s)	State	County (ies)/Parish (es)	Operating Area (s)
Shawnee National Forest	26	IL	Johnson	Patoka
Lake of Egypt	26	IL	Johnson, Williamson	Patoka
Crab Orchard National Wildlife Refuge	26	IL	Williamson	Patoka
Homochitto National Forest	13	MS	Franklin	St. James
Holly Springs National Forest	19, 21	MS	Yalobusha	Mid-South
Enid Lake	21	MS	Yalobusha	Mid-South
Hillside Wildlife Refuge	20	MS	Holmes	Mid-South
Sardis Lake	21	MS	Panola	Mid-South
Grenada Lake	19	MS	Grenada	Mid-South
Hatchie National Wildlife Refuge	23	TN	Haywood	Mid-South
Reelfoot National Wildlife Refuge	25	TN	Obion	Mid-South
Brazoria National Wildlife Refuge	6, 9	TX	Brazoria	Pasadena
Kisatchie National Forest	14	LA	Vernon, Rapides	Mid-South
Yazoo National Wildlife Refuge	20	MS	Washington	Mid-South

TABLE 8 - ENVIRONMENTALLY SENSITIVE AREAS

Other Waterways

There are a number of other waterways and lakes which are crossed by or in close proximity to the pipeline route which could potentially be impacted by a pipeline release but are not classified as commercially navigable waterways. These waterways are sub-divided into two categories; 1) Significant and, 2) Small waterways and lakes.

Significant Waterways and Lakes

Bocuf River

Map Sheet(s):	17, 18
Operational Area(s):	Mid-South
State(s):	Louisiana
Parish (es):	LA – Caldwell, Richland
Waterway Size:	Average width of 300 – 400 feet
Adjacent Land Use:	Rural and low density residential
Crossing Characteristics:	The Boeuf River spill scenario would occur in a relatively isolated aquatic area that is bordered on both sides by agricultural, forest, and wetlands. The topographic profile of the area is relatively flat; however, any spill runoff would have the

	potential of flowing to the south within the channel of the river. The waterway is primarily used for recreational purposes and supports fish and aquatic life.
Downstream Critical Areas:	None noted

Wolf River

Map Sheet(s):	23
Operational Area(s):	Mid-South
State(s):	Tennessee
County (ies):	Fayette
Waterway Size:	Average width of 10 – 50 feet
Adjacent Land Use:	Rural with low density residential
Crossing Characteristics:	The Wolf River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands. The topographic profile of the area is relatively flat; however, any spill runoff would have the potential of flowing to the west within the channel of the river. The Wolf River is used for public and industrial water supplies. There are two wellhead protection areas within the river channel which provide water for Collierville and Germantown. The waterway is also used for recreational and irrigation purposes and supports fish and aquatic life.
Downstream Critical Areas:	Collierville – 3.0 miles Germantown – 8.0 miles Memphis – 11.0 miles

Obion River

Map Sheet(s):	25
Operational Area(s):	Mid-South
State(s):	Tennessee
County (ies):	Obion
Waterway Size:	Average width of 120 – 150 feet
Adjacent Land Use:	Rural with low density residential
Crossing Characteristics:	The Obion River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands and not considered as a Commercially Navigable Waterway. The Obion River is considered as a Commercially Navigable Waterway approximately 7.0 miles downstream from the pipeline crossing. The topographic profile of the area is relatively flat; however, any spill runoff would have the potential of flowing to the

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	southwest within the channel of the river. There is one wellhead protection area within the river channel which provide water for the Obion Water Department. The waterway is also used for recreational and irrigation purposes and supports fish and aquatic life.
Downstream Critical Areas:	Obion County – 0.6 miles

Lake of Egypt

Map Sheet(s):	26
Operational Area(s):	Patoka
State(s):	Illinois
County (ies):	Johnson
Waterway Size:	Average width of 0.25 – 1.0 miles
Adjacent Land Use:	Rural, recreational with low density residential
Crossing Characteristics:	Potential runoff in the area of the Lake of Egypt would be into the lake as surrounding topography would direct a spill towards the lake. Lake of Egypt is a man-made lake of approximately 2,300 acres which is considered prime fishing, boating, and recreational water. There are a number of full service marinas, campgrounds, and other recreational amenities around the lake. The lake is surrounded by the Shawnee National Forest.
Downstream Critical Areas:	None noted (Lake of Egypt only)

Sabine River

Map Sheet(s):	11
Operational Area(s):	Mid-South
State(s):	Louisiana, Texas
County (ies):	TX – Newton
Parish (es):	LA - Beauregard
Waterway Size:	Average width of 75 – 100 feet
Adjacent Land Use:	Rural with some residential development
Crossing Characteristics:	The Sabine River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands in particular the Black Marsh. The topographic profile of the area is relatively flat; however, any spill runoff would have the potential of flowing to the south within the channel of the river. There are no documented wellhead protection areas or water intakes within fifteen miles of the crossing location. The waterway is also used

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	for recreational and irrigation purposes and supports fish and aquatic life.
Downstream Critical Areas:	Deweyville – 13.0 miles

Crab Orchard Lake

Map Sheet(s):	26
Operational Area(s):	Patoka
State(s):	Illinois
County (ies):	Williamson
Waterway Size:	Average width of 0.25 – 1.0 miles
Adjacent Land Use:	Rural, recreational with low density residential
Crossing Characteristics:	Potential runoff in the area of the Lake of Egypt would be into the lake as surrounding topography would direct a spill towards the lake. Lake of Egypt is a man-made lake of approximately 6,900 acres which is considered prime fishing, boating, and recreational water. There are a number of full service marinas, campgrounds, and other recreational amenities around the lake. The lake is the centerpiece of the Crab Orchard National Wildlife Refuge.
Downstream Critical Areas:	None noted (Crab Orchard Lake only)

Tallahatchie River

Map Sheet(s):	21, 22
Operational Area(s):	Mid-South
State(s):	Mississippi
County (ies):	Panola
Waterway Size:	Average width of 250 – 300 feet
Adjacent Land Use:	Rural with some residential development
Crossing Characteristics:	The Tallahatchie River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands. The topographic profile of the area drains towards the river and a release would have the potential of flowing to the southwest within the channel of the river. The Tallahatchie River is a tributary to the Mississippi River. The waterway is also used for recreational and irrigation purposes and supports fish and aquatic life.
Downstream Critical Areas:	Batesville – 8.0 miles

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Yocona River

Map Sheet(s):	21, 22
Operational Area(s):	Mid-South
State(s):	Mississippi
County (ies):	Tallahatchie, Yalobusha
Waterway Size:	Average width of 100 – 150 feet
Adjacent Land Use:	Rural with some residential development
Crossing Characteristics:	The Yocona River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands. The topographic profile of the area drains towards the river and a release would have the potential of flowing to the southwest within the channel of the river. The waterway is also used for recreational and irrigation purposes and supports fish and aquatic life.
Downstream Critical Areas:	None Noted

Yalobusha River

Map Sheet(s):	19, 20
Operational Area(s):	Mid-South
State(s):	Mississippi
County (ies):	Grenada
Waterway Size:	Average width of 100 – 250 feet
Adjacent Land Use:	Rural with some residential development
Crossing Characteristics:	The Yalobusha River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands. The topographic profile of the area drains towards the river and a release would have the potential of flowing to the southwest within the channel of the river. The waterway is also used for recreational and irrigation purposes and supports fish and aquatic life.
Downstream Critical Areas:	Grenada

Big Black River

Map Sheet(s):	17
Operational Area(s)	Mid-South
State(s):	Mississippi
County (ies):	Yazoo, Madison
Waterway Size:	Average width of 150 – 300 feet
Adjacent Land Use:	Rural with some residential development

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Crossing Characteristics: The Big Black River spill scenario would occur in an aquatic area that is bordered on both sides by wetlands. The topographic profile of the area drains towards the river and a release would have the potential of flowing to the southwest within the channel of the river. The Big Black River is a Mississippi River tributary. The waterway is also used for recreational and irrigation purposes and supports fish and aquatic life.

Downstream Critical Areas: None Noted

Small Waterways and Lakes

Waterway Name	Map Sheet (s)	State	County/Parish	Operating Area (s)
Macon Bayou	20	AR	Chicot	Mid-South
Otter Bayou	20	AR	Chicot	Mid-South
Bear Creek	27	IL	Clay	Patoka
Buck Creek	27	IL	Clay	Patoka
Little Muddy Creek	27	IL	Clay	Patoka
Little Wabash River	27	IL	Clay	Patoka
Panther Creek	27	IL	Clay	Patoka
Raccoon Creek	27	IL	Clay	Patoka
Crabapple Creek	28	IL	Coles	Patoka
Kaskaskia River	28	IL	Coles	Patoka
Lake Mattoon	28	IL	Coles	Patoka
Little Wabash River	28	IL	Coles	Patoka
Whiskey Creek	28	IL	Coles	Patoka
Brush Creek	28	IL	Cumberland	Patoka
Green Creek	28	IL	Cumberland	Patoka
Henry Creek	28	IL	Cumberland	Patoka
Lake Mattoon	28	IL	Cumberland	Patoka
Long Pole Creek	28	IL	Cumberland	Patoka
Second Salt Creek	28	IL	Cumberland	Patoka
Kaskaskia River	28	IL	Douglas	Patoka
Bishop Creek	28	IL	Effingham	Patoka
Dietrich Creek	28	IL	Effingham	Patoka
First Salt Creek	28	IL	Effingham	Patoka
Little Bishop Creek	27	IL	Effingham	Patoka
Little Salt Creek	28	IL	Effingham	Patoka
Lucas Creek	27	IL	Effingham	Patoka
Andy Creek	26	IL	Franklin	Patoka
Big Muddy River	26	IL	Franklin	Patoka
Middle Fork Big Muddy River	26	IL	Franklin	Patoka
Big Creek Drain	27	IL	Hamilton	Patoka
Ewing Creek	26	IL	Hamilton	Patoka
Hogg Creek	26	Il	Hamilton	Patoka
Rend Lake	27	IL	Hamilton	Patoka
Shelton Creek	27	IL	Hamilton	Patoka
Tenmile Creek	27	IL	Hamilton	Patoka

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Waterway Name	Map Sheet (s)	State	County/Parish	Operating Area (s)
Buck Creek	27	IL	Jefferson	Patoka
Pierce Creek	27	IL	Jefferson	Patoka
Rayse Creek	27	IL	Jefferson	Patoka
Snow Creek	27	IL	Jefferson	Patoka
Ward Branch	27	IL	Jefferson	Patoka
Cache Creek	26	IL	Johnson	Patoka
Cache River	26	IL	Johnson	Patoka
Cave Creek	26	IL	Johnson	Patoka
Dutchman Creek	26	IL	Johnson	Patoka
Little Cache Creek	26	IL	Johnson	Patoka
Main Ditch	26	IL	Johnson	Patoka
Carlyle Lake	27	IL	Marion	Patoka
Crooked Creek	27	IL	Marion	Patoka
Davidson Creek	27	IL	Marion	Patoka
Deer Creek	27	IL	Marion	Patoka
East Fork Kaskaskia River	27	IL	Marion	Patoka
Hickory Creek	27	IL	Marion	Patoka
Kaskaskia River	27	IL	Marion	Patoka
Louse Run	27	IL	Marion	Patoka
Raccoon Creek	27	IL	Marion	Patoka
Richland Creek	27	IL	Marion	Patoka
Turkey Creek	27	IL	Marion	Patoka
Clifty Creek	26	IL	Pulaski	Patoka
Auxer Cree	27	IL	Wayne	Patoka
Auxier Creek Drain	27	IL	Wayne	Patoka
Dry Fork	27	IL	Wayne	Patoka
Fourmile Creek	27	IL	Wayne	Patoka
Horse Creek	27	IL	Wayne	Patoka
Sam Dale Lake	27	IL	Wayne	Patoka
Skillet Fork	27	IL	Wayne	Patoka
Crab Orchard Creek	26	IL	Williamson	Patoka
Crab Orchard Lake	26	IL	Williamson	Patoka
Lake Creek	26	IL	Williamson	Patoka
Lamb Branch	26	IL	Williamson	Patoka
Pond Creek	26	IL	Williamson	Patoka
Saline Creek	26	IL	Williamson	Patoka
Buckler Creek	25	KY	Ballard	Mid-South
Little Humphrey Creek	26	KY	Ballard	Mid-South
Mayfield Creek	25	KY	Ballard	Mid-South
Stovall Creek	26	KY	Ballard	Mid-South
Horn Creek	25	KY	Carlisle	Mid-South
Hurricane Creek	25	KY	Carlisle	Mid-South
West Fork Mayfield Creek	25	KY	Carlisle	Mid-South
Little Bayou de Chien	25	KY	Fulton	Mid-South
Bayou de Chien	25	KY	Hickman	Mid-South
Brush Creek	25	KY	Hickman	Mid-South
Cane Creek	25	KY	Hickman	Mid-South
Obion Creek	25	KY	Hickman	Mid-South
Nasty Creek	26	KY	McCracken	Mid-South

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Waterway Name	Map Sheet (s)	State	County/Parish	Operating Area (s)
Newtons Creek	26	KY	McCracken	Mid-South
Amite River Diversion Canal	10	LA	Ascension	St. James
Bayou Conway	10	LA	Ascension	St. James
Black Bayou	10	LA	Ascension	St. James
Hackett Canal	10	LA	Ascension	St. James
New River Canal	10	LA	Ascension	St. James
Panama Canal	10	LA	Ascension	St. James
Saveiro Canal	10	LA	Ascension	St. James
Barnes Creek	11	LA	Beauregard	Mid-South
Bear Head Creek	11	LA	Beauregard	Mid-South
Beckwith Creek	11	LA	Beauregard	Mid-South
Caney Creek	11	LA	Beauregard	Mid-South
Cole Creek	11	LA	Beauregard	Mid-South
Cow Pen Creek	11	LA	Beauregard	Mid-South
Crooked Creek	11	LA	Beauregard	Mid-South
Dry Creek	11	LA	Beauregard	Mid-South
Hams Creek	11	LA	Beauregard	Mid-South
Hargroves Branch	11	LA	Beauregard	Mid-South
Hickory Branch	11	LA	Beauregard	Mid-South
Horse Branch	11	LA	Beauregard	Mid-South
Howard Creek	11	LA	Beauregard	Mid-South
Hurricane Creek	11	LA	Beauregard	Mid-South
Indian Branch	11	LA	Beauregard	Mid-South
Indian Creek	11	LA	Beauregard	Mid-South
Johns Gully	11	LA	Beauregard	Mid-South
Little Caney Creek	11	LA	Beauregard	Mid-South
Little Dry Creek	11	LA	Beauregard	Mid-South
Shoals Creek	11	LA	Beauregard	Mid-South
Sugar Creek	11	LA	Beauregard	Mid-South
West Caney Branch	11	LA	Beauregard	Mid-South
Whiskey Child Creek	11	LA	Beauregard	Mid-South
Wild Cow Cree	11	LA	Beauregard	Mid-South
Windham Creek	11	LA	Beauregard	Mid-South
Bayou Lafourche	18	LA	Caldwell	Mid-South
Black Bayou	14	LA	Caldwell	Mid-South
Ouachita River	18	LA	Caldwell	Mid-South
Sandy Creek	14	LA	Caldwell	Mid-South
Amite River	10	LA	East Baton Rouge	St. James
Bayou Baton Rouge	10	LA	East Baton Rouge	St. James
Bayou Manchac	10	LA	East Baton Rouge	St. James
Clay Cut Bayou	10	LA	East Baton Rouge	St. James
Cooper Bayou	10	LA	East Baton Rouge	St. James
Cypress Bayou	10	LA	East Baton Rouge	St. James
Hurricane Creek	10	LA	East Baton Rouge	St. James
Jones Creek	10	LA	East Baton Rouge	St. James
Lively Bayou	10	LA	East Baton Rouge	St. James
Sandy Creek	10	LA	East Feliciana	St. James
Bayou Patassa	14	LA	Grant	Mid-South
Bayou Rigolette	14	LA	Grant	Mid-South

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Waterway Name	Map Sheet (s)	State	County/Parish	Operating Area (s)
Dry Prong Big Creek	14	LA	Grant	Mid-South
Fish Creek	14	LA	Grant	Mid-South
Gray Creek	14	LA	Grant	Mid-South
Little Creek	14	LA	Grant	Mid-South
Mill Creek	14	LA	Grant	Mid-South
Bayou Lafourche	7	LA	Lafourche	Garyville
Bayou Moreau	7	LA	Lafourche	Garyville
Bayou Raphael	7	LA	Lafourche	Garyville
Bayou Vacherie	7	LA	Lafourche	Garyville
Bowie Canal	7	LA	Lafourche	Garyville
Canal Tisamond Forel	7	LA	Lafourche	Garyville
Company Canal	7	LA	Lafourche	Garyville
Godchaux Canal	7	LA	Lafourche	Garyville
Grand Bayou	7	LA	Lafourche	Garyville
Lake Laurier	7	LA	Lafourche	Garyville
SW Louisiana Canal	7	LA	Lafourche	Garyville
West Fork Bayou L'Ours	7	LA	Lafourche	Garyville
Bayou Funny Louis	14	LA	LaSalle	Mid-South
Castor Creek	14	LA	LaSalle	Mid-South
Chickasaw Creek	14	LA	LaSalle	Mid-South
Little River	14	LA	LaSalle	Mid-South
Tarver Creek	14	LA	LaSalle	Mid-South
Colyell Creek	10	LA	Livingston	St. James
Hornsby Creek	10	LA	Livingston	St. James
Little Beaver Dam Creek	10	LA	Livingston	St. James
Bayou Bertrand	14	LA	Rapides	Mid-South
Bayou Boeuf	14	LA	Rapides	Mid-South
Bayou Rapides	14	LA	Rapides	Mid-South
Brown Creek	14	LA	Rapides	Mid-South
Calcasieu River	14	LA	Rapides	Mid-South
Cypress Bayou	14	LA	Rapides	Mid-South
Bee Bayou	17	LA	Richland	Mid-South
Boef River	17	LA	Richland	Mid-South
Cypress Creek	17	LA	Richland	Mid-South
Daves Bayou	17	LA	Richland	Mid-South
Gum Bayou	17	LA	Richland	Mid-South
Little Creek	17	LA	Richland	Mid-South
Muddy Bayou	17	LA	Richland	Mid-South
Black Creek	10	LA	St. Helena	St. James
Greasy Creek	10	LA	St. Helena	St. James
Joiner Creek	10	LA	St. Helena	St. James
Lilley Creek	10	LA	St. Helena	St. James
Pigeon Creek	10	LA	St. Helena	St. James
Rocky Creek	10	LA	St. Helena	St. James
Sandy Run	10	LA	St. Helena	St. James
West Hog Branch	10	LA	St. Helena	St. James
Bayou Citamon	7	LA	St. James	St. James
Blind River	10	LA	St. James	St. James
St. James Canal	7	LA	St. James	St. James

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Waterway Name	Map Sheet (s)	State	County/Parish	Operating Area (s)
McCall Creek	13	MS	Franklin	St. James
Black Creek	19	MS	Grenada	Mid-South
Cane Creek	19	MS	Grenada	Mid-South
Long Creek	19	MS	Grenada	Mid-South
Yalobusha River	19	MS	Grenada	Mid-South
Bakers Creek	17	MS	Hinds	St. James
Bogue Chitto	17	MS	Hinds	St. James
Elda Mill Creek	17	MS	Hinds	St. James
Limekiln Creek	17	MS	Hinds	St. James
Little Bakers Creek	17	MS	Hinds	St. James
Little Tallahalla Creek	17	MS	Hinds	St. James
Snake Creek	17	MS	Hinds	St. James
Straight Fence Creek	17	MS	Hinds	St. James
Tallahalla Creek	17	MS	Hinds	St. James
Black Creek	20	MS	Holmes	Mid-South
Chicopa Creek	20	MS	Holmes	Mid-South
Harland Creek	17	MS	Holmes	Mid-South
Long Creek	20	MS	Holmes	Mid-South
White Creek	20	MS	Holmes	Mid-South
Williams Creek	20	MS	Holmes	Mid-South
Bayou Pierre	13	MS	Lincoln	St. James
Jackson Creek	13	MS	Lincoln	St. James
Burnt Corn Creek	17	MS	Madison	Mid-South
Persimmon Creek	17	MS	Madison	Mid-South
Coldwater River	21	MS	Marshall	Mid-South
Pigeon Roost Creek	21	MS	Marshall	Mid-South
Red Banks Creek	21	MS	Marshall	Mid-South
Arkabutla Creek	22	MS	Panola	Mid-South
Caney Creek	21	MS	Panola	Mid-South
East Floyd Creek	22	MS	Panola	Mid-South
India Creek	22	MS	Panola	Mid-South
Johnson Creek	21	MS	Panola	Mid-South
Jones Creek	21	MS	Panola	Mid-South
Long Creek	21	MS	Panola	Mid-South
Nelson Creek	21	MS	Panola	Mid-South
Peach Creek	22	MS	Panola	Mid-South
Senatobia Creek	21	MS	Panola	Mid-South
Tallahatchie River	21	MS	Panola	Mid-South
Totopha Creek	21	MS	Panola	Mid-South
Wilborn Creek	21	MS	Panola	Mid-South
Bobo Bayou	22	MS	Quitman	Mid-South
Log Bayou	22	MS	Quitman	Mid-South
Opossum Bayou	22	MS	Quitman	Mid-South
Bear Bayou	20	MS	Sunflower	Mid-South
Burrell Bayou	20	MS	Sunflower	Mid-South
Darr Bayou	20	MS	Sunflower	Mid-South
Fox Bayou	20	MS	Sunflower	Mid-South
Lead Bayou	20	MS	Sunflower	Mid-South
Porter Bayou	20	MS	Sunflower	Mid-South

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Waterway Name	Map Sheet (s)	State	County/Parish	Operating Area (s)
Powell Bayou	20	MS	Sunflower	Mid-South
Quiver River	20	MS	Sunflower	Mid-South
Standing Stump Bayou	20	MS	Sunflower	Mid-South
Wild Bill Bayou	20	MS	Sunflower	Mid-South
Ascalmore Creek	19	MS	Tallahatchie	Mid-South
Cassidy Bayou	22	MS	Tallahatchie	Mid-South
Deep Slough	20	MS	Tallahatchie	Mid-South
McSwine Creek	19	MS	Tallahatchie	Mid-South
Simmons Creek	19	MS	Tallahatchie	Mid-South
Tillatoba Creek	19	MS	Tallahatchie	Mid-South
Tillatoba Creek	21	MS	Tallahatchie	Mid-South
Arkabutla Creek	21	MS	Tate	Mid-South
Beartail Creek	21	MS	Tate	Mid-South
Hickahala Creek	21	MS	Tate	Mid-South
James Wolf Creek	21	MS	Tate	Mid-South
Bear Lake	20	MS	Washington	Mid-South
Black Bayou	20	MS	Washington	Mid-South
Bogue Phalia	20	MS	Washington	Mid-South
Deer Creek	20	MS	Washington	Mid-South
Granicus Bayou	20	MS	Washington	Mid-South
Red Bridge Bayou	20	MS	Washington	Mid-South
Sixmile Bayou	20	MS	Washington	Mid-South
Sunflower Bayou	20	MS	Washington	Mid-South
Yocona River	21	MS	Yalobusha	Mid-South
Big Black River	17	MS	Yazoo	Mid-South
Cypress Creek	17	MS	Yazoo	Mid-South
Piney Creek	17	MS	Yazoo	Mid-South
Tesheva Creek	17	MS	Yazoo	Mid-South
Black Creek	23	TN	Crockett	Mid-South
North Fork Forked Deer River	23	TN	Dyer	Mid-South
Parker Branch	25	TN	Dyer	Mid-South
Pond Creek	23	TN	Dyer	Mid-South
Reeds Creek	25	TN	Dyer	Mid-South
South Fork Forked Deer River	23	TN	Dyer	Mid-South
Grays Creek Canal	23	TN	Fayette	Mid-South
Herb Parsons Lake	23	TN	Fayette	Mid-South
Laurel Creek Canal	23	TN	Fayette	Mid-South
Little Cypress Creek Canal	23	TN	Fayette	Mid-South
Loosahatchie River	23	TN	Fayette	Mid-South
Mary's Creek	23	TN	Fayette	Mid-South
Russell Creek	23	TN	Fayette	Mid-South
Wolf River	23	TN	Fayette	Mid-South
Big Muddy Creek	23	TN	Haywood	Mid-South
District Branch	23	TN	Haywood	Mid-South
Little Muddy Creek	23	TN	Haywood	Mid-South
Lost Creek	23	TN	Haywood	Mid-South
Nixon Creek	23	TN	Haywood	Mid-South
Pond Creek	23	TN	Haywood	Mid-South
Davidson Creek	25	TN	Obion	Mid-South

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Waterway Name	Map Sheet (s)	State	County/Parish	Operating Area (s)
Hoosier Creek	25	TN	Obion	Mid-South
Obion River Drainage Canal	25	TN	Obion	Mid-South
East Beaver Creek Canal	23	TN	Tipton	Mid-South
Chocolate Bayou	9	TX	Brazoria	Pasadena
Halls Bayou	9	TX	Brazoria	Pasadena
New Bayou	9	TX	Brazoria	Pasadena
Persimmon Bayou	9	TX	Brazoria	Pasadena
Barbers Hill Canal	9	TX	Chambers	Pasadena
Cedar Bayou	9	TX	Chambers	Pasadena
Basford Bayou	9	TX	Galveston	Pasadena
Carancahua Bayou	9	TX	Galveston	Pasadena
Dickenson Bayou	9	TX	Galveston	Pasadena
Highland Bayou	9	TX	Galveston	Pasadena
Moses Bayou	9	TX	Galveston	Pasadena
Willow Bayou	9	TX	Galveston	Pasadena
Armana Bayou	9	TX	Harris	Pasadena
Big Island Slough	9	TX	Harris	Pasadena
Buffalo Bayou	9	TX	Harris	Pasadena
Clear Creek	9	TX	Harris	Pasadena
Little Vince Bayou	9	TX	Harris	Pasadena
Spring Gully	9	TX	Harris	Pasadena
Taylor Bayou	9	TX	Harris	Pasadena
Johns Gully	12	TX	Jefferson	Mid-South
Neches River	12	TX	Jefferson	Mid-South
Cypress Creek	11	TX	Newton	Mid-South
Nichols Creek	11	TX	Newton	Mid-South
Sabine River	11	TX	Newton	Mid-South
Anderson Gully	11	TX	Orange	Mid-South
Cow Bayou	11	TX	Orange	Mid-South

TABLE 9 - SMALL WATERWAYS AND LAKES

(Return to Table of Contents)

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HOUSTON RESPONSE ZONE
RESPONSE PLAN MAPS

Response Plan Map Set Cover Sheet

System Overview Map

Response Plan Map Index

Worst Case Discharge Overview Map

Worst Case Discharge Detail

Pipeline Map Set

Sheet 6	Sheet 12	Sheet 18	Sheet 24
Sheet 7	Sheet 13	Sheet 19	Sheet 25
Sheet 8	Sheet 14	Sheet 20	Sheet 26
Sheet 9	Sheet 15	Sheet 21	Sheet 27
Sheet 10	Sheet 16	Sheet 22	Sheet 28
Sheet 11	Sheet 17	Sheet 23	Sheet 29

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APPENDIX A
MARTINSVILLE

PHMSA 000117092

MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Name, Address, and Telephone Number of Operator:	Main Office: Marathon Pipe Line LLC 539 South Main Street Findlay, Ohio 45840-3295 419-421-2121 (Voice) 419-421-4018 (Fax) Martinsville Response Zone Office: Marathon Pipe Line LLC 5825 E. Cumberland Rd. Martinsville, Illinois 62442 217-382-4911
Description of Pipeline:	There are several segments ranging in size between gathering lines and 40" in diameter located in the Martinsville Response Zone.
Location of Response Zone:	Within Illinois, Indiana, Kentucky, and Michigan. . See maps in Appendix F for details and Appendix A for a list of counties, local contacts, and notification telephone numbers.
Name and Telephone Number of Qualified Individual (QI):	Shawn Lyon 419-421-4002 (Office) (b) (6) (Cell)
Name and Telephone Number of Alternate Qualified Individual (Alt QI):	Greg Amburgey 217-382-2225 (Office) (b) (6) (Cell)
Basis for Significant and Substantial Harm:	Pipeline is near water intakes and environmentally sensitive areas. It also crosses waterways.
Type of Oil Transported:	Crude oil and refined products

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Worst Case Discharge (Pipeline)

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

[redacted]

MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Clermont Area	• 22" Crude Line from US Route 36 to the Jay County Line, IN • #1-10" Products Line from US Route 36 to the Jay County Line, IN • #2-10" Products Line from US Route 40 to the Jay County Line, IN • RIO 8" Products Line from US Route 36 to the Jay County Line, IN • 12" Crude Line from Lebanon to Indianapolis Refinery • Martinsville - Indianapolis 8" Products Line from State Route 59 to Indianapolis, IN • 10" Products, Wood River Station, IL – Clermont Station, IN • 10" Products, Robinson Refinery, IL – Lima Station, OH • MPL Brownsburg Junction, IN – Indianapolis Terminal, IN Products • Clermont Station, Tank C-2, Cone Roof • Lebanon Station, Tank 18, External Floating Roof • Lebanon Station, Tank 17, External Floating Roof • Lebanon Station, Tank 16, External Floating Roof • Lebanon Station, Tank 14, External Floating Roof • Lebanon Station, Tank 15, External Floating Roof
Indianapolis Terminal (TT&R)	• Indianapolis Station, Tank 135-1, External Floating Roof, Geo-Dome • Indianapolis Station, Tank 135-2, Internal Floating Roof • Indianapolis Station, Tank 50-1, Internal Floating Roof • Indianapolis Station, Tank 55-3, Internal Floating Roof • Indianapolis Station, Tank 55-4, Internal Floating Roof • Indianapolis Station, Tank 80-2, Internal Floating Roof • Indianapolis Station, Tank 400-1, Internal Floating Roof • Indianapolis Station, Tank O-7-1, Internal Floating Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Hammond/Griffith Area	• Muskegon Pipeline10" Products from Griffith, IN to North Muskegon, MI • Wabash 12" Products Line from the crossing of US Route 52 to Griffith, IN • Wabash 12" from Griffith, IN to Hammond, IN • Griffith to Hammond 12" (Loop) • Wolverine 16" from Hammond, IN to Wolverine's Kennedy Station, IN • West Shore 16" from Hammond, IN to West Shore's White Oak Station, IN • Griffith Station, Tank 268-11, Internal Floating Roof • Griffith Station, Tank 80-12, External Floating Roof • Griffith Station, Tank T-1, Internal Floating Roof • Griffith Station, Tank 268-8, VFR • Griffith Station, Tank 120-6, External Floating Roof • Griffith Station, Tank 120-4, External Floating Roof • Griffith Station, Tank 80-3, External Floating Roof • Griffith Station, Tank 80-5, External Floating Roof • Griffith Station, Tank 217-7, Internal Floating Roof • Griffith Station, Tank 80-9, External Floating Roof • Griffith Station, Tank 80-10, Internal Floating Roof • Griffith Station, Tank 35-13, Internal Floating Roof • Griffith Station, Tank 35-14, Internal Floating Roof • Griffith Station, Tank 67-15, Internal Floating Roof • Griffith Station, Tank 67-16, Internal Floating Roof • Griffith Station, Tank 80-17, Internal Floating Roof • Griffith Station, Tank T-18, Internal Floating Roof
Hammond Terminal (TT&R)	• Hammond Terminal, Tank 80-1, Cone Roof • Hammond Terminal, Tank 80-2, Internal Floating, Geodome Roof • Hammond Terminal, Tank 55-3, Internal Floating Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Hammond Terminal (TT&R) (cont.)	• Hammond Terminal, Tank 80-4, Cone Roof • Hammond Terminal, Tank T-5, Internal Floating Roof • Hammond Terminal, Tank 80-6, Internal Floating, Geodome Roof • Hammond Terminal, Tank 80-7, Internal Floating, Geodome Roof • Hammond Terminal, Tank 80-8, Internal Floating Roof • Hammond Terminal, Tank 80-9, Cone Roof • Hammond Terminal, Tank 125-10, Internal Floating Roof • Hammond Terminal, Tank 80-11, Cone Roof • Hammond Terminal, Tank T-13, Internal Floating Roof • Hammond Terminal, Tank 217-14, Internal Floating Roof • Hammond Terminal, Tank 80-15, Internal Floating Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Martinsville Area	• Wabash 12" Products Lines from Clark/Crawford County Line to the IL Route 52 crossing; and from the IL Route 29 crossing to Champaign, IL (except the Robinson refinery) • #1-12" Products Line from Clark/Crawford County Line to Martinsville, IL (except the Robinson refinery) • 12" South from Martinsville, IL to the Clark/Crawford County Line • #1-10" Products Line from the crossing of the Effingham/Cumberland County Line to south of US Route 36 in Parke County, IN • #2-10" Products Line from the Clark/Crawford County Line to the crossing of US Route 40 in Putnam County, IN (Reelsville) (except the Robinson refinery) • RIO 8" Products Line from the east side of the Wabash River to the crossing of US Route 40 in Clay County, IN (except the Robinson refinery) • Martinsville - Indianapolis 8" Products Line from Martinsville, IL to State Route 59 in Indiana • 22" Crude Line from Martinsville, IL to the crossing of US Route 36 in Putnam County, IN • #1 - 20" Crude Line from the Effingham/Jasper County Line to Martinsville, IL • 10" Products Line from the Effingham/Jasper County Line to Martinsville, IL • Martinsville Station, Tank 1276, External Floating Roof • Martinsville Station, Tank 1277, External Floating Roof • Martinsville Station, Tank 1269, External Floating Roof • Martinsville Station, Tank 1270, External Floating Roof • Martinsville Station, Tank 1271, External Floating Roof • Martinsville Station, Tank 1272, Geodome Roof • Martinsville Station, Tank 1268, External Floating Roof • Martinsville Station, Tank 1266, Geodome Roof • Martinsville Station, Tank 1265, Geodome Roof • Martinsville Station, Tank 1267, Geodome Roof • Martinsville Station, Tank 1210, Geodome Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Martinsville Area*(Cont.)*	• Martinsville Station, Tank 1211, External Floating Roof • Martinsville Station, Tank 1212, External Floating Roof • Martinsville Station, Tank 1234, Geodome Roof • Martinsville Station, Tank 1235, Goedome Roof • Martinsville Station, Tank 1278, Internal Floating Roof • Martinsville Station, Tank 1279, Internal Floating Roof • Martinsville Station, Tank 1280, Internal Floating Roof • Martinsville Station, Tank 1283, Internal Floating Roof • Martinsville Station, Tank 19, Geodome Roof
Champaign Terminal	• Tank 12-20, Internal Floating Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Patoka Area	• #1-10" Products Line from the crossing of US Route 127 to the Effingham/Jasper County lines. • 10" Dieterich to Martinsville Products Line, Dieterich Station to the Jasper County line. • #1-20" Crude Line from Patoka, IL to the Effingham /Jasper County line. • #2-20" Crude Line from Patoka, IL to the Effingham /Jasper County line. • 22" Woodpat Crude Line from Illinois Route 127 to Patoka, IL • Centennial 26" Products line, Ohio River to Dieterich Station. • 20" Patoka to Owensboro Crude Line from Patoka Station to the Wayne/Edwards County line. • 40"Capline System from the Ohio River to Patoka Station • Roxanna - Patoka 12" from Route 127 Bond County, Ill. to Patoka Station • #1-24" from Patoka Capline to Patoka Marathon PL • #2-24" from Patoka Capline to Patoka Marathon PL • 16" Patoka Mobile to Patoka Marathon PL • 20" Swingline, Equilon Junction to Patoka Marathon PL • 20" Patoka Marathon PL to Patoka, PAO Station • Patoka Station, Tank 657, External Floating Roof • Patoka Station, Tank 637, External Floating Roof • Patoka Station, Tank 638, External Floating Roof • Patoka Station, Tank 11, External Floating Roof • Patoka Station, Tank 12, External Floating Roof • Patoka Station, Tank 13, External Floating Roof • Patoka Station, Tank 1281, External Floating Roof • Patoka Station, Tank 1282, External Floating Roof • Patoka Station, Tank 1284, External Floating Roof • Patoka Station, Tank 1285, External Floating Roof • Patoka Station, Tank 1301, Internal Floating Roof • Patoka Station, Tank 1302, Internal Floating Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Patoka Capline	• Patoka Capline, Tank 700, External Floating Roof • Patoka Capline, Tank 701,External Floating Roof • Patoka Capline, Tank 702,External Floating Roof • Patoka Capline, Tank 703, External Floating Roof • Patoka Capline, Tank 706, External Floating Roof • Patoka Capline, Tank 707, External Floating Roof • Patoka Capline, Tank 710, External Floating Roof • Patoka Capline, Tank 711, External Floating Roof • Patoka Capline, Tank 712, External Floating Roof • Patoka Capline, Tank 713, External Floating Roof • Patoka Capline, Tank 714, External Floating Roof • Patoka Capline, Tank 715, External Floating Roof • Patoka Capline, Tank 716, External Floating Roof • Patoka Capline, Tank 717, External Floating Roof • Patoka Capline, Tank 718, External Floating Roof • Patoka Capline, Tank 719, External Floating Roof • Patoka Capline, Tank 720, External Floating Roof • Patoka Capline, Tank 722, External Floating Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Stoy Area	• Two Rivers 12" products • Robinson – Mt. Vernon, IN 10" Products • Robinson-Indiana-Ohio 8" products line from Robinson, IL to the Wabash River, Hutsonville, IL • Robinson-Louisville 16" products line from Robinson, IL to the Orange County, IN line. • Princeton-Robinson 4" LPG line from Princeton, IN to Robinson, IL • Princeton-Robinson 8"-6" products line from Princeton, IN to Robinson, IL • Robinson-Lima 10" products line from Robinson, IL to the Clark County, IL line • Wabash 12" products line from Robinson, IL to the Clark County, IL line • Wood River to Clermont System (Robinson-Martinsville 10" segment) Robinson, IL to the Clark County, IL line • Wood River to Clermont System (Martinsville-Robinson 12" south segment) from Clark County, IL line to Robinson, IL • Patoka-Robinson 20" crude system from Jasper County, Ill line to Robinson, Ill. • Patoka-Owensboro 20" crude system from Albion County, Ill. line to Vanderburgh County, In. line • Robinson Crude, Tank 21D-2002, External Floating Roof • Robinson Crude, Tank 21D-2003, External Floating Roof •

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Wood River Area	• Woodpat 22" Crude Line from Wood River to Illinois Route 127 • Wabash 12" Products Line from Hartford, IL to Wood River, IL to Route 29 • #1-10" Products Line from Wood River, IL to Illinois Route 127 • Marathon 8" Products Line from Hartford, IL to Wood River, IL • HWRT 8" Products Line from Hartford, IL to Wood River, IL • Roxpat 12" from Hartford to Route 127, Bond County, IL • Hartford to Wood River Barge Dock 4" Natural Gas • Wood River Station, Tank 1262, External Floating Roof • Wood River Station, Tank 1274, External Floating Roof • Wood River Station, Tank 1286, External Floating Roof • Wood River Station, Tank 1287, External Floating Roof • Wood River Station, Tank 1288, External Floating Roof • Wood River Station, Tank 627, Internal Floating Roof • Wood River Station, Tank 1298, External Floating Roof • Wood River Station, Tank 1297, External Floating Roof • Wood River Station, Tank 1261, External Floating Roof • Wood River Station, Tank 1256, External Floating Roof

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

Wood River Barge Dock Area	• Wood River Barge Dock and delivery/receipt lines.
Robinson Refinery	• Robinson Crude Metering, Tank 2002 External Floating Roof • Robinson Crude Metering, Tank 2003 External Floating Roof
Mt. Vernon Terminal	• Tank M-1

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MARTINSVILLE RESPONSE ZONE
GENERAL INFORMATION

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

MPL CONTACTS

Emergency Number		800-537-6644
Operations Vice President		
Shawn Lyon	Office:	419-421-4002
Findlay, OH	Home:	(b) (6)
	Cell:	
Region Manager		
Greg Amburgey	Office:	217-382-2225
Martinsville, IL	Cell:	(b) (6)
Clermont Area		
Mark Ritter	Office:	317-291-9460
Area Manager	Cell:	(b) (6)
Scott Burnett	Office:	317-291-9460
Operations Supervisor	Cell:	(b) (6)
Griffith Area		
Gary Grubb	Office:	219-934-8528
Area Manager	Cell:	(b) (6)
Tom Hobson	Office:	219-934-8538
Operations Supervisor	Cell:	(b) (6)
Martinsville Area		
Kevin Johnson	Office:	217-382-2215
Area Manager	Cell:	(b) (6)
Brandon Mobley	Office:	217-382-2234
Operations Supervisor	Cell:	(b) (6)
Patoka Area		
Steve Hawkins	Office:	618-592-3611
Area Manager	Cell:	(b) (6)
Jonathan Kocher	Office:	618-432-7223
Operations Supervisor	Cell:	(b) (6)
Derek Sheets	Office:	618-432-5747
Operations Supervisor	Cell:	(b) (6)

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Stoy Area

Michael Howard	Office:	419-421-2167
Area Manager	Cell:	(b) (6)
	Office:	
Operations Supervisor	Cell:	

Wood River Area

Bill Coulter	Office:	618-254-1112
Area Manager	Cell:	(b) (6)
Steve Sidwell	Office:	618-254-1112
Operations Supervisor	Cell:	(b) (6)

ES&R Representatives - Safety

Johnathan Scott	Office:	606-921-6934
Wood River, IL	Cell:	(b) (6)
Chad Hunter	Office:	217-382-2264
Martinsville, IL	Cell:	(b) (6)
Levi Edwards	Office:	317-291-9460
Indianapolis, IN	Cell:	(b) (6)

ES&R Representatives - Environmental

Bryant Griggs	Office:	217-382-4911
Martinsville, IL		

Human Resources Representative

Cam Thoroughman	Office:	217-382-2219
Martinsville, IL	Cell:	(b) (6)

Operational Accounting

Brian Kreuz	Office:	419-421-2411
Findlay, OH		

Logistics Representative

Craig Kuhlman	Office:	419-421-4508
Findlay, OH	Cell:	(b) (6)

Corporate Emergency Response Team 1-877-MAPLINE
(CERT activates EST)

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

MPL LLC Counsel
Woody Gearheart — Office: 419-421-2386
Findlay, OH — Cell: (b) (6)

Right of Way Specialist
Andrew Oswalt — Office: 217-382-2247
Cell: (b) (6)

Field Services Manager
Ed May — Office: 419-421-3704
Findlay, OH — Cell: (b) (6)

Champaign Terminal Manager
Brian Hyde — Office: 217-352-6215
Champaign, IN — Cell: (b) (6)

Hammond LP Terminal Manager
Bob Winget — Office: 219-932-1024
Hammond, IN — Cell: (b) (6)

Indianapolis LP Terminal Manager
Elizabeth Searcy — Office: 317-872-5456
Indianapolis, IN — Cell: (b) (6)

Mt. Vernon Terminal Manager
Kevin Klinger — Office: 812-425-3195
Mt. Vernon, IN — Cell: (b) (6)

Federal Government	National Response Center	800-424-8802 202-267-2675
	PHMSA Pipeline Safety Central Region Office	816-329-3800
	U.S. Fish and Wildlife	800-344-WILD (9453)
	OSHA	800-321-OSHA (6742)
	EPA Region V, 24 hr. Emergency Hotline In Region V States	312-353-2000 800-621-8431
	USCG	

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

	National Command Center	800-DAD-SAFE 202-372-2100
	St. Louis	314-539-3091
	ORSANCO	513-231-7719
State Government	**Illinois**	
	Emergency Management Agency	800-782-7860 (in state) 217-782-7860 (24 hour)
	Environmental Protection Agency	217-782-3637 (Business)
	Emergency Response Commission	217-782-8712 (Business)
	One Call	800-892-0123 or 811
	Indiana	
	IDEM	888-233-7745 (in state) 317-233-7745
	One Call	800-382-5544
	Kentucky	
	Natural Resources and Environmental Protection Hotline	502-564-6940 502-564-2340
	Disaster and Emergency Services	502-564-7815
	Public Service Commission Hotline	502-564-3940 800-772-4636
	KY Department of EPA	502-564-0323
	KY Emergency Management Operations	800-255-2587
	Division of Water Quality	502-564-2380
	Louisville	502-429-7122
	Columbia	270-384-4734
	Frankfort	502-564-3358
	Hazard	606-435-6022
	Madisonville	270-824-7529
	Morehead	606-783-8655
	Division of Air Quality	800-AIR IN KY
	Ashland	606-929-5285
	Frankfort	502-564-3358

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

	Hazard	606-435-6022
	Owensboro	270-687-7304
	One Call	800-752-6007
Michigan		
	State Police Dispatch	800-292-4706 (in state) 517-373-7660
	PEAS	800-292-4706 (in state) 517-373-7660 (out of state)
	MI Public Service Commission	517-241-6180
	MI Dept. of Environmental Quality	517-373-7917
	Fire Marshall	888-684-3473
	One Call	800-482-7171

Aerial Patrol

Primary Pilot
Martin Belcher — Cell: (b) (6) [redacted]
Email: martin@kcsiaerialpatrol.com

Chief Pilot-Midwest
Jordan Cole — Cell: (b) (6) [redacted]
Email: Jordan@kcsiaerialpatrol.com

*NOTE: In addition to those listed above, the **Civil Air Patrol (CAP)** may also be used for aerial patrol, but they must be requested through the Coast Guard. CAP has varying capabilities in each state.*

OSRO's **Clermont Area**
FIRST RESPONDER

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
Best Environmental Daleville, IN	1-888-561-2378	Small	1hr	None
Summit Environmental Services, INC. Indianapolis, IN Evansville, IN	877-421-1744	Small/ Medium	1hr	None
Bolin Enterprises Casey, IL	217-232-4533	Medium	2hr	None

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Clean Harbors Cincinnati, OH Cleveland, OH Taylor, MI Chicago, IL	800-645-8265	WCD	2hr	Pittsburgh COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline
Veolia Environmental Services Huber Heights, OH Germantown, WI	800-688-4005	WCD	4hr	Ohio Valley COTP River MM, W1, W2, W3 Inland MM, W2, W3
MPC Detroit, MI Burton, MI	800-521-8232	WCD	5hr	Detroit COTP Inland MM, W2 Rivers MM, W1, W2, W3 Grt. Lake MM, W1, W2, W3

CONSTRUCTION

Roberts Pipeline Inc.	800-790-0093	Construction
Foltz Welding	618-432-7777	Construction
Bolins Enterprises Inc.	800-650-7834	Construction

OSRO's **Griffith Area**
FIRST RESPONDER

OSRO Address	**Telephone Number**	**Size of Spill**	**Response Time**	**USGC Classification**
Clean Harbors Griffith, IN Chicago, IL Cincinnati, OH Cleveland, OH	800-645-8265	Small/ Medium/ WCD	1hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3
Trans Environmental Loves Park, IL	815-885-4840	Medium	3hr	None
Veolia Environmental Services Huber Heights, OH Germantown, WI	800-688-4005	WCD	3hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3 Grt Lake MM, W1, W2, W3
Marine Pollution Control Detroit, MI Burton, MI	800-521-8232	WCD	5hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM,W1, W2, W3 Grt. Lake W1, W2, W3

CONSTRUCTION

Great Lakes Contracting	616-846-8888	Construction
Pro-Weld	219-922-8861	Construction

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Roberts Pipeline Inc.	800-790-0093	Construction

OSROs **Patoka Area**
FIRST RESPONDER

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
Veolia Environmental Services Mitchell, IL Germantown, WI Huber Heights, OH St. Louis, MO	800-688-4005	Small/WCD	2hr	Upper Mississippi Rivers MM, W1, W2, W3 Inland MM, W2, W3 Chicago COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3 Grt. Lakes MM, W1, W2, W3
Bolin Enterprises Casey, IL	217-232-4533	Small	2hr	None
Bodine Decatur, IL	800-637-2379	Small	2hr	None
Summit Environmental Services, INC. Evansville, IN Indianapolis, IN	877-421-1744	Medium	3hr	None
Southern Waste Services (SWS) Paducah, KY	270-444-8003	Medium	3hr	Mississippi COTP River W2, W3 Inland W2, W3 Equipment List
AES (Evergreen) Evansville,IN Louisville, Ky Ashland, Ky Lexington, Ky	800-421-7646	Medium	3hr	None
Clean Harbors Chicago, IL Cincinnati, OH	800-645-8265	WCD	4hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3 Grt. Lakes W2, W3 Upper Mississippi COTP River MM, W1, W2, W3 Inland MM, W2, W3
Marine Pollution Control Detroit, MI Burton, MI	800-521-8232	WCD	8hr	Detroit COTP Inland MM, W2 Rivers MM, W1, W2, W3

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

				Grt. Lake MM, W1, W2, W3

CONSTRUCTION

Bolins	800-650-7834	Construction
Foltz	618-432-7777	Construction

OSROs **Martinsville Area**

FIRST RESPONDER

OSRO Address	**Telephone Number**	**Size of Spill**	**Response Time**	**USGC Classification**
Bolin Enterprises Casey, IL	800-650-7834	Small	1hr	NA None See Equip Listing
SENCO Robinson,IL	618-546-1485	Small	2hr	none
Summit Environmental Services, Inc Evansville, IN 47720	877-421-1744	Medium	2hr	See Equipment List
AES (Evergreen) Evansville,IN Louisville, Ky Ashland, Ky Lexington, Ky	800-421-7646	Medium	3hr	None
Southern Waste Services (SWS) Paducah, KY	270-444-8003	Medium	5hr	See OSRO Equipment List
Clean Harbors Cincinnati, OH Cleveland, OH Taylor, MI Chicago, IL	800-645-8265	WCD	3hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM, W2, W3 Grt. Lakes W2, W3 Shoreline
Veolia Environmental Services Germantown, WI Huber Heights, OH	800-688-4005	WCD	5hr	Chicago COTP Rivers MM, W1, W2, W3 Inland MM Grt Lake Shoreline

CONSTRUCTION

Foltz Welding	618-432-7777	Construction

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

OSRO's **Stoy Area**

FIRST RESPONDER

OSRO Address	Telephone Number	Size of Spill	Response Time	USGC Classification
SENCO Robinson,IL	618-546-1485	Small	1hr	None
Bolin Enterprises Casey, IL	217-232-4533	Small	1hr	None See Equip Listing
Summit Environmental Services, Inc Evansville, IN 47720	877-421-1744	Medium	2hr	See Equipment List
Bodine Decatur, IL	800-637-2379	Medium	3hr	None
Southern Waste Services (SWS) Paducah, KY	270-444-8003	Medium	4hr	See OSRO Equipment List
AES (Evergreen) Louisville, Ky Shelbyville, Ky Ashland, Ky Lexington, Ky Cincinnati, OH Evansville,IN Murfeesboro, Tn Columbia, Ky	800-421-7646	Medium	2hr	None
Veolia Environmental Services Germantown, WI Huber Heights, OH	800-688-4005	WCD	3hr	Toledo COTP Rivers MM, W1, W2, W3 Inland MM
Clean Harbors Cincinnati, OH Cleveland, OH Taylor, MI Chicago, IL	800-645-8265	WCD	4hr	Louisville COTP Rivers MM, W1, W2, W3 Inland MM, W1, W2, W3 Shoreline
Marine Pollution Control Detroit, MI Burton, MI	800-521-8232	WCD	7hr	Detroit COTP Inland MM, W2 Rivers MM, W1, W2, W3 Grt. Lake MM, W1, W2, W3

CONSTRUCTION

Bolins	800-650-7834	Construction

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Foltz	618-432-7777	Construction

OSRO's **Wood River Area**
FIRST RESPONDER

OSRO Address	Telephone Number	Spill Size	Response Time	USGC Classification
Jarret Industries South Roxana, IL	618-251-4116	Small	1hr	St. Louis COTP Rivers MM Shoreline
Veolia Environmental Services Mitchell, IL Germantown, WI Huber Heights, OH	800-688-4005	Small/ Medium /WCD	1hr	Toledo COTP Rivers MM, W1, W2, W3 Inland MM
Bodine Decatur, IL	800-637-2379	Medium	1hr	None See Equip Listing
Bolin Enterprises Casey, IL	800-650-7834	Medium	3hr	None See Equip Listing
Summit Environmental Services, Inc Evansville, IN 47720	877-421-1744	Medium	3hr	See Equipment List
Southern Waste Services (SWS) Paducah, KY	270-444-8003	Medium	3hr	See OSRO Equipment List
Clean Harbors Cincinnati, OH Cleveland, OH Taylor, MI Chicago, IL	800-645-8265	WCD	5hr	St. Louis COTP Rivers MM, W2, W3 Inland W2, W3 Shoreline
Marine Pollution Control Detroit, MI Burton, MI	800-521-8232	WCD	8hr	Detroit COTP Inland MM, W2 Rivers MM, W1, W2, W3 Grt. Lake MM, W1, W2, W3

CONSTRUCTION

Foltz Welding	618-432-7777	Construction
Bolins Enterprises Inc	800-650-7834	Construction
SENCO	618-546-1485	Construction

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts **Illinois**

Bond County

Emergency Services & Disaster Agency	618-410-6213
911 Dispatch	618-664-1911
Sheriff	618-664-2151
EMS	618-664-4711
State Police	618-346-3990
Greenville Fire Dept.	618-664-2121

Champaign County

EMA	217-384-3826
Sheriff	217-3841214
Ambulance	Dispatch Sheriff
State Police	217-265-0050
Taylorville Fire Dept	217-403-7200

Christian County

EMA	217-820-0912
911 Dispatch	217-287-7227
Sheriff	217-824-4961
Ambulance	Dispatch
State Police	217-786-7107
Fire Dept	217-824-2295

Clark County

EMA	217-826-6393
Sheriff	217-826-6393
Ambulance	217-826-3339
State Police	217-347-2711
Marshall Fire Protection District	217-826-2341

Clay County

EMA		618-662-8211
Sheriff		618-665-3316
Ambulance		Dispatch Sheriff
State Police		217-347-2711
Fire Dept.:	Louisville	618-665-4030
	Clay City	618-676-1585
	Flora	618-662-9111
	Xenia	618-678-2224
	Bible Grove	618-686-3900

Local Contacts **Illinois (Cont'd)**

Clinton County

EMA	618-594-4455
Sheriff	618-594-4555
State Police	618-346-3990
Fire/EMS	Dispatch Sheriff

Coles County

MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

EMA\LEPC	217-348-0581
Sheriff	217-348-7332
State Police	217-265-0050
Charleston Fire & Rescue	217-345-5650

Cook County

EMA	708-865-4766
Sheriff	708-865-4700
State Police	847-294-4400
Fire/EMS	Dispatch Sheriff

Crawford County

EMA\LEPC	618-546-5602
Sheriff	618-546-1515
State Police	217-347-2711
Fire/EMS	Dispatch Sheriff

Cumberland County

EMA	217-932-3026
911 Dispatch	217-849-2065
Illinois State Police	217-347-2711
Greenup Fire Dept	217-923-5151
Sheriff	217-849-2571
Greenup Ambulance Service	217-849-2280

Douglas County

EMA	217-253-9538
Sheriff	217-253-2913
Ambulance	Dispatch Sheriff
State Police	217-265-0050
Tuscola Fire Dept	217-253-4631

Local Contacts

Illinois (Cont'd)

Edgar County

ESDA	217-463-3180
Sheriff	217-465-4166
ECSSA/EMS	217-463-5200
State Police	217-265-0050
Paris Fire Dept	217-465-6411

Edwards County

ESDA	618-445-6072
Sheriff	618-445-2721
Ambulance	618-445-3880
State Police	618-382-4606
Albion City Fire Dept	618-445-2931

Effingham County

EMA	217-536-6169

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Sheriff	217-342-2101
Ambulance	217-342-4433
State Police	217-265-0050
Fire Dept	Dispatch Sheriff
ESDA	217-536-6169
Fayette County	
EMA	618-283-4292
Sheriff	618-283-2141
Ambulance	Dispatch Sheriff
State Police	217-265-0050
Vandalia Fire Dept	618-283-0556
Ford County	
ESDA	217-379-2741
Sheriff	217-379-2324
Fire/EMS	Dispatch Sheriff
State Police	217-265-0050

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts — **Illinois (Cont'd)**

Franklin County

Emergency Services	618 937-1566
Sheriff	618-438-8211
State Police	217-265-0050
Fire Dept/EMS	Dispatch Sheriff
Benton Fire Dept	618-439-2511
West Frankfort Fire Dept	618-937-3521
Thompsonville Fire Dept	618-932-2214

Hamilton County

EMA	618-643-3744
Sheriff	618-643-2511
State Police	618-382-4606
Fire/EMS	Dispatch Sheriff
McLeansboro Police	618-643-3621
McLeansboro Fire Dept	618-643-2013
Dahlgren Fire Dept	618-736-2323

Iroquois County

ESDA	815-867-6667
Sheriff	815-432-4918
Ambulance	815-432-6133
State Police	815-698-2395
Fire Dept	Dispatch Sheriff

Kankakee County

EMA	815-802-7172
911 Communications	815-937-3911
Sheriff	815-802-7100
Ambulance	Dispatch Sheriff
State Police	815-933-3324
Fire Dept	815-933-0450

Jasper County

ESDA	618-783-2639
Sheriff	618-783-3057
Fire/Ambulance	Dispatch Sheriff
State Police	217-347-2711

Local Contacts — **Illinois (Cont'd)**

Jefferson County

EMA	618-244-8017
Sheriff	618-244-8004
State Police	618-542-2171
Mt. Vernon Fire Department	618-242-2000
Litton Ambulance Service	618-244-3111

MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts **Illinois (Cont'd)**

Johnson County	
ESDA	618-658-3818
Sheriff	618-658-8264
State Police	618-845-3740
Vienna Fire Department	618-658-2341
Ambulance	618-658-2131
Lawrence County	
EMA	618-945-9500
Sheriff	618-943-5766
Ambulance	618-943-1911
State Police	217-347-2711
Lawrenceville Fire Dept	Dispatch Sheriff
Macon County	
EMA	217-424-1327
Sheriff	217-424-1321
Decatur Ambulance Service	217-428-8641
State Police	217-265-0050
Decatur Fire Dept	217-424-2811
Macoupin County	
ESDA\LEPC	217-854-3352
911 Dispatch	217-854-5459
Sheriff	217-854-3135
Fire/Ambulance	Dispatch Sheriff
State Police	217-324-4900
Madison County	
EMA	618-692-0537
911 Dispatch	618-296-5911
Sheriff	618-692-6087
Ambulance	Dispatch Sheriff
State Police	618-346-3990
Fire Dept	618-876-7296
Marion County	
ESDA	618-548-9162
911 Dispatch	618-548-3685
Sheriff	618-548-2141
Ambulance	618-775-8148
State Police	217-347-2711
Fire Dept	Dispatch
Massac County	
ESDA	618-524-2002
Sheriff	618-524-2912
State Police	618-845-3737 or 3740

MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

	Fire Department	618-524-3200
	Ambulance	Dispatch Sheriff
	Montgomery County	
	EMA	217-532-9560
	Sheriff	217-532-9511
	Ambulance	217-532-9561
	State Police	217-324-4900
	Fire Dept	Dispatch Sheriff
	Moultrie County	
	ESDA	217-728-8841
	Sheriff	217-728-4386
	Fire/EMS	Dispatch Sheriff
	State Police	217-265-0050
Local Contacts	**Illinois (Cont'd)**	
	Piatt County	
	ESDA\LEPC	217-762-9482
	911 Communications	217-762-2626
	Sheriff	217-762-5761
	Ambulance	Dispatch Sheriff
	State Police	217-265-0050
	Monticello Fire Dept	217-762-2121
	Pulaski County	
	EMA	618-748-9437
	Sheriff	618-748-9374
	Ambulance	618-342-6209
	State Police	618-845-3740
	Fire Dept	618-342-6422
	Richland County	
	EMA	618-843-8034
	Sheriff	618-395-7481
	Ambulance	Dispatch Sheriff
	State Police	217-347-2711
	Olney Fire Dept	618-392-6341
	St. Clair County	
	EMA	618-825-2683
	911 Dispatch	618-277-7316
	Sheriff	618-277-3504
	Fire/EMS	Dispatch
	State Police	618-346-3990
	Shelby County	

MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

	EMA	217-774-1499
	Sheriff	217-774-3941
	Ambulance	Dispatch Sheriff
	State Police	217-265-0050
	Shelbyville Fire Dept	217-774-2121
Local Contacts	**Illinois (Cont'd)**	
	Wabash County	
	ESDA\LEPC	618-263-3111
	Sheriff	618-262-4186
	Ambulance	618-263-4117
	State Police	618-382-4606
	Bellmont Fire Dept	618-263-3535
	Wayne County	
	ESDA	618-842-3884
	Sheriff	618-842-6631
	Ambulance	618 842-7346
	State Police	217-265-0050
	Fairfield Fire Dept	618-842-7995
	White County	
	ESDA	618-375-7413
	911 Dispatch	618-382-8911 Ext. 8
	Sheriff	618-382-5321
	Ambulance	618-382-7131
	State Police	217-265-0050
	Fire/EMS/Police	Dispatch
	Will County	
	ESDA	815-740-8351 815-740-0911
	911 Dispatch	815-725-1911
	Sheriff	815-727-8895
	Ambulance	Dispatch
	State Police	217-265-0050
	East Joliet Fire Dept	815-723-1504
	Williamson County	
	EMA	618-993-2323
	State Police	618-542-2171
	Sheriff	618-997-6541
	Fire Dept	618-997-4802
	Ambulance	618-993-3019

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Indiana

Blackford County

EMA/LEPC	765-348-7391
Sheriff	765-348-0930
	765-348-7237 (24hr)
State Police	765-369-2561
Fire Dept/EMS	Dispatch Sheriff

Boone County

EMA	765-483-4428
Sheriff	765-482-1412
State Police	317-899-8577
Fire Dept/EMS	Dispatch Sheriff

Daviess County

EMA	812-254-5972
Sheriff	812-254-1060
State Police	812-482-1441
Ambulance	812-254-7474
Washington Fire Dept	812-254-1172

Delaware County

EMA	765-747-7719
LEPC	765-747-4888
911 Dispatch	765-747-7878
Sheriff	765-747-7885
State Police	765-369-2561
Fire Dept	Dispatch
EMS	765-747-7790

Floyd County

EMA	812-948-5454
Sheriff	812-948-5400
State Police	812-246-5454
Fire Dept/EMS	Dispatch Sheriff

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Indiana (Cont.)

Gibson County

LEPC	812-386-9630
Sheriff	812-385-3496
State Police	812-867-2079
Fire/EMS	Dispatch Sheriff

Grant County

EMA	765-651-2410
Sheriff	765-668-8168
State Police	765-369-2561
Fire Dept/EMS	Dispatch Sheriff

Hamilton County

EMA	317-776-3381
	317-773-1282 (24 hrs)
911 Communications	317-776-4401
Sheriff	317-773-1872
State Police	765-778-2121
Fire Dept/EMS	Dispatch

Harrison County

EMA	812-735-8949
Sheriff	812-738-2195
State Police	812-246-5424
Fire Dept	812-738-3221
EMS	812-738-7383

Hendricks County

EMA	765-745-9229
Sheriff	317-745-6269
911 Dispatch	317-839-8700
State Police	765-653-4114
Fire Dept/EMS	Dispatch

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Indiana (Cont.)

Jay County

EMA	260-726-6909
Sheriff	260-726-7541
State Police	765-369-2561
Portland Fire Dept	260-726-4500
EMS	260-726-2371

Knox County

EMA	317-641-4178
LEPC	812-882-4261
Sheriff	812-882-7660
State Police	812-867-2079
EMS	812-882-7757
Fire	Dispatch Sheriff

Lake County

LEPC	219-756-8302
Sheriff	219-755-3300
State Police	219-696-6242
Fire Dept./EMS	Dispatch Sheriff

Laporte County

EMA	219-362-7210
911 Communications	219-326-6808
Sheriff	219-326-7700
State Police	219-696-6242
Fire Dept	219-362-3456
EMS	219-326-6808

Madison County

EMA	765-642-8727
Sheriff	765-646-9290
Sheriff Dispatch	765-642-0221
State Police	765-778-2121
Fire Dept/EMS	Dispatch Sheriff

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Indiana (Cont.)

Marion County

LEPC	317-221-2266
EMA	317-327-7503
Sheriff	317-327-1700
State Police	317-899-8577
Indianapolis Fire Dept	317-327-6041
Indianapolis EMS	317-630-7427

Martin County

EMA	812-925-4041
Sheriff	812-247-3726
State Police	812-482-1441
Loogootee Police	812-295-2246
Loogootee Fire Dept.	812-295-2323

Montgomery County

EMA	765-364-5154
911 Communications	765-362-3762 x236
Sheriff	765-362-3740
State Police	812-765-2125
Crawfordsville Fire Dept	765-362-1277

Orange County

EMA	812-723-7111
Sheriff	812-723-2417
State Police	812-482-1441
Fire/EMS	Dispatch Sheriff

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Indiana (Cont.)

Parke County

EMA	765-569-3646
Sheriff	765-569-5413
State Police	812-299-1151
Ambulance	765-569-3300
Fire Dept	Dispatch Sheriff

Porter County

EMA	219-462-8654
Sheriff	219-477-3000
State Police	219-696-6242
Fire Dept	Dispatch Sheriff
EMS	219-464-9663

Posey County

EMA	812-838-1333
911 Dispatch	812-838-1320
Sheriff	812-838-3541
State Police	812-867-2079
Fire	Dispatch Sheriff
EMS	812-838-1319

Putnam County

EMA	765-658-2786
Sheriff	765-653-5115
State Police	765-653-4114
Fire/EMS	Dispatch Sheriff

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Indiana (Cont.)

St Joseph County

EMA/LEPC	574-235-9234
Sheriff	574-245-6540
State Police	597-546-4900
Fire Dept	Dispatch Sheriff
EMS	574-647-6792v4

Sullivan County

EMA	812-268-6257
Sheriff	812-268-4308
State Police	812-299-1151
EMS	812-268-0187
Fire Dept	Dispatch Sheriff

Tipton County

EMA	765-675-2112 or 765-675-4395
E911 Center	765-675-3911
Sheriff	765-675-2111
Police	765-675-2152
State Police	765-473-6666
Ambulance	765-675-4395
Fire Dept	765-675-4633

Vermillion County

LEPC	765-832-5500
Sheriff	765-665-0142
State Police	812-299-1151
Fire Dept	Dispatch Sheriff

Vigo County

EMA	812-462-3217
Indiana State Police	812-299-1151
Fire/EMS	Dispatch Sheriff
Sheriff	812-462-3226

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	**Indiana (Cont.)**	
	Washington County	
	EMA	812-883-7523
	Sheriff	812-883-5999
	Salem Police	812-883-5100
	State Police	812-246-5454
	Salem Fire Dept	812-883-4970

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Michigan

Allegan County

EOC	269-673-0571
Sheriff	269-673-0500
Police	269-673-2115
911 Central Dispatch	269-673-3899
State Police	616-994-6520
Ambulance	Dispatch
Fire Dept	Dispatch
LEPC	269-673-0572

Berrien County

EMA/LEPC	269-983-7111 x4916
911 Dispatch	269-983-7111 x4958
Sheriff	269-983-7141
State Police	269-657-6081
Fire/EMS	Dispatch

Muskegon County

EMA/LEPC	269-724-6341
Central Dispatch	231-722-3524
Sheriff	231-724-6351
Muskegon Police	231-724-6750
State Police	231-873-2171
Fire Dept/EMS	231-724-6792
LEPC	231-724-6284

Ottawa County

LEPC	616-738-4051
EMA	616-738-4050
Sheriff	616-738-4000 or 888-731-1001
State Police	616-842-2100
Fire Dept/EMS	616-994-7850 or 800-249-0911

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Michigan (Con't)

Van Buren County

EMA	269-657-7786
Sheriff	269-657-2006
Dispatch	269-657-3101
State Police	269-657-5551
EMS	269-657-2996
Paw Paw Fire Dept	269-657-6156

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Clermont Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Clermont Area	
	Blackford County	
	Ky-Ann Golf Course	765-348-4876
	Boone County	
	Perry Township Vol Fire Dept	740-533-4131
	Zionsville Golf Club	317-873-4218
	Delaware County	
	Organic Enterprise	765-358-4822
	Hamilton County	
	Indiana Academy	317-984-3575 317-984-3248
	Becks Superior Hybrids	317-984-3508
	Morse Reservoir/Marina	317-984-3301
	Marina Limited	317-845-0270
	Hamilton County Highway Dept.	317-773-7770
	North Harbour South Harbour	317-877-3314 317-773-1711
	Citzens Water/Harbour Water	317-631-1431
	City of Cicero Park Fire Police	317-984-3475 317-984-4575 317-984-3648
	Morse Reservoir Overflow	317-631-1431
	Cicero Creek	317-631-1431
	Hwy. 38 Bridge Hwy. Dept.	317-773-7770
	Hwy. 32 Bridge Hwy. Dept.	317-773-7770
	South Edge of City of Noblesville	317-776-6345

Downstream Sensitive **Clermont Area (Cont'd)**

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Clermont Downstream Critical/Sensitive Areas

Sites

Hamilton County (Cont'd)

Hamilton County Police & Fire	317-773-1300 317-776-6340
Citizens Water/White River	317-631-1431
Conner Prairie	317-776-6000
146th St. Bridge Hwy. Dept.	317-773-7770
Indianapolis City of Carmel Water Co./Wastewater Utilities	317-571-2634
116th St. Bridge Hwy. Dept.	317-773-7770
Parks Dept. Park along White River	317-776-9743
City of Carmel Water Dept.	317-571-2634
I-465 Hwy. Dept.	317-773-7770
Hamilton County Parks & Rec	317-770-4400
Hamilton County Drainage Board	317-776-9627
Hamilton County Emergency Management	317-770-3381
Hamilton County Health Dept.	317-776-8500
Hamilton County Highway Dept.	317-773-7770
Hamilton County Fire Dept.	317-773-1300
Hamilton County Sheriff	317-773-1282
Department of Natural Resources	317-232-4020 317-232-4080
Irving Materials Inc.	317-326-3101 765-478-4913

Hamilton County

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Clermont Downstream Critical/Sensitive Areas

Stony Creek Stone Co.	317-773-3640 765-674-3338
Pebble Brook Golf Course	317-896-5596 317-896-5683
Heartland Growers	317-896-9355 317-896-2324
R N Thompson Sports, Inc.	317-356-2451
Hamilton Co. Hwy	317-773-7770
Cover Bridge 1870 Highway Dept.	317-773-7770
City of Noblesville	317-773-4614
Noblesville-Police Chief	317-776-6340
Hendricks County	
Tomahawk Hills Golf Club	765-676-6022
Deer Creek Golf Course	317-539-2013
Madison County	
Irving Materials Inc.	317-326-3101 765-478-4913
Killbuck Golf Course	765-643-1877
E and B Paving Inc.	765-643-5358
City of Elwood Police	765-552-3376
Highway Dept	765-646-9240
Elwood Elementary Superintendent Office	765-552-7381 765-552-9861
Community Parkview Care Center/ Parkwood Convalescent Center	765-552-9884
St. Josephs Church	765-552-6753

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Clermont Downstream Critical/Sensitive Areas

Elwood Wastewater/Sewage Plant	765-552-5512
J. Lewis Small Co.	765-552-5011
Kokomo Grain	765-457-7536
Marion County	
The Skinner and Broadbent Co	317-237-2900
Asphalt Material Inc.	317-872-6010
North American Construction	317-875-7400
Putnam County	
Owen-Putnam State Forest	812-829-2462
Oakalla Valley Farms	765-653-3545
Putnam County (Cont'd)	
Auglaize County	
St. Marys Municipal Power Plant	419-394-3303
Allen County	
Johnny Appleseed Park Dist.	419-221-1232
Mercer County	
Celina Water Treatment, Celina	419-586-2270 419-586-6464

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Hammond/Griffith Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Hammond/Griffith Area	
	Kankakee County	
	City of Kankakee Dispatch for Police and Fire Dept./Medical	815-933-3321
	Kankakee County Sheriff	815-933-3324
	Kankakee City River Patrol	815-932-7141
	SR 50 State Highway Dept.	815-932-6133
	SR 45/52 State Highway Dept.	815-932-6133
	Interstate 57 State Highway Dept.	815-932-6133
	Aroma Park/Kankakee County Sheriff	815-933-3324
	Fire Dept. Aroma Park Kankakee County Sheriff	815-933-3324
	Police Dept. Aroma Park City Kankakee County Sheriff	815-933-3324
	Chebanse/Kankakee County Sheriff	815-933-3324
	Sugar Island Bridge	815-932-6133
	Consumers Illinois Water Co. Aqua Illinois	815-935-8800
	Kankakee River State Park	815-933-1383
	Route 17 County Highway Dept.	815-932-6133
	State St. Bridge	815-932-6133

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Hammond/Griffith Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Hammond/Griffith Area (Cont'd)	
	LaPorte County	
	LaPorte, City of Water Department	219-326-9540
	Long Beach Country Club	219-872-0689
	Michigan City Dept Water Works	219-874-3228
	Michigan City Golf Club	219-873-1516
	Green Supt. Randy Durham	219-873-1538
	Rieth Riley Const Co Inc	219-362-6178
	Kingsbury, Kankakee State Fish & Wildlife Area	219-393-3612
	Lake County	
	Cargill.	219-659-2000
	BP Amoco Oil Co	219-473-3356
	Briar Ridge Country Club	219-322-1605
	Premcor Pipeline Co	219-931-5620
	Griffith Golf Center	219-938-9117

Downstream Sensitive Sites	Hammond/Griffith Area (Cont'd)	
	Lake County (Cont'd)	
	Indiana American Water Corp.	219-886-3770
	Herr Farms	219-696-1328
	Indian Ridge C C	219-942-6850
	Oak Knoll Golf Club	219-663-3349
	Johnson's Farm Produce	219-962-1383 219-962-4035
	Lever Brothers Co	219-659-3200
	Ken Moses	219-473-7428

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Hammond/Griffith Downstream Critical/Sensitive Areas

	Remus Farms	219-962-6738	
	Zandstra Farm	219-924-1095	
	Hoosier Prairie Nature Preserve	IDEM/Indiana Spill Line	
24/7	888-233-7745		
	Clark & Pine Dune & Swale Preserve	IDEM	888-233-7745
	Crown Point Wetlands		
	IDEM	888-233-7745	
	Toll Road Prairie		
	IDEM	888-233-7745	
Downstream Sensitive Sites	**Hammond/Griffith Area (Cont'd)**		
	Lake County (Cont'd)		
	Lake Station Sand Prairie	IDEM	888-233-7745
	McCloskey Savanna	IDEM	888-233-7745
	Porter County		
	/Environmental Management Department at our Silver Metal Burns	219-787-2712	
	City of Portage Police	219-762-3122	
	Crisman Sand Company Inc.	219-762-2619	
	Indiana American Water Corp.	219-886-3770	
	Unit4ed States Steel/Midwest Steel Plant	219-762-3131	
	Robbinhurst Golf Club	219-762-9711	
	Stuart Elderkin	219-762-3288	
	Sand Creek Country Club	219-395-5200	
	Moraine Nature Preserve		
	IDEM	888-233-7745	
	Indiana Dunes		
	IDEM	888-233-7745	

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Hammond/Griffith Downstream Critical/Sensitive Areas

	Suman Fen IDEM	888-233-7745	
	Langeluttig Marsh	IDEM	888-233-7745
	Dunes Nature Preserve	IDEM	888-233-7745
Downstream Sensitive Sites	**Hammond/Griffith Area (Cont'd)**		
	St. Joseph County		
	Blad Farms Inc, Martin	574-234-7271	
	Bowlers Country Club	574-237-9150	
	Gumz Farms Inc, Elmer		
	Millar, David	574-232-6811	
	Notre Dame, University of	574-631-5555	
	Sebasty, Kenneth	574-654-7294	
	Snyder Farms Inc, Arthur	574-288-1725	
	South Bend Country Club	574-282-2527	
	St Joseph Co Pks Rec Dept	574-277-4828	
	Vulcan Materials Co 445	708-485-6602	
	Allegan County		
	Sergeant Marina Condo Assoc.	269-857-2873	
	Tower Marina	269-857-2151	
	West Shore Marine Inc.	269-857-2181	
	Berrien County		
	Berrien County Sheriff	269-983-7141	
	Benton Township Police Dept. Fire Dept.		
	St. Joseph Charter Twp.	Police Dept.	

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Hammond/Griffith Downstream Critical/Sensitive Areas

	Fire Dept.	
Downstream Sensitive Sites	**Hammond/Griffith Area (Cont'd)**	
	Berrien County (Cont'd)	
	City of St. Joseph Fire Dept.	269-9836324Police Dept.
	City of Benton Harbor Dept of Public Safety Police Dept. Fire Dept.	269-927-8436
	Michigan State Police/Barrien County U. S. Coast Guard/Grand Haven MI	269-983-7141 616-850-2500
	Knights of Columbus Hall	269-925-1766
	River Park	269-925-0616
	Riverview Park/City of St. Joseph	269-983-6324
	Carronde Park	269-429-7703
	Eagle Point Harbor Marina	269-429-7400
	Berrien Hills	269-925-2171
	Pier 1000	269-927-4471
	Harbor Isle Marina (On Island North Channel)	269-982-0812
	Oselka's Snug Harbor Marine Inc.	269-469-2600
	Pier 33 Marina (On Island South Channel)	269-983-0677
	Brian's Marina (On Island North Channel)	269-983-0760
	Benton Harbor/St. Joseph Wastewater Plant	269-983-7719
	Citgo Pipeline	269-683-3420
	Riverview Park	269-927-8442

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Hammond/Griffith Downstream Critical/Sensitive Areas

	Main Street Bridge	269-926-2215
Downstream Sensitive Sites	**Hammond/Griffith Area (Cont'd)**	
	Berrien County (Cont'd)	
	Blossom Land Bridge (M. 63)	269-983-5072
	Railroad Bridge	269-983-2423
	Smitty's Marine Eagle Pointe Harbor St. Joseph River, Lake Michigan	269-429-7400
	St. Joseph River	269-983-6393
	Silver Beach County Park (on Lake Mich.)	269-983-7111 ext. 8435
	Tiscornia Park/City of St. Joseph (On Lake Michigan)	269-983-6341
	(b) (3), (b) (7)(F)	
	St. Joseph Water Filtration Plant	269-983-1240
	Wolverine Pipeline	269-683-6305
	Muskegon County	
	Muskegon Yacht Club	231-755-1414
	North Shore Marina	231-744-5763
	Parkland Development's	231-893-3536
	Ottawa County	
	Grand Haven Municipal Marina	616-847-3478
	Community Center	616-847-3478
	North Shore Marina	616-842-1488
	The Wharf Marina	616-842-5370

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Hammond/Griffith Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Hammond/Griffith Area (Cont'd) *Ottawa County (Cont'd)*	
	Pier 33 Lake Michigan	
	Barrett Boat Works Spring Lake	616-842-1202
	U. S. Coast Guard Marine Safety Office	616-850-2500
	Michigan State Police	616-842-2100 (day) 616-866-4411 (otherwise) 800-249-0911 (central dispatch)
	Lansing Dispatch	517-334-6223
	Ottawa County Sheriff Dept.	800-249-0911 (central dispatch)
	Spring Lake/Ferrysburg Police Dept.	616-842-1889 (day) 800-249-0911(central dispatch)
	Grand Haven Police Dept.	616-842-3460 (day) 800-249-0911 (central dispatch)
	Grand Haven Fire Dept.	616-842-3460 (day) 800-249-0911 (central dispatch)
	Ferrysburg Fire Dept.	800-249-0911 (central dispatch)
	Spring Lake Fire Dept.	616-842-1340 (day) 800-249-0911 (central dispatch)
	Spring Lake Twp. Fire Dept.	616-842-1340 (day) 800-249-0911 (central dispatch)

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Hammond/Griffith Downstream Critical/Sensitive Areas

	Crockery Twp. Fire Dept.	616-837-6700 (day) 800-249-0911 (central dispatch)
Downstream Sensitive Sites	**Hammond/Griffith Area (Cont'd)** *Ottawa County (Cont'd)*	
	Robinson Twp. Fire Dept.	616-846-2210 (day) 800-249-0911 (central dispatch)
	Grand Haven Twp. Fire Dept.	616-842-5988 (day) 800-249-0911 (central dispatch)
	Marathon - Tri-Cities Mutual Assistance Petroleum Spill Response Team	231-744-2411
	River Haven Marina	616-842-2458
	Felix's Marina	616-842-3680
	Grand Haven Township Pottawattomie Park	616-842-5988
	Village Cove Marina	616-847-9430
	East End Park	616-842-3210
	Mill Point Park	616-842-1393
	Grand Holiday Resort	616-846-1000
	Hwy. M-104 Bridge over Mouth of Spring Lake	800-249-0911 (central dispatch)
	Hall's Sport Center	616-847-1455
	Grand Isle Marina	616-842-9330
	Hwy. US 31 Draw Bridge	800-249-0911 (central dispatch)

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Hammond/Griffith Downstream Critical/Sensitive Areas

	Keenan Marina on Spring Lake	616-846-3830
	Barrett Boat Works on Spring Lake	616-842-1202
Downstream Sensitive Sites	**Hammond/Griffith Area (Cont'd)**	
	Ottawa County (Cont'd)	
	Spring Lake Yacht Club on Spring Lake	616-842-1393
	The Wharf Marina	616-842-5370
	North Shore R.V. Mobile Home Park	616-846-6361
	City Hall/Grand Haven Municipal Marina	616-842-3210
	North Shore Marina	616-842-1488
	Grand Haven State Park	616-847-1309

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

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Downstream Sensitive Sites	**Critical Areas**	
	Newton Lake State Fish and Wildlife	618-783-3478
	(b) (3), (b) (7)(F)	
	Wabash River Generating Station	812-535-4628
	Wabash River Coal Gasification Project	812-535-4628
	Chauncey Marsh Area	
	Embarrass River Public Boat Access	618-943-5766
	Wabash River Public Boat Access (St. Francisville, IL)	618-943-5766
	Little Wabash River Public Boat Access (Carmi, IL)	618-382-5321
	Madison County	
	Highland Water Plant	618-654-9321
	Highland Sewage Plant	618-654-8122
	I-70 Bridge	618-346-3990
	I-70 Silver Lake Rest Area	618-346-3990
	Silver Lake Park	618-654-2131
	Silver Lake Dam	618-654-2131
	Route 143 Spillway	618-654-2131

Downstream Sensitive Sites	**Martinsville Area**	
	Vigo County	
	Canadian Pacific (CP)	800-766-4357
	Duke Energy Wabash River	800-774-1202

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

9248	
Fort Harrison Villa	812-466-6559
Meadows Manor North	812-466-5217
Vigo Co. Dispatches Sheriff, State Police, Fire and Ambulance	812-232-3801 812-232-3802
Bridge over Wabash RTE 63 INDOT	812-232-7921 765-362-9484 (24 hrs)
Indiana American Water	812-232-8219 812-232-3454 (24 hrs)
ABF Trucking	812-232-5381
Conrail R.R.	215-209-2000
Indiana State University	812-237-6311 812-237-5555 (24 hrs)
Terre Haute Boys Club	812-232-2046
Dresser Bridges over Wabash RTE 40 INDOT	812-232-7921 765-362-9484 (24 hrs)
Vigo County Court House (E911)	812-462-3333
Thompsons Honda	812-232-1111

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Downstream Sensitive Sites	**Martinsville Area (Cont'd)**	
	Vigo County (Cont'd)	
	Terre Haute Police Department	812-232-1311
	Fairbanks Park	812-232-2727
	Days Inn Motel	812-235-3333
	YWCA	812-232-3358
	Boat Landing & Docks Fairbanks Park	812-232-2727
	Terre Haute First Bank (Oper)	812-238-6333
	Prox Factory	812-232-4324
	Roadway	812-232-0451
	Voorhees Park	812-232-2727
	Graham Grain & Feed	812-235-4444
	Bridges over Wabash at I-70	812-232-7921
	INDOT	765-362-9484 (24 hrs)
	Honey Creek Plaza	812-234-7752
	Honey Creek Mall	812-232-4500
	US Penitentiary	812-244-4400 (24 hrs)
	FCI	812-238-1531 (24 hrs)
	S & G Excavating	812-299-2145
	Morris, George F, Honey CR,	812-299-2305

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Martinsville Area Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Martinsville Area (Cont'd)	
	Vigo County (Cont'd)	
	Midwest Coal Co, Chinook Mine	812-894-2385
	S G Excavating Inc	812-234-4848
	Martin Marietta Aggregates Div, Carmel, IN	317-573-4460
	PSI, Wabash R. Station	812-535-4628
	Indiana American Water Co	800-492-8373
	Clark County	
	Clark Co. Sheriff	217-826-6393
	Sullivan County	
	Indiana Michigan Breed Power Plant	812-394-2271
	Hoosier Energy Power Plant at Merom	812-876-2021 (24 hrs) 800-456-1096 (24 hrs)
	Merom Plant	812-356-4291
	Lawrence County	
	Coles County	
	Lake Charleston	217-345-2977
	Charleston Water Treatment Plant Superintendent Bill Bosley	217-345-2977 217-549-3747
	Macon County	
	Fort Daniel, IL DNR	217-782-6752
	Spitler Woods, State Park/ Lincoln Trail Homestead	217-864-3121
	Decatur North Water Treatment Plant	????
	Decatur South Water Treatment Plant	217-424-2831 217-424-2834

Downstream Sensitive Sites	Martinsville Area (Cont'd)	
	Moultri County	

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Martinsville Area Downstream Critical/Sensitive Areas

Lake Shelbyville, Recreation Area	217-774-3951
Campfield Environ Study	217-774-3951
Sullivan Beach	217-774-3951
Shelbyville Co. Sheriff	217-774-3941 (24 hrs)
Whitley Creek	217-774-3951
Wilborn Creek Lake Shelbyville	217-774-3951
Shelbyville, State Fish & Wildlife Area	217-665-3112

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Martinsville Area Downstream Critical/Sensitive Areas

Marathon Pipe Line LLC Controlled Microsoft Word Document			
Document Number	**Document Title**		
ESAR0202	Martinsville Response Zone Downstream Critical/Sensitive Areas		
Revision Number	**Effective Date**	**Revision Date**	**Records Retention**
2	5/15/2012	5/15/2012	Planning, Emergency, Preparedness and Response (ACT +10)
Review Cycle	**Next Review Date**	**Custodial Organization**	
1	5/15/2013	ES&R Department	
Document Author		**Document Approver**	
R.A. Arnet		C. D. Ellingsworth	

Revision History

Revision Number	Revision Date	Description of Change
0	2/27/09	Initial Publication
1	7/26/2010	Annual Review Complete
2	5/15/2012	Reviewed and updated by URS Corp.
3		

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Patoka Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Patoka Area	
	Fayette County, IL	
	Carlyle Lake Wildlife Refuge	618-425-3533
	Carlyle Lake Corps of Engineers	618-594-2484
	Marion County, IL	
	Gateway Water Company- Kaskaskia River, North Fork	618-775-1014
	City of Salem Water Plant Public Water Supply – Salem Reservoir (from Town Ck.)	618-548-2232
	Skillet Fork – State Designated Stream IL DNR Watershed Mgmt. (Class B Stream)	217-782-7860
	Wayne County, IL	
	Sam Dale Lake State Wildlife Area	618-842-6631
	Sam Dale Lake State Wildlife Area Boat Rental Dock	618-842-2151
	Fairfield Public Water Supply Intake Little Wabash River (river mile 81)	618-847-4241
	Edwards County, IL	
	Bonpas Creek – State Designated High Quality Stream	217-782-3863
	White County, IL	
	Wabash River, Heritage River Corridor (river declared navigable)	812-838-1321

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Stoy Area Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Stoy Area	
	Newton Lake State Fish & Wildlife	618-783-3478
	CIPS Power Plant	618-783-8402
	Wabash County	
	Mount Carmel, PWS	618-262-4871
	Crawford County	
	Hutsonville CIPS Power Plant	618-563-4303 (24 hrs)
	IL Universal CIPS Customer Service	888-789-2477
	Hutsonville Grade School	618-563-4812
	Hutsonville High School	618-563-4913
	Crawford Co. Sheriff	618-546-1515
	Wabash River CIPS	618-563-4303 (24 hrs)
	IL Universal CIPS Customer Service	888-789-2477
	Knox County	
	State Highway Dept.	812-882-8330
	Ind. Dept. of Environmental Management	888-233-7745 (in state) 317-233-7745
	Edwardsport School	812-735-4434
(Superintendent)	South Knox Elementary School	812-726-4450
	Daviess County	
	CSX Transportation	800-232-0144
	State Highway Dept.	812-882-8330
	Ind. Dept. of Environmental Management	888-233-7745 (in state) 317-233-7745
	Washington School System	812-254-5536
	Davies County LEPC	812-254-5536

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Stoy Area Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Stoy Area (Cont'd)	
	Pike County	
	Indianapolis Power and Light	812-354-8801
	State Highway Dept.	812-882-8330
	Ind. Dept. of Environmental Management	888-233-7745 (in state) 317-233-7745
	Petersburg School System	812-354-8731
	Gibson County	
	Ind. Dept. of Environmental Management	888-233-7745 (in state) 317-233-7745
	State Highway Dept.	812-882-8330
	Indiana Power and Light	812-354-8801
	Wabash County	
	Mt. Carmel Public Water	618-262-4871
	Daviess County	
	Solar Sources, Inc	812-354-8776
	Black Beauty Coal Co	812-434-8500
	Floyd County	
	Floyd Co. Police	812-948-5400
	Harrison County	
	Lanesville Water Utility	812-952-2057
	Lanesville Town Marshall	812-952-1024
	Knox County	
	Hagemeier, Michael (farmer)	812-324-2573
	Orange County	
	Harrison-Crawford IN DNR	812-738-8232
	French Lick Springs	812-936-9300
	Paoli Peaks Inc	812-723-4696

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Stoy Area Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Stoy Area (Cont'd)	
	Orange County (Cont'd)	
	Springs Valley Water Dist	812-936-9658
	Calcar Quarries Inc	812-723-2109 or 812-723-3842
	Jefferson County	
	Louisville Gas & Elec.	502-627-2000
	Fluoro DuPont	502-775-3232
	Greenwood Road Public Boat Ramp & Park Contact through Jefferson Co. Police	502-574-2111
	Mill Creek Station	502-627-2000
	Cane Run Station	502-627-2000
	Kosmos Portland Cement Co.	502-935-7331
	Harden County	
	Salt River Public Access Boat Ramp Police Dept.	270-769-3638 or 877-216-0555
	Salt River Public Access Boat Ramp Sheriff's Dept.	270-765-4125
	Harrison County	
	Harrison Co. Sheriff's Dept.	812-738-2195
	(b) (3), (b) (7)(F)	
	Rock Haven Public Access Boat Ramp Sheriffs's Dept.	270-422-4937 (day) 270-422-4911 (24 hr)
	Lonza, formerly Arch Chemical	270-422-2101

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Stoy Area Downstream Critical/Sensitive Areas

	Chemical or product emergency	800-654-6911
Downstream Sensitive Sites	**Stoy Area (Cont'd)**	
	Harrison County (Cont'd)	
	Mauckport Sheriffs's Dept.	812-738-2195
	Town of Corydon Water Dept.	270-824-2140
	New Amsterdam Sherriff's Dept.	812-738-2195
	Meade County	
	Brandenburg Public Access Area Sheriff's Dept.	270-422-4911 (24 hr) 270-422-4937 (day)
	IN St. Highway Dept.	812-882-8330
	KY St. Highway Dept.	502-564-3730

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Wood River Barge Dock Downstream Critical/Sensitive Areas

Downstream Sensitive Sites	Wood River Barge Dock	
	Chain of Rocks Canal & Lock U.S. Corp of Engineers	618-452-7107 or 314-868-5640
	IL American Water Co	800-422-2782
	St. Louis Chain of Rocks Plant	314-867-3462
	Dam No. 27 U.S. Corp of Engineers	618-452-7107 or 314-263-5640
	Beelman River Terminal	314-241-9600
	Casino Queen (E. St. Louis)	618-874-5000
	Anheuser-Busch	314-577-2251
	Union Electric Co. - Rush Island Plant	573-365-9330
	Menard State Correctional Center	618-826-5071
	City of Chester	618-826-2326
	CIPS - Grand Tower Station (Ameren, IL)	888-789-2477
	City of Cape Girardeau	573-334-1212
	Missouri Utilities Co	573-751-3234
	Westvaco Water Works (NewPage Corp.)	270-335-3131
	Associated Electric Co-Op. Inc.	314-643-2211

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MARTINSVILLE RESPONSE ZONE
TELEPHONE NUMBERS

Downstream Sensitive Sites	**Critical Areas**	
	Newton Lake State Fish and Wildlife	618-783-3478
	(b) (3), (b) (7)(F)	
	Wabash River Generating Station	812-535-4628
	Wabash River Coal Gasification Project	812-535-4628
	Chauncey Marsh Area	618-936-2112
	Embarrass River Public Boat Access	618-943-5766
	Wabash River Public Boat Access (St. Francisville, IL)	618-943-5766
	Wabash River Public Boat Access (Mt. Carmel, IL)	618-262-4783
	Wabash River Public Boat Access (Grayville, IL)	618-382-5321
	Little Wabash River Public Boat Access (Carmi, IL)	618-382-5321
	Madison County	
	Highland Water Plant	618-654-9321
	Highland Sewage Plant	618-654-8122
	I-70 Bridge	618-346-3990
	I-70 Silver Lake Rest Area	618-346-3990
	Silver Lake Park	618-654-2131
	Silver Lake Dam	618-654-2131
	Route 143 Spillway	618-654-2131

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the Clermont Operations Area are shown in the Response Maps. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

Threatened or endangered species found in the operations area, the Indiana Bat is most pervasive, as it is found throughout the area.

There are a number of areas of concern in the Clermont Operations Area. These include: Mounds State Park (two miles southwest of Chesterfield), Eagle Creek Park and Nature Preserve (five miles northwest of Speedway), Fort Benjamin Harris (Indianapolis), and Shades State Park (three miles south of Byron). In Putnam County, Lieber State Recreation Area and Cagles Mill State Forest should be noted.

The National Wetlands Inventory has mapped federally delineated wetlands in the entire operations area. At the intersection of the pipeline with Big Duck Creek is a small, excavated palustrine (generally described as freshwater, vegetated wetland; would include marshes and swamps), temporarily flooded wetland, approximately 2/10 of a mile long. Big Duck Creek is classified as an excavated, permanently flooded, unconsolidated bottom, riverine (generally places where water flows within a channel) wetland. Todd Ditch, which joins Big Duck Creek just north of the pipeline crossing, is also considered a permanently flooded, unconsolidated bottom, excavated riverine wetland. In the northwest corner of Section 3, north of the pipeline and due west of the pipeline/creek crossing, is a large area of palustrine, temporarily and seasonally flooded wetlands.

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Clermont Area Critical/Sensitive Areas

ACCESS/STAGING AREAS

Airports

Putnam County Airport	Greencastle, IN
Indianapolis International Airport	Indianapolis, IN
Eagle Creek Airport	Indianapolis, IN
Indianapolis Metropolitan Airport	Fishers, IN
Delaware County Airport	Muncie, IN
Portland County Airport	Portland, IN

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The Cleanup unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

ELWOOD BIG DUCK CREEK CROSSING SCENARIO

Clermont Area
Elwood Big Duck Creek Crossing
Station #: 6933 + 18 Mile Post: 131.2
Right-of-Way: 1380
Ave. Width: 10 yards
Ave. Depth: 3 - 4 feet
Ave. Speed: 1.5-2.0 mph

CITY: Elwood
COUNTY: Madison
STATE: Indiana

SEE TELEPHONE NUMBER SECTION

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
City of Elwood	Police	3 miles
Bridges on Creek Madison County	Highway Dept	

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Clermont Area Critical/Sensitive Areas

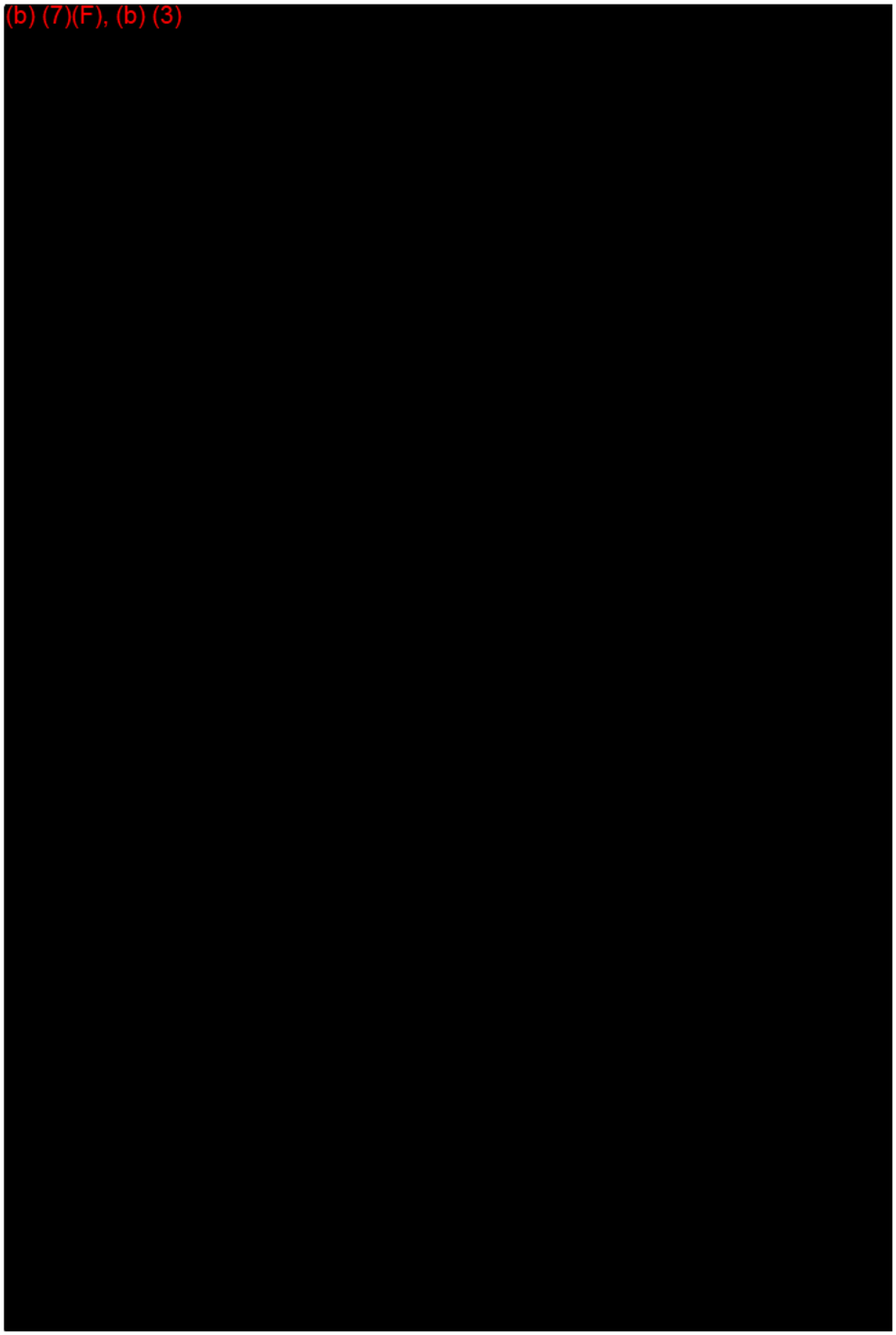
ELWOOD BIG DUCK CREEK CROSSING SCENARIO	CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
	Edgewood Elementary Richard Merritt	Joe A. Barnett	3 miles
	Parkwood Convalescent Center	Stan Townsend	3.4 miles
	Kingdom Hall-Church		3.5 miles
	Mercy Hospital David Troyer-Plant Eng.	James Bare-Adm.	3.6 miles
	St. Josephs Church		3.7 miles
	Sewage Plant	Mike Washburen	3.7 miles
	J. Lewis Small Co.	Doris Dellingfiz	4.2 miles
	Aroma Feeds	Steve Dietterle	6 miles
	Kokomo Grain	Joyce Jamson	6.2 miles
	McMahon Horse Farm	Earl McMahon	8.4 miles
	Bridges over Big Duck Creek		
	In Hamilton Co.	Hamilton Co. Hwy various	
	Big Duck empties into White River at:		12 miles
	Village of Clare		14.5 miles
	PSI Energy Power	Plant Mgr	17 miles
	Potters Bridge		
	Cover Bridge 1870	Highway Dept.	17 miles
	City of Noblesville City Emergency Mgr. Time Garner-Police Chief	Bob Hendricks	20.5 miles

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS 22" Crude Line From US Route 36 To the Ohio State Line

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

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

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

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

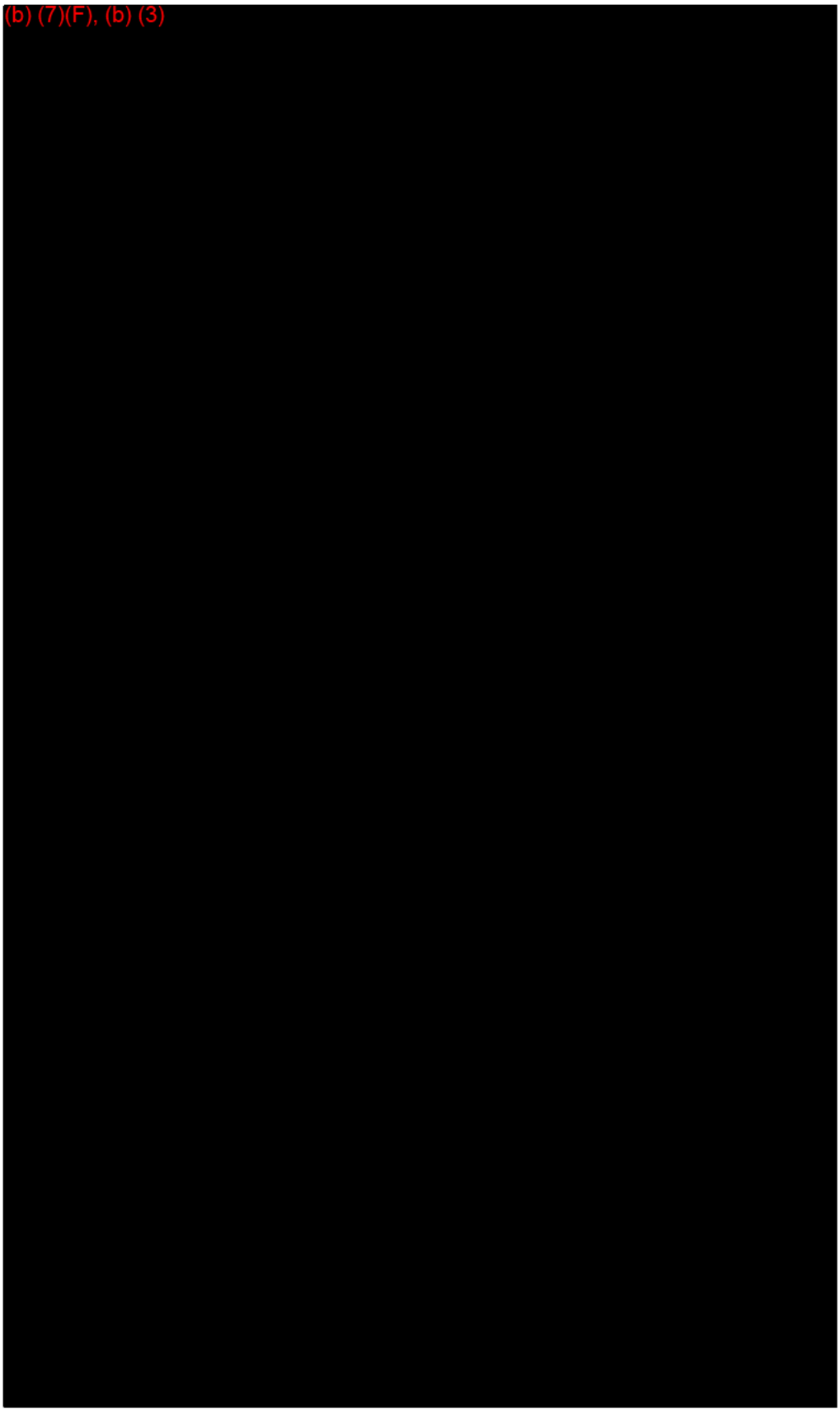
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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS Lebanon To IN/OH Border (Cont'd)

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS 22" Crude System from Elwood Station to Lima, OH (Cont'd)

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

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS 22" Grade Segment from Elwood Station to Lima, OH (Cont'd)

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

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS (b) (7)(F), (b) (3)

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

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

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS 22" Crude System from Elwood Station to Lima, OH (Cont'd)

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

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #1-10" Products Line From US Route 36 To Indianapolis (Cont'd)

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

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #1-10" Products Line From US Route 36 To Indianapolis (Cont'd)

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

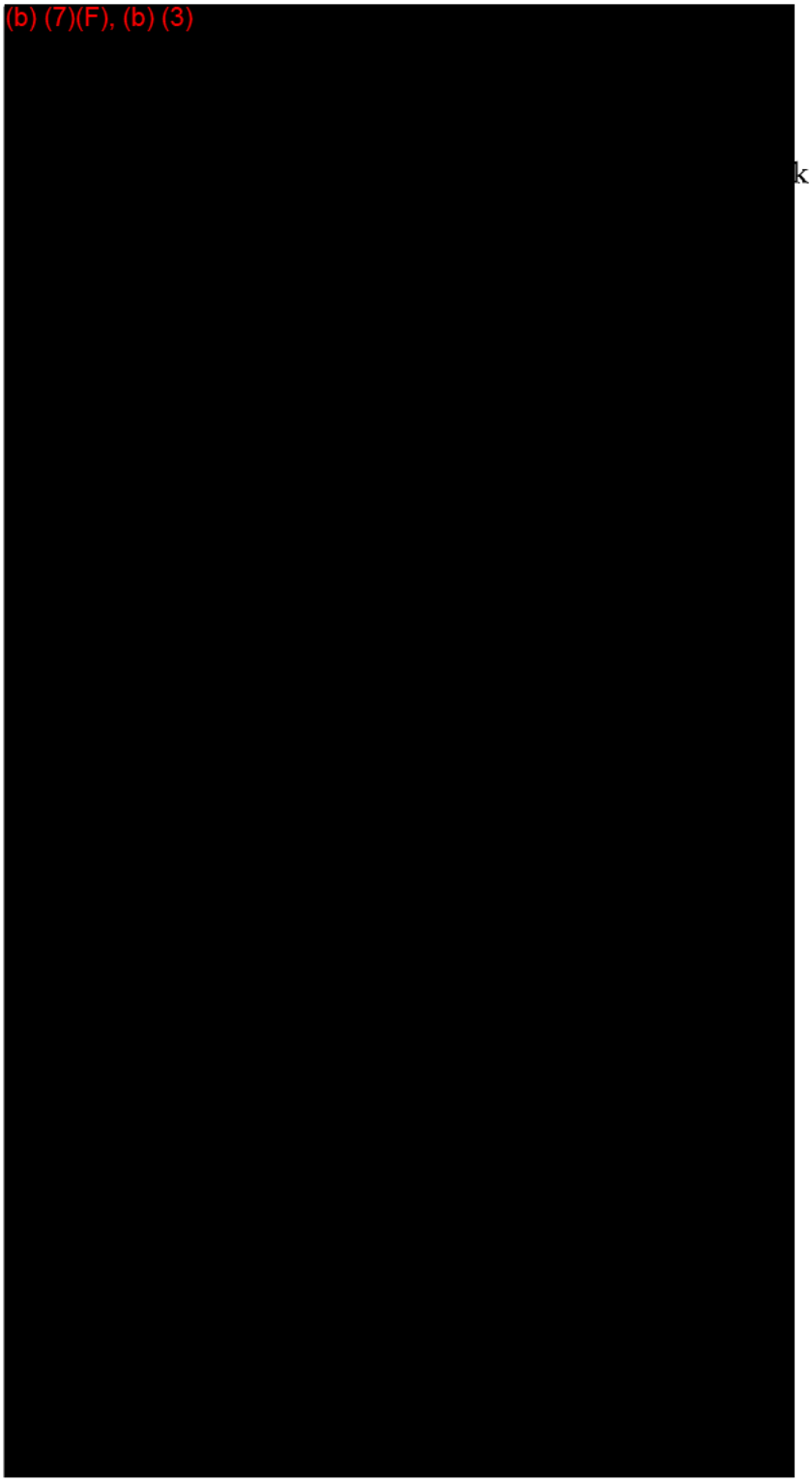
[redacted]

k.

Clermont Area Critical/Sensitive Areas

CRITICAL AREAS Indianapolis Refinery To Brownsburg Junction

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



k

Clermont Area Critical/Sensitive Areas

CRITICAL AREAS Indianapolis Refinery To Brownsburg Junction

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

[redacted]

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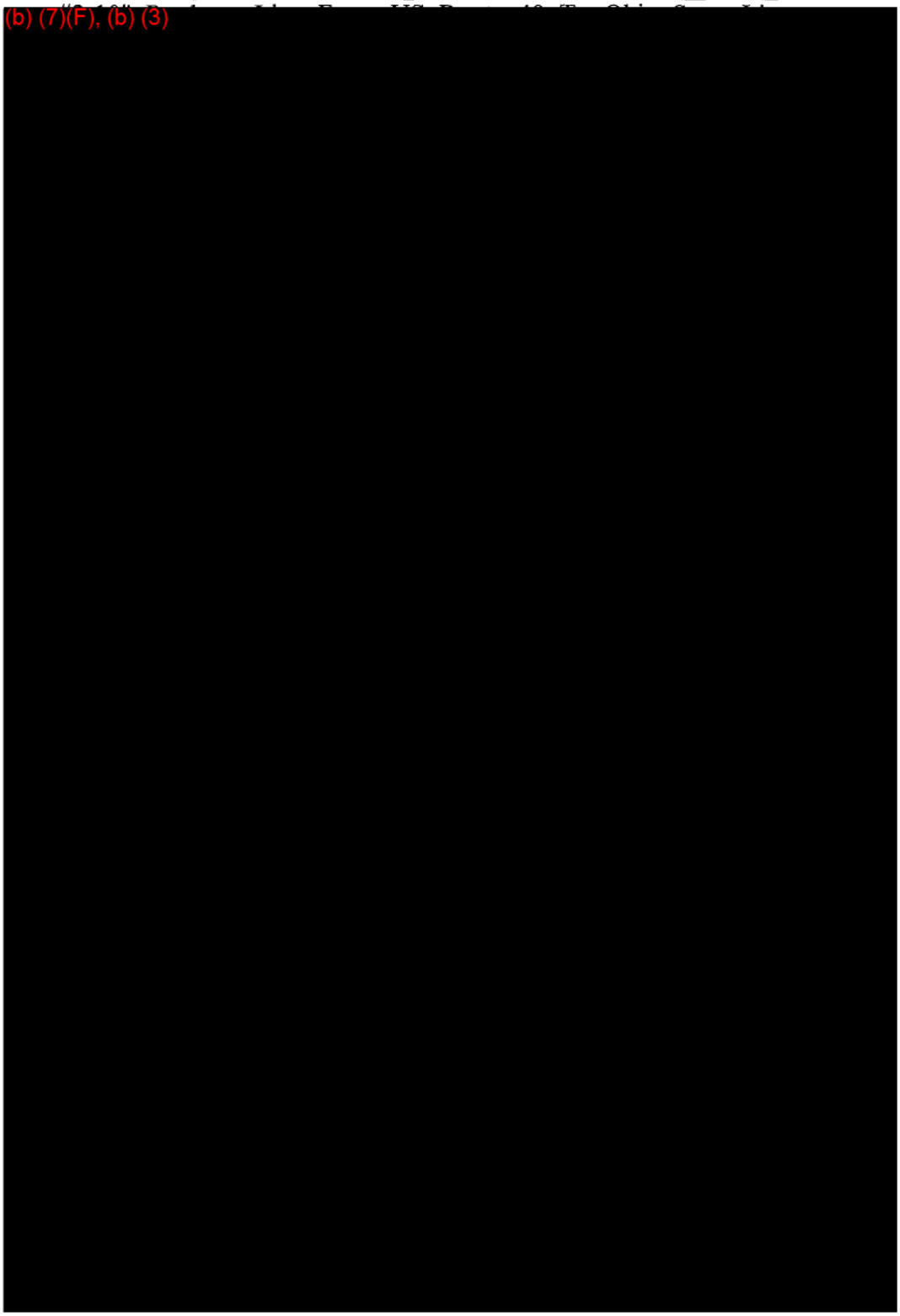
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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

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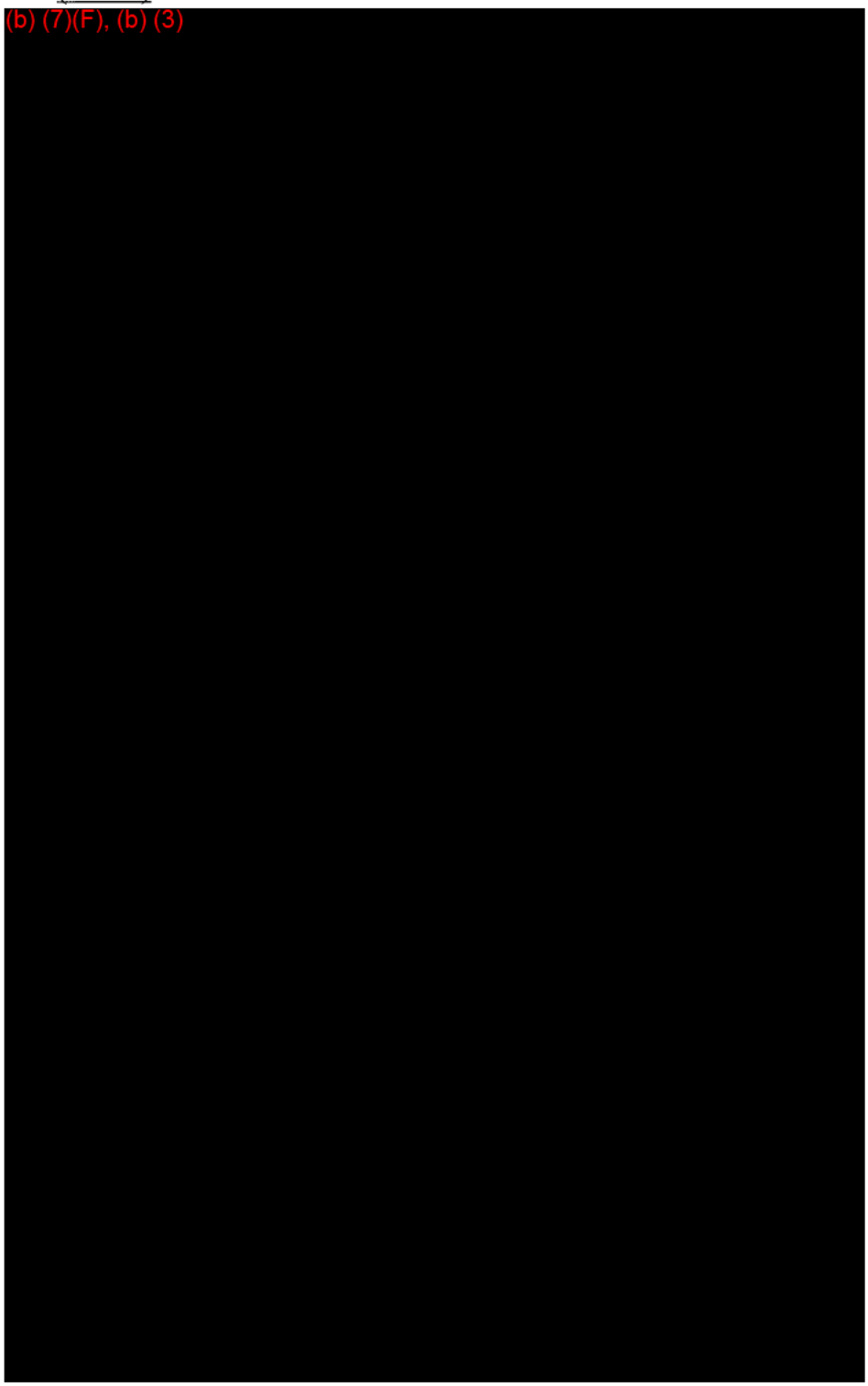


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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #2-10" Products Line From US Route 40 To Ohio State Line (cont'd)

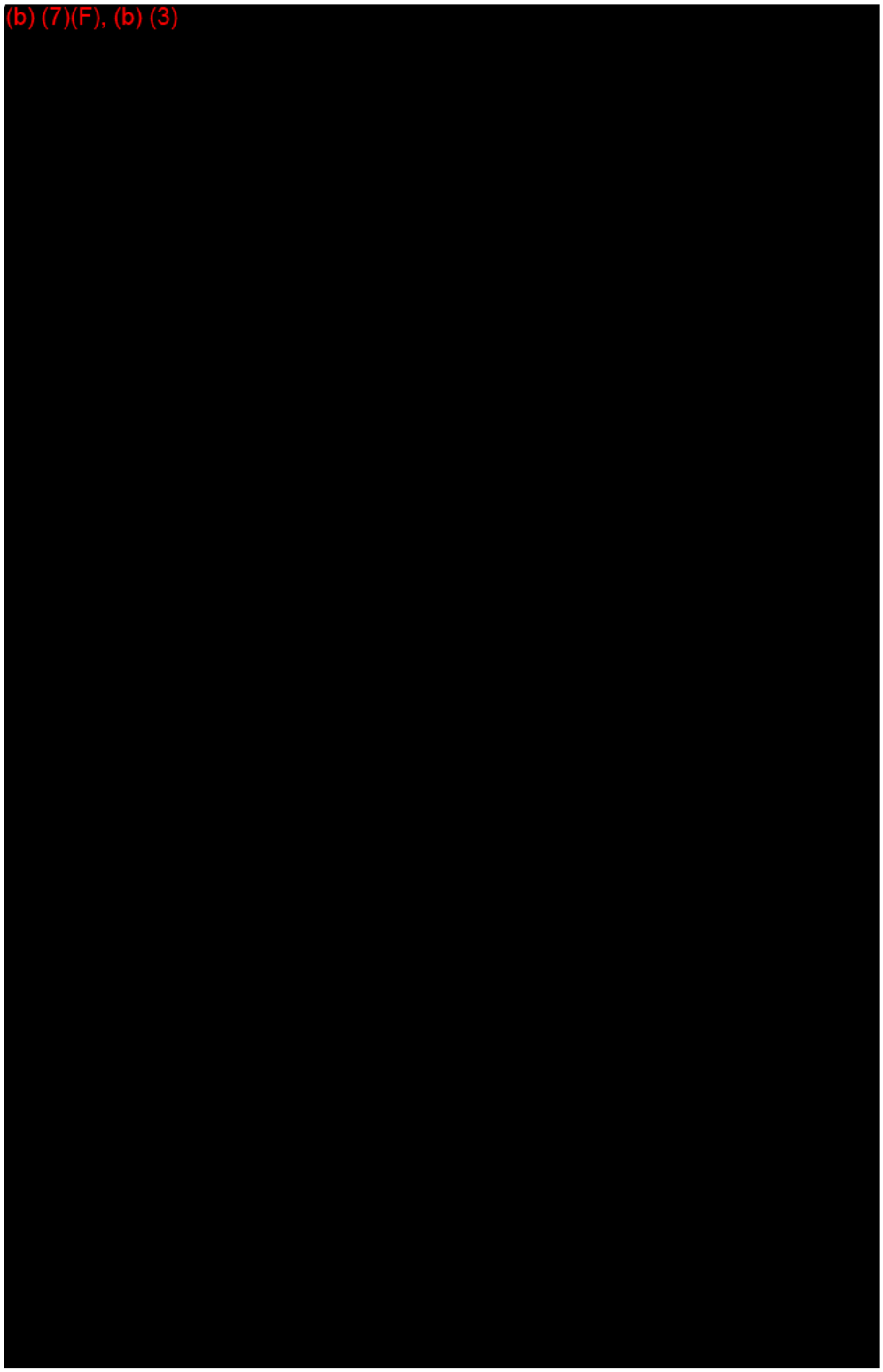
(b) (7)(F), (b) (3)



Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #2-10" Products Line From US Route 40 To Ohio State Line (cont'd)

(b) (7)(F), (b) (3) [redacted]

686 Westfield Schools
181st/US 31

694 Westfield Village Health Care Harvest Meadows Subdivision

(b) (7)(F), (b) (3) [redacted]

(b) (7)(F), (b) (3) [redacted]

709 South Harbor Subdivision

709A Cicero Creek West Branch
Morse Reservoir

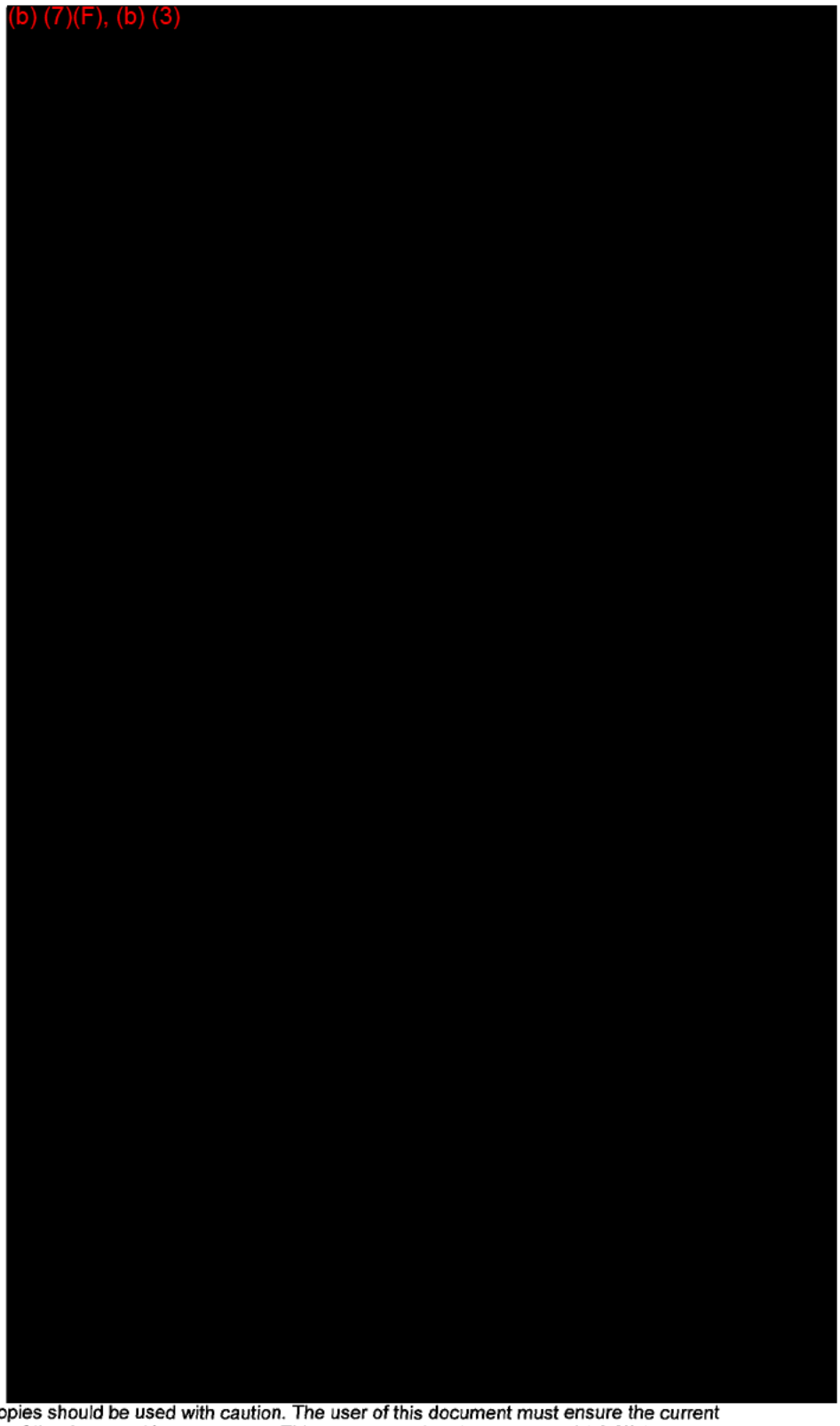
721 North Harbor Subdivision

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #2-10" Products Line From US Route 40 To Ohio State Line (cont'd)

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

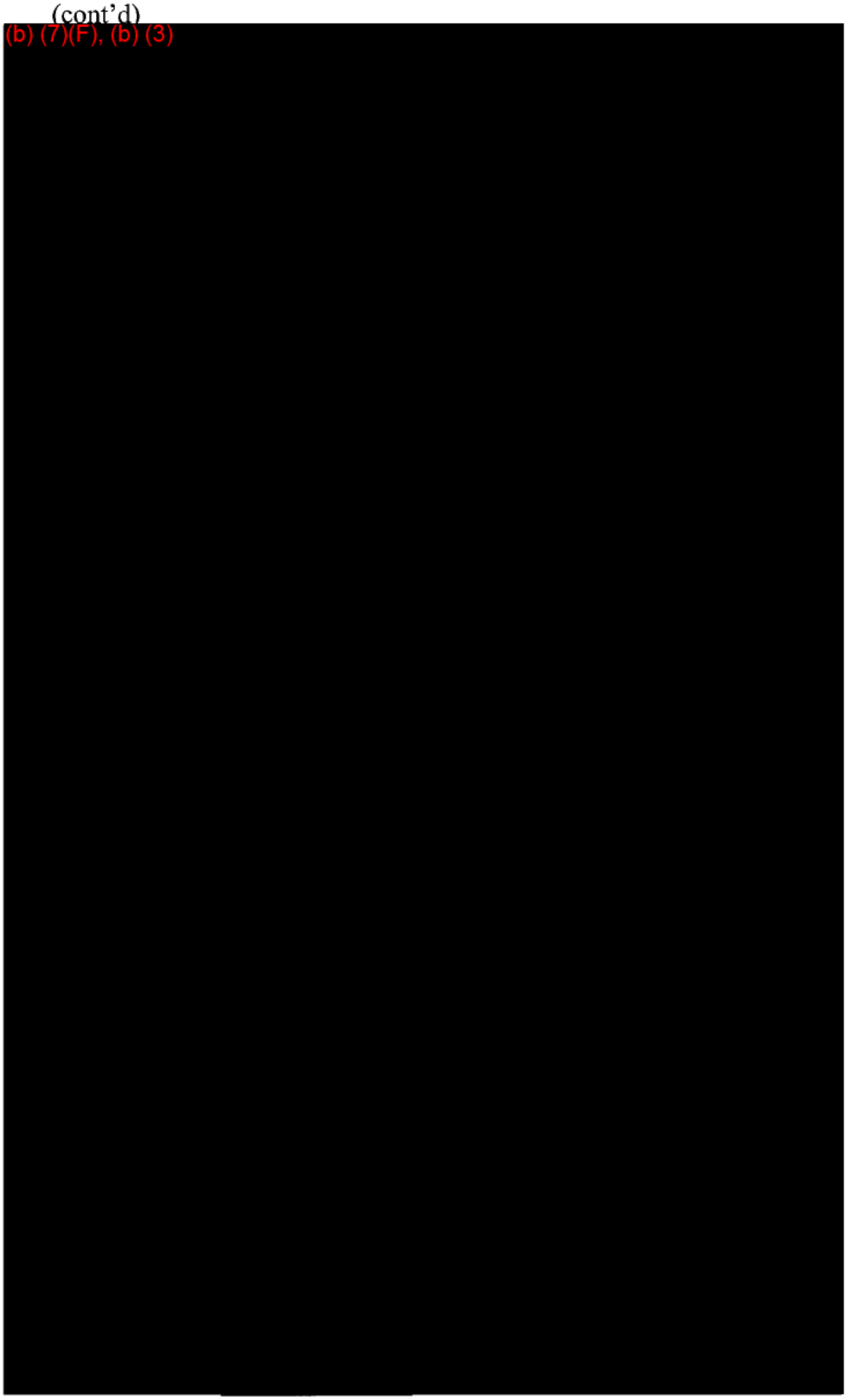


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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #2-10" Products Line From US Route 40 To Ohio State Line (cont'd)

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

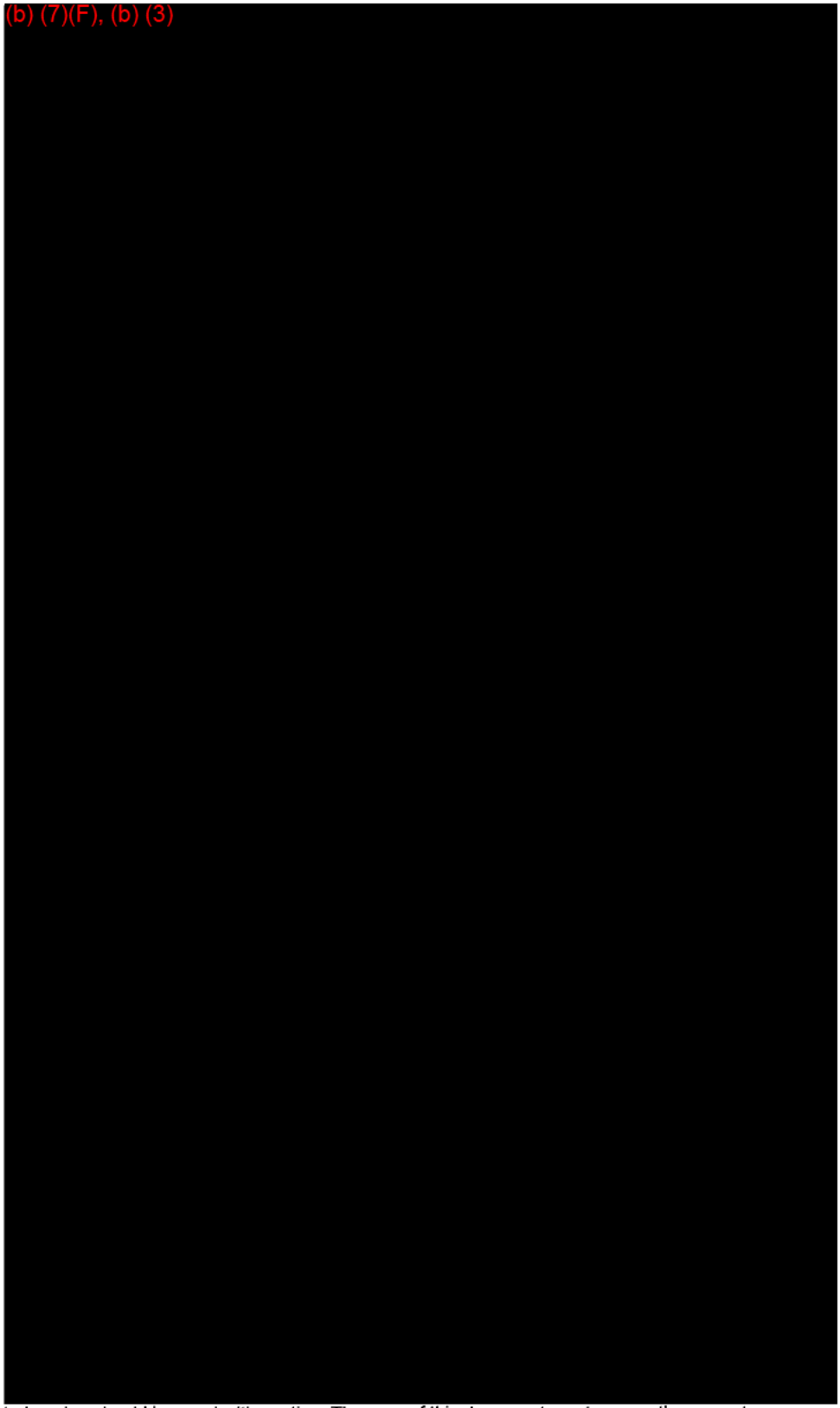


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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #2-10" Products Line From US Route 40 To Ohio State Line (cont'd)

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS #2-10" Products Line From US Route 40 To Ohio State Line (cont'd)

ROW

(b) (7)(F), (b) (3) [redacted]

ROW

3 Studebaker Ditch

3 Ditch - No Name
Run parallel with line 1/4 mile
Flows into Studebaker ditch
rural area

(b) (7)(F), (b) (3) [redacted]

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Clermont Area Critical/Sensitive Areas

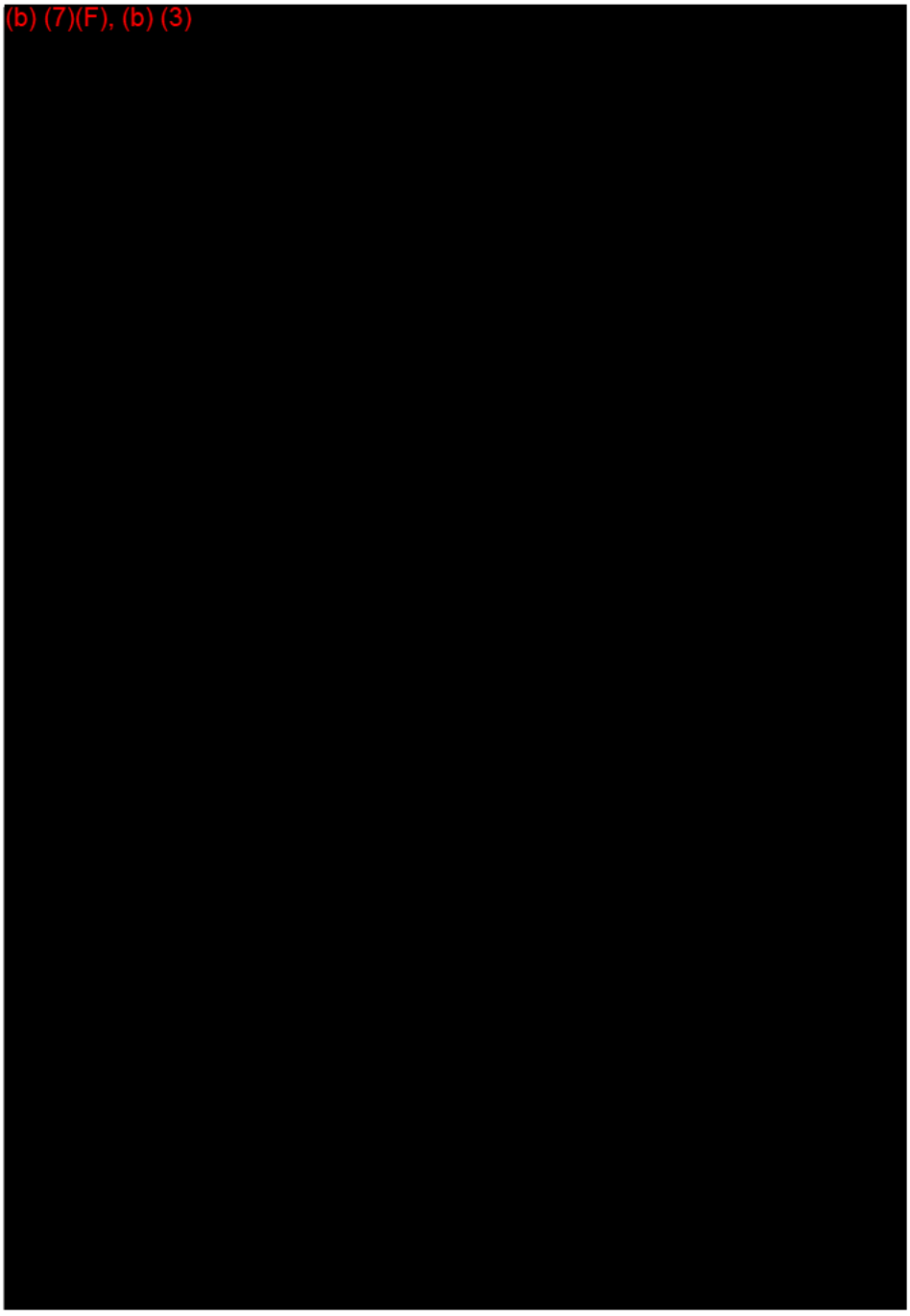
CRITICAL AREAS

RIO 8" Products Line From US Route 36 To Ohio State Line

ROW

3 Indianapolis Motor Speedway

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

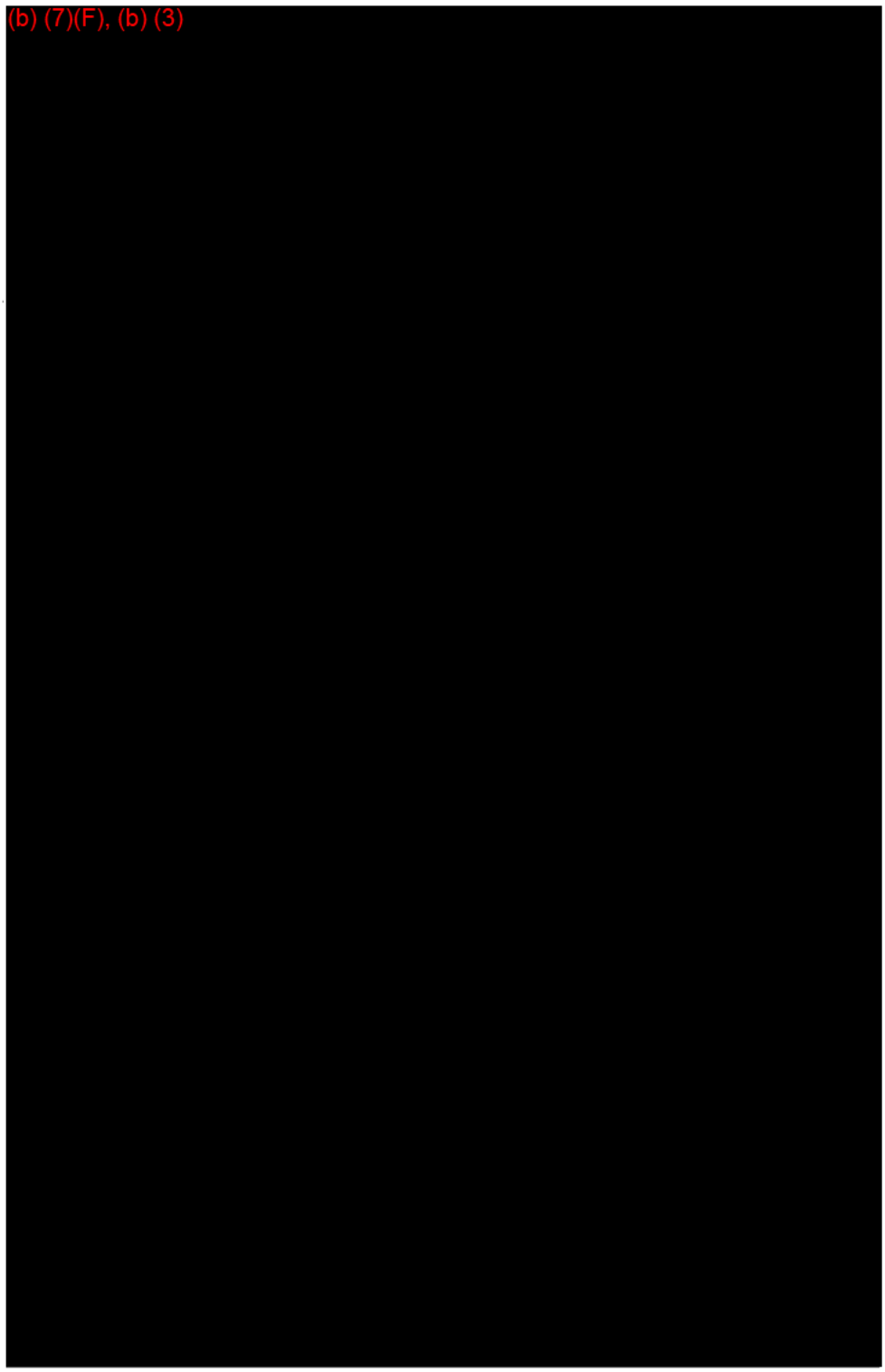
(b) (7)(F), (b) (3)



Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

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

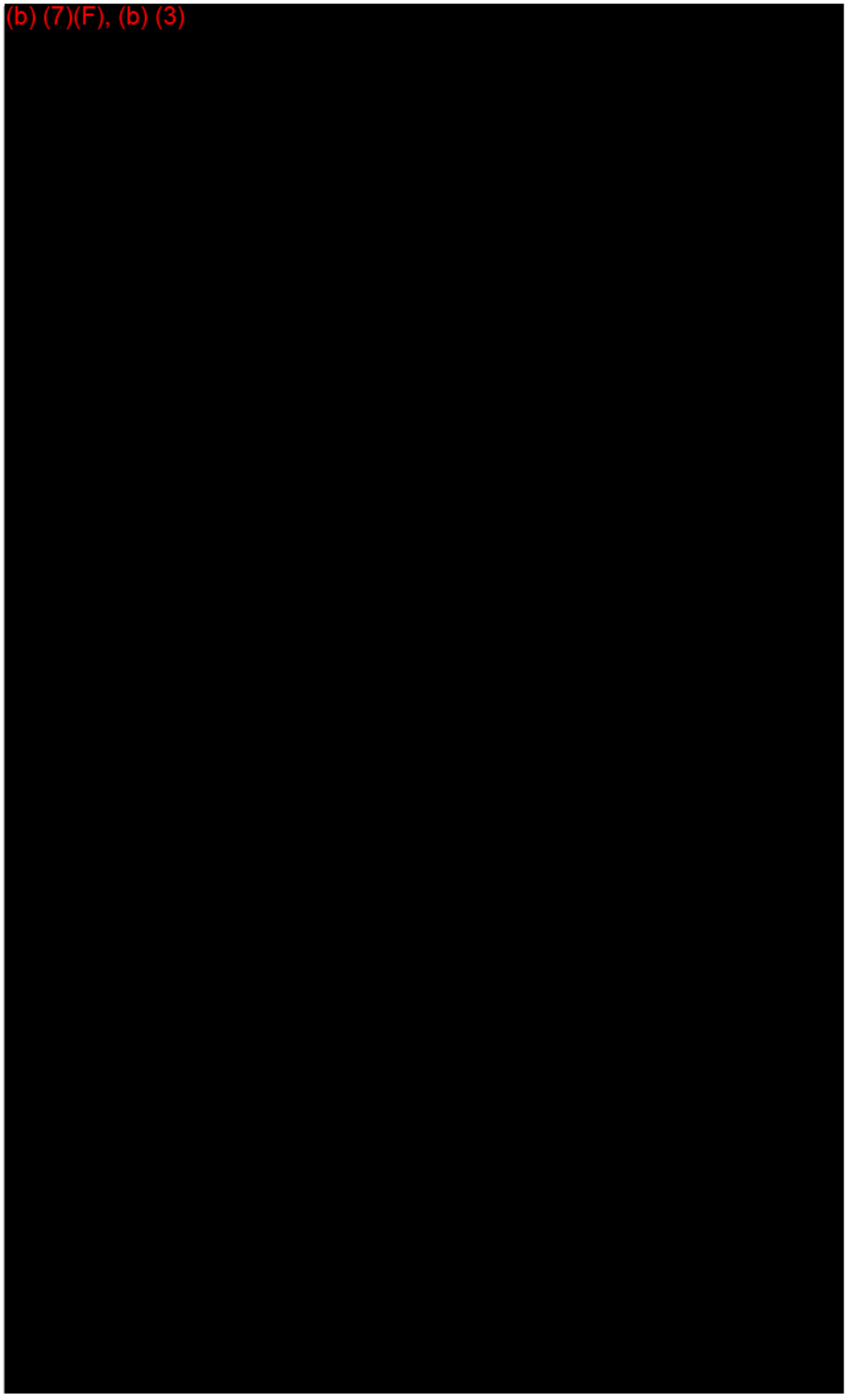


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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

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

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

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

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

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

ROW	
416	Ditch - No Name Flows northeast into unnamed ditch - 1 2 mile They then flow into Estey Creek Rural area
(b) (7)(F), (b) (3) [redacted]	
420	Ditch - No Name Flows south CR 200S Possum Hollar Road (350S)
422	Ditch - No Name Flows south CR 200S Into ditch from R/W 423
423	Ditch - No Name Flows south CR 200S Flows into creek from R/W 420
426	Community Park West side of CR 275E
431, 434	Ditch - No Name Flows southeast Into Deer Creek at SW 1/4 Sec. 20
441	Ditch - No Name Flows south Into Deer Creek at SW 1/4 Sec. 16
443	Ditch - No Name Flows south Into Deer Creek at NW 1/4 Sec. 16
438	Ditch - No Name Flows north Rural area
(b) (7)(F), (b) (3) [redacted]	

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

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

[redacted]

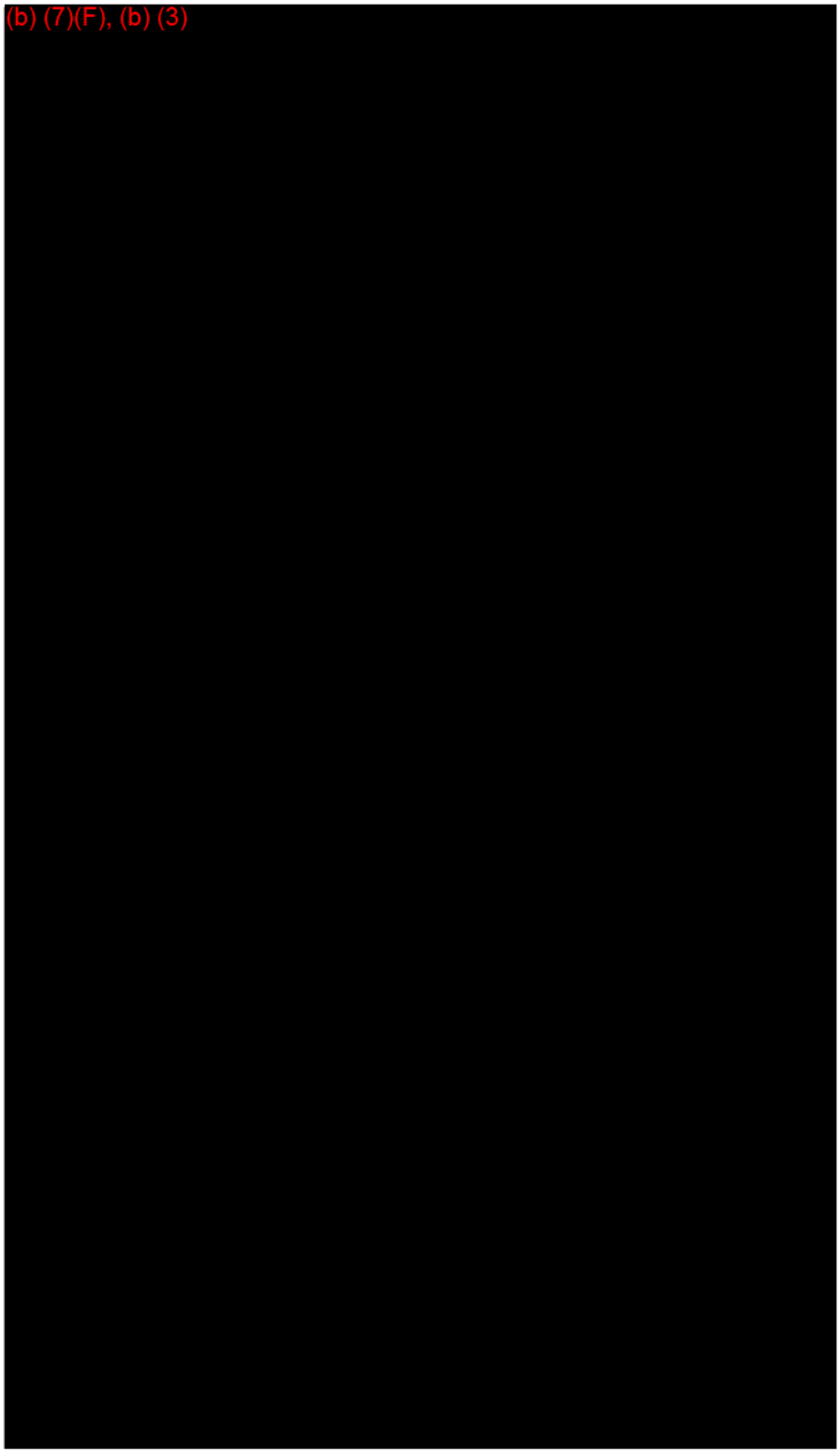
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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS RIO 8" Products Line From US Route 36 To Ohio State Line (cont'd)

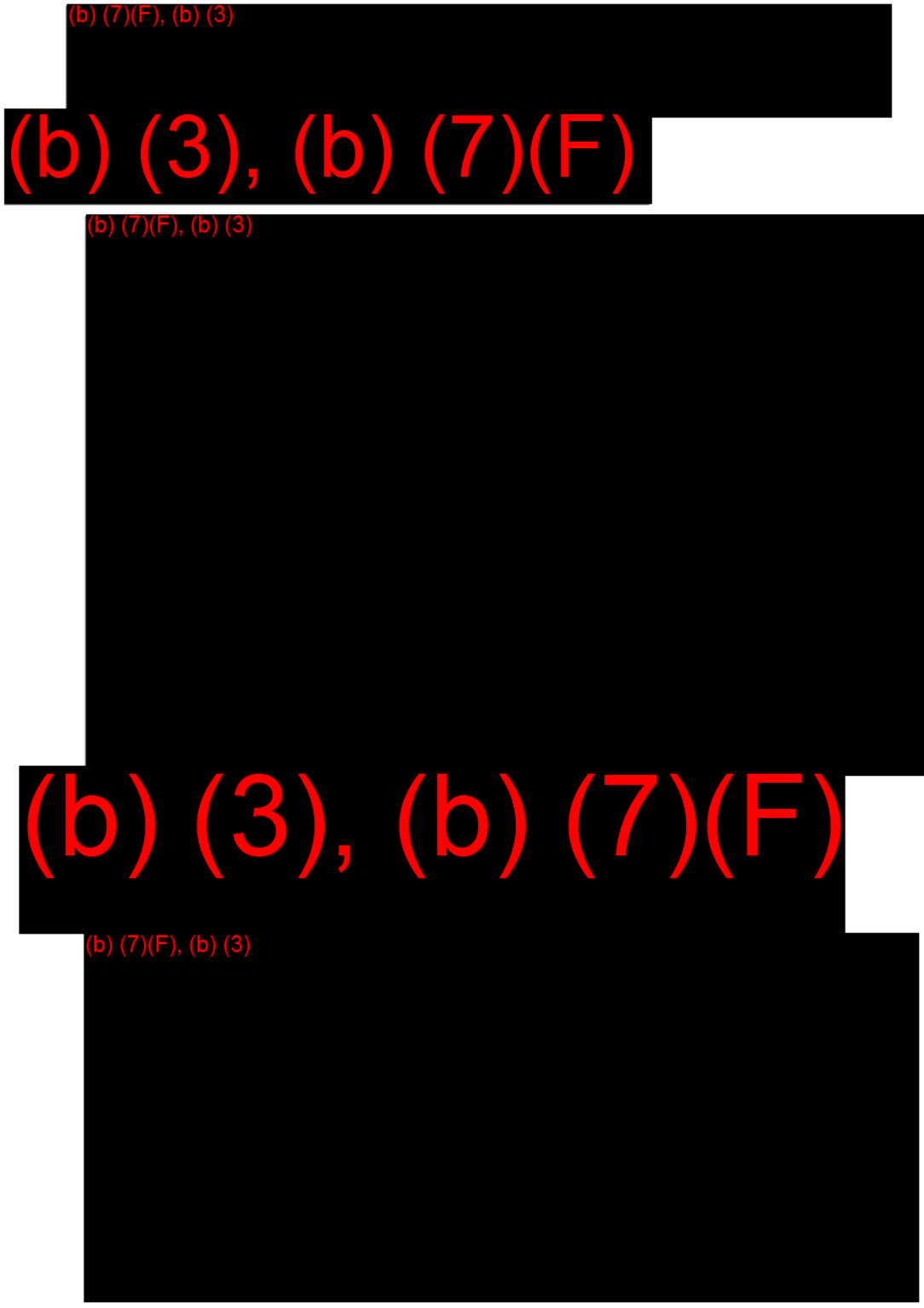
(b) (7)(F), (b) (3)

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

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

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

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS	12" Crude Line From Lebanon To Indianapolis Refinery	
	1	Lebanon Station
	13	Neese Ditch
	20	Laughner Ditch
	35	Jackson Run Creek
	59	Drainage Ditch
	62	St. Alphonus Catholic Church
	64	Iron Gate Subdivision
	64	Oil Dominion Subdivision
	67	Indiana Retirement Home
	69	Sugarbush Subdivision
	73	Eagle Creek
	78	The Indiana Baptist Home

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

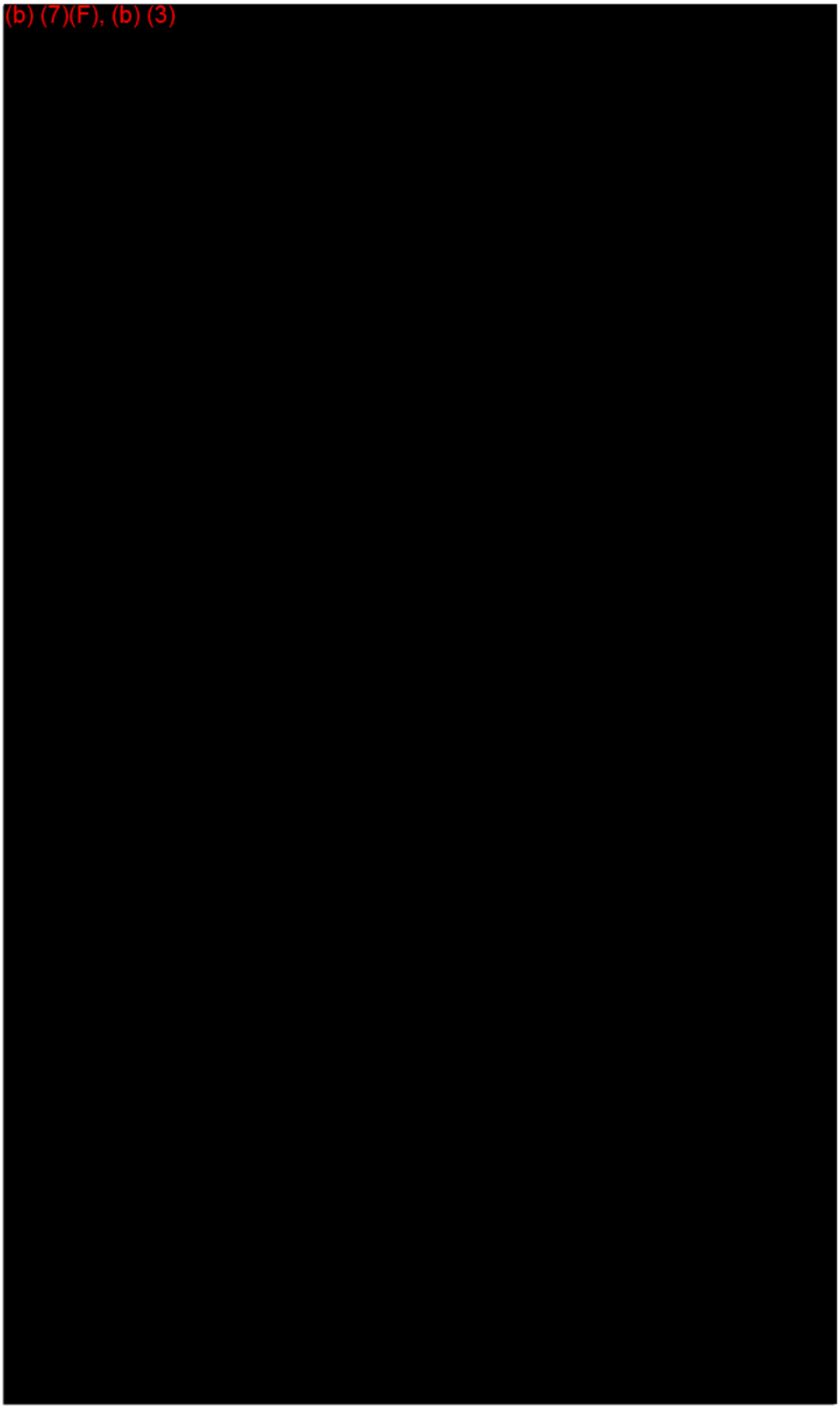
(b) (7)(F), (b) (3)

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS 12" Crude Line From Lebanon To Indianapolis Refinery (Cont'd)

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



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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS Martinsville to Indianapolis 8" from Indiana St. Route 59 to Indianapolis Refinery (Cont'd)

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

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS Martinsville to Indianapolis 8" from Indiana St. Route 59 to Indianapolis Refinery (Cont'd)

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

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS Martinsville to Indianapolis 8" from Indiana St. Route 59 to Indianapolis Refinery (Cont'd)

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

[redacted]

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS Martinsville to Indianapolis 8" from Indiana St. Route 59 to Indianapolis Refinery (Cont'd)

ROW

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

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

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

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

1696 Interstate 65

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

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

Martinsville to Indianapolis 8" from Indiana St. Route 59 to Indianapolis Refinery (Cont'd)

ROW

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

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

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

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database

SEE TELEPHONE NUMBER SECTION

Blackford County, IN
Laurel Lakes Golf Course Unnamed Pond

Boone County, IN
Perry Twnshp Vol Fire Dept Boone's PD

Lincoln memory Gardens Unnamed Pond

Zionsville Golf Club Unnamed Pond

Delaware County, IN
Organic Enterprise Unnamed Pond

Hamilton County, IN
Indiana Academy Cicero CK

Becks Superior Hybrids L Cicero CK

Scotts Hyponex Corp UN D

Irving Materials Inc. UN Pit

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database.(Cont'd)

Hamilton County, IN (Cont'd)
Stony Creek Stone Co. UN Pit
Pebble Brook Golf Course Unnamed Lake

Heartland Growers Unnamed Pond

R N Thompson Sports, Inc. Unnamed Pond

PSI, Noblesville White River

Hendricks County, IN
Tomahawk Hills Golf Club Unnamed Lake

Deer Creek Golf Course Unnamed Pond

Brownsburg Golf Course White Lick CK

Madison County, IN
Irving Materials Inc.

Killbuck Golf Course Killbuck CK

E and B Paving Inc. Unnamed Pond

Marion County, IN
The Skinner and Broadbent Co Un Gravel Pit

Allison Transmission, Un Storm WT

Indpls Motor Speedway Golf Course Unknown PD

Asphalt Material Inc. Unnamed Pond

Putnam County, IN
Owen-Putnam IN DNR, Div. of Forestry

Big Walnut Creek, National Park Service

Oakalla Valley Farms, Big Walnut Ck

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Clermont Area Critical/Sensitive Areas

CRITICAL AREAS	Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database.(Cont'd)
	Putnam County, IN (Cont'd)
	Lone Star Industries Co., Lower S PD
	A & C Products, Inc. 2 UN Pit
	Lone Star Industries Co., Un Quarry

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Clermont Area Critical/Sensitive Areas

INDIANA

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Anderson-South
Arcadia
Ashland North
Alexandria
Beech Grove
Bellmore
Blaine
Brazil-East
Brazil-West
Bridgeport
Brownsburg
Carmel
Center Point
Clayton
Clermont
Clinton Falls
Cloverdale
Coatesville
Coldwater
Cosmos
Cumberland
Danville
Deerfield
Domestic
Eaton
Elwood
Eminence
Erastus
Fairmount
Farmland
Fayette
Fishers
Fort Recovery
Franklin
Frankton
Gas City
Gaston
Geneva
Gilman
Greencastle
Hall
Hartford City-East
Hartford City West
Hazelrigg
Indianapolis-East
Indianapolis-West
Ingalls
Kirklin
Ladoga
Lapel
Lebanon
Lizton
Mansfield
Maywood
McCordsville
Mechanicsburg
Middletown
Montpelier
Muncie East
Muncie West
New Corydon
New Market
New Ross
Noblesville
North Salem
Omega
Pendleton
Pennville
Petroleum
Plainfield
Point Isabel
Poland
Portland
Redkey
Reelsville
Ridgeville
Riverwood
Roachdale
Rockville
Rosston
Russellville
Shannondale
Sheridan
Staunton
Sulpur Springs
Tipton
Westfield
Wheeling
Willshire
Windfall
Zionsville

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Clermont Area Critical/Sensitive Areas

MORSE RESERVOIR CROSSING SCENARIO

Station #: 7156 + 00
Right-of-Way: 723
Ave. Depth: 20 feet

Mile Post: 135.5
Ave. Width: Various
Ave. Speed: 2.0 mph

CITY: Noblesville
COUNTY: Hamilton
STATE: Indiana

SEE TELEPHONE NUMBER SECTION

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM LINE
Oak Cove Lane	at site	
Morse Reservoir	Jeb Conrad	700 feet
Marina Limited Partnership	Allen Rosenburg	various
Carrigan Road Bridge	Highway Dept.	1 mile
North Harbour Subdivision	Club House	
South Harbour Subdivision Homeowners Ass.		5 miles
Harbour Water Corp.	Jeb Conrad	5.5 miles
Hamilton Co. Park	City of Cicero	5.5 miles
Morse Reservoir Overflow	Jeb Conrad	5.5 miles
Cicero Creek	Jeb Conrad	6 miles
Hwy. 38 Bridge	Hwy. Dept.	6.5 miles
Hwy. 32 Bridge	Hwy. Dept.	8 miles

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Clermont Area Critical/Sensitive Areas

MORSE RESERVOIR CROSSING SCENARIO

South Edge of Bob Hendricks 8 miles
City of Noblesville
City Emer Mgr
Time Garner-police
Fire Dept.

White River	Jeb Conrad	10.5 miles
U.S. Aggregates	Plant Mgr.	13 miles
Conner Prairie	Douglass McDonald	14 miles
146th St. Bridge	Hwy. Dept.	15 miles
Indianapolis Water Co.	City of Carmel	18 miles
116th St. Bridge	Hwy. Dept.	19 miles
Northwood Hills Subdivision		18-19 miles
Park along White River	Parks Dept.	19.5 miles
City of Carmel Water Dept.	City of Carmel	20 miles
I-465 Hwy. Dept.	20.5 miles	

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INDIANAPOLIS, IN LP TERMINAL - CRITICAL / SENSITIVE AREAS

Sensitive Areas Within Planning Distance of Facility

This section details the critical and sensitive areas that have been identified to date which have the potential to be at risk in the event of a release at the Terminal.

A review of the substantial harm planning distance has revealed the following vulnerable or sensitive areas:

Water Intakes

N/A

Schools

Schools	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F)			(b) (7)(F), (b) (3)	

Medical Facilities

Medical Facilities	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F)			b) (7)(F), (b) (3)	

Residential Areas

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
New Augusta	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Snacks				
Flackville				
Mount Jackson				

Businesses

Businesses	Standard Coordinates	
	Latitude (N)	Longitude (W)
North Westway Park Airport	(b) (7)(F), (b) (3)	
Georgetown Plaza		
Eagledale Plaza		
500 Shopping Center		
500 Airport		

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Wetlands

N/A

Fish and Wildlife Areas

Wildlife Rehabilitation
In an oil spill incident, it is possible that birds, aquatic life, and/or other wildlife may come in contact with the spilled material. If wildlife becomes involved in the spilled material, it will be necessary to perform wildlife rescue and rehabilitation operations. The capture and treatment of wildlife, especially endangered species, is highly regulated by the U.S. Department of the Interior. To conduct these operations, it will be necessary to obtain assistance from properly trained, licensed, and permitted organizations and personnel. It is important to ensure that any personnel involved in wildlife rescue and rehabilitation operations, including volunteers, have received the appropriate level of Hazardous Waste Operations and Emergency Response (HAZWOPER) training.

In the event that wildlife is impacted, advice and assistance from trained and experienced persons in the area of wildlife rescue and rehabilitation may be requested.

The Corporate Emergency Response Team (CERT) will arrange for various agencies to be available for this service, such as:

- Tri-State Bird Rescue and Research, Inc.
  Wilmington, DE
  Administrative: 302/737-7241
  24-hour pager: 800/710-0695 (Eileen M Gilbert)
  800/710-0696 (Dr. Erica Miller)

- International Bird Rescue and Research Center
  Berkeley, CA
  Administrative: 510/841-9086
  (Recorded menu for emergencies)

Lakes and Streams

Lakes and Streams	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Bird Branch	[redacted]			
Robin Run				
Glen Creek				
Liberty Branch				
Guion Creek				
Falcon Creek				

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

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Clermont Area Critical/Sensitive Areas

Lakes and Streams	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Dry Run	[redacted]			
Little Eagle Creek				
Blue Lake				
Eagle Creek				
Highland Creek				
Lick Creek				
Thompson Run				
Dollar Hide Creek				

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

Endangered Flora and Fauna

Based on our current findings, there are no known endangered flora or fauna species within the worst case discharge planning distance of the Terminal. Indiana has an Endangered and Threatened Species listing of 22 species. These species are provided for informational purposes only.

Fauna	Status
Gray bat	Endangered
Indiana bat	Endangered
Tubercled blossom	Endangered
Karner blue butterfly	Endangered
Mitchell's satyr butterfly	Endangered
White catspaw	Endangered
Clubshell	Endangered
Bald eagle	Threatened
Fanshell	Endangered
Pink mucket	Endangered
Cracking pearlymussel	Endangered
White wartyback pearlymussel	Endangered
Rough pigtoe	Endangered
Orangefoot pimpleback	Endangered
Piping plover (Great Lakes Watershed)	Endangered
Piping plover (except Great Lakes Watershed)	Threatened
Fat pocketbook	Endangered
Eastern puma	Endangered
Northern riffleshell	Endangered
Pink ring	Endangered
Copperbelly water snake	Threatened
Least tern	Endangered

Flora	Status
Mead's milkweed	Threatened
Pitcher's thistle	Threatened

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Clermont Area Critical/Sensitive Areas

Flora	Status
Running buffalo clover	Endangered

In the event of a release, MAP will coordinate with the United States Fish and Wildlife Service (USFWS), and state and local wildlife management groups to ensure the protection of all threatened and endangered species within a release area.

Recreational Areas

Recreational Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
North Westway Park	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	

Transportation Routes

Transportation Routes			Standard Coordinates	
			Latitude (N)	Longitude (W)
Interchange 121			(b) (7)(F), (b) (3)	

Utilities

N/A

Others Areas of Economic Impo

Other Areas of Economic Importance			Standard Coordinates	
			Latitude (N)	Longitude (W)
Joy Fundamental Baptist Church			(b) (7)(F), (b) (3)	
Salem Lutheran Church				
Sparrow Hollow				
Bethel United Methodist Church				
Prince of Peace Lutheran Church				
Speedway General Baptist Church				
Wesley United Methodist Church				
Fold of Christ Apostolic Church				
Floral Park Cemetery				
First Baptist Tabernacle				
Mount Jackson Cemetery				
Washington Street United Methodist Church				
Bentonville Church				

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Hammond/Griffith Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the Hammond/Griffith Operations Area are shown in the Response Maps located in the Martinsville Drafting room and in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

There are a wide variety of threatened or endangered species found in the Hammond/Griffith Operations Area. The Indiana Bat is found throughout the Illinois portion of the area, in Lake and Porter counties in Indiana, and in St. Joseph, Berrien, Cass, Van Buren, Kalamazoo, Allegan and Barry counties in Michigan. The next most common species in the operations area is the Bald Eagle. The bald eagle has been documented in Cook County IL, Will County IL, Kalamazoo County MI, Allegan County MI, Ottawa County MI, and Muskegon County MI. The Peregrine Falcon, Least Tern (bird) and Crackling Pearly Mussel were noted in Cooks, Will, and Kankakee counties. Other species found in the operations area include: the Leafy Prairie Clover (Will County); Pitcher's Thistle and Karner Blue Butterfly (Porter County, IN); Small Whorled Pogonia (plant found in Berrien County MI); and the Mitchell's Satyr Butterfly (Cass County MI). There area no threatened or endangered species present in Laporte County IN, or Kent County MI.

Wetlands have been delineated by the National Wetlands Inventory throughout the operations area. The Iroquois River is classified as a riverine (places where water flows within a channel), open water, permanently flooded wetland. A very small, semipermanently flooded, palustrine (generally described as freshwater, vegetated wetland; would include marshes and swamps) wetland exists on the western edge of the Iroquois River, very near the area where the pipeline crosses the River. A temporarily flooded palustrine wetland exists approximately one half mile south of the pipeline crossing, and along the eastern edge of the river. The same type of wetland area is defined along a narrow strip just south of the pipeline crossing, along the western edge of the Iroquois River for about two miles. The area surrounding Langan Creek, just north of the pipeline and west of the Iroquois River, is considered a seasonally flooded, palustrine wetland. The area on the west side of the Iroquois River, between Langan Creek and Beaver Creek is considered a forested, seasonally flooded, palustrine wetland.

Beaver Creek, located in the path of the pipeline, is considered permanently flooded, open water, riverine wetland. Much of the area surrounding the creek is considered to be palustrine wetlands. There are very few wetlands located in the areas away from creeks and rivers.

There are a number of areas of concern in the Hammond/Griffith Operations Area. In Illinois, these areas include: the William W. Powers State Park located seven miles east of Blue Island; the Des Plaines Conservation Area in Cook County; Kankakee River State Park in Altorf; and the Iroquois County Conservation Area five miles northeast of Beaverville. In Indiana, these areas include: LaSalle Fish and Wildlife Area two miles southwest of Schneider; Indiana Dunes National Lakeshore and State Park located three miles north of Porter; Kankakee State Fish and Wildlife Area, seven miles south of Thompson; Kingsbury State Fish and Wildlife Area, three miles south of Stillwell; and the Potato Creek State Park, two miles east of Pine in St. Joseph County. In Michigan, there area a number of state parks in the operations area along the Lake Michigan shore. These parks are: Van Buren State Park in Van Buren County; Saugetuck State Park, three miles south of Mactawa; Holland State Park, in Ottawa County; and Muskegon State Park in Muskegon County. Other areas of concern in Michigan include: Fort Custer National Cemetery in Augusta; Fort Custer State Recreation Area located three miles southeast of Augusta; Yankee Springs State Recreation Area in Barry County; and P. J. Hoffmaster State Park in Muskegon County.

ACCESS/STAGING AREAS

Airports

Griffith/Merrillville Airport	Griffith, IN
Gary Regional Airport	Gary, IN
Michiana Regional Airport	South Bend, IN
Twin Cities Airport	Benton Harbor, MI
Tulip City Air Service	Holland, MI
Grand Haven Memorial Airport	Grand Haven, MI
Muskegon County Airport	Muskegon, MI
Kankakee Airport	Kankakee, IL

ACCESS/STAGING AREAS

Staging Areas

The station nearest to the oil spill site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The

Cleanup unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

IROQUOIS RIVER CROSSING SCENARIO

Iroquois River Crossing
Station #: 3418+52 Mile Post: 64.7
Right-of-way: 758 Ave. Width: 100 + yards
Ave. Depth: 3 - 6 Feet Ave. Speed: 2.3 mph

CITY: Kankakee
COUNTY: Kankakee
STATE: Illinois
POPULATION: 56,280

SEE TELEPHONE NUMBER SECTION

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Penn Central Railroad	Trainmaster	18 miles
Kankakee River State Park		17 miles
Route 17 County Highway Dept.		17 miles
State St. Bridge	Local	17 miles
IL Central Railroad	Trainmaster	15.5 miles
City of Kankakee Police Dept.	Timothy Nugent	15 miles
City of Kankakee Fire Dept.	James Dupuis	15 miles

IROQUOIS RIVER CROSSING SCENARIO

Iroquois River Crossing (Cont'd)

Hammond/Griffith Critical/Sensitive Areas

CRITICAL AREAS	CONTACT PERSON	APPROX DISTANCE FROM PIPELINE
Kankakee County ESDA		15 miles
Kankakee City Sheriff		15 miles
Kankakee City River Patrol		15 miles
SR 50	State Highway Dept.	15 miles
SR 45/52	State Highway Dept.	15 miles
Consumers IL Water Co.	Plant Supv. Chuck Smith	14.3 miles
Interstate 57	State Highway Dept.	13 miles
River Side Park Culkins Marina Boat Ramp		12.5 miles
Aroma Boat Club Dutch Riggs Harbor		11.5 miles
Aroma Park Fire Dept.	Wm. Speakman	11 miles
Aroma Park Police Dept.	Barry Thomas	11 miles
Aroma Park City Boat Ramp & Park	Police Dept. Barry Thomas	11 miles
Chebanse Twp. Fire Dept. (Iroquois County)	Delbert Vaughn	8 miles
Chebanse Police Dept. (Iroquois County)	Linda Williams	8 miles

Hammond/Griffith Critical/Sensitive Areas

IROQUOIS RIVER CROSSING SCENARIO

Iroquois River Crossing (Cont'd)

CRITICAL AREAS	CONTACT PERSON	APPROX DISTANCE FROM PIPELINE
Sugar Island Bridge City Road #1322	City Highway Dept.	4.6 miles

NOTE: All parks and recreation areas, including the community college and privately owned business in the area are notified by ESDA (Kankakee County) in case of emergency.

CRITICAL AREAS

#1 - 6" Products Line from Hammond, IN to Niles, MI

ROW
First 5 miles of system which is located in congested area

5.8	Calumet River
13	Burns Ditch
14.8	Crossroads Truck Plaza
16.3	Subdivision
17.1	Houses
39.3	Subdivision

Wirecraft Corp., La Porte, IN

Bendix Corp., South Bend, IN

St. Joseph River, Niles, MI

Muskegon 10" Products Line from Griffith, IN to Muskegon, MI

Griffith to Lottaville

Entire line should be inspected due to congested area.

Hammond/Griffith Critical/Sensitive Areas

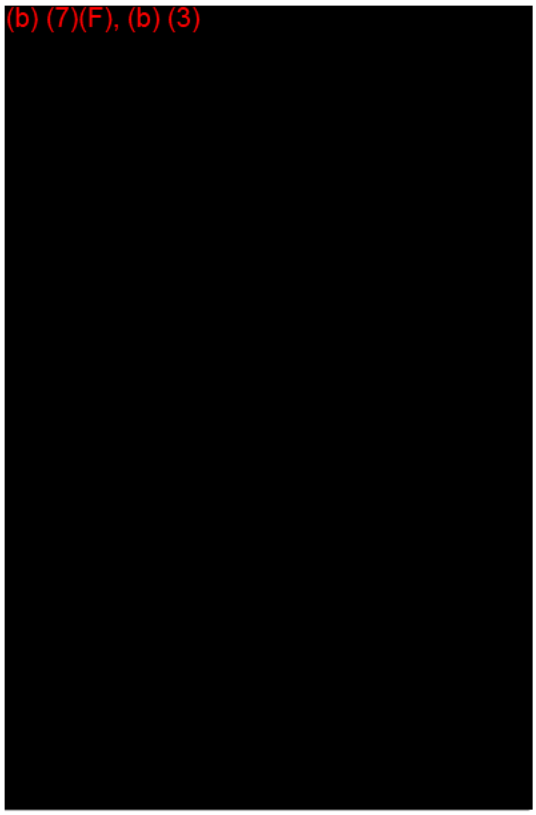
CRITICAL AREAS

Lottaville to North Muskegon

ROW

First 10 miles of system which is located in congested area

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

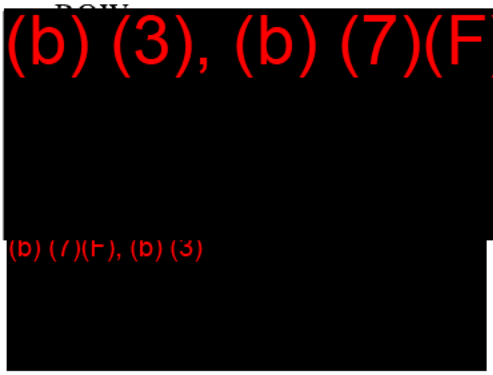


Wabash 12" Products Line from the crossing of US Route 52 to Griffith, IN

ROW

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

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



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

Hammond/Griffith Critical/Sensitive Areas

CRITICAL AREAS Wabash 12" Products Line from the crossing of US Route 52 to Griffith, IN

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

[redacted]

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

Wabash 12" Loop Lines from Griffith to Hammond

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

[redacted]

Entire line should be inspected due to congested area.

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database

SEE TELEPHONE NUMBER SECTION

IL Kankakee
Kankakee River State Park

Kankakee River State Park
Consumers Illinois Water Co., Kankakee

IN La Porte
Pinhook Bog, National Natural Landmark

LaPorte, City of

Long Beach Country Club

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database (Cont'd)

Michigan City Dept Wtr Wks

Michigan City Golf Club

NIPSCO

Rieth Riley Const Co Inc

Ski Valley

Tuholski Farms Inc

Trail Creek Fishing Area

Kingsbury, Kankakee State Fish & Wildlife Area

Springfield Prairie Fen Wetland

Lake County, IN
American Maize Products Co

Amoco Oil Co - Amoco Whiting Refinery

Briar Ridge Country Club

Georgia Pacific Corp

Griffith Golf Center

Gary-Hobart Water Corp., Borman Park Water Plant

Herr Farms

Indian Ridge C C

Johnson's Farm Produce

Lever Brothers Co

Lehigh Portland Cement Company- Buffington Plant,

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database (Cont'd)

Lake County, IN
Mobil Oil Corp.

NIPSCO - D H Mitchel Gen Serv

Remus Farms

Supervisors Country Club

U S Gypsum

Wicker Park Golf Course

Zandstra Farm

Hoosier Prairie Nature Preserve

Clark & Pine Dune & Swale Preserve

Crown Point Wetlands

Toll Road Prairie

Lake Station Sand Prairie

McCloskey Savanna

Porter County, IN
Bethlehem Steel Corp

City of Portage

Crisman Sand Company Inc.

Gary-Hobart Water Corp- Ogden Dunes Water Plant

Midwest Steel

NIPSCO - Bailly Gen Ser Sta

Porter Co Emergency Mgt Agency

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database (Cont'd)

Porter County, IN
Robbinhurst Golf Club

Sand Creek Country Club

Moraine Nature Preserve

Indiana Dunes

Suman Fen

Langeluttig Marsh

Dunes Nature Preserve

St. Joseph County, IN
Blad Farms Inc, Martin

Bowlers Country Club

Gumz Farms Inc, Elmer

Lafree, George

Millar, David

Mroczkiewicz, Albert

Notre Dame, University of

Sebasty, Kenneth

Snyder Farms Inc, Arthur

South Bend Country Club

St Joseph Co Pks Rec Dept

St Joseph Materials Co

Vulcan Materials Co 445

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database (Cont'd)

Will County, IL
Shady Lawn Golf Course

Allegan County, MI
Main Pier Marina Ausable River

Charles Baughman Cuddy Drain

Landman Gun Lake Boat Center Gun Lake

Matteson Marine Gun Lake

Pier Marina Kalamazoo Lake

Sergeant Marina Condo Assoc. Kalamazoo Lake

The Landings Kalamazoo Lake

Gleason's Marina Kalamazoo River

Saugatuck Yacht Club Kalamazoo River

Saugatuck Yacht Service Kalamazoo River

Tower Marina Kalamazoo River

Walkers Landing Kalamazoo River

West Shore Marine Inc. Kalamazoo River

Pine Lake Boat & Motor Co. Pine Lake

The Saginaw Marina Inc. Saginaw River

Berrien County, MI
Oselka's Snug Harbor Marine Inc. Galien River, Lake Michigan

Joe Schultes Marina Paw Paw Lake

Oak-Hammer Inc. Paw Paw Lake

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database (Cont'd)

Berrien County, MI (Cont'd)
Paw Paw Sports & Marina Paw Paw Lake

Schulte Storage Paw Paw Lake

Wolf's Marina Paw Paw Lake

Boardwalk Marina St. Joseph River

Brian's Marine Service St. Joseph River

Eagle Pointe St. Joseph River

Kings Kove Marina St. Joseph River

Kings Kove Marina St. Joseph River

Lighthouse Marine Inc. St. Joseph River

Marina St. Joseph River

Mollhagen's St. Joseph River

Pier 33 St. Joseph River

Pier 33 South Marina St. Joseph River

Riverview 1000 Inc. St. Joseph River

Smitty's Marine St. Joseph River

Eagle Pointe Harbor St. Joseph River, Lake Michigan

Muskegon County, MI
Mona Lake Boating Club Mona Lake

Pier 33 Marina, 2000 Lakeshore Drive, Morrison Channel, Lake Michigan

Harbour Towne Marina Muskegon Lake

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database (Cont'd)

Muskegon County, MI
Anchor Marina Muskegon Lake

Grand Valley Marine Inc. Muskegon Lake

Great Lakes Marina & Storage Muskegon Lake

Hartshorn Municipal Marina Muskegon Lake

Lakeshore Yacht Harbour Assoc Muskegon Lake

Matt's Boat Livery Muskegon Lake

Muskegon Yacht Club Muskegon Lake

North Shore Marina Muskegon Lake

Pointe Marine Inc. Muskegon Lake

Toressen Marine Inc. Muskegon Lake

Wheelers Landing Muskegon River

Armstrong's Bait & Sport Shop White Lake

Barbara J. Pennell White Lake

Crosswinds Marina White Lake

Driftwood Lodge White Lake

Jolli Roger Marina White Lake

Parkland Development's White Lake

Sail 'n Trail White Lake

South Shore Marina White Lake

White Lake Municipal Marina White Lake

Hammond/Griffith Critical/Sensitive Areas

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database. (Cont'd)

Muskegon County, MI (Cont'd)
Whitehall Landing, Inc. White Lake

Wolverine Marina White Lake

Ottawa County, MI
Conistoga Grand River Campground Grand River

Dick's Landing Grand River

Felix's Grand River

Grand Haven Municipal Marina Grand River

Grand Valley Marina II Grand River

Hall's Sport Center Grand River

Holiday Inn Grand River

M & Marina Grand River

North Shore Marina Grand River

Northshore RV & Mobile Home, Grand River

One Grand Place Grand River

River Bend Marina Grand River

River Haven Marina Grand River

The Wharf Marina Grand River

Anchorage Marina Lake Macatawa

Bayshore Marina Inc. Lake Macatawa

Dry Land Marina Lake Macatawa

Easter Marine Service Lake Macatawa

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database. (Cont'd)

Ottawa County, MI
Eldean Shipyard & Yacht Sales Lake Macatawa

Macatawa Bay Yacht Club, Lake Macatawa

Parkside Marina, Lake Macatawa

Pier 33 Lake Michigan

Thunder Marine - Pier 33 Morrison Channel, Lake Michigan

Barrett Boat Works Spring Lake

C-Way Marina Spring Lake

Herm's Boat Livery Spring Lake

Spring Lake Yacht Club Spring Lake

Wierenga Marinas Spring Lake

Hammond/Griffith Critical/Sensitive Areas

ILLINOIS

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Arlington Heights
Beaverville
Beecher East
Beecher West
Belvidere N.E.
Belvidere N.W.
Belvidere South
Berwyn
Blue Island
Bradley
Caledonia
Calumet City, IL-IN
Cherry Valley
Chicago Loop
Compton
Clifton
Crescent City
Crystal Lake
Dyer
Elgin
Elmhurst
Elwood
Evanston
Fairdale
Frankfort
Gilman
Hampshire
Harvey
Illiana Heights
Jackson Park
Joliet
Kankakee
Kings
Lake Calumet, IL-IN
Leesville
L'Erable
Mendota
Mokena
Momence
Naperville
Normantown
Palatine
Palos Park
Park Ridge
Plainfield
River Forest
Rochelle
Rockford North
Rockford South
Romeoville
Sag Bridge
South Beloit
St. Anne
Steger
Steward
Streamwood
Timley Park
Troy Grove
West Chicago
West Kankakee
Wheaton

INDIANA

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Chesterton
Crown Point
Dunes Acres
Gary
Highland
Lakeville
LaPorte East
LaPorte West
Lydick
Michigan City East
Michigan City West
North Liberty
New Carlisle
Ogden Dunes
Palmer
Portage
South Bend East
South Bend West
Springville
St. John
Stillwell
Valparaiso
Westville
Whiting

Hammond/Griffith Critical/Sensitive Areas

MICHIGAN

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Allendale
Allegan
Alto
Bangor
Baroda
Benton Harbor
Benton Heights
Berrien Springs
Big Blue Lake
Bloomingdale
Borculo
Bowens Mill
Bridgman
Burnips
Caledonia
Cascade
Coloma
Coopersville
Covert
Cutlerville
Dalton
Decatur
Dowagiac
Dowling
Edwardsburg, MI-IN
Fennville
Freeport
Galien, MI-IN
Glenn
Gobles East
Gobles West
Grand Haven
Grand Rapids East
Grand Rapids West
Grandville
Hamilton East
Hamilton West
Hartford
Hastings
Holland East
Holland West
Holton
Hudsonville West
Kalamazoo NE
Kalamazoo SW
Lacota
Lawton
Lawrence
Lowell
Marcellus
Martin
Merson
McDonald
Middleville
Millgrove
Muskegon East
Muskegon West
New Buffalo E, MI-IN
New Buffalo W, MI-IN
New Carlile
Niles East, MI-IN
Niles West, MI-IN
Nunica
Orangeville
Otsego
Paw Paw
Port Sheldon
Pullman
Ravenna
Saugatuck
Sister Lakes
Sadus
South Haven
Stevensville
Sumnerville
Sullivan
Three Oaks, MI-IN
Twin Lake
Twin Lakes
Wayland
Wolfe Lake

Hammond/Griffith Critical/Sensitive Areas

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

[redacted]

EMERGENCY RESPONSE AGENCIES

SEE TELEPHONE NUMBER SECTION

Berrien County Sheriff

Benton Township
Police Dept.
Fire Dept.

St. Joseph Charter Twp. Police Dept.
Fire Dept.

City of St. Joseph
Police Dept.
Fire Dept.

City of Benton Harbor
Police Dept.
Fire Dept.

Michigan State Police
U. S. Coast Guard

CRITICAL AREAS	APPROX. DISTANCE FROM PIPELINE
Knights of Columbus Hall	0.25 Miles
FOP Lodge 100	1.1 Miles
Unknown Tributary Entrance	1.1 Miles

Hammond/Griffith Critical/Sensitive Areas

ST. JOSEPH RIVER DISCHARGE SCENARIO

CRITICAL AREAS	APPROX. DISTANCE FROM PIPELINE
U. S. 31/M-139 Bridge	1.1 Miles
I-94 Bridge	1.7 Miles
River Park	1.9 Miles
Riverview Park	1.9 Miles
Carronde Park (Open Apr.1 - Dec.1)	3.1 Miles
Eagle Point Harbor Marina	3.5 Miles
Emery Island (undeveloped)	3.6 Miles
Hickory Creek Tributary Entrance	4.3 Miles
Berrien Hills Country Club	4.3 Miles
Napier St. Bridge (Note Mercy Memorial Hospital on S.W. corner)	4.6 Miles
Undeveloped Island	5.0 Miles
Riverview 1000 Marina	5.2 Miles
Commercially Developed Island	5.4 Miles
Harbor Isle Marina (On Island North Channel)	5.4 Miles
Pier 33 Marina (On Island South Channel)	5.4 Miles
Brian's Marina (On Island North Channel)	5.4 Miles

Hammond/Griffith Critical/Sensitive Areas

ST. JOSEPH RIVER DISCHARGE SCENARIO

CRITICAL AREAS	APPROX. DISTANCE FROM PIPELINE
Benton Harbor/St. Joseph Wastewater Plant (on Island, No water intakes)	5.4 Miles
Riverview Park (Public Boat Launch and Slips)	5.7 Miles
Main Street Bridge (Bus. I-94 across Island)	6.3 Miles (Also See State Police)
Paw Paw River Tributary Entrance	6.5 Miles
Lake Shore Road Bridge (U.S. 63)	6.8 Miles (Also See State Police)
Railroad Bridge	6.9 Miles
St. Joseph River Yacht Club	7.0 Miles
Silver Beach County Park (on Lake Mich.)	7.1 Miles
Tiscornia Park (on Lake Michigan)	7.1 Miles

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



ST. JOSEPH RIVER DISCHARGE SCENARIO

LOGISTICAL DATA

Public Boat Launches

Airport

Twin Cities Airport
M-139 and Business I-94

Command Post Site (Option)

St. Joseph Holiday Inn
100 Main Street
St. Joseph, MI 49805

PUBLIC BOAT LAUNCHES

1. Riverside Park on north river bank, just downstream of I-94 bridge. Large parking area.

2. Riverview Park on north river bank, 5.7 miles downstream of pipeline crossing, across from commercially developed island. Parking area.

3. Commercially Developed Island, 5.4 miles downstream of pipeline crossing, on north channel. Parking area.

4. Also, see marinas on Critical/Sensitive Area list.

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

[redacted]

GRAND RIVER DISCHARGE SCENARIO

EMERGENCY RESPONDERS

SEE TELEPHONE NUMBER SECTION

U. S. Coast Guard

Michigan State Police

Ottawa County Sheriff Dept.

Spring Lake/Ferrysburg Police Dept.

Grand Haven Police Dept.

Grand Haven Fire Dept.

Ferrysburg Fire Dept.

Spring Lake Fire Dept.

Spring Lake Twp. Fire Dept.

Crockery Twp. Fire Dept.

Robinson Twp. Fire Dept.

Grand Haven Twp. Fire Dept.

Tri-Cities Mutual Assistance
Petroleum Spill Response Team

APPROX.

CRITICAL AREAS	DISTANCE FROM PIPELINE
Grand Valley Marina	On Site
River Haven Marina	.15 Miles
Felix's Marina	4.0 Miles
Pottawattomie Park	5.0 Miles
Village Cove Marina	7.5 Miles
East End Park	8.0 Miles

Hammond/Griffith Critical/Sensitive Areas

GRAND RIVER DISCHARGE SCENARIO

CRITICAL AREAS	APPROX. DISTANCE FROM PIPELINE
Mill Point Park	8.5 Miles
River Bend Marina	9.0 Miles
Holiday Inn	9.0 Miles
Hwy. M-104 Bridge over Mouth of Spring Lake	9.0 Miles
Grand Valley Marina II	9.0 Miles
Hall's Sport Center	9.5 Miles
Grand Isle Marina	9.5 Miles
Hwy. US 31 Draw Bridge	9.5 Miles
Keenan Marina on Spring Lake	9.75 Miles
Barrett Boat Works on Spring Lake	9.75 Miles
Spring Lake Yacht Club on Spring Lake	10.0 Miles
Herm's Boat Livery on Spring Lake	12.0 Miles
The Wharf Marina	9.75 Miles
North Shore R.V. Mobile Home Park	9.75 Miles
Grand Haven Municipal Marina	10.0 Miles
North Shore Marina	10.75 Miles
Grand Haven State Park	11.5 Miles

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Hammond/Griffith Critical/Sensitive Areas

GRAND RIVER DISCHARGE SCENARIO

CRITICAL AREAS

(b) (7)(F), (b) (3) [redacted]

CRITICAL BODIES OF WATER	ACCESS	APPROX. DISTANCE FROM PIPELINE
Bruce Bayou	138th Avenue Boat Launch	2.5 Miles No. Side
Stearns Bayou	From Green Street	4.0 Miles So. Side
Millhouse Bayou	From Mercury Drive	4.0 Miles So. Side
Indian Channel	Boat	3.5 & 4.25 Miles, No. Side
Pottawattomie Bayou	From Mercury Drive	4.5 Miles So. Side
Deremo Bayou	From Boom Rd. private property or by boat	5.5 Miles No. Side
Lloyd Bayou	From Leonard Road	8.5 Miles No. Side
Mouth of Spring Lake	Under M104 (Savage St.) Bridge	9.0 Miles No. Side
South Channel of Grand River	Boat	9.0 & 9.75 So. Side
Intersection of Grand River and Lake Michigan	Boat	11.5 Miles

GRAND RIVER DISCHARGE SCENARIO

LOGISTICAL DATA

Public Boat Launches

1. South side of Grand River: Take Mercury Drive east out of Grand Haven to 118th Avenue. Proceed to north end of 118th Ave. A large parking area is present. Location is at pipeline river crossing.

2. North side of Grand River: Take Leonard Street east out of Spring Lake to 138th Avenue. Proceed to south end of 138th Ave. Turn left on Cypress Dr. and follow to launch site. A large parking area is present. Location is approximately 2.5 miles downstream from pipeline river crossing.

3. North side of Grand River: Take Leonard Street east out of Spring Lake to 138th Avenue. Take 138th Ave. south, turn right on Garfield to 144th Ave., then south to launch site at river. A large parking area is present. Site is approximately 3.0 miles downstream from pipeline river crossing.

4. North side of Grand River: Take M-104 into Village of Spring Lake, then south on School St. to river. A permit is required to launch a boat. A large parking area is present. Site is approximately 8.5 miles downstream from pipeline river crossing.

Airport

Muskegon County Airport
99 Sinclair Drive
Muskegon, MI

Command Post Site Option

Spring Lake Holiday Inn
940 West Savage (US 31 and M104)
Spring Lake, MI 49456

Hammond/Griffith Critical/Sensitive Areas

HAMMOND, IN LIGHT PRODUCTS TERMINAL **CRITICAL / SENSITIVE SITES**

Water Intakes

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

[redacted]

Schools

Schools	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
[redacted]				

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

Hammond/Griffith Critical/Sensitive Areas

Schools	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F)			(b) (7)(F), (b) (3)	

Hammond/Griffith Critical/Sensitive Areas

Schools	UTM Coordinates		Standard Coordinates	
			Latitude (N)	Longitude (W)

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

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

Medical Facilities

Hammond/Griffith Critical/Sensitive Areas

Medical Facilities	UTM Coordinates		Standard Coordinates	
			Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F)			(b) (7)(F), (b) (3)	

Residential Areas

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
East Side	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Taylors Addition to South Chicago (subdivision)				
Jackson Park Highlands (subdivision)				
Jackson Park Terrace (subdivision)				
Berkeley Cottages (subdivision)				
Oakland (subdivision)				
Victor A Olander Homes (subdivision)				
Cleaverville (subdivision)				
Oakenwald (subdivision)				
McCormick Place				
Cityfront Place (subdivision)				
Cityfront Center (subdivision)				
Shantytown (subdivision)				
Kinzies Addition (subdivision)				
Streeterville (subdivision)				
Canal Trustees (subdivision)				
Gold Coast (subdivision)				
Pine Grove (subdivision)				

Hammond/Griffith Critical/Sensitive Areas

Residential Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Rogers Park (subdivision)	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Birchwood (subdivision)				
Howard District (subdivision)				
Oakton (subdivision)				

Businesses

Businesses	Standard Coordinates	
	Latitude (N)	Longitude (W)
Indiana Harbor Boat Club	(b) (7)(F), (b) (3)	
Whiting Robertsdale Boat Club		
Colehour Station		
North Slip		
Saint Dorothy Rectory		
Beach and Tennis Club of Chicago		
South Shore Country Club (historical)		
South Shore Country Club		
South Shore Cultural Center		
Jackson Park Motor Boat Club		
Jackson Park Yacht Club		
Stock Pavilion (historical)		
Agriculture Building (historical)		
Sixty-Fourth Street Beach Pavilion		
Machinery Building (historical)		
Manufacturers Building (historical)		
South Shore Yacht Club		
Electricity Building (historical)		
Mines and Mining Building (historical)		
United States Government Building (historical)		
Fifty-nineth Street Harbor		
Transportation Building (historical)		
Fiftyninth Street Marina		
Fisheries Building (historical)		
Music Court (historical)		
Promontory Point Park Field House		
Horticulture Building (historical)		
Crown Space Center		
Womans Building (historical)		
Museum Of Science And Industry		
Illinois Building (historical)		
Montgomery Place		
Woodlawn Park Station		
Shoreland Hall		
Broadview Hall		
Breckinridge House		
Charles Bonner House		

Hammond/Griffith Critical/Sensitive Areas

Businesses	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Ernest W Heath House	(b) (3), (b) (7)(F)			
International House				
Hyde Park Art Center				
Blackstone Hall				
Catholic Theological Union				
United Methodist Foundation				
Hyde Park Historical Society Museum				
The Cloisters				
East Park Towers				
Cornel Towers				
Model Yacht Basin				
Crossroads International Student Center				
Hyde Park Tower				
Hyde Park Station				
Twim Towers				
Oakland Station				
Madison Park Station				
Harding Museum				
Blackstone Memorial Library				
Lake Village East				
Kenwood Station				
Lake Park Plaza				
Hyde Park Athletic Club				
Douglas Station				
Ellis Inn (historical)				
Dearborn Observatory (historical)				
Lake Meadows Tennis Club				
Cottage Grove Stock Yark (historical)				
Myricks Stock Yard (historical)				
Myricks Tavern (historical)				
Burnham Park Yacht Club (historical)				
Merrill C Meigs Airport				
Burnham Park Yacht Club				
Adler Planetarium				
Burnham Point Yacht Club				
Soldier Field				
Shedd Aquarium				
Natural History Museum				
Pasteur Monument				
Columbus Memorial				
Hutchinson Field				
Congress Plaza				
Columbia Yacht Club				
Chicago Yacht Club				
North Pier				
Navy Pier				
James C Petrillo Music Shell				

Hammond/Griffith Critical/Sensitive Areas

Businesses	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Harbor Point	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
North Harbor Tower				
Monroe Parking Garage				
Goodman Theater				
Buckingham Plaza				
Lake Point Towers				
Centennial Fountain				
North Pier Terminal				
Chicago Police Department Building				
Three Illinois Center				
Sporting Club				
Two Prudential Plaza				
Prudential Building				
Columbus Plaza				
Boulevard Towers South				
Beaubiens Store (historical)				
Illinois Center				
Boulevard Towers North				
Two Illinois Center				
Onterie Center				
Massasoit House (historical)				
One Illinois Center				
Old Rebublic Building				
McClurg Court Center				
Furniture Mart				
Three Hundred Thirty-Three North Michigan Building				
Chicago Riding Club (historical)				
Time-Life Building				
Wacker Tower				
Equitable Building				
Abbot Hall				
Pioneer Court				
Lincoln Tower				
Museum of Contemporary Art				
Kinzie House (historical)				
Tribune Tower				
Pioneer Boat Club (historical)				
Ontario Court				
Arthur Rubloff Building				
Pelouze Building				
Wrigley Building				
Northwestern University Law Library				
Sun-Times Building				
Wieboldt Hall				
Aero-Space Institute				
River Plaza				

Hammond/Griffith Critical/Sensitive Areas

Businesses	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
McGraw - Hill Building	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Jacques Building				
McGraw Pavilion				
Montgomery Ward Memorial Building				
Tarry Medical Research and Education Building				
Michigan - Ohio Building				
Northwestern University - Lake Shore Center				
Decorative Arts Building				
Cadillac Building				
Kiwanis International Building				
Terra Museum				
City Place				
Olympia Center				
Water Tower Place				
Loyola University - Lewis Towers				
John Hancock Tower				
Playboy Building				
Fortnightly of Chicago				
Esquire Theatre				
Newberry Plaza				
Green Bay Triangle				
Astor Tower				
Astor Court				
Three Arts Club				
Hall of Fame of International College of Surgeons				
International College of Surgeons Museum				
Polish Consulate				
Graham Foundation for the Advanced Studies in the				
Port of Indiana				
North Avenue Beach House				
Germania Club				
Chicago Historical Society				
Kogen - Miller Studios				
Carlson Cottage				
Lincoln Park Boat Club				
Lincoln Park Cultural Arts Center and Recreation B				
McCormick Bird House				
Licoln Park Boat Club				
Storks at Play				
Fullerton Pavilion				
Lincoln Park Conservatory				

Hammond/Griffith Critical/Sensitive Areas

Businesses	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
The Belden	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Diversey Yacht Club				
Signal of Peace Monument				
Lincoln Park Gun Club				
Oglesby Monument				
Rustic Pavilion				
Diversey Parkway Facilities Building				
Elks National Memorial Building				
Commonwealth Plaza				
The Brewster				
Chicago Yacht Club				
Chicago City School Addition				
Waveland Field House				
Lake View House (historical)				
Chicago Corinthian Yacht Club				
Waveland Avenue Golf Course				
Saint Josephs Hall				
Saddle and Cycle Club (historical)				
Manor House				
Berger Park South Mansion				
North Lakeside Cultural Center				
Yellow House				
Piper Hall				
Skyscraper Building				
Loyola University Living and Learning Center				
Michael Cudahy Science				
Elizabeth Cudahy Memorial Library				
Dumbach Hall				
Chamberlain Hall				
Cudahy Memorial Library				
Stebler Hall				
Campion Hall				
Mertz Hall				
Kirchbaum Building				
Saitn Ignatius Auditorium				
Wisdom Bridge Theatre				
Carter House				
Harris Hall				
Womens Quadrangle				
University Hall				
Henry Crown Sports Pavilion				
Evanston Water Plant Heliport				
Grosspoint Lighthouse				
Sheridan Shore Yacht Club				
Quilmette Country Club (historical)				

Wetlands

N/A

Fish and Wildlife Areas

Wildlife Rehabilitation
In an oil spill incident, it is possible that birds, aquatic life, and/or other wildlife may come in contact with the spilled material. If wildlife becomes involved in the spilled material, it will be necessary to perform wildlife rescue and rehabilitation operations. The capture and treatment of wildlife, especially endangered species, is highly regulated by the U.S. Department of the Interior. To conduct these operations, it will be necessary to obtain assistance from properly trained, licensed, and permitted organizations and personnel. It is important to ensure that any personnel involved in wildlife rescue and rehabilitation operations, including volunteers, have received the appropriate level of Hazardous Waste Operations and Emergency Response (HAZWOPER) training.

In the event that wildlife is impacted, advice and assistance from trained and experienced persons in the area of wildlife rescue and rehabilitation may be requested.

The Corporate Emergency Response Team (CERT) will arrange for various agencies to be available for this service, such as:

- Tri-State Bird Rescue and Research, Inc.
  Wilmington, DE
  Administrative: 302/737-7241
  24-hour pager: 800/710-0695 (Eileen M Gilbert)
  800/710-0696 (Dr. Erica Miller)

- International Bird Rescue and Research Center
  Berkeley, CA
  Administrative: 510/841-9086
  (Recorded menu for emergencies)

Lakes and Streams

Lakes and Streams	UTM Coordinates		Standard Coordinates	
			Latitude (N)	Longitude (W)
Lake George Canal	(b) (3), (b) (7)(F)			
Forks, The				
Indiana Harbor Canal				
Indiana Harbor				
Buffington Harbor				
Calumet Harbor				
Calumet Harbor				
Calumet River				
North Slip				

Hammond/Griffith Critical/Sensitive Areas

Lakes and Streams	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Gary Harbor	(b) (3), (b) (7)(F)			
Yacht Harbor				
Yacht Harbor				
South Lagoon				
East Lagoon				
West Lagoon				
Columbia Basin				
Burnham Park Harbor				
Chicago Harbor				
Outer Harbor				
Burns International Harbor				
West Harbor Arm				
Burns Waterway Harbor				
East Harbor Arm				
Burns International Harbor				
South Pond				
South Lagoonx				
Diversey Harbor				
North Pond				
Belmont Harbor				
Montrose Harbor				
Dunes Creek				
Wilmette Harbor				

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

Endangered Flora and Fauna

Based on our current findings, there are no known endangered flora or fauna species within the planning distance. Indiana has an Endangered and Threatened Species listing of 22 species. This list is provided for informational purposes only:

Fauna	Status
Gray bat	Endangered
Indiana bat	Endangered
Tubercled blossom	Endangered
Karner blue butterfly	Endangered
Mitchell's satyr butterfly	Endangered
White catspaw	Endangered
Clubshell	Endangered
Bald eagle	Threatened
Fanshell	Endangered
Pink mucket	Endangered
Cracking pearlymussel	Endangered
White wartyback pearlymussel	Endangered
Rough pigtoe	Endangered
Orangefoot pimpleback	Endangered

Hammond/Griffith Critical/Sensitive Areas

Fauna	Status
Piping plover (Great Lakes Watershed)	Endangered
Piping plover (except Great Lakes Watershed)	Threatened
Fat pocketbook	Endangered
Northern riffleshell	Endangered
Pink ring	Endangered
Copperbelly water snake	Threatened
Least tern	Endangered

Flora	Status
Mead's milkweed	Threatened
Pitcher's thistle	Threatened
Running buffalo clover	Endangered

In the event of a release, MPL will coordinate with the United States Fish and Wildlife Service (USFWS), and state and local wildlife management groups to ensure the protection of all threatened and endangered species within a release area.

Recreational Areas

Recreational Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Tod Park	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Jeorse Park				
Whiting Park				
Lakefront Park				
Calumet Park				
Rocky Ledge Park				
Rainbow Park				
Jackson Park				
Promontory Point Park				
Perennial Garden				
Cornell Park				
Marquette Park				
Burnham Park				
Oakland Park				
Douglas Monument Park				
Woodland Park				
Groveland Park				
Lake Meadows Park				
Meigs Field				
West Beach Recreation Area				
Northerly Island Park				
Butler Field				
Grant Park				
Lincoln Memorial				

Hammond/Griffith Critical/Sensitive Areas

Recreational Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Navy Pier Park	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Olive Park				
Cityfront Plaza				
Lake Shore Playground				
Lake Shore Park				
Seneca Park				
Mariano Park				
Goudy Square Park				
Lincoln Monument				
Grant Monument				
Lincoln Park Zoo				
Linne Monument				
Lincoln Park				
Wenat Park				
Thorndale Avenue Park				
Lane Park				
Glenlake Avenue Park				
Berger Park				
Devon Avenue Park				
Albion Avenue Park				
Hartigan Park				
Pratt Boulevard Park				
Loyola Park				
Leone Park				
Howard Park				
Jarvis Avenue Park				
Ashland Park				
Rogers Park				
Juneway Terrace Park				
Garden Park				
Kelly Park				
Baker Park				
Clark Square Park				
Elliot Park				
Burnham Shores Park				
Stockham Place Park				
Cawes Park				
Lake Front Park				
Centennial Park				
Shakespeare Garden				
Northeast Park				
Gillson Park				
Washington Park				
Langdon Park				
Maloney Farm Preserve				
Centennial Park				
Elder Lane Park				

Hammond/Griffith Critical/Sensitive Areas

Recreational Areas	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Village Green Park	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Maple Street Park				
Lake Front Park				
Lloyd Park				
Tower Road Park				

Transportation Routes

Transportation Routes	Standard Coordinates	
	Latitude (N)	Longitude (W)
Interchange Number 1	(b) (7)(F), (b) (3)	

Utilities

Utilities	Standard Coordinates	
	Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F)	(b) (7)(F), (b) (3)	

Others Areas of Economic Im

Other Areas of Economic Importance	Standard Coordinates	
	Latitude (N)	Longitude (W)
Munson Beach	(b) (7)(F), (b) (3)	
Calumet Park Beach		
Bethlehem Lutheran Church		
Mission of the Holy Gospel		
Saint Brides Roman Catholic Church		
Rainbow Park Beach		
South Shore Presbyterian Church		
Saint Joseph House of Candle Spiritual Church		
Saint Margarets Episcopal Church		
Saint Luke Baptist Church		
Ivy Pentecostal Church of God in Christ		
Sixty-seventh Street Beach		
Jackson Park Beach		
Fiftyninth Street Beach		
Wooded Island		
Fifty-Seventh Street Beach		
Saint Cypril Catholic Church (historical)		
Vivekananda Temple		
Chicago Sinai Congregation		
Saint Stephens Church of God in Christ		
Congregation Rodfei-Zedek		
Full Life Church and Counseling Center		
Hyde Park Christian Reformed Church		
Fortyninth Street Beach		

Hammond/Griffith Critical/Sensitive Areas

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
			Latitude (N)	Longitude (W)
Marquette Park Beach	(b) (3), (b) (7)(F)		(b) (7)(F), (b) (3)	
Forty-Ninth Street Beach				
Saint Paul and the Redeemer Episcopal Church				
Evening Star Missionary Baptist Church				
Thirty-first Street Beach				
Northerly Island				
Twelfth Street Beach				
Southerly Breakwater				
Easterly Breakwater				
Buckingham Fountain				
Outer Breakwater				
South Pier				
WNIB-FM (Chicago)				
Fort Dearborn (historical)				
Shore Arm Breakwater				
North Loop Ministries				
Chicago Water Tower				
First Church of Religious Science				
WBBM-TV (Chicago)				
WBEZ-FM (Chicago)				
WCFC-TV (Chicago)				
WFLD-TV (Chicago)				
WFMT-FM (Chicago)				
WGBO-TV (Joliet)				
WGN-TV (Chicago)				
WKQX-FM (Chicago)				
WLUP-FM (Chicago)				
WMAQ-TV (Chicago)				
WNUA-FM (Chicago)				
WOJO-FM (Evanston)				
WPNT-FM (Chicago)				
WSNS-TV (Chicago)				
WUSN-FM (Chicago)				
WVAZ-FM (Oak Park)				
WXRT-FM (Chicago)				
WYCC-TV (Chicago)				
Fourth Presbyterian Church				
Oak Street Beach				
Unity Church of Chicago				
Siant Chrysostoms Episcopal Church				
North Avenue Beach				
Couch Mausoleum				
Hermon Baptist Church				
Simmons Island				
Fullerton Beach				
Lincoln Park Beach (historical)				

Hammond/Griffith Critical/Sensitive Areas

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Second Church of Christ Scientist	(b) (3), (b) (7)(F)			
WCRW-AM (Chicago)				
Saint Peters Episcopal Church				
Broadway United Methodist Church				
Temple Sholom				
Lake View Presbyterian Church				
Montrose - Wilson Beach				
Clarendon Beach (historical)				
Wilson Beach				
Foster Avenue Beach				
Epworth United Methodist Church				
Seventh Church of Christ Scientist				
Omega Church of God in Christ				
Armenian Congregational Church				
Ardmore Hollywood Beach				
Edgewater Presbyterian Church				
Saint Andrews Greek Orthodox Church				
Friendship Center Assembly of God Church				
Church of the Atonement				
Thorndale Avenue Beach				
Glenlake Avenue Beach				
Granville Avenue Beach				
Bethany Evangelical Lutheran Church				
Rosemont Avenue Beach				
Sacred Heart Convent				
Devon Avenue Beach				
Madonna della Strada Chapel				
WLUW-FM (Chicago)				
Tom, Mount				
Holden, Mount				
Jackson, Mount				
Rogers Park Presbyterian Church				
Unification Church				
Cornerstone Bible Church				
Calvary Cemetery				
Saint James Evangelical Lutheran Church				
WNUR-FM (Evanston)				
Bahai Temple				
WNTH-FM (Winnetka)				

Niles, MI Light Products Terminal – Critical / Sensitive Sites

Water Intakes

Water Intakes	UTM Coordinates	Standard Coordinates

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

[redacted]

Schools

A spill from the terminal could potentially be gasoline, ethanol, or a light petroleum product such as diesel oil. Gasoline and ethanol present a potential fire hazard but will rapidly evaporate. The other products are more persistent and would present a longer term environmental hazard. There are no schools in the near vicinity of the terminal. The potential spill path would be to drain overland to the west and discharge into the St. Joseph River. There are some schools indicated adjacent to the river downstream, but should not be hazarded in a spill.

Schools	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F)			(b) (7)(F), (b) (3)	

Medical Facilities

N/A

Residential Areas

A spill from the terminal could potentially be gasoline, ethanol, or a light petroleum product such as diesel oil. Gasoline and ethanol present a potential fire hazard but will rapidly evaporate. The other products are more persistent and would present a longer term environmental hazard. There are some homes directly across the street on S. 3rd Street, but these are up gradient from the

terminal. There are also some scattered residences in the potential spill drain path to the St. Joseph River. Residential areas along the St. Joseph River may also be hazarded in the event of a major spill.

Residential Areas	UTM Coordinates	Standard Coordinates
	(b) (3), (b) (7)(F)	b) (7)(F), (b) (3)
Niles		
Pennellwood		
Berrien Springs		
Oxbow		
Kings Landing		
Saint Joseph		
Higman Park		
Shoreham		
Mizpah Park		
Waverland Beach		
Rosemary Beach		
Braywood		
Tower Hill Shorelands		
Shorewood Hills		
Bethany Beach		
Linden Hills		
Palisades Park		
Birchwood		
Hazelhurst		
Turner Shores		
Crystal Beach		
Lakeside		
Wildwood		

	(b) (3), (b) (7)(F) (b) (7)(F), (b) (3)
Lakeview	
Indian Grove	
Gordon Beach	
Sokol Camp	
New Buffalo	
South Haven Highlands	
Miami Park	
Cedar Bluff	
Grand Beach	
Glenn Shores	
Shorecrest	

Niles, MI Light Products Terminal **Residential Areas UTM Coordinates Standard Coordinates Easting Northing Latitude (N) Longitude (W)**

Michiana	(b) (3), (b) (7)(F) (b) (7)(F), (b) (3)
Duneland Beach	
Pier Cove	
Shorewood	
Old Saugatuck	
Singapore (historical)	
Beverly Shores	
Castle Park	
Macatawa	

Businesses

A spill from the terminal could potentially be gasoline, ethanol, or a light petroleum product such as diesel oil. Gasoline and ethanol present a potential fire hazard but will rapidly evaporate. The other products are more persistent and would present a longer term environmental hazard. There are terminals and pipeline facilities immediately adjacent to the Niles Terminal that could be

affected immediately in the event of a release. In addition, if the spill reached the St. Joseph River, business along the popular recreational waterway could be affected.

Businesses	UTM Coordinates	Standard Coordinates	
	(b) (3), (b) (7)(F)	Latitude (N)	Longitude (W)
Signal Point Country Club		) (7)(F), (b) (3)	
Plym Park Golf Course			
Orchard Hill Country Club			
Whispering Willows Marina			
Pier 1000 Marina			
Wolfs Island Marina			
LaSalle Landing			
Speidel Marina			
West Basin Marina			
Saint Joseph River Yacht Club			
City of Benton Harbor Waterworks			
Roosevelt Hills			
Michigan State College South Haven Experiment Stat			
Jensens Fishery			
Pothole Marina			
Skippers Landing			
Lake Michigan Yacht Club			
Oselkas Snug Harbor Marina			
Washington Park Marina			
Michigan City Yacht Club			

Niles, MI Light Products Terminal **Businesses UTM Coordinates Standard Coordinates Easting Northing Latitude (N) Longitude (W)**

Port of Indiana	(b) (3), (b) (7)(F)) (7)(F), (b) (3)

Wetlands

N/A

Fish and Wildlife Areas

Wildlife Rehabilitation

In an oil spill incident, it is possible that birds, aquatic life, and/or other wildlife may come in contact with the spilled material. If wildlife becomes involved in the spilled material, it will be necessary to perform wildlife rescue and rehabilitation operations. The capture and treatment of wildlife, especially endangered species, is highly regulated by the U.S.

Department of the Interior. To conduct these operations, it will be necessary to obtain assistance from properly trained, licensed, and permitted organizations and personnel. It is important to ensure that any personnel involved in wildlife rescue and rehabilitation operations, including volunteers, have received the appropriate level of Hazardous Waste Operations and Emergency Response (HAZWOPER) training.

In the event that wildlife is impacted, advice and assistance from trained and experienced persons in the area of wildlife rescue and rehabilitation may be requested.

The Corporate Emergency Response Team (CERT) will arrange for various agencies to be available for this service, such as:

• Tri-State Bird Rescue and Research, Inc.
Wilmington, DE
Administrative: 302/737-7241
24-hour pager: 800/710-0695 (Eileen M Gilbert)
800/710-0696 (Dr. Erica Miller)
• International Bird Rescue and Research Center
Berkeley, CA
Administrative: 510/841-9086
(Recorded menu for emergencies)

Niles, MI Light Products Terminal

Lakes and Streams

Lakes and Streams	UTM Coordinates (b) (3), (b) (7)(F)	Standard Coordinates	
		Latitude (N) (b) (7)(F), (b) (3)	Longitude (W)
Brandywine Creek			
Dowagiac River			
Spring Valley Drain			
McCoy Creek			
Grey Run Drain			
Painter Creek			
Lake Chapin			
Love Creek			
Farmers Creek			
Lemon Creek			
Love Creek			
Pipestone Creek			
Hickory Creek			
Morrison Channel			
Paw Paw River			
Saint Joseph River			
Saint Joseph River			
Saint Joseph River			

Grand Mere Lakes	(b) (3), (b) (7)(F)
Rogers Creek	
Painterville Drain	
Brandywine Creek	
Deerlick Creek	
Black River	
Galien River	
White Ditch	
Glenn Creek	
Plummerville Creek	
Pier Cove Creek	
Trail Creek	
Kalamazoo River	
Carver Drain	
Halfway Creek	
Dunes Creek	

Niles, MI Light Products Terminal

Endangered Flora and Fauna

There are no known endangered flora or fauna species within the planning distance of the Terminal based on our current findings. Michigan has an Endangered and Threatened Species listing of 22 species. These species are as follows:

Fauna	**Status**
Gray bat	Endangered
Indiana bat	Endangered
Tubercled blossom	Endangered
Karner blue butterfly	Endangered
Mitchell's satyr butterfly	Endangered
White catspaw	Endangered
Clubshell	Endangered
Bald eagle	Threatened
Fanshell	Endangered
Pink mucket	Endangered
Cracking pearlymussel	Endangered
White wartyback pearlymussel	Endangered
Rough pigtoe	Endangered
Orangefoot pimpleback	Endangered
Piping plover (Great Lakes Watershed)	Endangered
Piping plover (except Great Lakes Watershed)	Threatened
Fat pocketbook	Endangered

Eastern puma	Endangered
Northern riffleshell	Endangered
Pink ring	Endangered
Copperbelly water snake	Threatened
Least tern	Endangered

Flora	**Status**
Mead's milkweed	Threatened
Pitcher's thistle	Threatened
Running buffalo clover	Endangered

In the event of a release, MPC/MPL will coordinate with the United States Fish and Wildlife Service (USFWS), and state and local wildlife management groups to ensure the protection of all threatened and endangered species within a release area.

Niles, MI Light Products Terminal

Recreational Areas

Recreational Areas	**UTM Coordinates**		**Standard Coordinates**	
	Easting	**Northing**	**Latitude (N)**	**Longitude (W)**
Fort Saint Joseph Park	(b) (3), (b) (7)(F)			
Allouez Park				
French Field				
Clevenger Park				
Riverside Church Camp				
Redbud Trail Church Camp				
Camp Oronoko				
Camp Betz				
Benton Park				
Riverview Park				
Napier Park				
Tiscornia Park				
Lions Beach				
Jean Klock Park				
Rocky Gap Park				
Township Park				
Weko Beach Recreational Area				
First Church Camp				
Warren Dunes State Park				
Covert Township Park				
Van Buren State Park				
Camp Na Wa Kwa				

Hammond/Griffith Critical/Sensitive Areas

North Beach Public Park	(b) (3), (b) (7)(F) (b) (7)(F), (b) (3)
Variety Park	
Beverly Beach	
Allegan County Park	
West Side County Park	
Washington Park	
Pullman Field	
Douglas Beach Park	
Camp Grey	
Oval Beach	
Ridgewood Beach	
Saugatuck Dunes State Park	
Camp Halcyon	
Laketown Park	
Eureka Park	
Green Mountain Beach	
Macatawa Park	
Ottawa Beach	
Holland State Park	

Niles, MI Light Products Terminal **Recreational Areas UTM Coordinates Standard Coordinates Easting Northing Latitude (N) Longitude (W)**

Tunnel Park	(b) (3), (b) (7)(F) (b) (7)(F), (b) (3)

TransportationRoutes

N/A

Utilities

There are probably some water users downstream on the St. Joseph River that might be affected. The cities of Niles, Buchanan, Berrien Springs, St. Joseph and Benton Harbor lie on the St. Joseph River, as it flows northwest to Lake Michigan. In the event of a release into the St. Joseph river, those cities should be contacted, and advised of the release circumstances.

Utilities	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
(b) (3), (b) (7)(F)			(b) (7)(F), (b) (3)	

Others Areas of Economic Importance

Other Areas of Economic Importance	UTM Coordinates		Standard Coordinates	
	Easting	Northing	Latitude (N)	Longitude (W)
Niles, City of	(b) (3), (b) (7)(F) (b) (7)(F), (b) (3)			
Niles, Township of				
Batchelors Island				
Debs Island				

Hammond/Griffith Critical/Sensitive Areas

Rose Hill Cemetery	(b) (3), (b) (7)(F)	(b) (7)(F), (b) (3)
Pardee Island		
Riverview Cemetery		
WHFB-AM (Benton Harbor-Saint Joseph)		
WSJM-AM (Saint Joseph)		
Marina Island		
North Pier Inner Light		
South Pierh Light		
North Pierh Light		
Saint Joseph, City of		
Saint Marys Church		
North Shore Memory Garden		
Edward, Mount		
Thunder Mountain		
Pikes Peak		
Fuller, Mount		
Church of the Mediator		

Niles, MI Light Products Terminal

Other Areas of Economic Importance	**UTM Coordinates Easting Northing**	**Standard Coordinates Latitude (N) Longitude (W)**
South Pierh Light	(b) (3), (b) (7)(F)	(b) (7)(F), (b) (3)
North Pierh Light		
South Haven Harbor		
Plummerville Cemetery		
Outer Basin		
Michigan City Harbor East Pierhead Light		
Outer Basin Light		
Michigan City Harbor West Pierhead Light		
Michigan City Harbor Breakwater Light		
Michigan City Harbor		
Michigan City Harbor Breakwater South Light		
Baldy, Mount		
Old Saugatuck Light House		
South Pierh Light		
North Pierh Light		
Pelican Peak		
Baldy		

Hammond/Griffith Critical/Sensitive Areas

	(b) (3), (b) (7)(F) b) (7)(F), (b) (3)
Jackson, Mount	[redacted]
Holden, Mount	
North Breakwater Light	
Tom, Mount	
South Pierh Light	
Burns Harbor East Light	
Burns Harbor North Light 2	
Burns Harbor South Light 3	
East Harbor Arm	
Burns International Harbor	
Burns Waterway Harbor	
Burns Haror West Light 4	
Burns International Harbor	
West Harbor Arm	

Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the Martinsville Operations Area are shown in the Response Maps located in the Martinsville Drafting room and in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

The most predominant threatened or endangered species found in the operations area is the Indiana Bat, which has been seen throughout the entire area. Specifically, the Indiana Bat has been found in hibernation caves in Washington County, IN. Other threatened or endangered species include the Bald Eagle, found across much of the operations area. It has been sighted in: Vermillion County, IN, within a three mile radius of the Newport Army Ammunition Plant; in Shelby County, IL, and also in Parke, Orange, Floyd, and Washington counties in Indiana. Other birds in the area include the Least Tern and Peregrine Falcon, found in both Floyd and Washington Counties. The Fanshell (a mussel), was noted in the Wabash River and it's tributaries in Clark County, IL, Vigo County, IN, and Vermillion County, IN and additionally has been seen in Martin County, IN. Further, a number of other aquatic species found in the Wabash River and it's tributaries reside within the operations area. They are: the Tuberclod-Blossom Pearly Mussel (Clark County, IL); the Ring Pink (a mussel found in Clark County); the White Wartyback Pearly Mussel (Clark County, Vigo County, Vermillion County, Parke County); and also the White Catspaw Pearly Mussel, Rough Pitgtoe (mussel), and Fat Pocketbook (mussel), all found in Vigo County, Vermillion County, and Parke County, The Fat Pocketbook is also found in the Wabash River in Knox County, IN. Additionally, the following species have been noted in the operations area: the Karner Blue Butterfly (Vermillion and Park Counties, IN); Mead's Milkweed (Ford County, IL); and the Gray Bat (Harrison County, IN).

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Martinsville Area Critical/Sensitive Areas

ENVIRONMENTAL SENSITIVITIES

Wetlands throughout the operations area have been delineated by the National Wetlands Inventory. The Wabash River is classified as a riverine (generally described as places where water flows within a channel), permanently flooded, unconsolidated bottom wetland. The pipeline passes through palustrine (generally freshwater, vegetated wetland; would include marshes and swamps), temporarily and seasonally flooded wetlands along the eastern side of the Wabash. Most of the area which the pipeline passes through between the Wabash River and the Wabash and Erie Canal are classified as palustrine wetlands. Palustrine wetlands are present frequently along the inside of bends along the Wabash River. This is true for the area just north of the worst case area on the east side of the river, and also for the area south of the worst case area along the west edge of the river.

There are a number of areas of concern within the Martinsville Operations Area. In Illinois, the areas include: Iroquois County Conservation Area (five miles northeast of Beaverville); Lodge Park and Forest Preserve (two and a half miles east of Cisco); Will Amenia and Allerton Parks (three miles south of Lodge Park); Lincoln Trail Homestead State Park (Macon County); Spitler Woods State Park (Macon County); Sangchris Lake State Park (at Sangchris Lake in Christian County); Shelbyville Wildlife Management Areas (one mile east of Bethany); Eagle Creek State Park and Wolf Creek State Park (Lake Shelbyville in Shelby County); Walnut Point State Park (Douglas County); Fox Ridge State Park (Coles County); Lincoln Log Cabin State Historic Site (Coles County); Lincoln Trail State Park (Clark County); and Sam Parr State Park (three and a half miles northeast of Newton).

Areas of concern in Indiana include: Shakamak State Park and Greene-Sullivan State Forest (both in Sullivan County); Lieber State Recreation Area and Cagles Mill State Forest (both in Putnam County); Raccoon Lake State Recreation Area (Raccoon Lake in Parke County); Turkey Run State Park and Shades State Park (both in Parke County); White Oak State Fishing Area and George Rogers Clark National Memorial (in Knox County); Glendale State Fish and Game Preserve (on the White River in Daviess County); Hindostan Falls State Fishing Area (six miles south of South Martin along the White River); Hoosier National Forest and the Martin County State Forest (both in Martin County).

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Martinsville Area Critical/Sensitive Areas

ENVIRONMENTAL SENSITIVITIES

Other areas of note in Indiana include: Hoosier National Forest (throughout Orange County); Springs Valley State Fish and Wildlife
Area (one mile northwest of Greenbrier); Tillery Hill State Recreation Area (twelve miles south of Brownstown); Jackson Washington State Forest (one mile east of Brownstown); Starve Hollow State Beach (one mile south of the Washington/Jackson County lines); Corydon Capitol State Memorial (Corydon); Harrison Crawford State Forest on the Kentucky/Indiana border, two miles south of Wyandot, IN); and Wyandot Caves (two miles north of Wyandot).

ACCESS/STAGING AREAS

Airports

Casey Municipal Airport	Casey, IL
Coles County Memorial Airport	Mattoon, IL
Hulman Regional Airport	Terre Haute, IN
Robinson Municipal Airport	Palestine, IL
Sullivan County Airport	Sullivan, IL
U of I Willard Airport	Champaign, IL

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The Cleanup unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

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Martinsville Area Critical/Sensitive Areas

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

[redacted]

SEE TELEPHONE NUMBER SECTION

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Indiana State Univ.	Office Security	5 miles
PSI Power Plant	Office Shift Supv.	5 miles
Fairbanks Park	Park Superintendent Maralee Britton	7 miles
Bridge over Wabash RTE 63	Highway Department Jerry Lindsay	7 miles
Indiana American Water	Office - Plant Randy Moore Shift Supv.	9 miles
Voorhees Park	Park Superintendent Maralee Britton	9 miles
Dresser Bridges over Wabash RTE 40	Highway Dept. Jerry Lindsay	10 miles
Boat Landing & Docks Fairbanks Park	Park Superintendent Maralee Britton	10.5 miles
International Paper & Other Industrial Intakes	Plant Foreman Robert Fleeman	11 miles
Bridges over Wabash at I-70	Highway Dept. Jerry Lindsay	12 miles

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Martinsville Area Critical/Sensitive Areas

WABASH RIVER CROSSING SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
US Penitentiary Lt. Officer	Shift Officer	15 miles

CITY: Darwin
COUNTY: Clark
STATE: Illinois
POPULATION: Unknown

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Darwin Ferry Agricultural River Crossing	N/A	32 miles

CITY: Fairbanks - Riverview Subdivision
COUNTY: Sullivan
STATE: Indiana
POPULATION: Unknown

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
River Runs Along West Edge of Subdivision		42 miles
Indiana Michigan Breed Power Plant	Shift Supervisor Kent Taylor	41 miles

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Martinsville Area Critical/Sensitive Areas

WABASH RIVER CROSSING SCENARIO

CITY: Hutsonville
COUNTY: Crawford
STATE: Illinois
POPULATION: 705

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
[redacted]	[redacted]	[redacted]
River runs along entire east edge of town		51 miles

CITY: Merom
COUNTY: Sullivan
STATE: Indiana
POPULATION: 360

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
River runs along west edge of town		56 miles
Hoosier Energy Power Plant at Merom	Shift Supervisor Fred Southworth	57 miles

CITY: Russellville
COUNTY: Lawrence
STATE: Illinois
POPULATION: 171

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Eastern edge of town borders Wabash		70 miles

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Martinsville Area Critical/Sensitive Areas

WABASH RIVER CROSSING SCENARIO

CITY: Vincennes
COUNTY: Knox
STATE: Indiana
POPULATION: 20,400

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
N.W. edge of city bordered by the Wabash		80 miles

DESCRIPTION OF SPECIAL ENVIRONMENTAL CHARACTERISTICS

Small scale commercial fishing occurs for the entire length of the river.

CRITICAL AREAS

Martinsville Area
Wabash 12" Products Line Robinson to Champaign

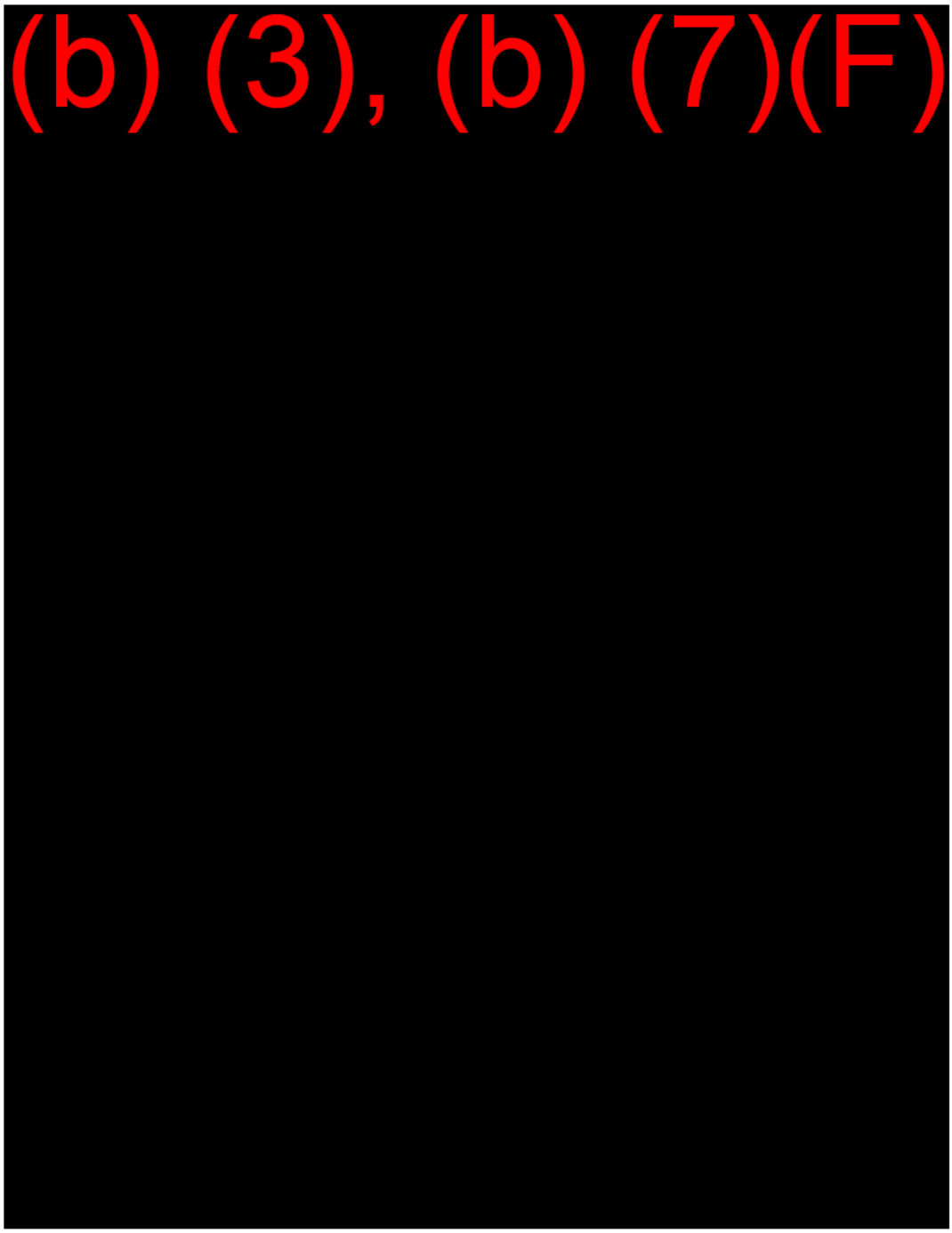
(b) (3), (b) (7)(F)

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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS Wabash 12" Products Line Robinson to Champaign (Cont'd)

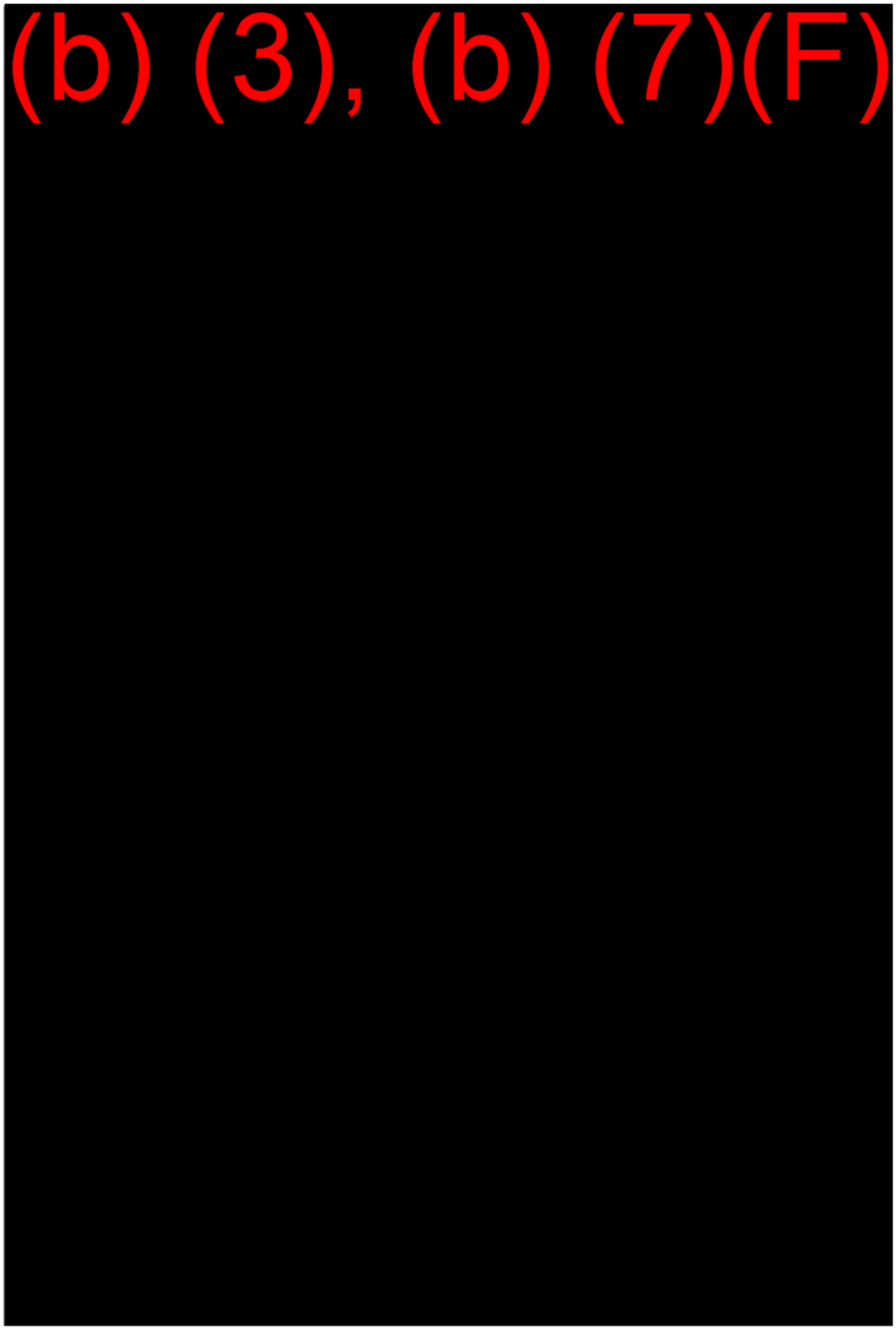


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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

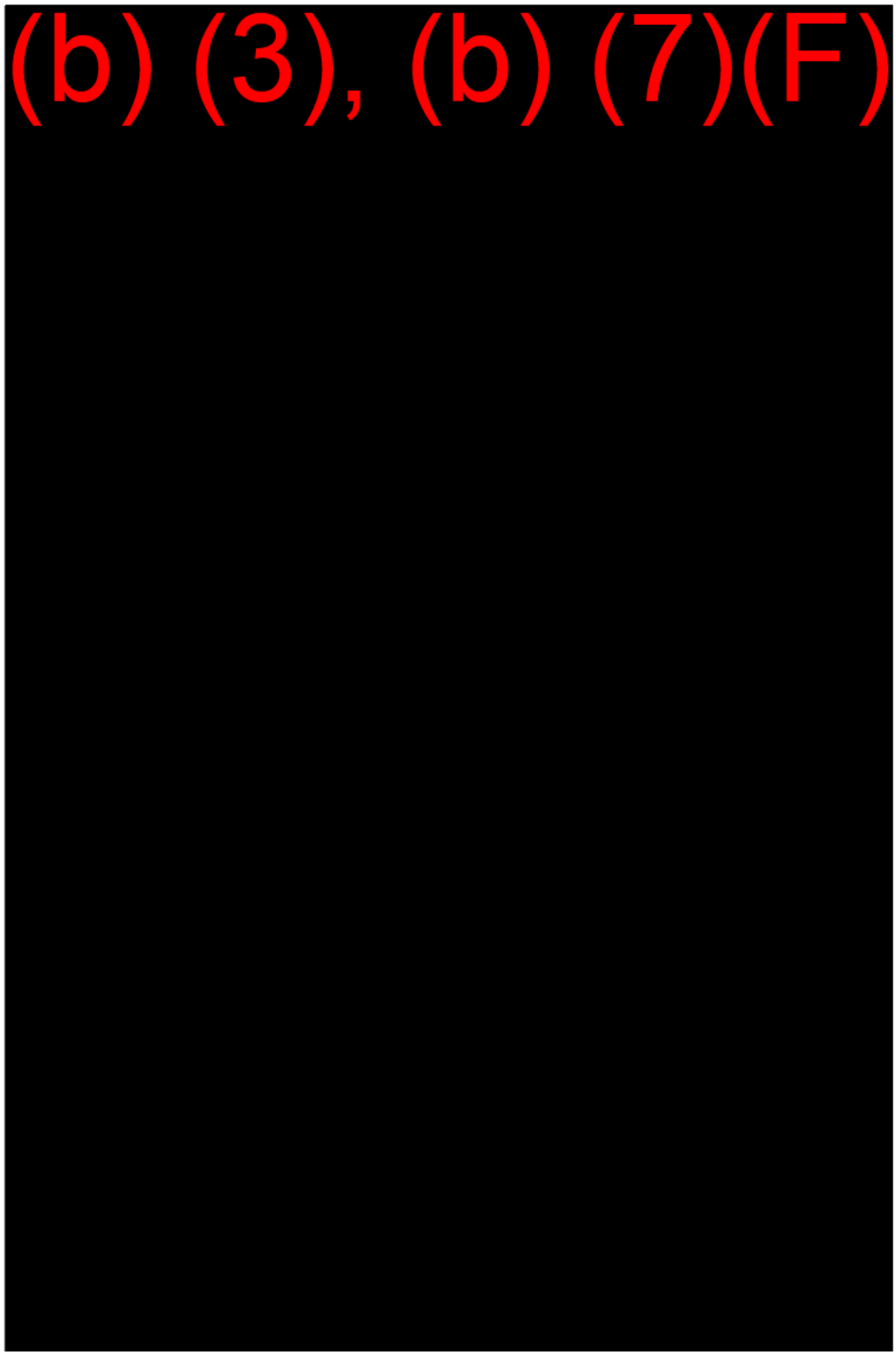
Wabash 12" Products Line Robinson to Champaign (Cont'd)



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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS Wabash 12" Products Line Robinson to Champaign (Cont'd)



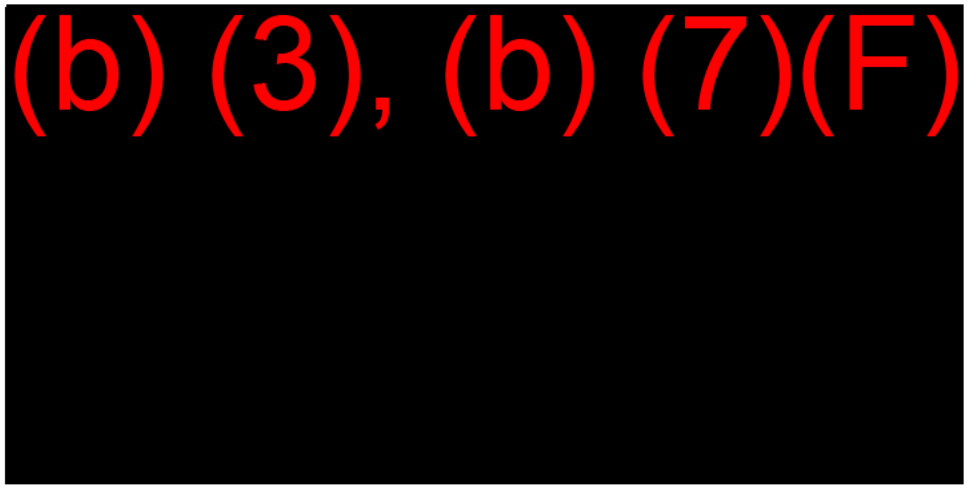
Attention: Printed copies should be used with caution. The user of this document must ensure the current approved version of the document is being used. This copy was printed on: 12/8/2014 2:52 PM

Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

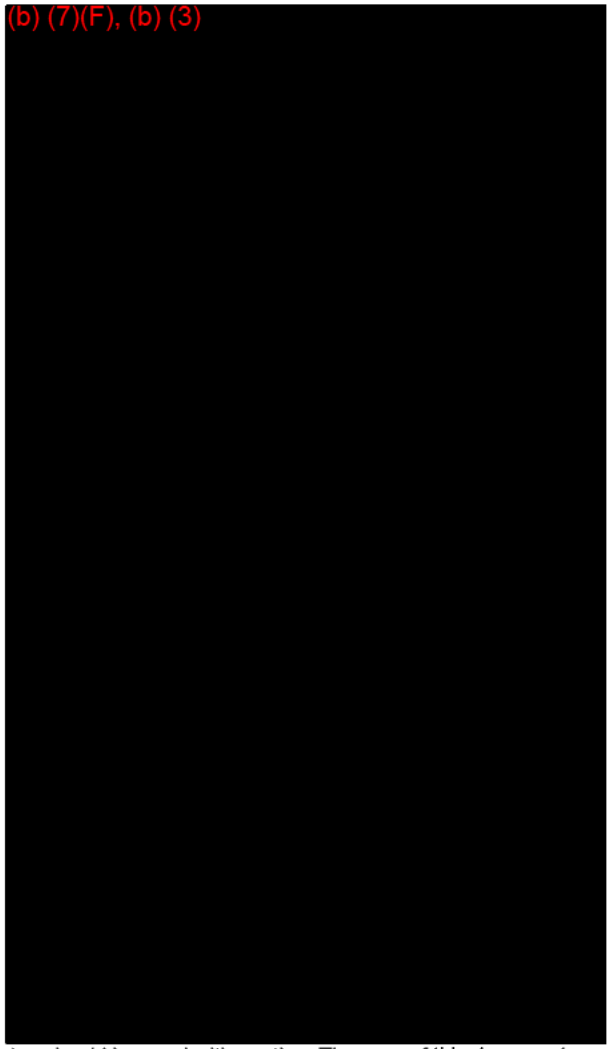
Wabash 12" Products Line Robinson to Champaign (Cont'd)

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



ROW

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

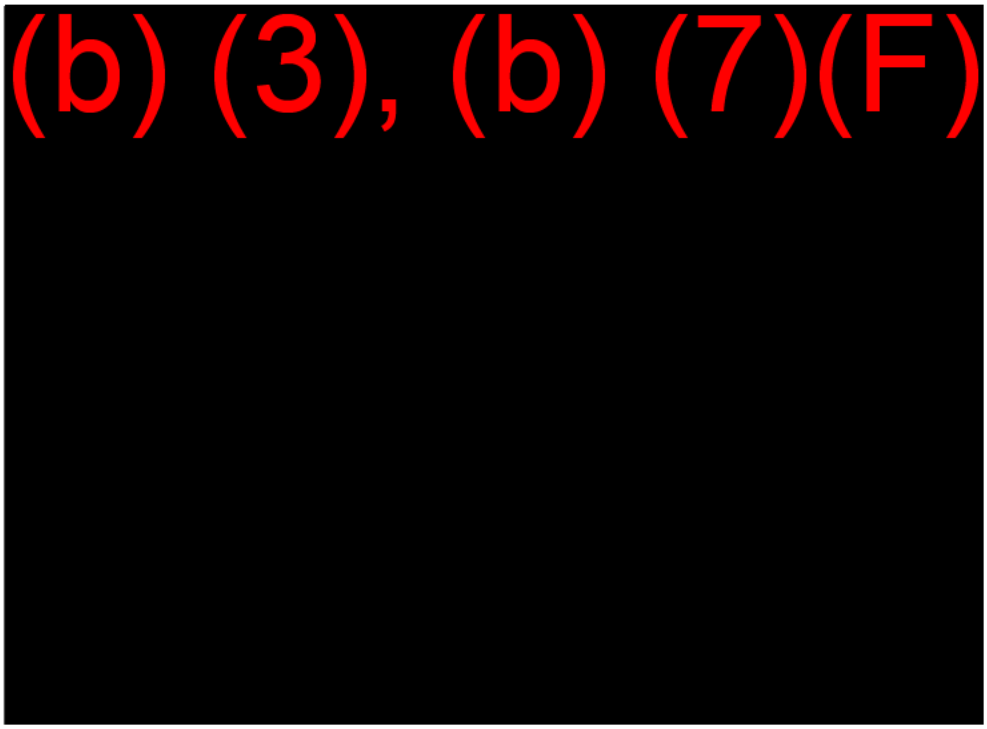


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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS Wabash 12" Products Line Robinson to Champaign (Cont'd)





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Martinsville Area Critical/Sensitive Areas

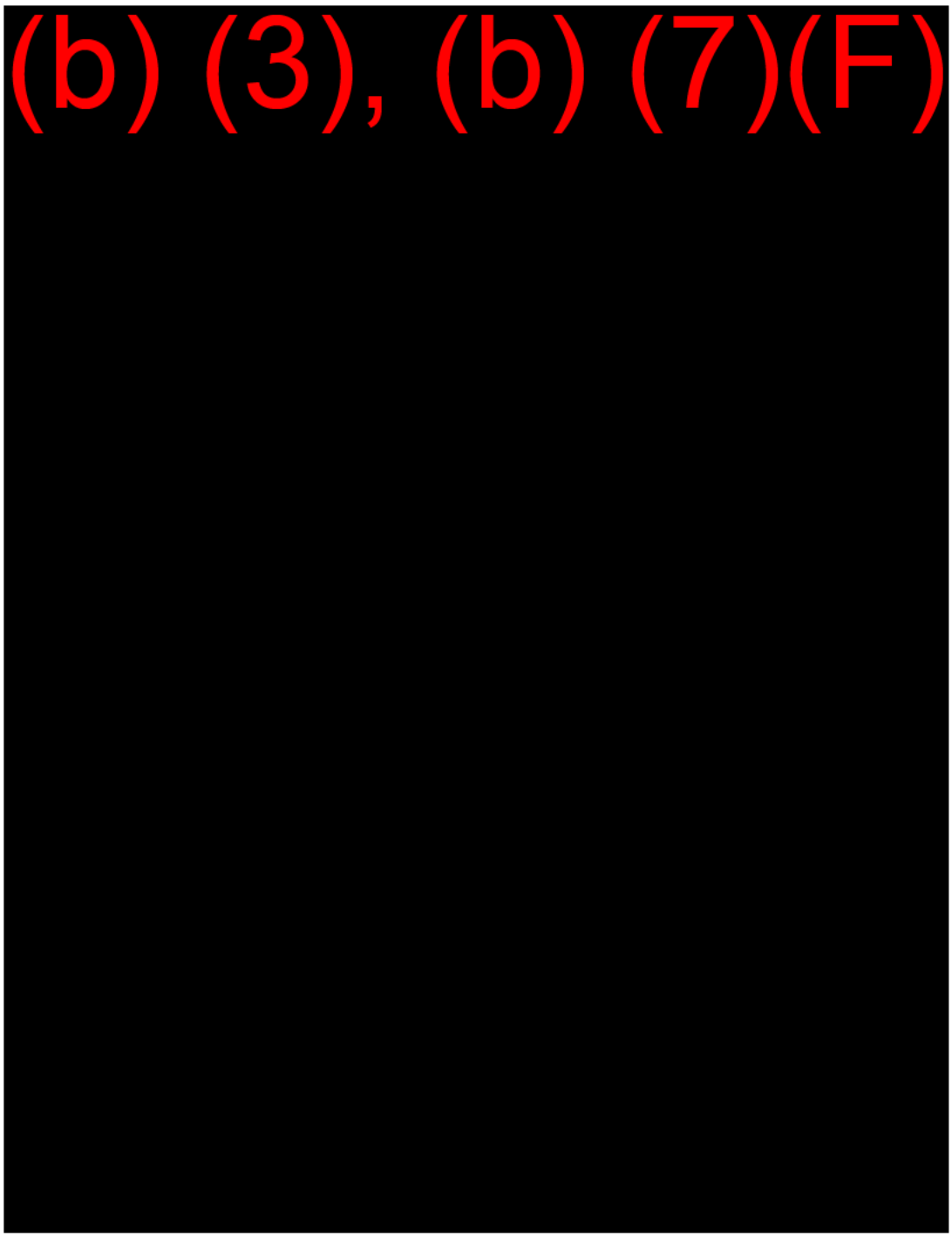
CRITICAL AREAS Champaign to Ashkum (Cont'd)

MILEPOST	
20.0	Champaign County - Ludlow Township - Sections 4, 9, 6, & 7 Pipeline lies 22 miles west of town of Ludlow and 22 miles east of Hillsbury Slough near County Road 3500N
23.0 - 26.5	Ford County - Patton Township - Section 14, 22, & 27 Approximately 12 miles east and 2 mile south of Perdueville, pipeline crosses 3 branches of "The Big Four Ditch" near IL RT 9 (County Road 400N) and County Road 200N
28.0	Ford County - Patton Township - Section 1 Pipeline lays approximately 13 miles northwest of northwest edge of town of Paxton
28.5	Ford County - Wall Township - Section 36 Approximately 2 miles southwest of Loda near County Road 600N, pipeline crosses large drainage ditch from town of Wall
29.0 - 32.0	Iroquois County - Loda Township - Sections 18, 19, & 30 Pipeline runs adjacent to Lake Iroquois, Bayles Lake, surrounding subdivisions, and town of Loda. The pipeline is in near proximity to all of these sites near County Roads 100E from County Road 400N to County Road 100N
33.0	Iroquois County - Loda Township - Section 7 Approximately 2 miles north and 1 mile west of Loda near County Road 400N, pipeline crosses branch of Spring Creek

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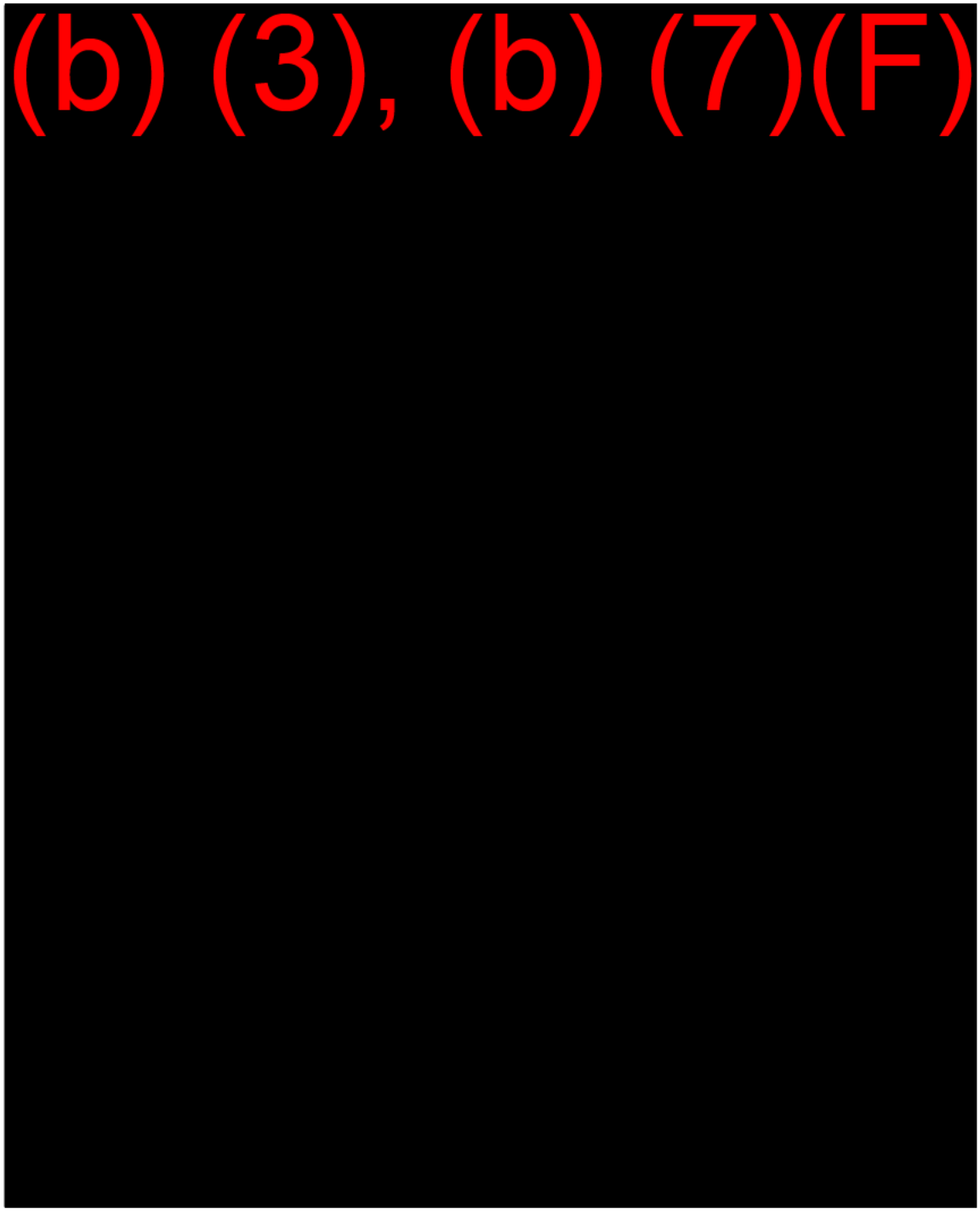
Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS Champaign to Ashkum (Cont'd)



Martinsville Area Critical/Sensitive Areas

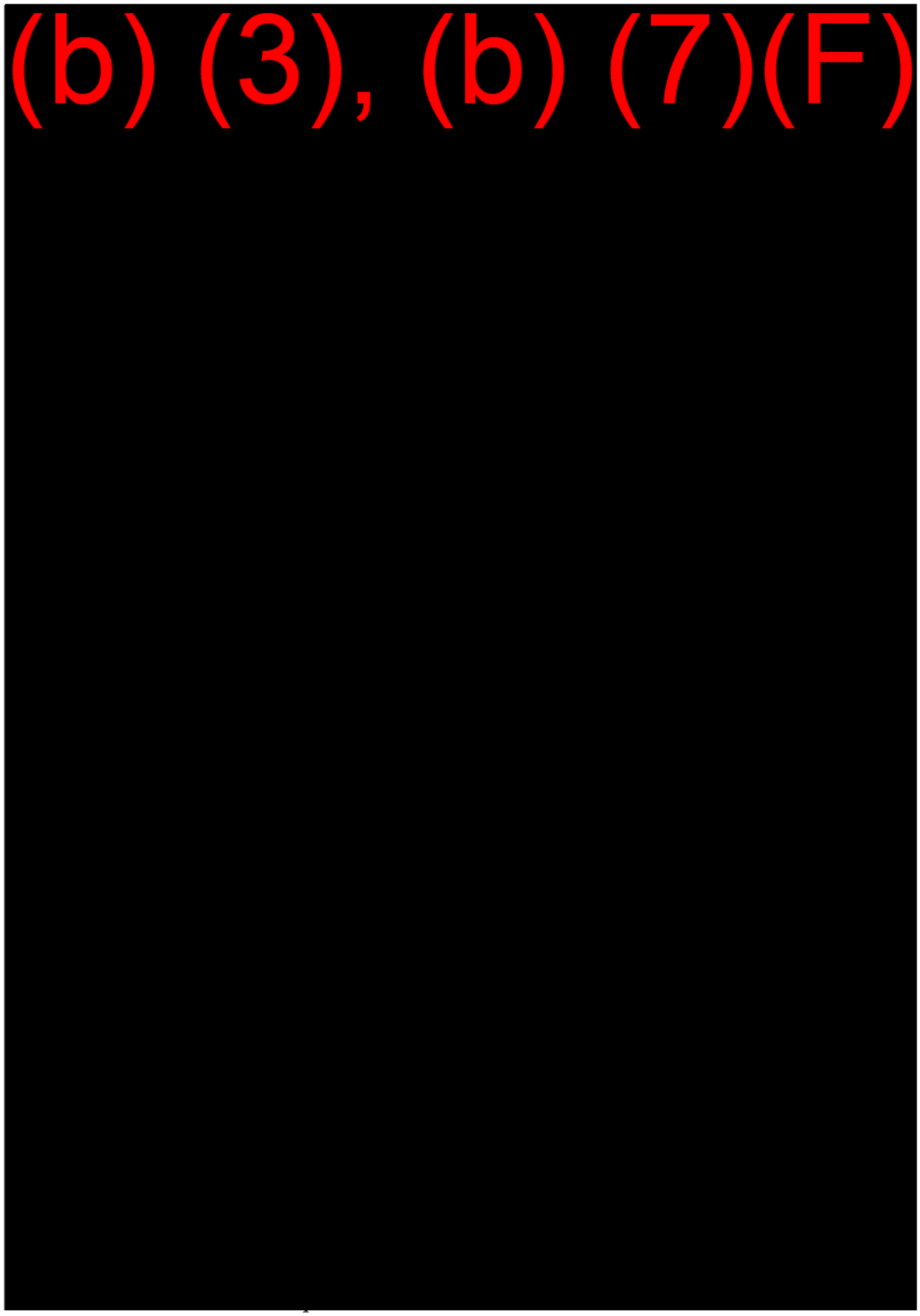
CRITICAL AREAS Champaign to Ashkum (Cont'd)



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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS State Route 29 To Champaign



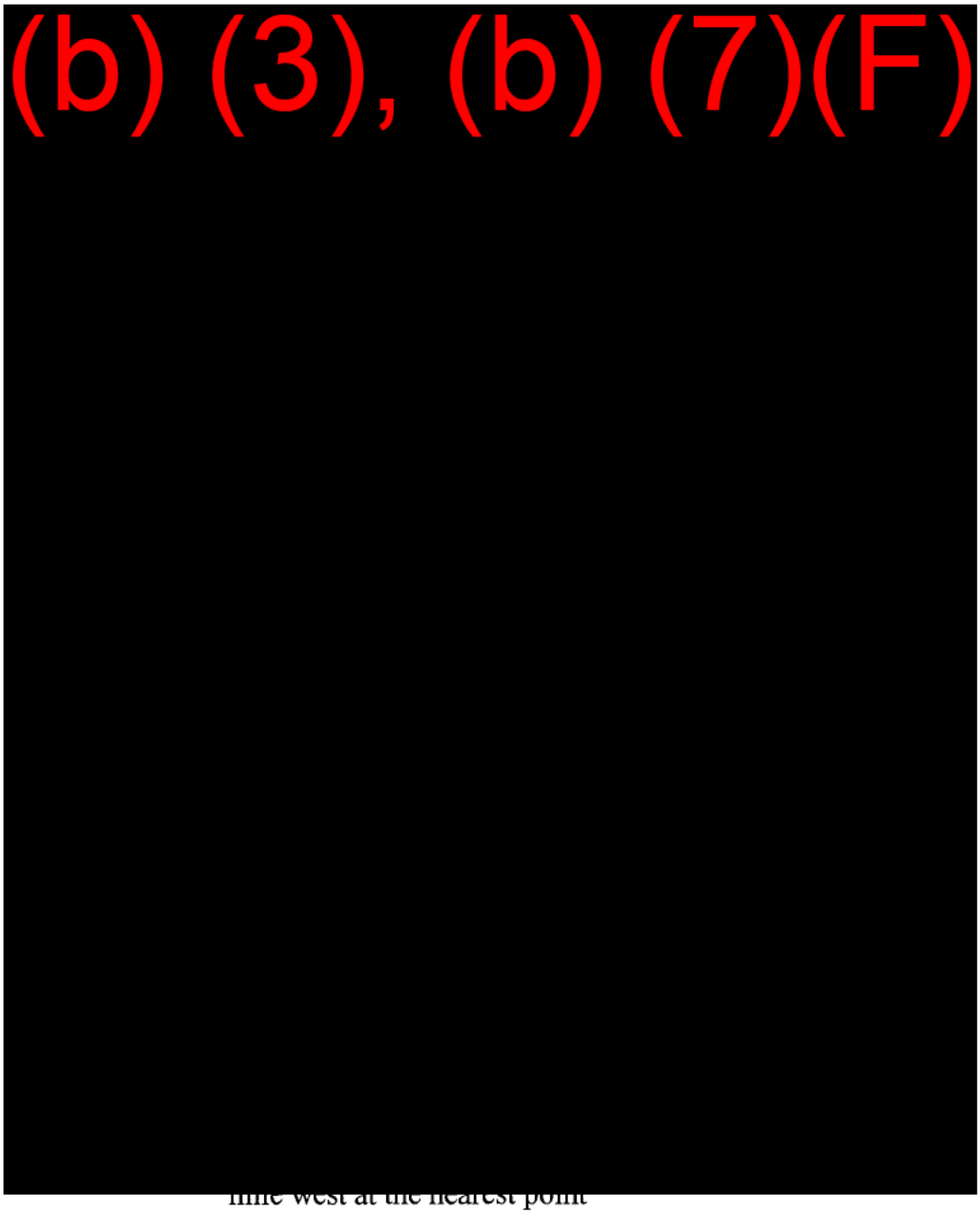
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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

State Route 29 To Champaign (Cont'd)

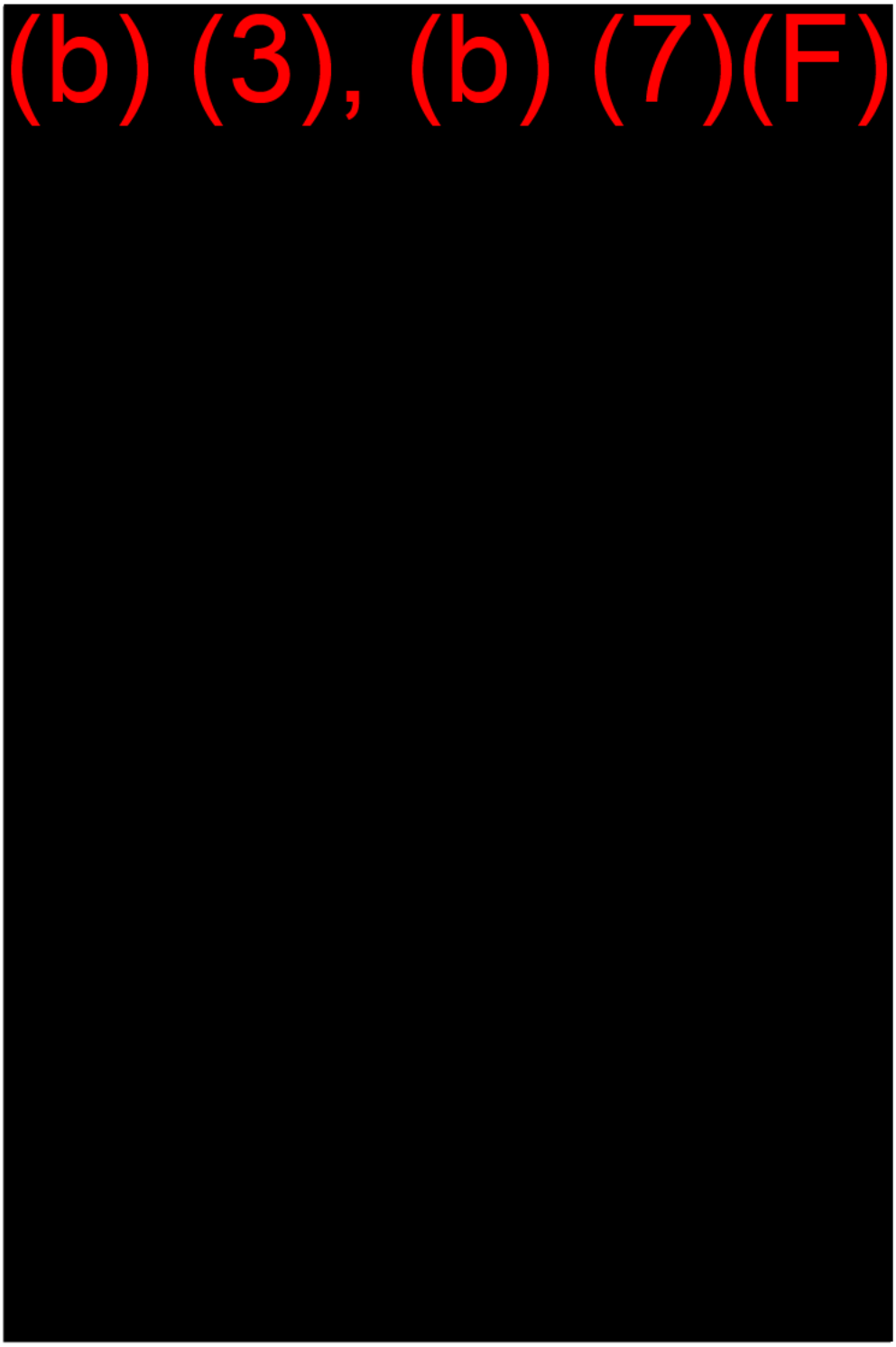
(b) (3), (b) (7)(F)



mile west at the nearest point

Martinsville Area Critical/Sensitive Areas

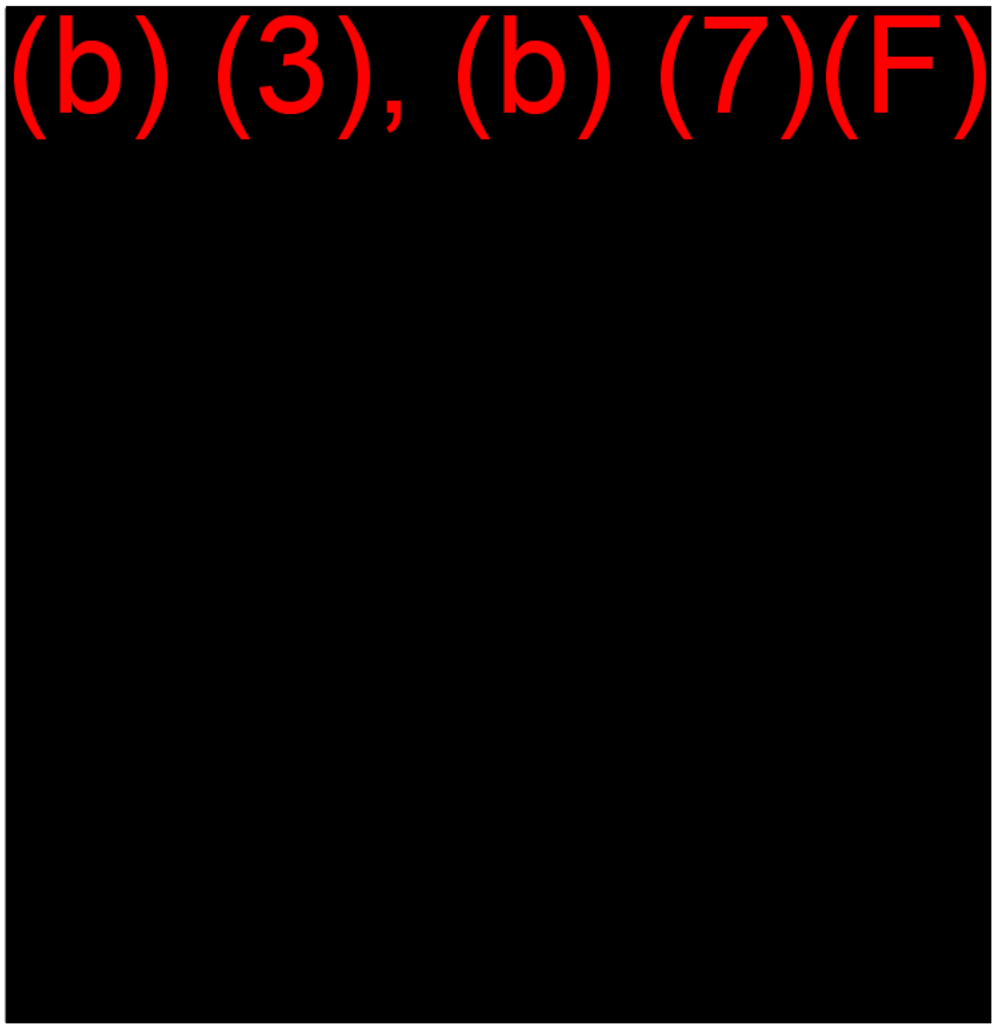
CRITICAL AREAS State Route 29 To Champaign (Cont'd)



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Martinsville Area Critical/Sensitive Areas

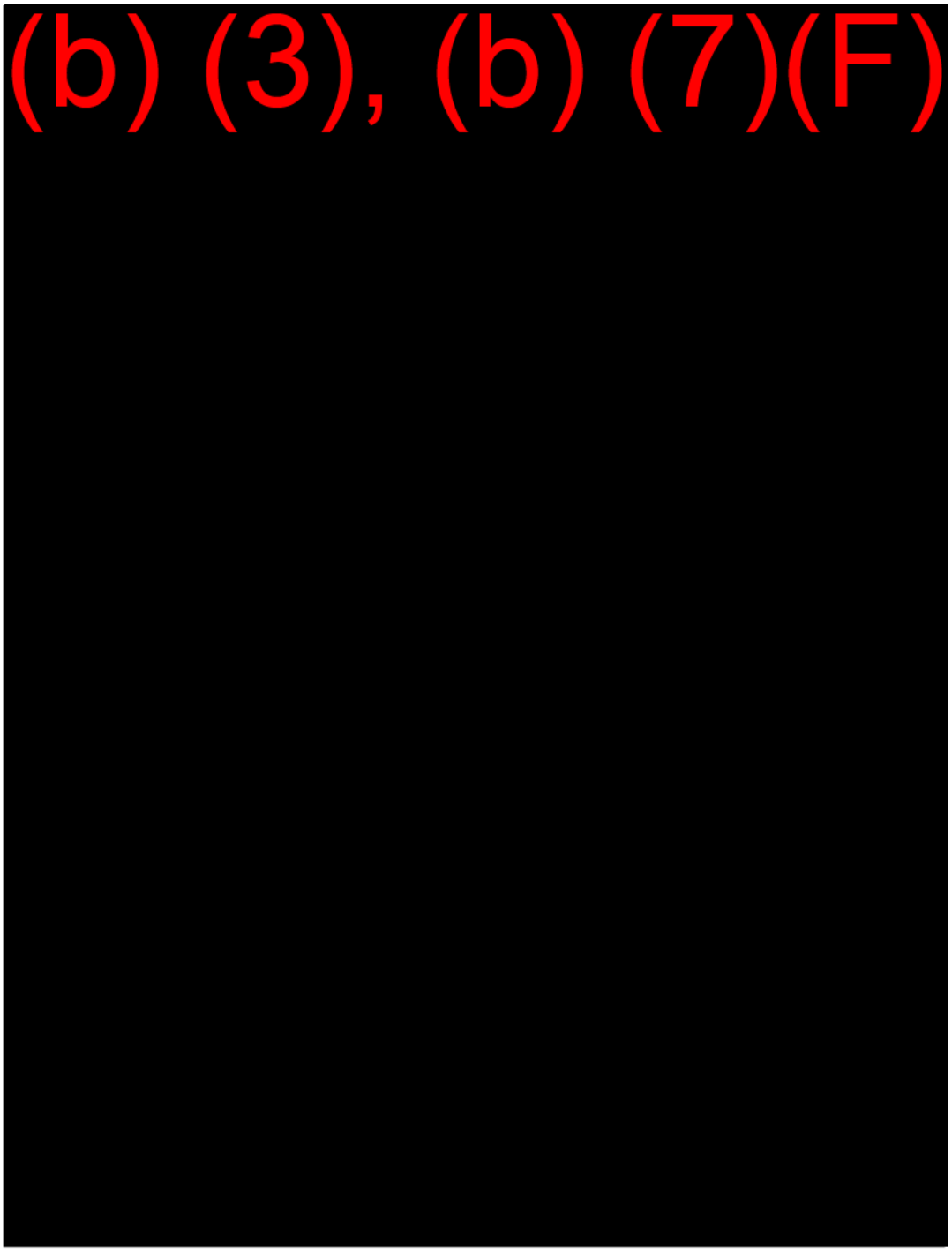
CRITICAL AREAS State Route 29 To Champaign (Cont'd)



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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS #1-12" Products Line Robinson through Stoy, IL to Martinsville, IL(Cont'd)

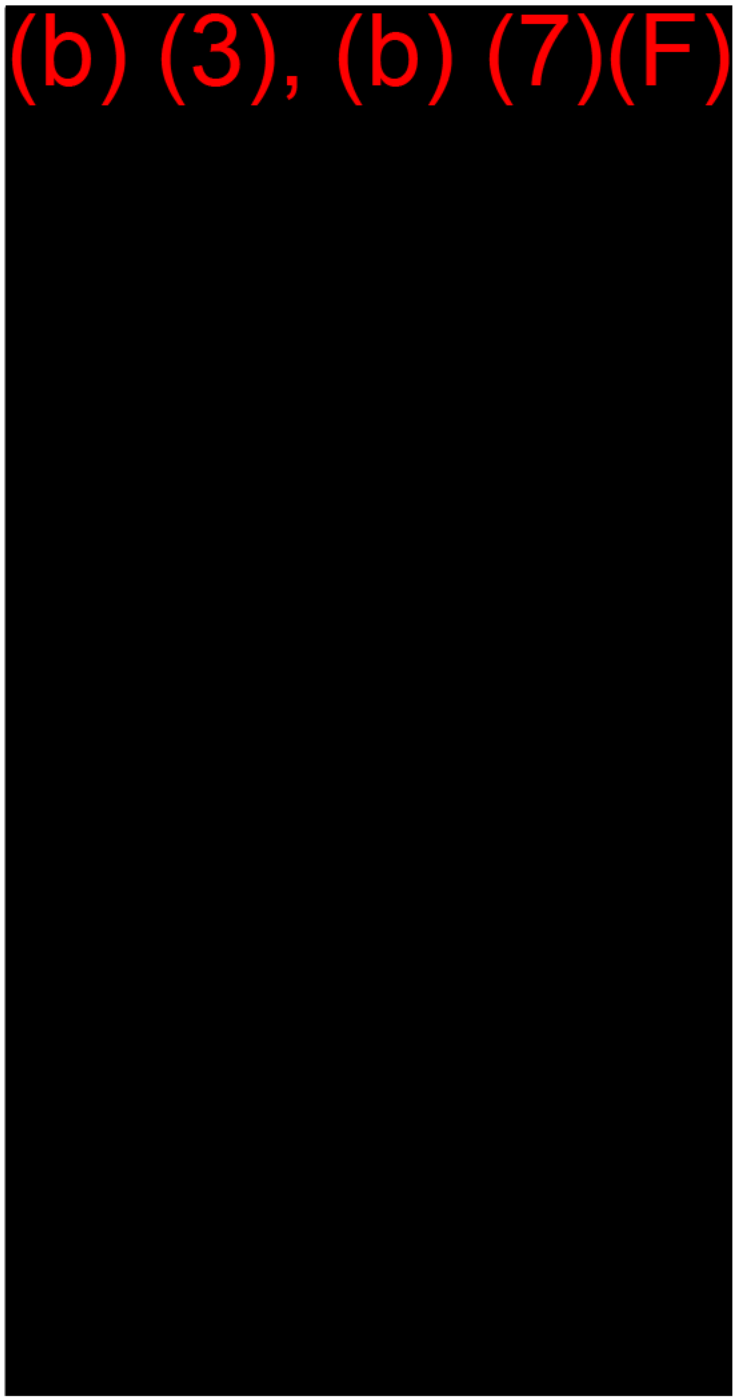


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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

#1-10" Products Line from Effingham/Cumberland County Line to south of US Route 36 in Parke County, IN (Cont'd)



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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

#1-10" Products Line from the Effingham/Cumberland County Line to south of US Route 36 in Parke County, IN (Cont'd)

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

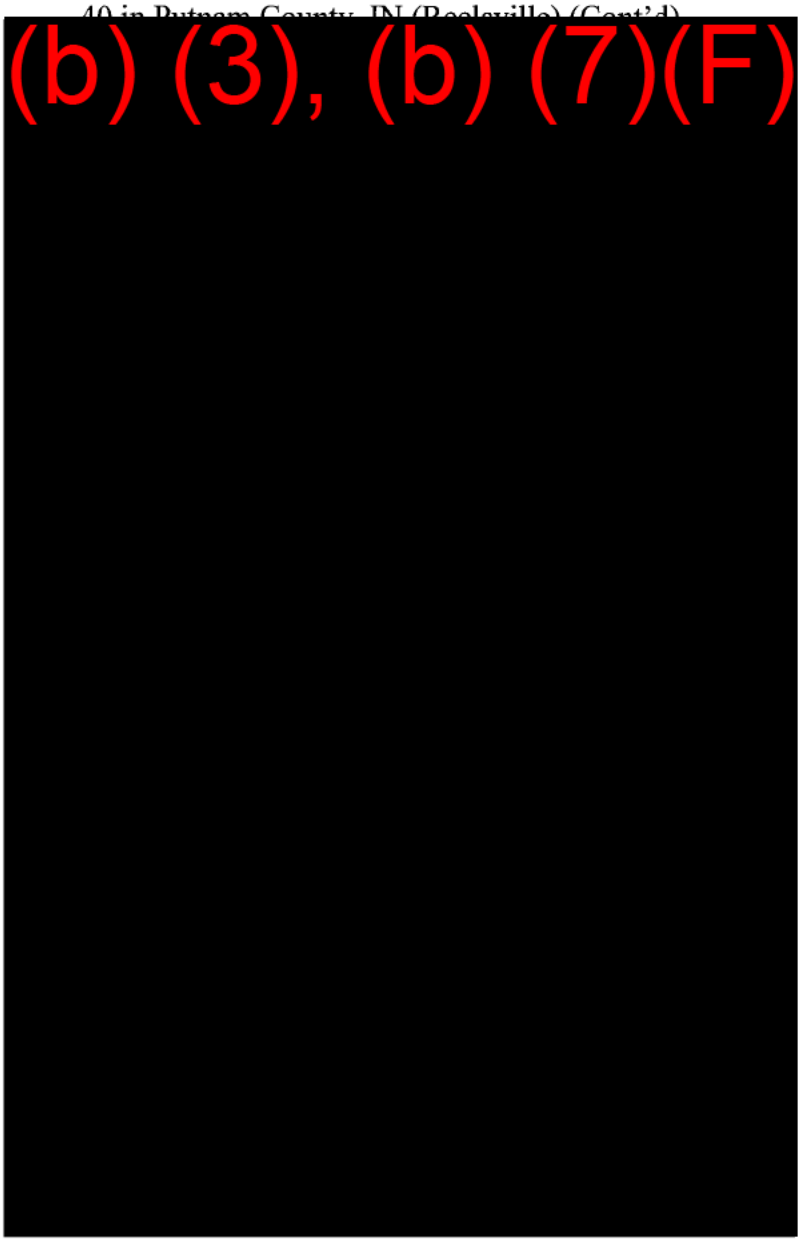
[redacted]

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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

#2-10" Products Line from Robinson, IL to the crossing of US Route
40 in Putnam County, IN (Reelsville) (Cont'd)



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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

RIO 8" Products Line from Robinson, IL to the crossing of US Route
40 in Clay County, IN

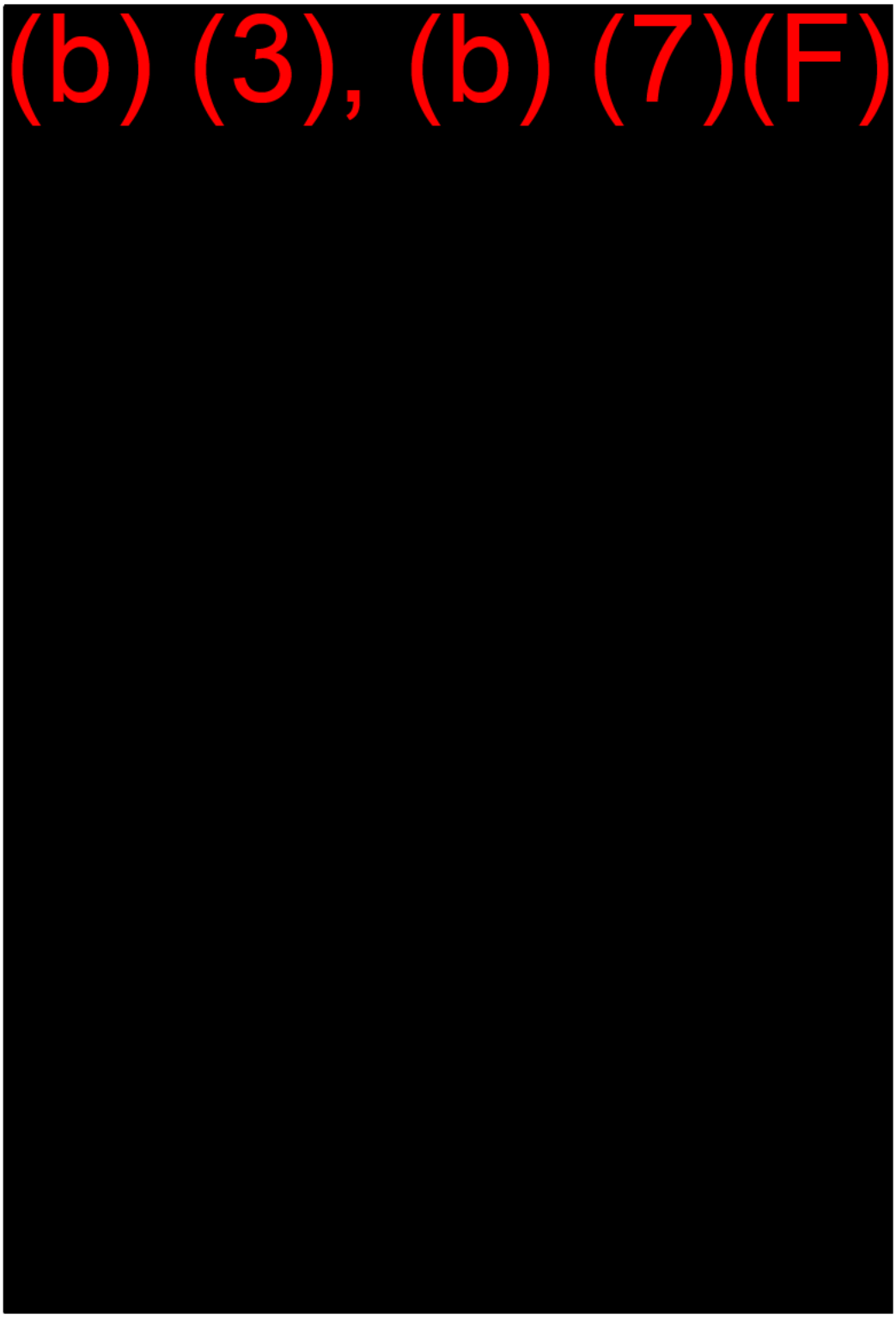
(b) (3), (b) (7)(F)

CRITICAL AREAS

Martinsville Area Critical/Sensitive Areas

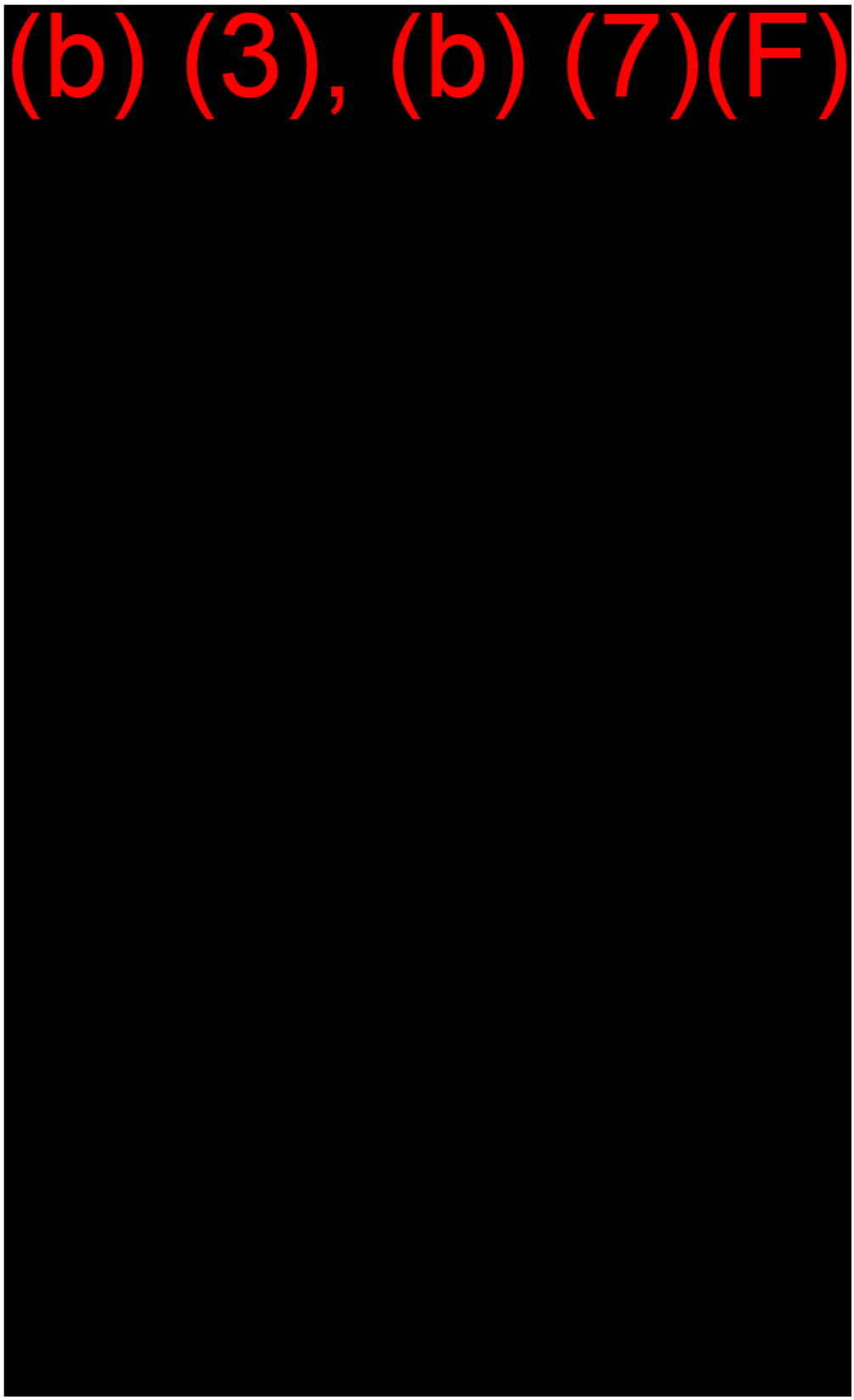
22" Crude Line from Martinsville, IL to the crossing of US Route 36 in Putnam County, IN

CRITICAL AREAS



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Martinsville Area Critical/Sensitive Areas

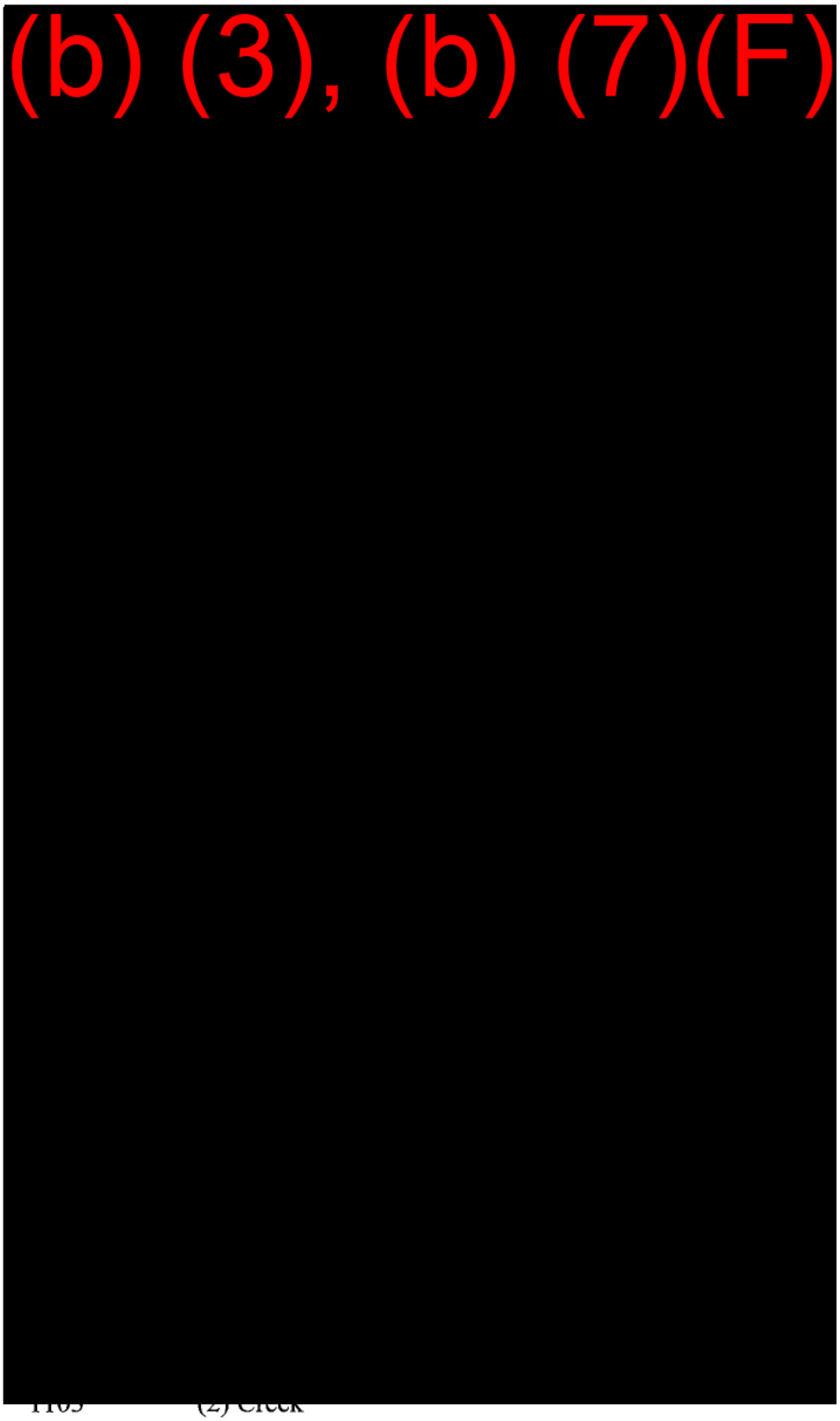


CRITICAL AREAS

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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

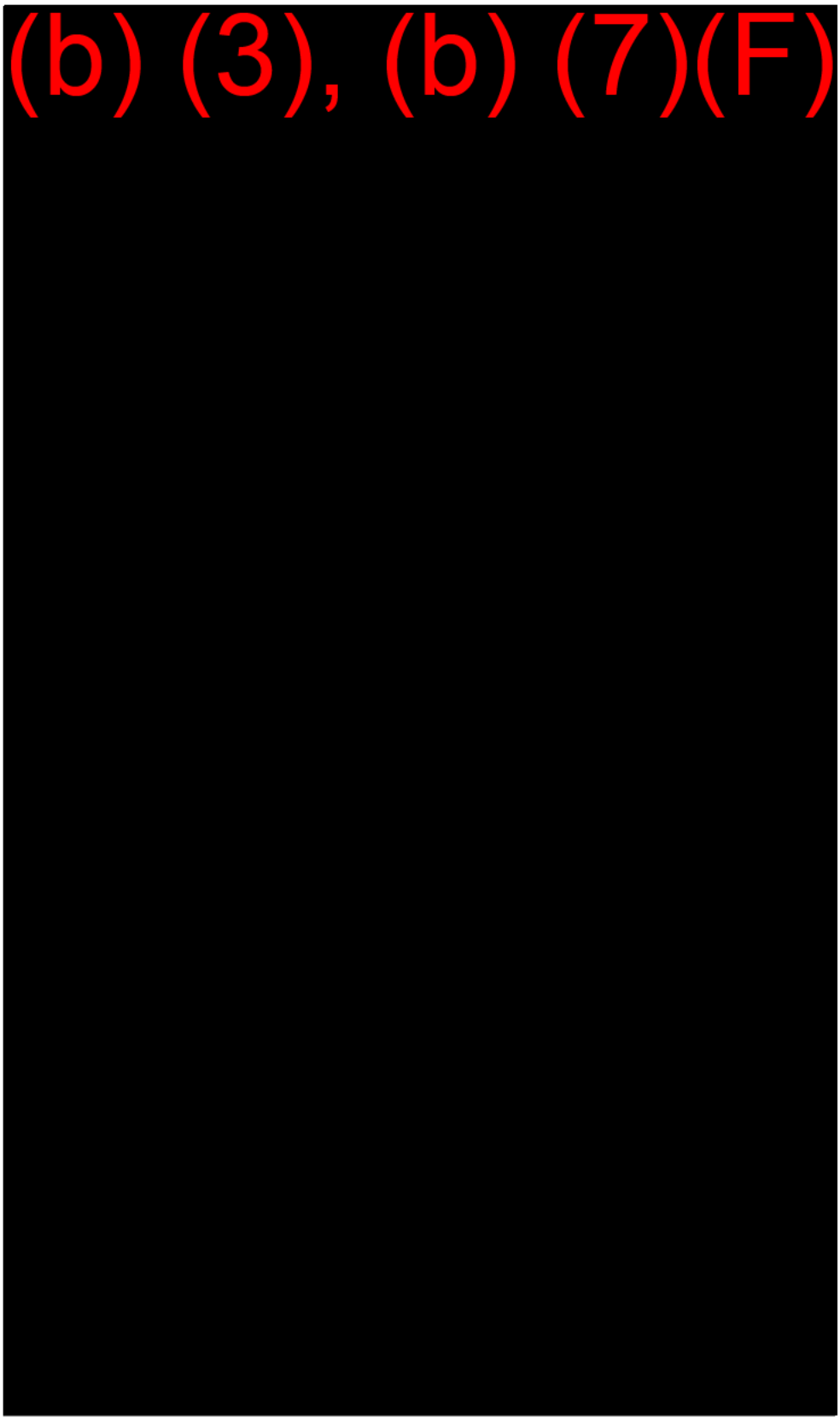


1165 (2) Creek

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Martinsville Area Critical/Sensitive Areas

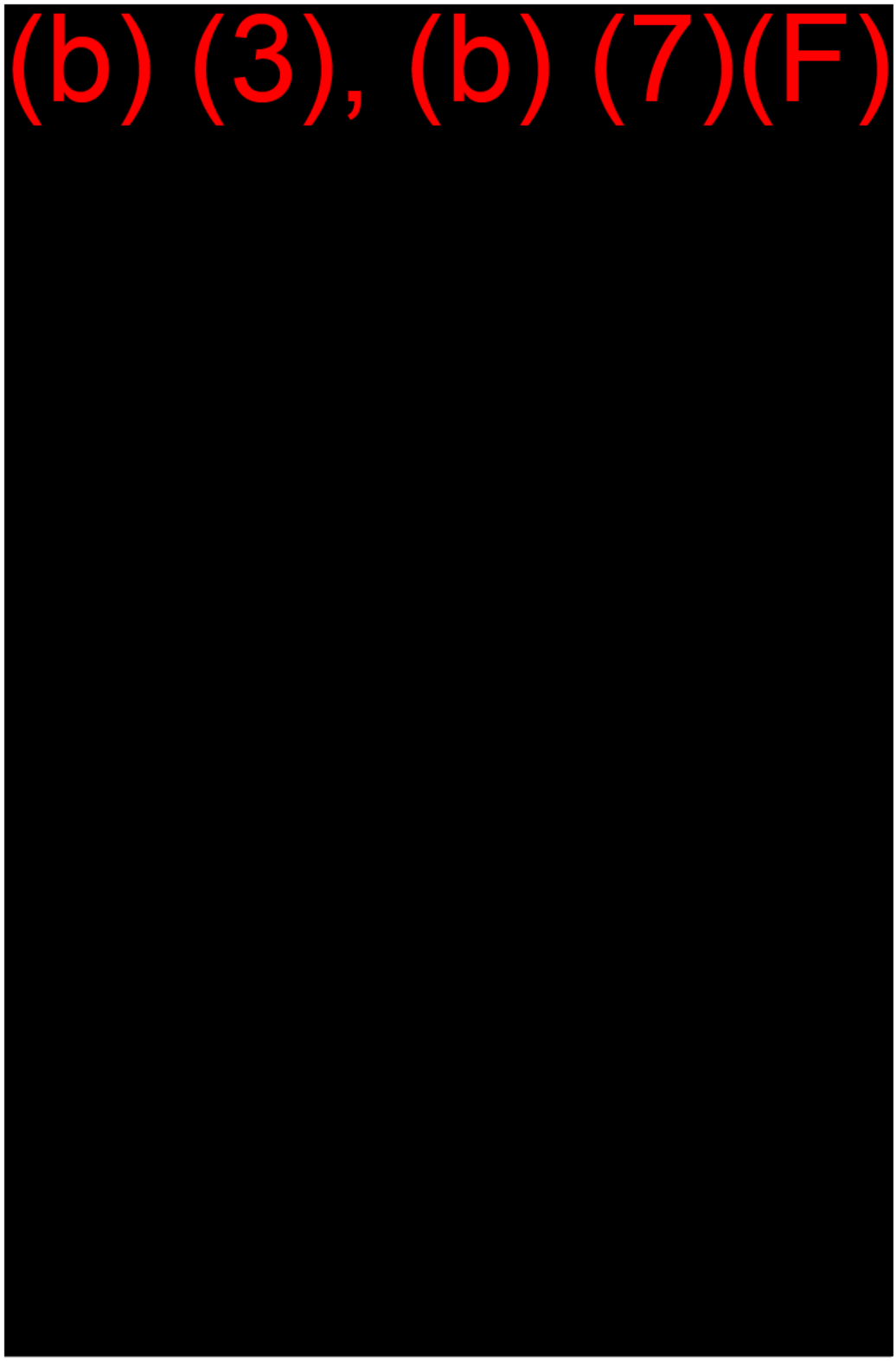
CRITICAL AREAS



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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS



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Martinsville Area Critical/Sensitive Areas

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

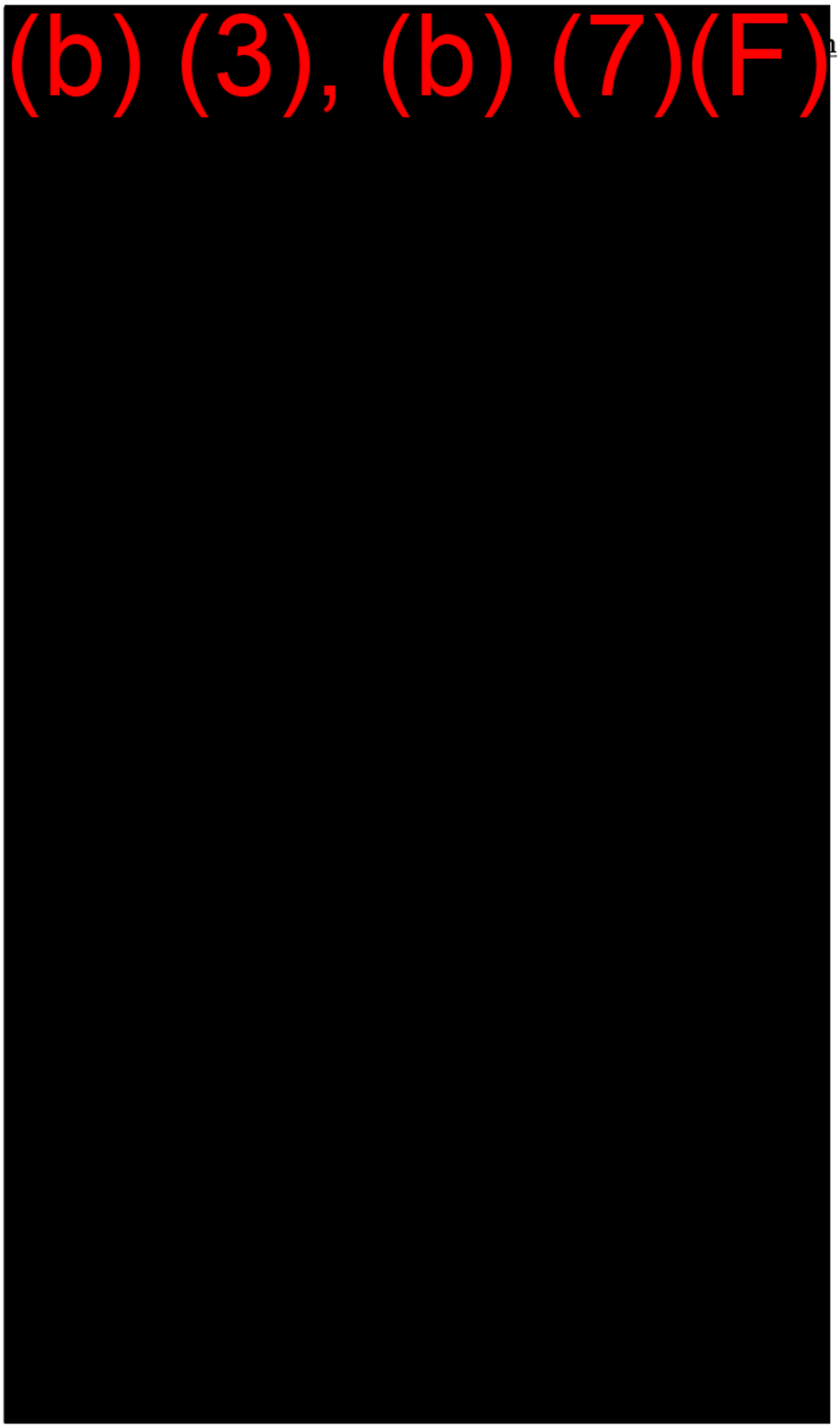
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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

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

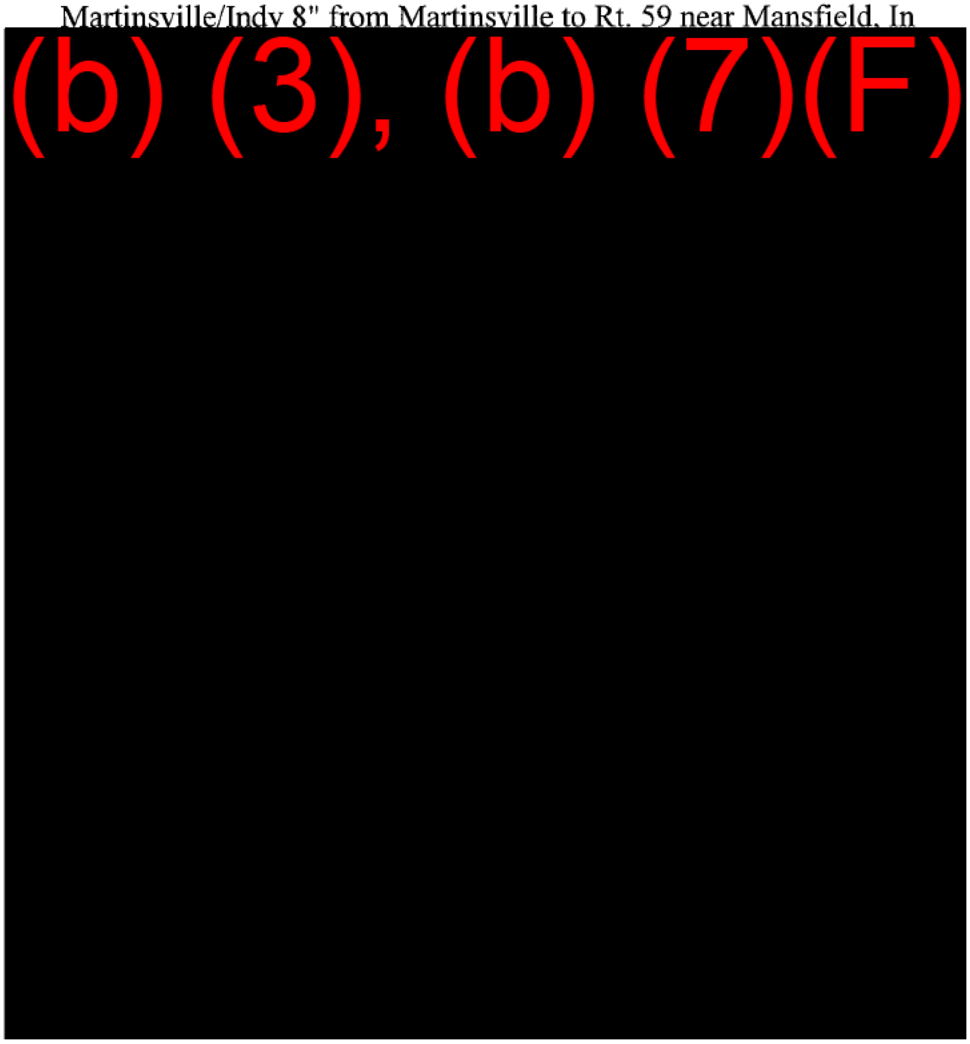


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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

Martinsville/Indy 8" from Martinsville to Rt. 59 near Mansfield, In



Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database

SEE TELEPHONE NUMBER SECTION

Champaign County, IL
Mid-America Sand & Gravel Co

Lincolnshire Fields Cntry Club	Lake Lincolnshire
Lincolnshire Fields Cntry Club	Phinney Branch

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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V -ACP database (Cont'd)

Clark County, IL
Lincoln Trail State Park, IL Dept. of Conservation State Park

Coles County, IL
Lake Charleston, Embarrass Charleston Dick Sherman

Fox Ridge State Park, IL Dept. of Conservation, Embarras River State Park

Charleston Stone Company, Embarrass River

Charleston Water Treat Plant, Charleston Side Channel Res.

Charleston Water Treatment Plant, Embarrass River,

Jasper County, IL
Newton Lake CIPS-Newton Station, CIPS

Newton Lake Newton, Tom Martin

Newton Lake State Fish and Wildlife Area, IL Dept. of Conservation, Newton Lake

Macon County, IL
Fort Daniel, IL DOC, State Conservation Area,

Lincoln Trail Homestead, IL DOC, Sangamon River State Park,

Spitler Woods, IL DOC, State Park,

Decatur North Water Treatment Plant, Lake Decatur

Decatur South Water Treatment Plant, Lake Decatur

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Martinsville Area Critical/Sensitive Areas

CRITICAL AREAS

Environmentally Sensitive Areas from the U.S. EPA's Region V -ACP database (Cont'd)

Moultri County, IL
Lake Shelbyville, Kaskaskia River, Federal Recreation Area

Campfield Environ Study, Lake Shelbyville, Kaskaskia River Fed Rec Area

Sullivan Beach, Lake Shelbyville, Kaskaskia River, Fed Rec Area,

Whitley Creek, Lake Shelbyville, Kaskaskia River, Fed Rec Area,

Wilborn Creek Lake Shelbyville, West Okaw River, Fed Rec Area,

Shelbyville, West Okaw River, Kaskaskia River, State Fish & Wildlife Area,

Putman County, IN
Lieber, Cagles Mill Lake State Recreation Area

Big Walnut Creek, Eel River, National Natural Landmark

Vigo County, IN
Morris, George F, Honey CR,

Amax Coal Co, Chinook Mine, Mine Lake

S G Excavating Inc, S G Gravel Pit

Amax Coal Co, Chinook Mine, UN Pit

Martin Marietta Aggregates Div, Terre Haute Unnamed Lake

PSI, Wabash R. Station, Wabash River,

Indiana American Water Co, Wabash Valley District, Wabash R,

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Martinsville Area Critical/Sensitive Areas

ILLINOIS

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Annapolis
Arcola
Ashmore
Assumption
Atwood
Bement
Bondville
Buckley
Buckley N.W.
Cadwell
Casey
Cerro Gordo
Charleston-North
Charleston-South
Cissna Park
Clark Center
Clarksdale
Clarksville
Clifton
Crescent City
Dalton City
Decatur
Dennison, IL-IN
Eaton
Findlay
Fisher
Flat Rock
Gibson City
Gifford
Gilman
Grandview
Greenup
Hammond
Hazel Dell
Heathsville, IL-IN
Hindsboro
Hutsonville, IL-IN
Ivesdale

Johnstown
Kansas
La Hogue
La Place
Latona
L'Erable
Long Creek
Lovington
Macon East
Macon West
Mahomet
Marshall
Melvin East
Metropolis, IL-KY
Monticello
Moriah
Murdock
Nokomis S.W.
Oakland
Obed
Oblong North
Oblong South
Onarga East
Onarga West
Owaneco
Paducah N.E.
Pana
Paris South
Paxton
Purdueville
Rantoul
Rising
Rose Hill
Sandford, IL-IN
Seymour
Snyder
Stewardson West
Teutopolis
Thomasboro
Toledo
Tolono
Tuscola
Union Center
Urbana

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Martinsville Area Critical/Sensitive Areas

ILLINOIS
USGS Topographical
Quadrangle Maps
(1:24,000 Scale)

Villa Grove
Watseka
Westfield East
Westfield West
West Union
Wheeler
Willeys
Woodbury
Woodworth

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INDIANA

USGS Topographical
Quadrangle Maps
(1:24,000 Scale)

Alfordsville
Bellmore
Bicknell
Borden
Becks Mill
Brazil East
Brazil West
Bucktown
Carlisle
Catlin
Center Point
Clinton
Clinton Falls
Corydon East
Crandall
Dennison
Epsom
Fairbanks, IN-IL
Fredericksburg
French Lick
Fritchton, IN-IL
Georgetown
Georgia
Glendale
Greenbrier
Hardinsburg
Hillham
Huron
Hutton, IN-IL
Indian Springs
Jeffersonville, IN-KY
Lanesville, IN-KY
Lewis
Livonia
Loogootee
Mansfield
Mecca
Merom, IN-IL
Montgomery
New Albany, IN-KY
New Goshen
Oaktown, IN-IL
Odon
Palmyra
Paoli
Pimento
Plainville
Poland
Reelsville
Roachdale
Rockville
Rosedale
Russellville
Rusk
Saint Bernice, IN-IL
Salem
Sandborn
Saline City
Seelyville
Shelburn
Shoals
Staunton
Sullivan
Terre Haute
Valeene
Washington
Wheatland

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Patoka Area Critical/Sensitive Areas

CRITICAL AREAS

The critical area within five miles of each pipeline section in the Patoka Response Zone is shown in the Response Maps located in the Martinsville Drafting room and in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

The most common threatened or endangered species found in the response zone is the Indiana Bat. The only other species documented in the area is the Bald Eagle, found in Fayette County.

The National Wetlands Inventory has delineated wetlands throughout the response zone. Hurricane Creek has been designated an unconsolidated, permanently flooded, riverine (generally described as places where water flows within a channel) wetland. Impounded, forested, temporarily flooded, palustrine (generally freshwater, vegetated wetland; would include marshes and swamps) wetlands exist along the inside of many of the bends in the creek. There are many excavated or impounded palustrine wetlands present near the flood gate and the impoundments for Carlyle Lake. Additionally, there are a large amount of palustrine wetlands present in the areas associated with Carlyle Lake State Wildlife Management Area and Carlyle Lake.

There are two state parks in the Patoka Response Zone to be noted. Ramsey Lake State Park is located two and a half miles south of the Fayette/Shelby County line in Fayette County, and the Stephen A. Forbes State Park is three miles west of the Marion/Clay County line in Marion County.

ACCESS/STAGING AREAS

Airports

Mount Vernon, IL

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Patoka Area Critical/Sensitive Areas

ACCESS/STAGING AREAS

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The Cleanup unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

(b) (7)(F), (b) (3) [redacted]

[redacted] TELEPHONE NUMBER SECTION

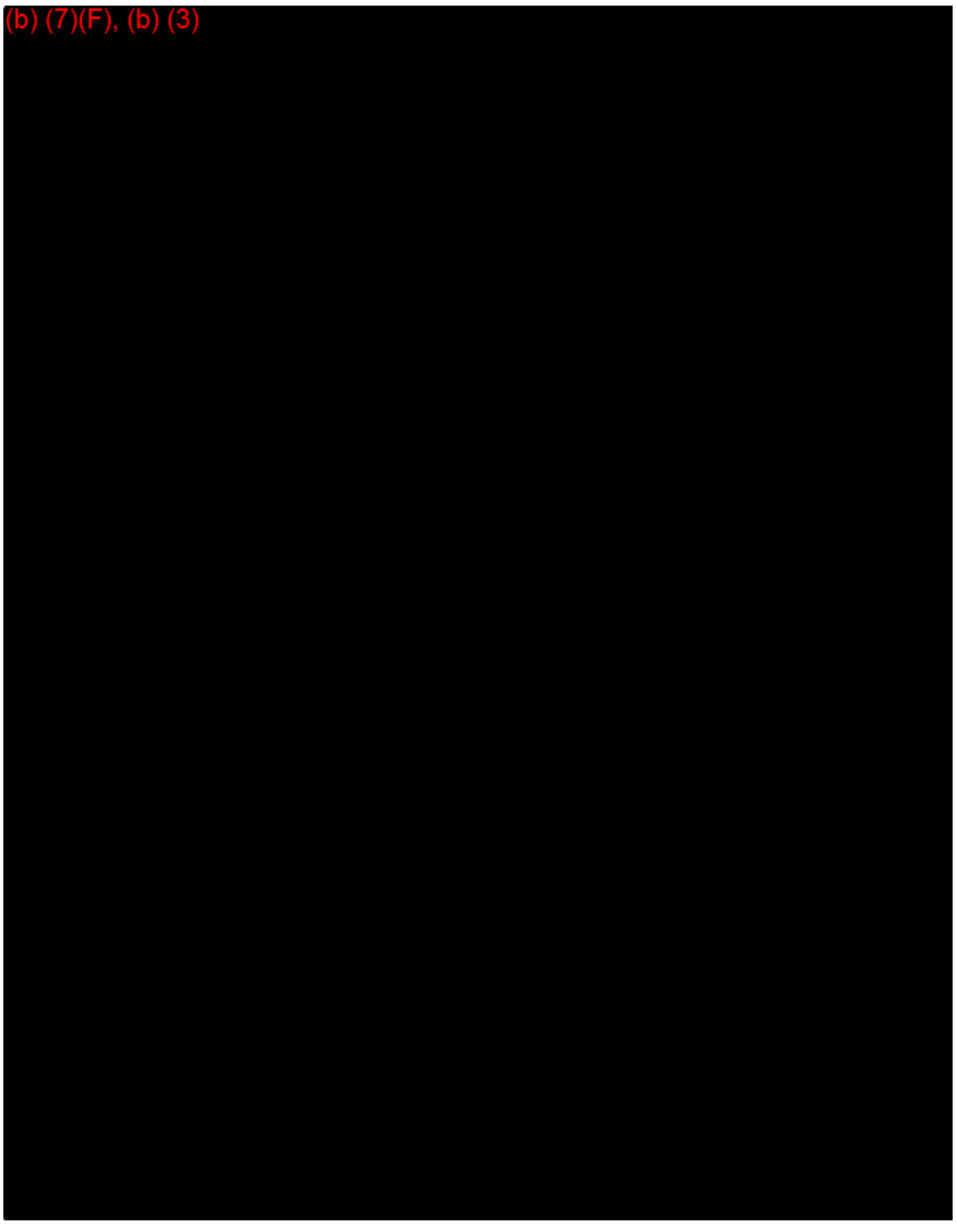
CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
(b) (7)(F), (b) (3) [redacted]		

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Patoka Area Critical/Sensitive Areas

DESCRIPTION OF SPECIAL ENVIRONMENTAL CHARACTERISTICS	Area is state wildlife management area, and a lake for flood control and water supply. Area has extensive recreational uses including hunting, camping, fishing, and water sports.
CRITICAL AREAS	#1-10" Products Line in Illinois to the crossing of US Route 127 to the crossing of the Montrose Blacktop

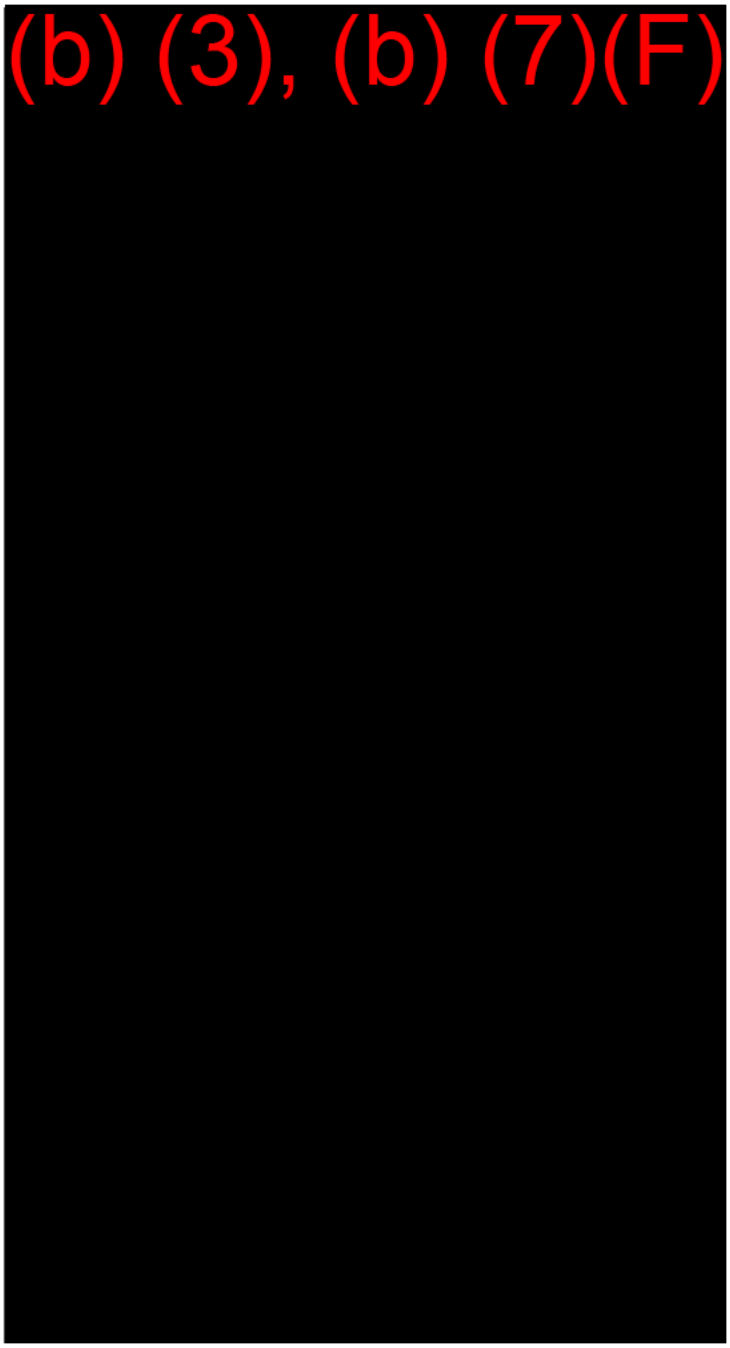
(b) (7)(F), (b) (3)



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Patoka Area Critical/Sensitive Areas

CRITICAL AREAS #1-10" Products Line in Illinois to the crossing of US Route 127 to the crossing of the Montrose Blacktop (Cont'd)



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Patoka Area Critical/Sensitive Areas

CRITICAL AREAS

#1-10" Products Line in Illinois to the crossing of US Route 127 to the crossing of the Montrose Blacktop (Cont'd)

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

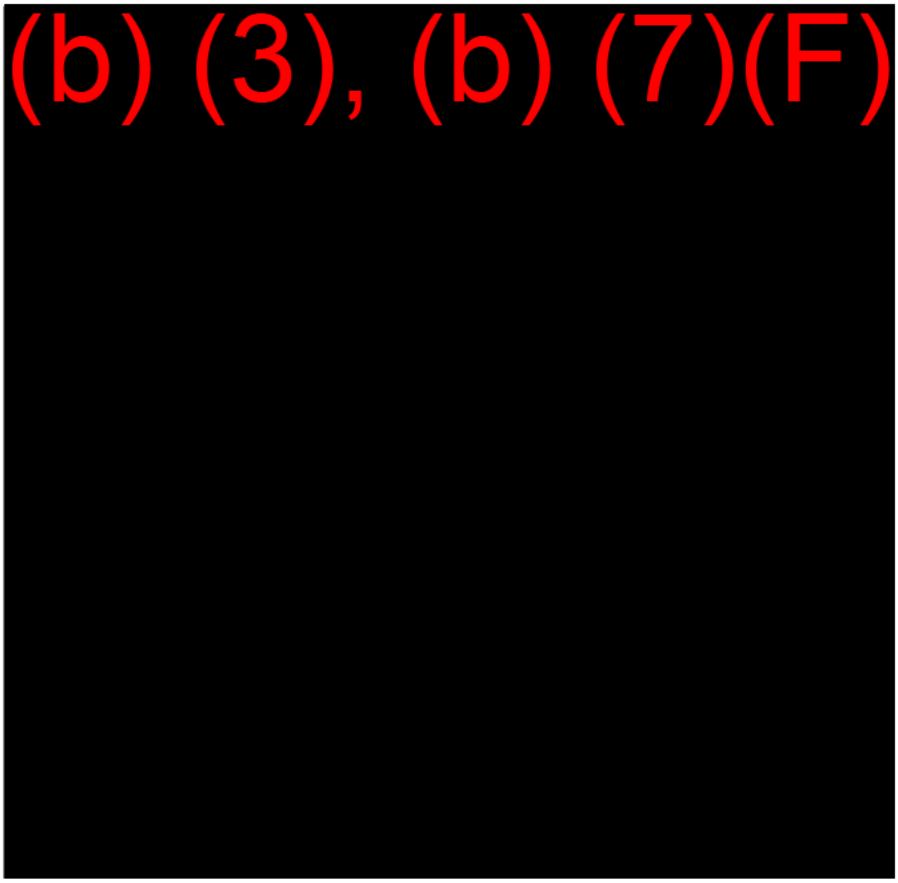
10" Crude Line from Patoka, IL to the crossing of the Montrose Blacktop

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

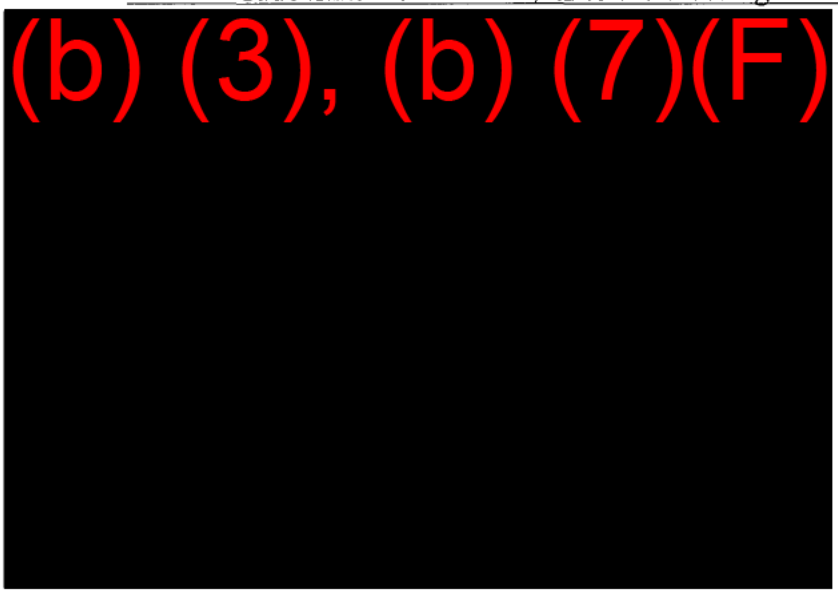
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Patoka Area Critical/Sensitive Areas

CRITICAL AREAS #1-20" Crude Line from Patoka, IL to the crossing of the Montrose Blacktop



#2-20" Crude Line from Patoka, IL to the crossing of the Montrose

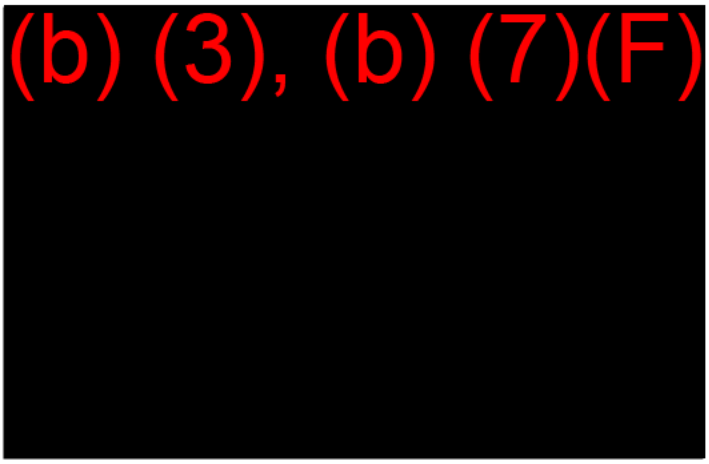


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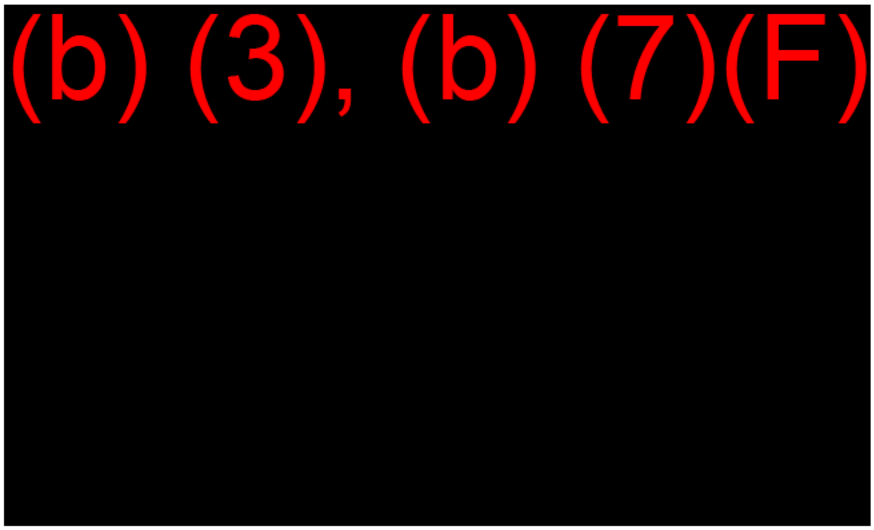
Patoka Area Critical/Sensitive Areas

CRITICAL AREAS

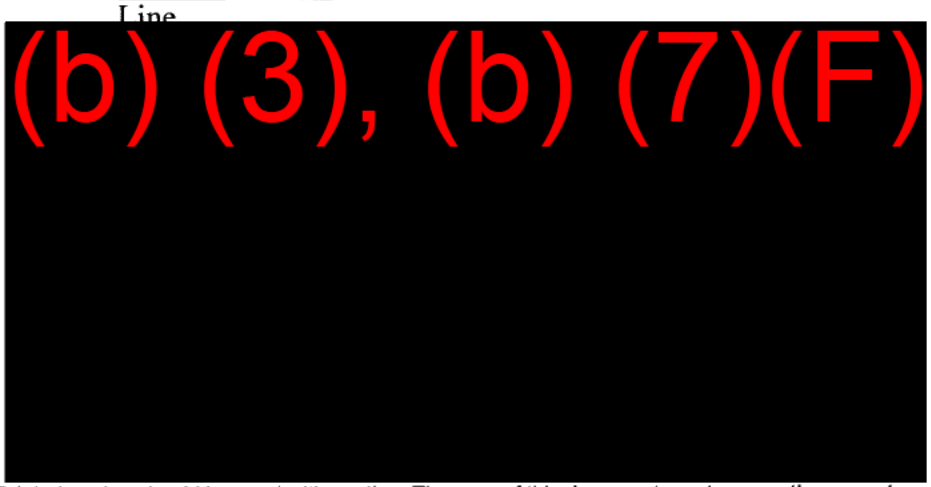
#2-20" Crude Line from Patoka, IL to the crossing of the Montrose Blacktop (Cont'd)



22" Woodpat Crude Line from IL Route 127 to Patoka, IL

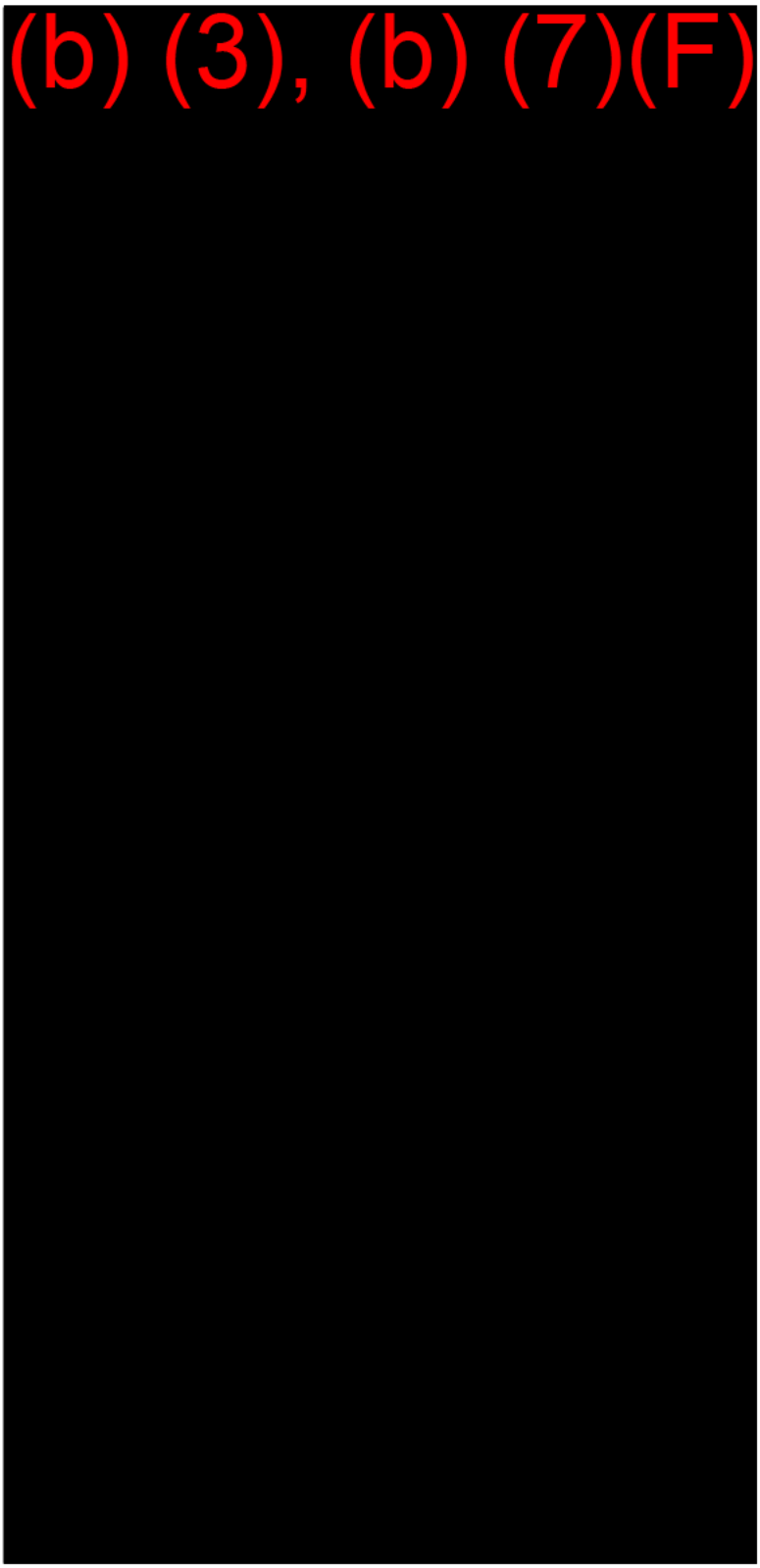


20" Patoka to Owensboro Crude Line from Patoka, IL to IL/IN State Line



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Patoka Area Critical/Sensitive Areas



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Patoka Area Critical/Sensitive Areas

ILLINOIS

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Addieville
Altamont East
Altamont West
Avena
Beaver Creek
Beckemeyer
Beecher City
Bingham
Boulder
Brownstown
Carlyle
Centralia East
Centralia West
Dieterich
Doffeen
Eberle
Edgewood
Effingham North
Effingham South
Fairman
Fillmore
Greenville
Hagarstown
Herrick
Hord
Keyesport
Kinmundy
Latona
Loogootee
Louisville East
Louisville West
Mulberry Grove
Oakdale
Oskaloosa
Patoka
Pleasant Mound
Ramsey
Sailor Springs
Salem North
Shumway
Sorento North
St. Paul
Stolletown
Taylorville
Teutopolis
Vandalia
Vera
Wheeler
Wildcat Lake
Woodbury

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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the Stoy Area are shown in the Response Maps located in the Martinsville Drafting room and in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

The critical areas within approximately 50 miles downstream of the Ohio River crossing are shown in the Response Maps located in the Martinsville Drafting room and in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

The most predominant threatened or endangered species present in the Stoy Area is the Indiana Bat. It is present throughout the entire Stoy Area. Also of significance is the Bald Eagle, found in Wabash, IL, and Posey, IN counties. In addition, a number of aquatic species are established in the Wabash River and it's tributaries in Illinois. These include: the Fanshell in Crawford County and Lawrence County; the Tubercled-Blossom Pearly Mussel in Crawford, Lawrence, and Wabash Counties; the Ring Pink in Crawford, Lawrence, and Wabash Counties; the Cracking Pearly Mussel in Lawrence and Wabash County; and the Fat Pocketbook in Wabash County. Further, the Fat Pocketbook is found in Knox County, IN, Gibson County, IN, and Posey County, IN. The Higgins' Eye Pearly Mussel and the Fanshell also reside in White County.

There are federally delineated wetlands in all counties in the Stoy Zone. Therefore, wetlands have been mapped by the National Wetlands, Inventory for all counties of interest in Illinois and Indiana. At the location where the pipeline crosses Newton Lake, the lake is classified as a diked/impounded palustrine (generally described as freshwater, vegetated wetland; would include marshes and swamps), seasonally flooded wetland. Overall, various types of palustrine wetlands are used to classify Newton Lake. However, much of Laws Creek, located north of Newton Lake, is considered to be an permanently flooded, unconsolidated bottom, riverine (generally places where water flows within a channel) wetland. There are very few wetlands designated outside of the areas including and surrounding creeks and lakes in the area, and the ones that are present frequently diked/impounded palustrine wetlands.

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Stoy Area Critical/Sensitive Areas

ENVIRONMENTAL SENSITIVITIES

A number of areas of concern exist in the Stoy zone. The Chauncey marsh area, located approximately 8 miles north of Bridgeport in

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

There are a number of areas of concern within the Stoy zone along the Ohio River. These areas are Lake Dreamland, Mill Creek and Salt River (in Jefferson County, KY); Arrowhead Lake and Knob Creek (in Floyd County, IN); Four Mile Creek, Mosquito Creek, Buck Creek, Harrison Crawford State Forest, Indiana Creek and Hoosier National Forest (in Harrison County, IN); Abrahams Run, Otter Creek, Doe Run Creek, Flippins Run, and French Creek (in Meade County, KY).

THREATENED OR ENDANGERED SPECIES FOUND IN THE RESPONSE ZONE:

BIRDS	GASTROPODS	MUSSELS *
Bald Eagle	Wrinkled Button	Fanshell
Blue-winged Teal	Capped Vertigo	Oyster
Osprey	Glassy Grapeskin	Pocketbook
CRASTACEANS	**FISHES**	**AMPHIBIANS**
Boasfield's Amphipod	Pallid Sturgeon	Wehrle's Salamander
Ohio Shrimp	Dollars Sunfish	Three-toed Amphiuma
Louisville Crayfish	Alligator Gar	Bird-voiced Treefrog

REPTILES	MAMMALS
Alligator Snapping Turtle	Evening Bat
Broad-banded Water Snake	New England Cottontail
Southern Painted Turtle	Long-tailed Shrew

ENVIRONMENTAL SENSITIVITIES

OHIO RIVER - MILE LOCATION

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

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Stoy Area Critical/Sensitive Areas

ACCESS/STAGING AREAS

Airports

Robinson Municipal Airport	Palestine, IL
Effingham County Airport	Effingham, IL
Mid-American Air Center	Lawrenceville, IL
Evansville Regional Airport	Evansville, IN
Clark County Airport (Hap's Aerial Entrp.)	Sellsburg, IN
Bowman Field	Louisville, KY
Standiford Field	Louisville, KY
Hardin County Airport	Elizabethtown, KY
Vine Grove Airport	Vine Grove, KY

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. Operations personnel along with aerial surveillance will identify possible launch and access sites.

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

[redacted]

SEE TELEPHONE NUMBER SECTION

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Newton Lake State Fish & Wildlife		
CIPS Power Plant Water Intake		

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Stoy Area Critical/Sensitive Areas

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

[redacted]

SEE TELEPHONE NUMBER SECTION

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Louisville Gas & Elec.	Shift Supervisor	2 mile upstream

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

[redacted]

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Stoy Area Critical/Sensitive Areas

OHIO RIVER DISCHARGE SCENARIO

Ohio River Crossing

CITY: West Point
COUNTY: Hardin
STATE: Kentucky
POPULATION: 1,500

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Salt River Public Access Boat Ramp	West Point Police Dept.	16 miles
Salt River Public Access Boat Ramp	Hardin County, KY Sheriff's Dept.	

CITY: New Boston
COUNTY: Harrison
STATE: Indiana
POPULATION: 100

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Harrison County Sherrif's Dept.		19 miles
[redacted]		[redacted]

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

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Stoy Area Critical/Sensitive Areas

OHIO RIVER DISCHARGE SCENARIO

Ohio River Crossing (Cont'd)

CITY: Brandenburg
COUNTY: Meade
STATE: Kentucky
POPULATION: 1,831

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Brandenburg Public Access Area	Brandenburg Police Dept. Meade County, KY Sheriff's Dept.	32 miles
Matthew Welsh Highway Bridge	IN St. Highway Dept. KY St. Highway Dept.	34 miles

CITY: Mauckport
COUNTY: Harrison
STATE: Indiana
POPULATION: 400

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Harrison County Sherrif's Dept.		34 miles

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

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Stoy Area Critical/Sensitive Areas

OHIO RIVER DISCHARGE SCENARIO

Ohio River Crossing (Cont'd)

CITY: New Amsterdam
COUNTY: Harrison
STATE: Indiana
POPULATION: 400

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Harrison County Sheriff's Dept.		42 miles

DESCRIPTION OF SPECIAL ENVIRONMENTAL CHARACTERISTICS

Small scale and commercial fishing takes place the length of the Ohio River.

CRITICAL AR

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

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Stoy Area Critical/Sensitive Areas

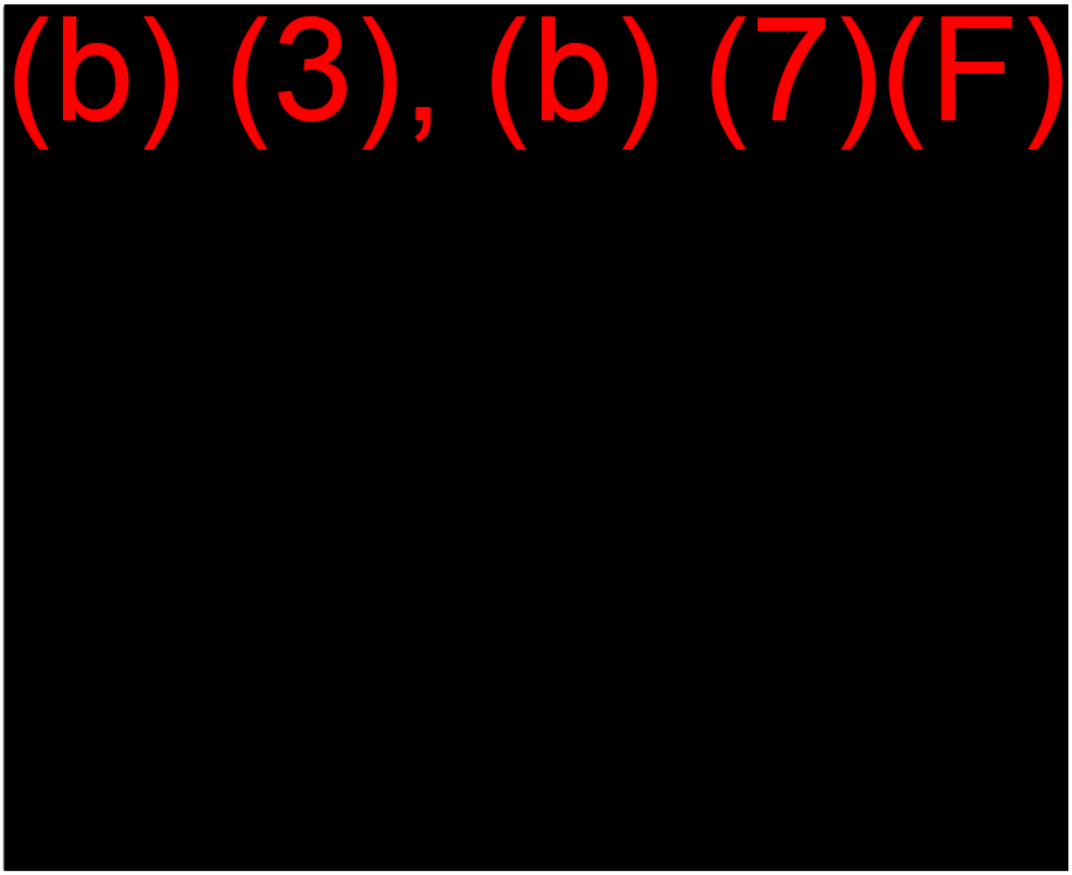
CRITICAL AREAS

#1-12" Products Line Robinson through Stoy, IL to Martinsville, IL

ROW



#2-10" Products Line from Robinson, IL to the crossing of US Route 40 in Putnam County, IN (Reelsville)



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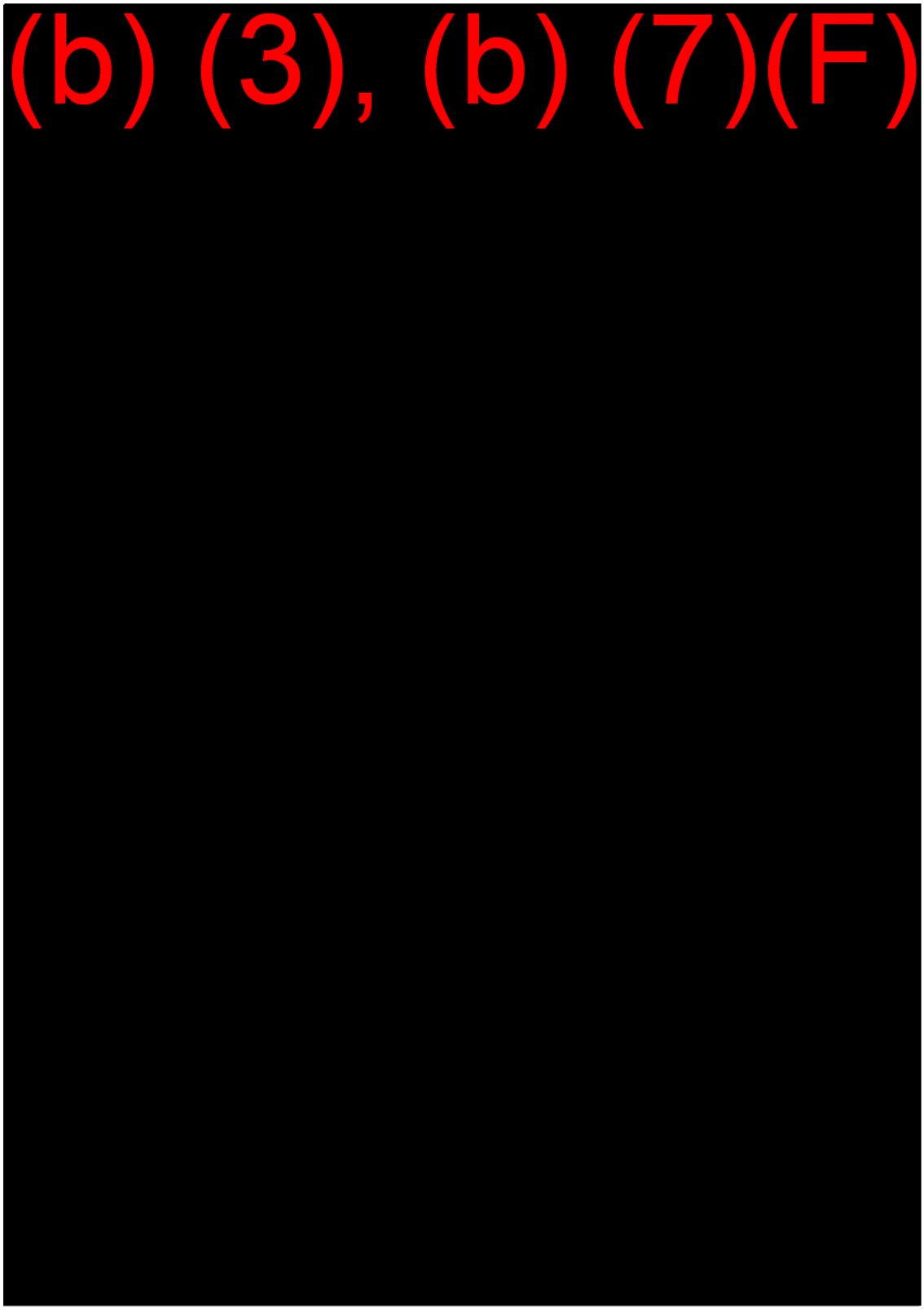
Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line

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

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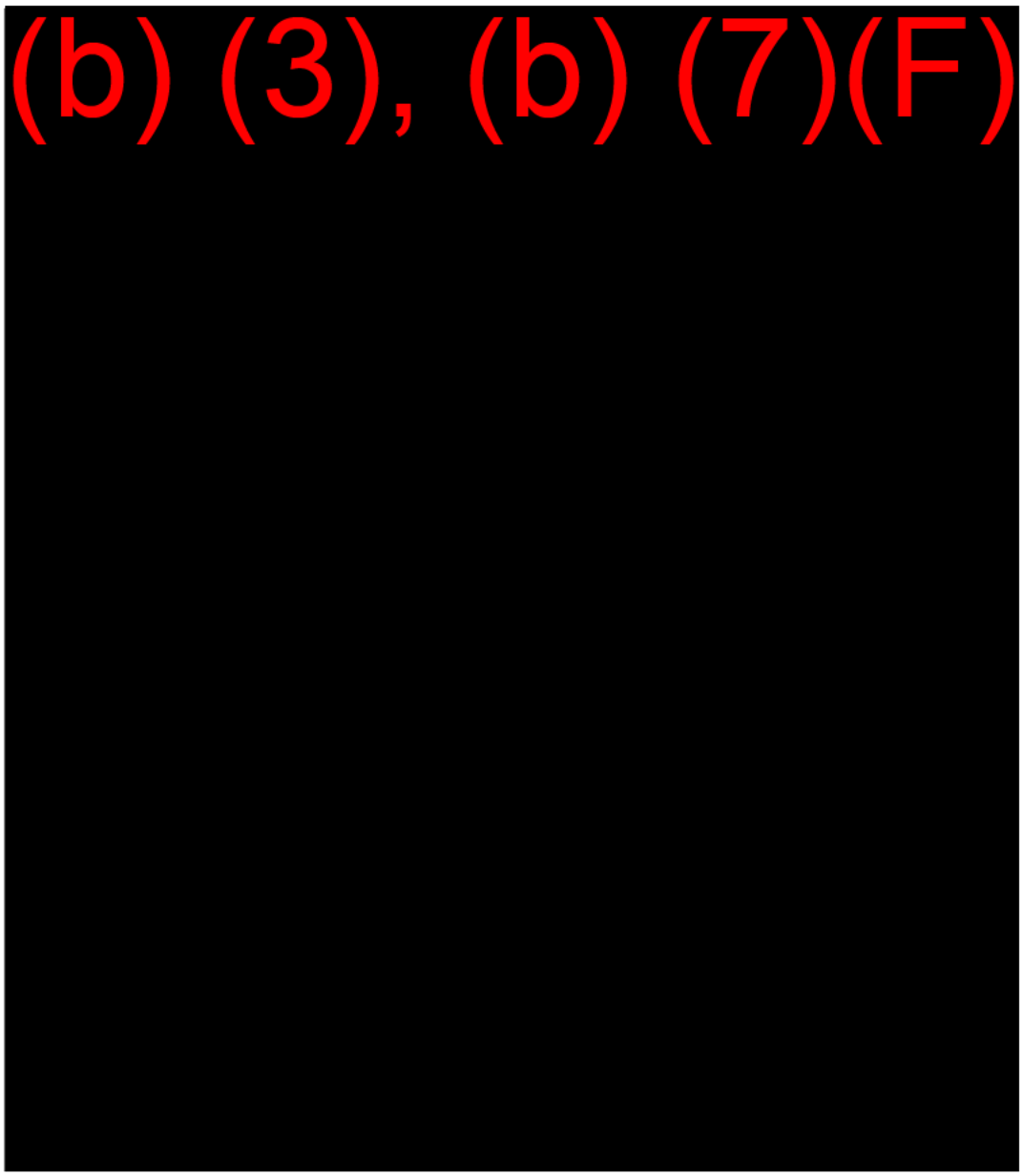
Stoy Area Critical/Sensitive Areas



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)

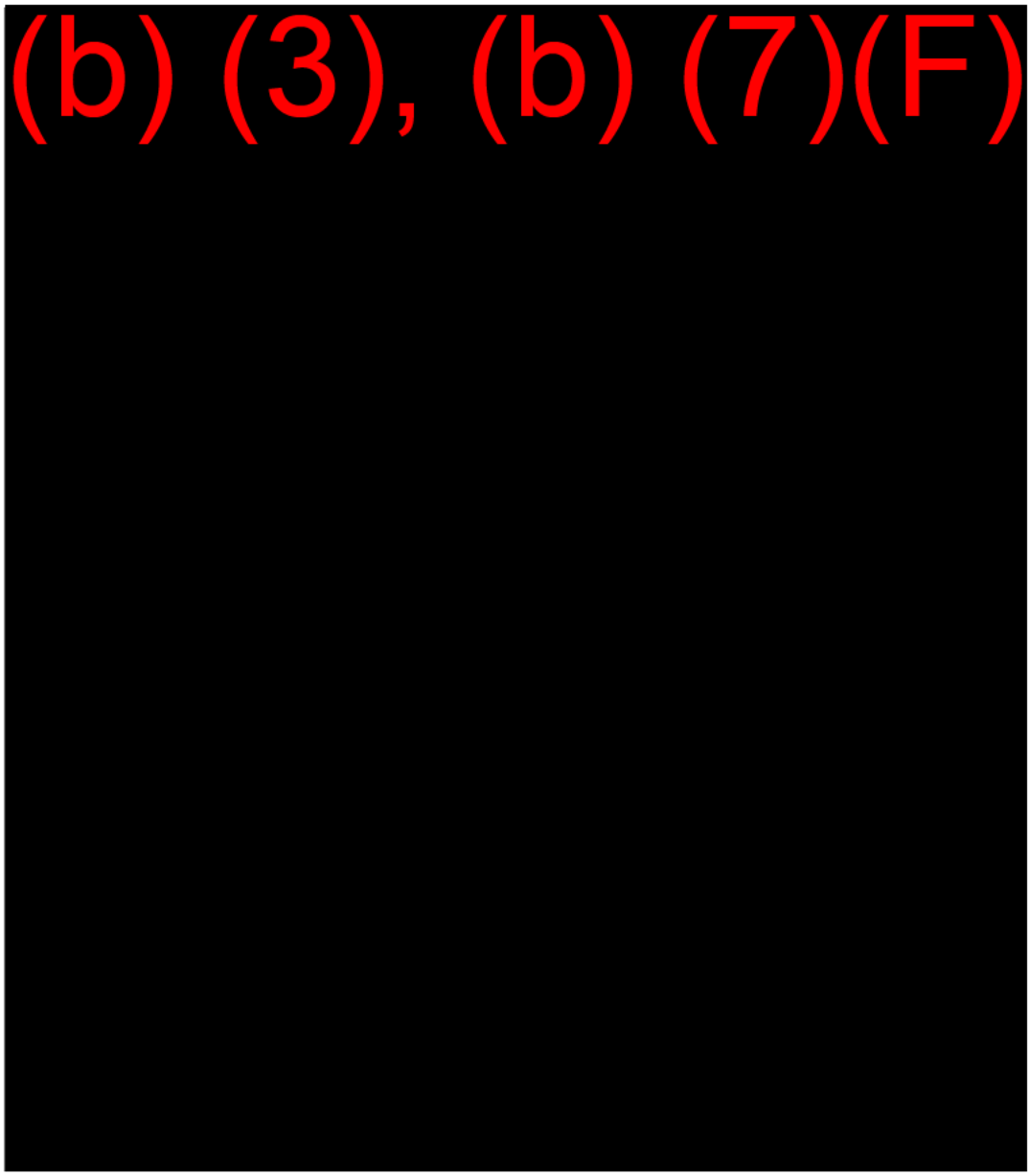
(b) (3), (b) (7)(F)



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Stoy Area Critical/Sensitive Areas

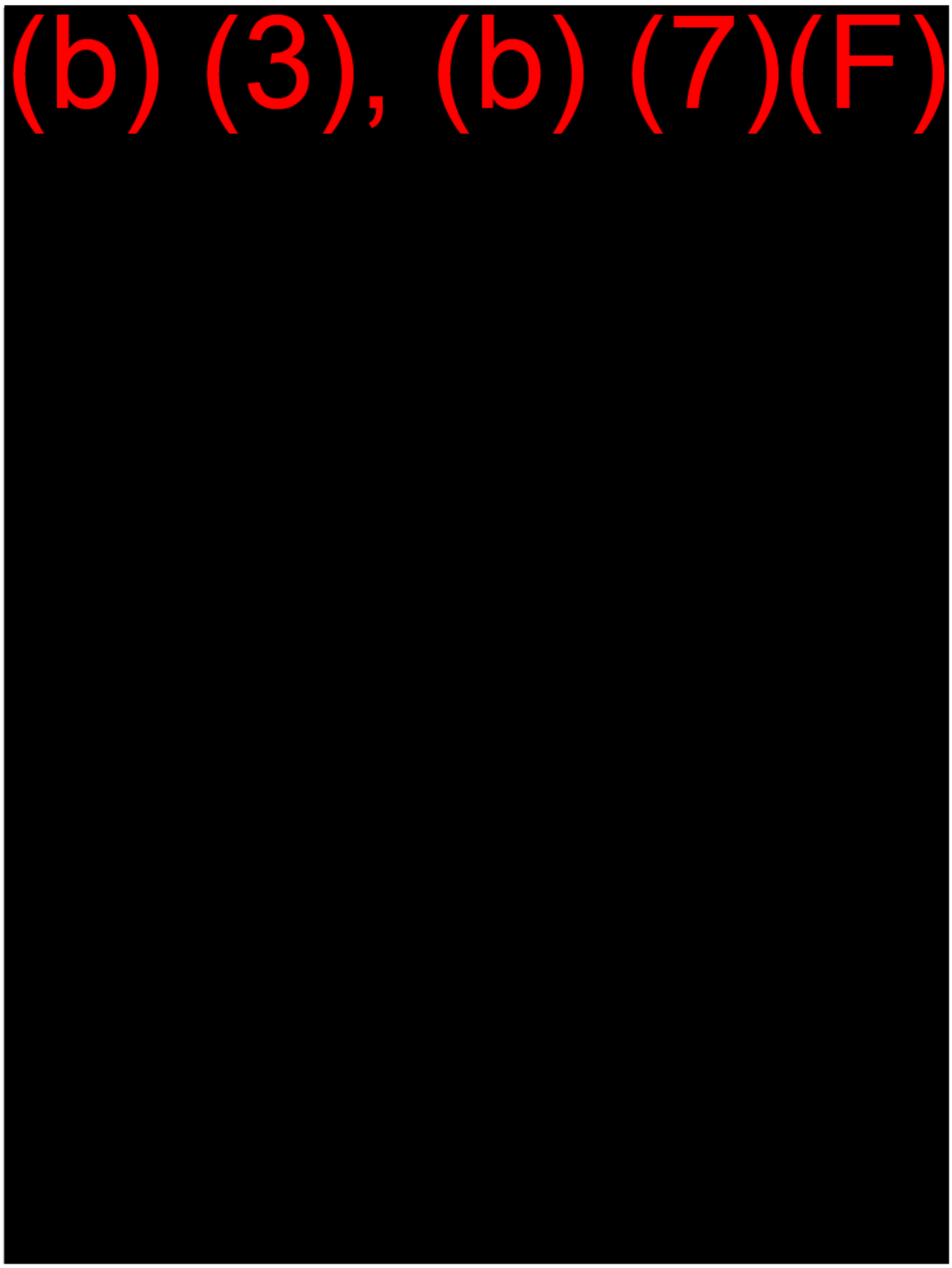
CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)

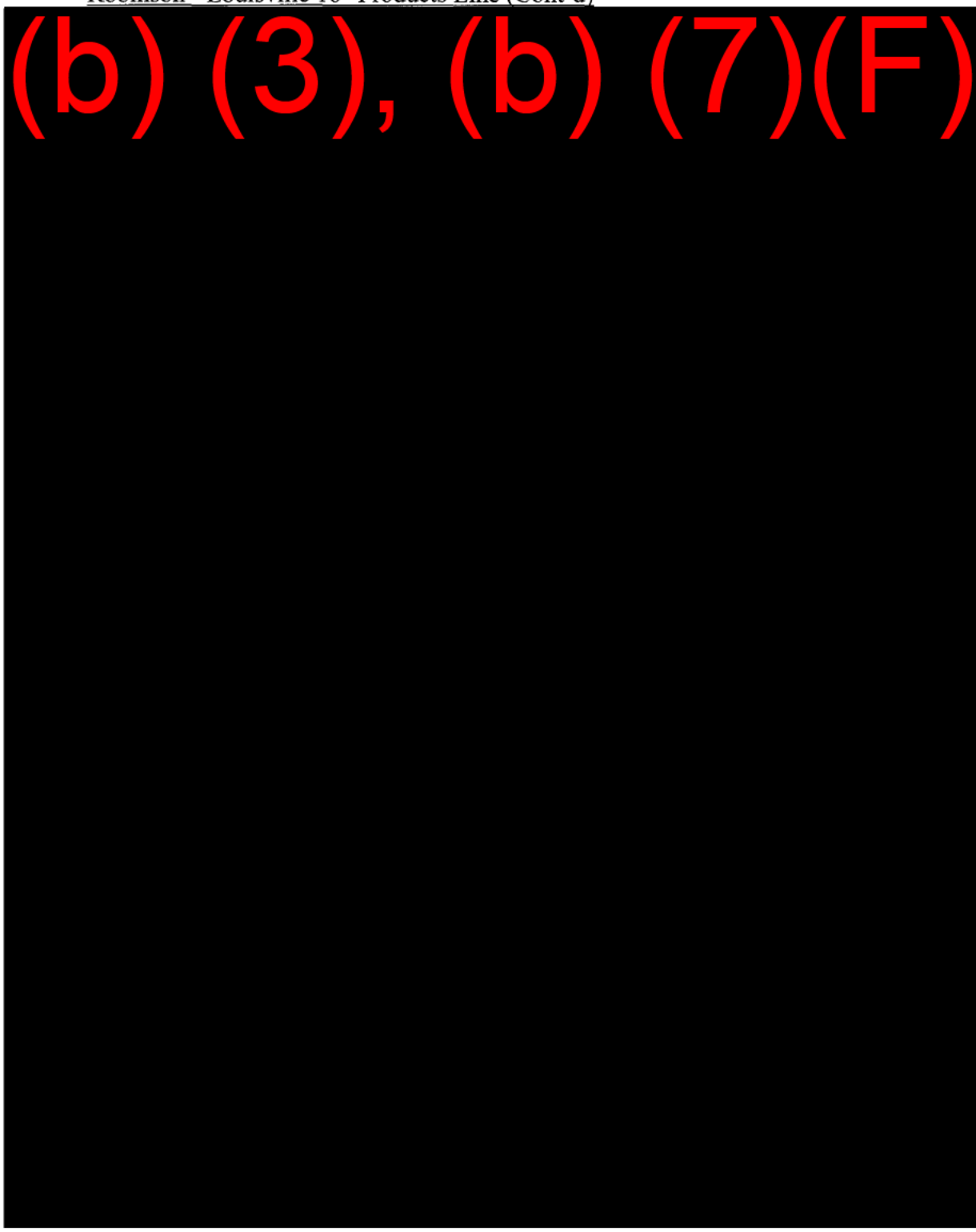
(b) (3), (b) (7)(F)

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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)

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



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Robinson - Louisville 16" Products Line (Cont'd)

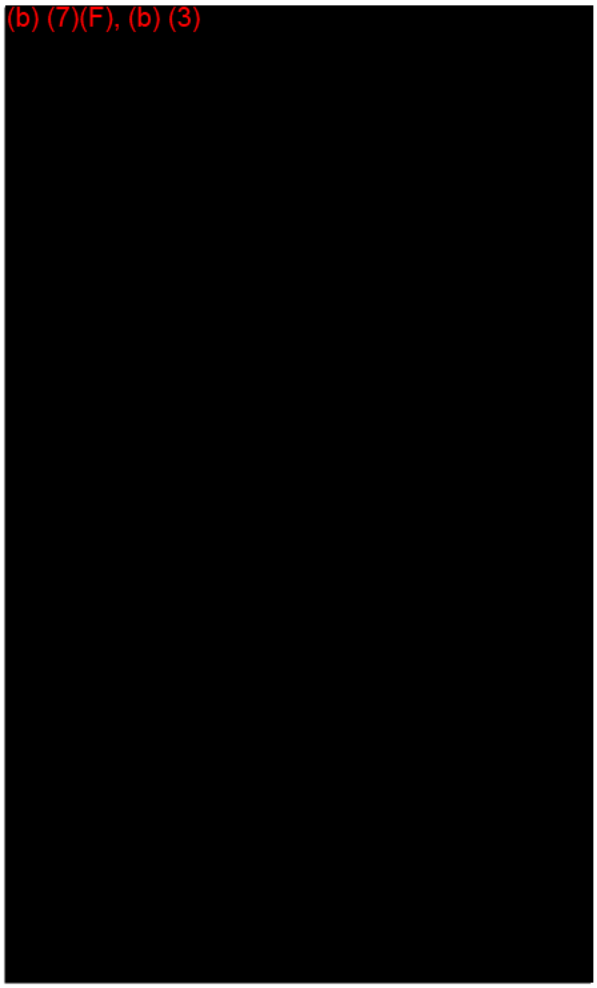
MILEPOST INDIANA

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

Louisville 16" Products Line from Robinson, IL to Louisville, KY

ROW

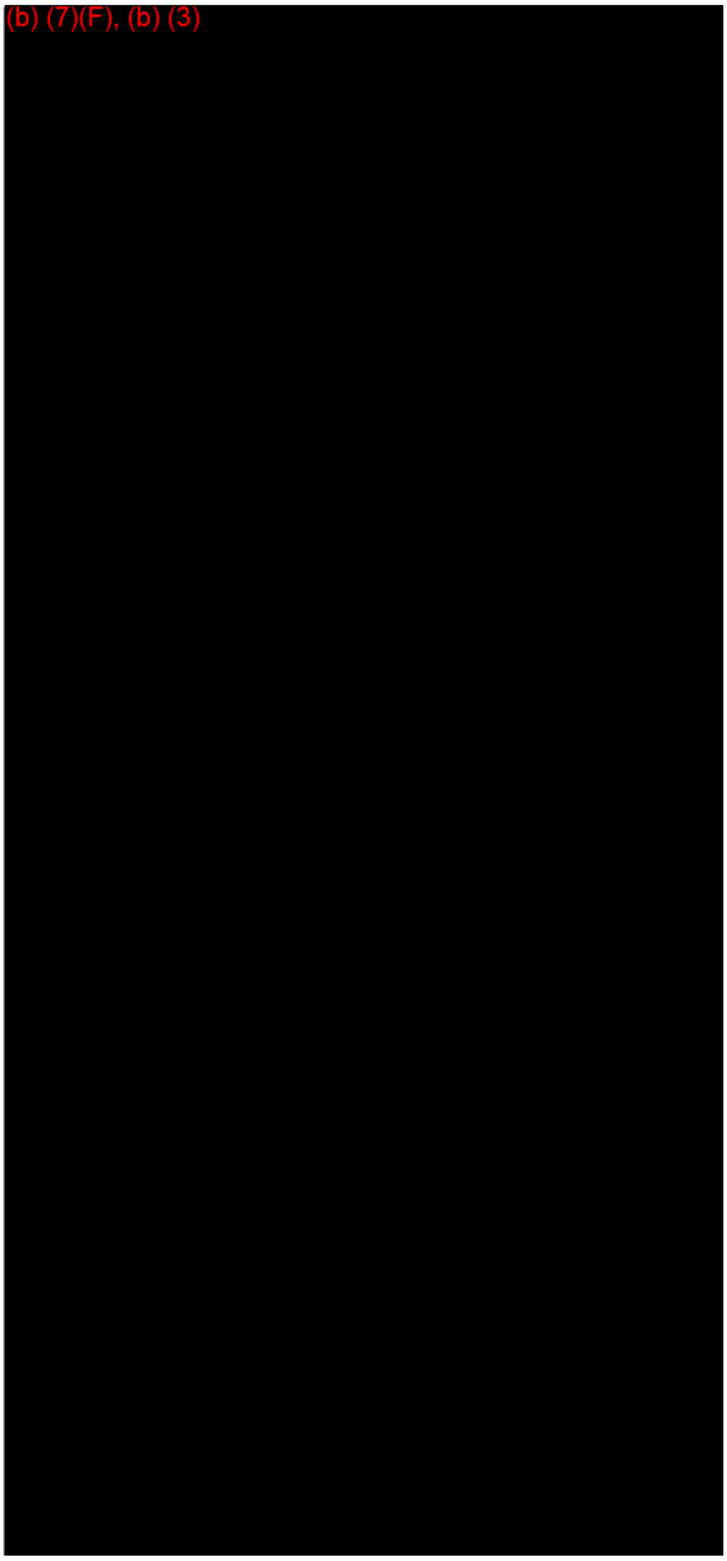
(b) (7)(F), (b) (3)



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Louisville 16" Products Line from Robinson, IL to Louisville, KY (Cont'd)



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS

Louisville 16" Products Line from Robinson, IL to Louisville, KY (Cont'd)

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

Line has been purged and idled from Benton, IL to Albion, IL

Stoy Area Trunk Lines from Albion, IL To Robinson, IL

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

Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Stoy Area Trunk Lines from Albion, IL To Robinson, IL (Cont'd)

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

[redacted]

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

Bridgeport To Stoy

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

[redacted]

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

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

[redacted]

73 Little Creek - Crawford County

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Ave. width: 6 ft; Ave. speed: 0 mph; Ave. depth: 1 ft

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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Stoy Area Trunk Lines from Albion, IL To Robinson, IL (Cont'd)

ROW

Bridgeport To Stoy (Cont'd)

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

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

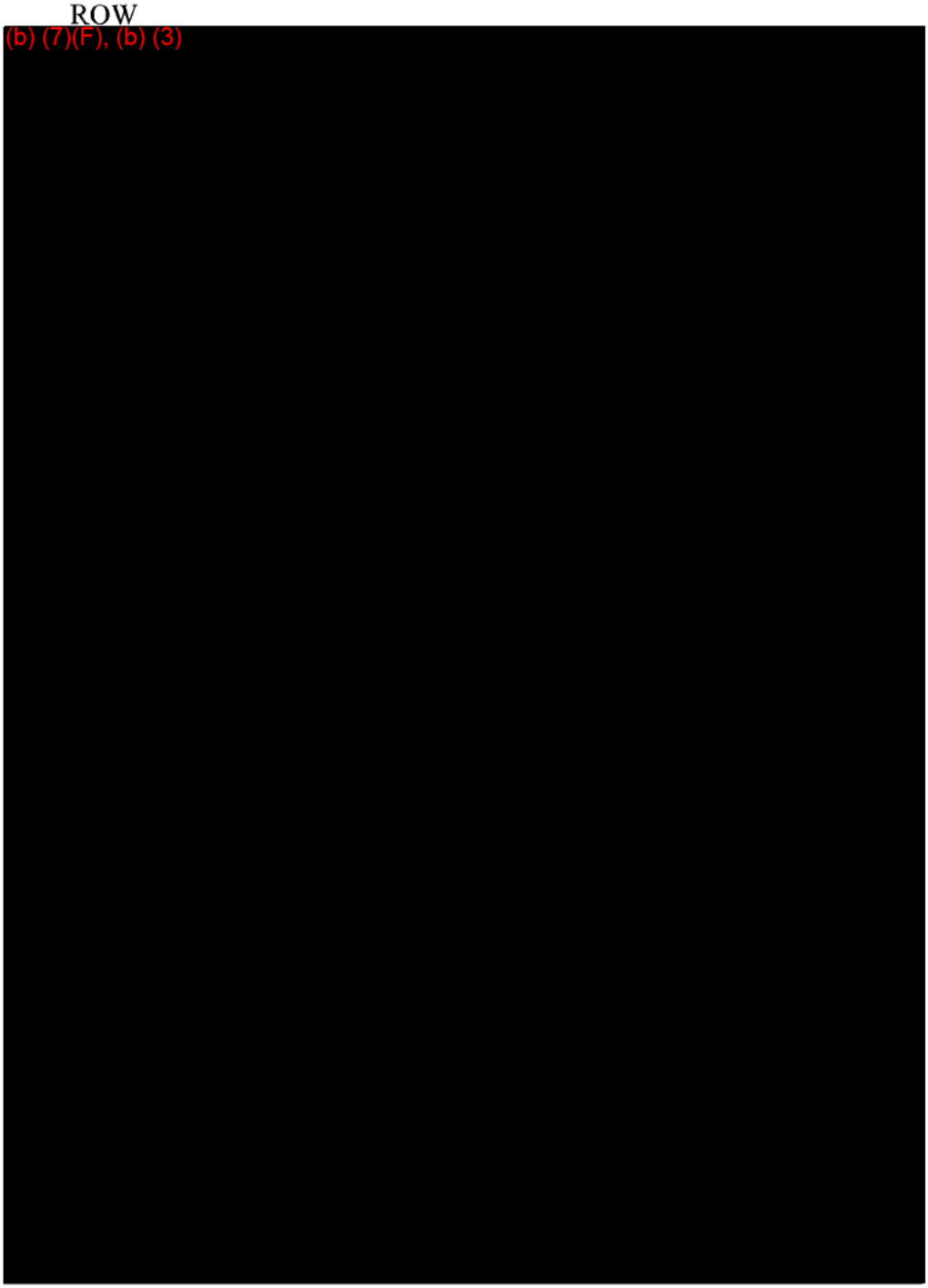
(b) (3), (b) (7)(F)

Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Patoka-Robinson #2-20" Montrose Blacktop Road To Robinson

ROW

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



Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Patoka-Robinson #2-20" Montrose Blacktop Road To Robinson (Cont'd)

ROW
308 S A Road 1

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

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

Princeton-Robinson 8"/6" Products Line From Princeton, IN To Robinson, IL

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

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

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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Princeton-Robinson 8"/6" Products Line From Princeton, IN To Robinson, IL (Cont'd)

ROW

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

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

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

Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Princeton-Robinson 8"/6" Products Line From Princeton, IN To Robinson, IL (Cont'd)

ROW

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

[redacted]

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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Princeton-Robinson 8"/6" Products Line From Princeton, IN To Robinson, IL (Cont'd)

ROW	
180	Illinois Highway 1

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

[redacted]

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

Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Princeton-Robinson 8"/6" Products Line From Princeton, IN To Robinson, IL (Cont'd)

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

[redacted]

Princeton-Robinson 4" LPG Products Line

ROW

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

[redacted]

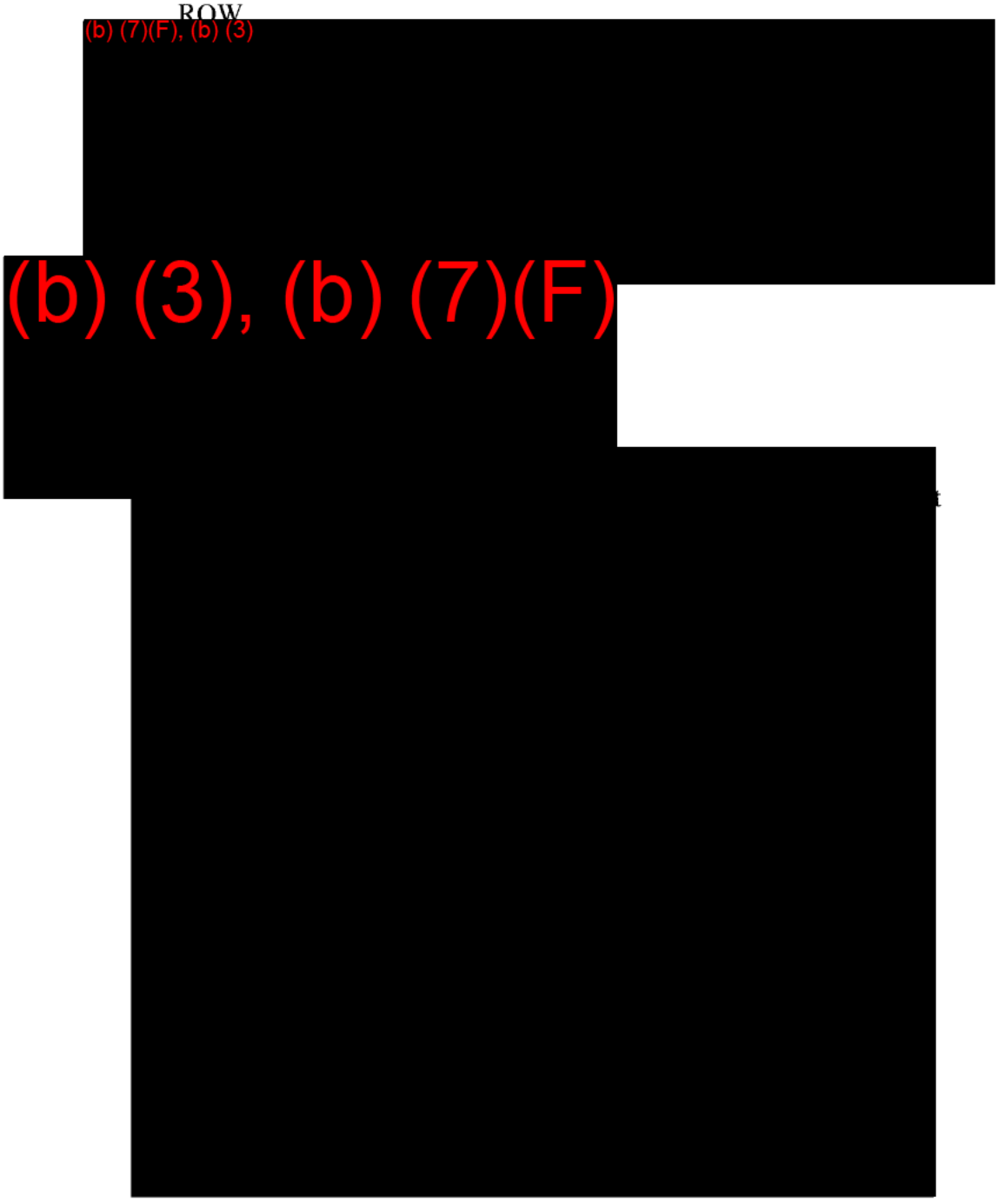
(b) (3), (b) (7)(F)

Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Princeton-Robinson 4" LPG Products Line (Cont'd)

ROW

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

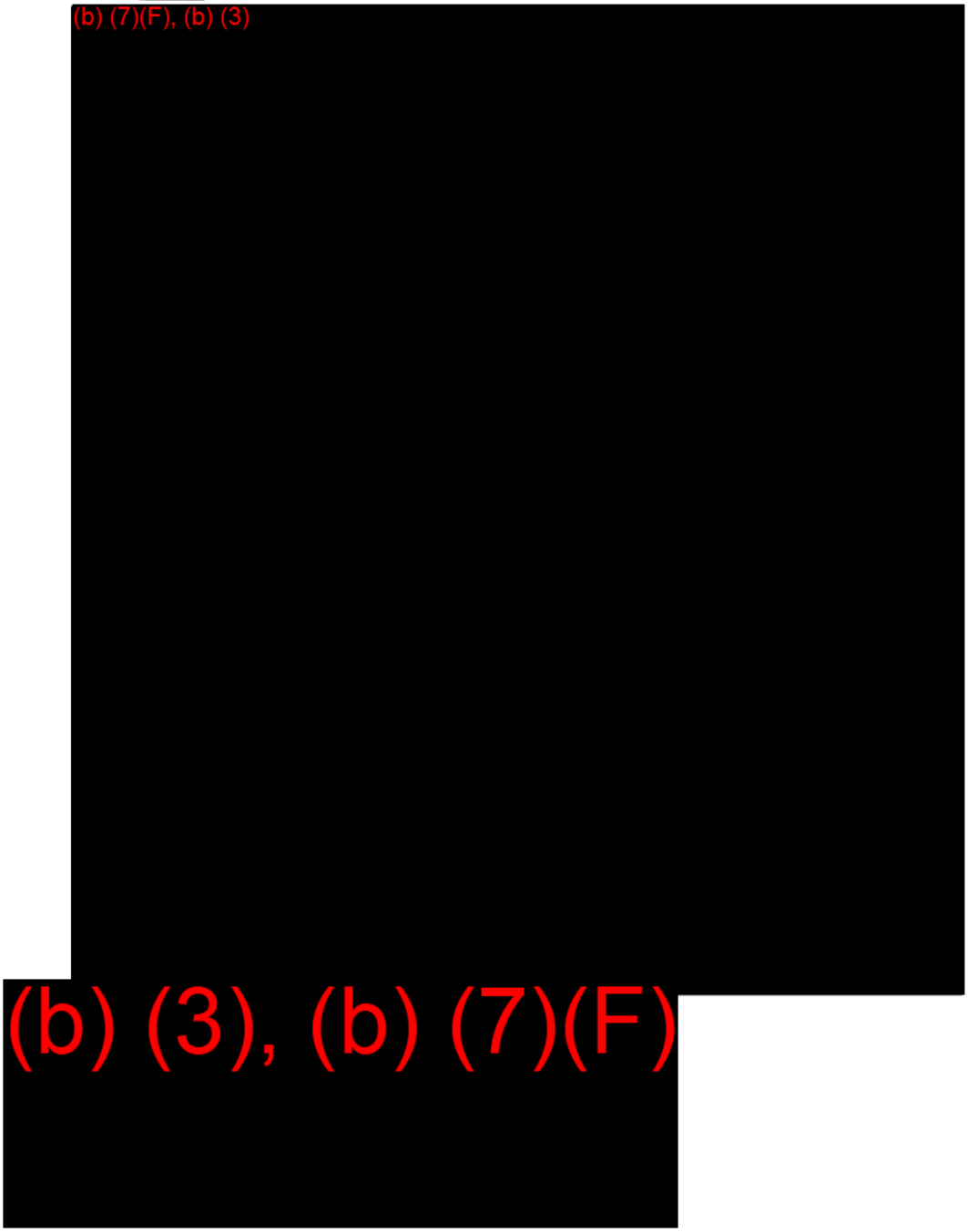


Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Princeton-Robinson 4" LPG Products Line (Cont'd)

ROW

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



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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Princeton-Robinson 4" LPG Products Line (Cont'd)

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

(b)

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Stoy Area Critical/Sensitive Areas

CRITICAL AREAS Environmentally Sensitive Areas from the U.S. EPA's Region V - ACP database.

Clay County, IL
Ames, Division of McNonough Co.,Little Wabash River

Crawford County, IL
Wabash River CIPS-Hutsonville Station CIPS,

Crawford County State Fish and Wildlife Area, IL Dept. of Conservation, State Forest

Richland County, IL
Olney PWS, Dave Berry, Fox River

Wabash County, IL
Mount Carmel, PWS Wabash River

Mt. Carmel Public Utility, PP Wabash River

Hamilton County, IL
Hamilton County Fish and Wildlife Area, IL DOC, Dolan Lake

Critical Areas
Newton Lake State Fish and Wildlife

Newton Lake CIPS Power Plant and Water Intake

Hamilton County Conservation Area

Honey Lake State Fish and Game Area

Harmonie State Park

Beal Woods Conservation Area

Wabash River Generating Station (Gibson City, IN)

Wabash River Coal Gasification Project (Gibson City, IN)

Chauncey Marsh Area (Red Hill State Park Satelite)

Embarrass River Public Boat Access (Lawrenceville, IL)

Wabash River Public Boat Access (St. Francisville, IL)

Wabash River Public Boat Access (Mt. Carmel, IL)

Wabash River Public Boat Access (Grayville, IL)

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Stoy Area Critical/Sensitive Areas

Little Wabash River Public Boat Access (Carmi, IL)

Collins Cemetary (Lawrence County, IL)

New Hope Cemetary (Crawford County, IL)

ILLINOIS
USGS Topographical Quadrangle Maps (1:24,000 Scale)

- Albion North
- Albion South
- Annapolis
- Berryville
- Birds
- Bone Gap
- Chauncey
- Flat Rock
- Heathsville
- Hutsonville, IL-IN
- Lancaster
- Latona
- Lawrenceville
- Newton
- Oblong North
- Oblong South
- St. Francisville, IL-IN
- Ste. Marie
- Stoy
- Sumner

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Stoy Area Critical/Sensitive Areas

INDIANA

USGSTopographical Quadrangle Maps (1:24,000 Scale)

Alfordsville
Bicknell
Borden
Becks Mill
Bucktown
Carlisle
Corydon East
Crandall
Depauw
E. Mount Carmel
Epsom
Francisco
Fredericksburg
French Lick
Fritchton, IN-IL
Georgetown
Georgia
Glendale
Greenbrier
Hardinsburg
Hillham
Huron
Indian Springs
Jeffersonville, IN-KY
Lanesville, IN-KY
Livonia
Loogootee
Merom, IN-IL
Montgomery
New Albany, IN-KY
Oaktown, IN-IL
Odon
Palmyra
Paoli
Patoka
Plainville
Princeton
Russellville
Rusk
Sandborn
Shoals
Valeene
Washington
Wheatland

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KENTUCKY

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Fort Knox
Kosmosdale, KY-IN
Lanesville, IN-KY
Laconia
Louisville East
Louisville West, KY-IN
Mauckport
Rock Haven
Wabash Island, KY-IL-IN

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Stoy Area Critical/Sensitive Areas

OHIO RIVER DISCHARGE	INDIANA	KENTUCKY
USGS Topographical Quadrangle Maps (1:24,000 Scale)	Jeffersonville, IN-KY Lanesville, IN-KY Laconia, IN-KY Mauckport, IN-KY Leavenworth, IN-KY Beechwood, IN-KY	Louisville East, KY Louisville West, KY-IN Kosmosdale, KY-IN Fort Knox, KY-IN Rock Haven, KY-IN New Amsterdam, KY-IN Alton, KY-IN

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Wood River Area Critical/Sensitive Areas

CRITICAL AREAS

The critical areas within five miles of each pipeline section in the Wood River Area are shown in the Response Maps located in the Martinsville Drafting room and in the Operations Area offices. The Response Maps are USGS topographical quadrangle (1:24,000, 7.5 minute) maps indicating rivers, streams, lakes, and public drinking water intakes.

ENVIRONMENTAL SENSITIVITIES

The only threatened or endangered species found throughout the entire response zone is the Indiana Bat. Other species present include the Least Tern (bird), found in Madison and St. Clair Counties, and the Bald Eagle, seen in Madison County.

Federally delineated wetlands have been mapped over the entire response zone. The National Wetlands Inventory quadrangle map *Grantfork* represents the wetlands delineated in the worst case discharge area. Silver Lake is classified as an unconsolidated bottom, permanently flooded, diked/impounded lacustrine (lake) wetland. There are various impounded areas in and adjoining the lake in the area of the pipeline crossing, which are considered to be temporarily or semipermanently flooded palustrine (generally described as freshwater vegetated wetland; would include marshes and swamps) wetlands. Just north of the worst case area, and to the west of Grantfork, is an intermittent streambed, riverine (area where water flows within a channel) wetland which joins the East Fork of Silver Creek (also a riverine wetland). In addition, few small pockets of excavated or diked/impounded palustrine wetlands exist in areas located away from the lakes and streams.

A number of parks area areas of concern in the response zone. The Beaver Dam State Park is located eleven miles north of the Macoupin/Montgomery County line, and the Sangchris Lake State Park on Sangchris Lake in Christian County are both greater than 15 miles from the pipeline. The final area of note is the Lewis and Clark Historical Site on the Mississippi River five miles north of Granite City.

Wood River Area Critical/Sensitive Areas

ACCESS/STAGING AREAS

Airports

St. Louis Downtown-Parks Airport	Cahokia, IL
St. Louis Regional Airport	E. Alton, IL
Shafer Metro-East Airport	St. Jacobs, IL
Highland-Winet Airport	Highland, IL

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on local knowledge of the area involved in the specific incident to locate staging areas as required.

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The Cleanup unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

SILVER LAKE SCENARIO

Silver Lake
Station #: 1219 + 68
Mile Post: 23.1 Right-of-Way: 62, 63
Ave. Width: Ave. Depth:
Ave. Speed:

CITY: Highland
COUNTY: Madison
STATE: Illinois
POPULATION: 7,500

SEE TELEPHONE NUMBER SECTION

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Highland Water Plant Public Works Dept.	Robert Parker	3 miles

Wood River Area Critical/Sensitive Areas

SILVER LAKE SCENARIO

CRITICAL AREAS	CONTACT PERSON	APPROX. DISTANCE FROM PIPELINE
Highland Sewage Plant	Robert Parker Public Works Dept.	3 miles
I-70 Bridge	IL State Police	2 miles
I-70 Silver Lake Rest Area	IL State Police	2 miles
Silver Lake Park	Robert Parker Public Works Dept.	3 miles
Silver Lake Dam	Robert Parker Public Works Dept.	3.5 miles
Route 143 Spillway Crossing	Highland Police Department	3.5 miles

CRITICAL AREAS

[redacted]

Woodpat 22" Crude Line from Wood River, IL to Illinois Route 127

[redacted]

Wood River Area Critical/Sensitive Areas

CRITICAL AREAS (b) (7)(F), (b) (3)
(Cont'd)

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

Wabash 12" Products Line from Hartford, IL to Illinois Route 29

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

(b

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

Wood River Area Critical/Sensitive Areas

CRITICAL AREAS Wabash 12" Products Line from Hartford, IL to Illinois Route 29 (Cont'd)

ROW DESCRIPTION

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

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

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

Wood River Area Critical/Sensitive Areas

CRITICAL AREAS

Wabash 12" Products Line from Hartford, IL to Illinois Route 29 (Cont'd)

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

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

#1 - 10" Products Line from Sauget, IL to Wood River, IL to Illinois Route 127

ROW DESCRIPTION

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

Wood River Area Critical/Sensitive Areas

CRITICAL AREAS

#1 - 10" Products Line from Sauget, IL to Wood River, IL to Illinois Route 127 (Cont'd)

ROW DESCRIPTION

(b) (7)(F), (b) (3) [redacted]

(b) (3), (b) (7)(F) [redacted]

Marathon 8" Products System from Hartford, IL to Wood River, IL

ROW DESCRIPTION

Marathon Petroleum Company Hartford Terminal

(b) (7)(F), (b) (3) [redacted]

(b) (3), (b) (7)(F) [redacted]

HWRT 8" Products Line from Hartford, IL to Wood River, IL

ROW DESCRIPTION

(b) (3), (b) (7)(F) [redacted]

ILLINOIS

USGS Topographical Quadrangle Maps (1:24,000 Scale)

Alton
Bald Knob
Beaver Creek
Bethalto
Bunker Hill
Butler
Cahokia, IL-MO
Clarksdale
Coffeen
Colchester
Collinsville
Columbia
Columbia Bottoms
Edwardsville
French Village
Gillespie North
Gillespie South
Granite City, IL-MO
Grant Fork
Greenville
Highland
Hillsboro
Litchfield
Marine
Monks Mound
Mount Olive
Mulberry Grove
New Douglas
Nokomis
O'Fallon
Ohlman
Owaneco
Pana
Pleasant Mound
Pocohontas
Prairietown
Raymond
Sorento North
Sorento South
St. Jacob
St. Libory
St. Rose
Venedy
Webster Grove, MO-IL
Wood River
Worden

Wood River Barge Dock Critical/Sensitive Areas

CRITICAL AREAS

Included with each copy of this plan are maps covering the 276 miles downstream of the Wood River Barge Dock (Lower Mississippi River Mile 874.4). These maps are at a scale of 1:250,000. In addition, more detailed 1:24,000 (7.5 minute) USGS maps are located at the Wood River Station and the Martinsville Division office. A map index is included on the following Figure 10.0. US Corps of Engineers Navigation Maps of the Upper and Lower Mississippi River are also located at the Wood River Station.

Critical (Economically Important) Areas

All "Critical Areas" on the Mississippi River downstream of the Wood River Barge Dock are listed on the following Figure 10.1. These primarily include public, industrial, and power generation water intakes.

ENVIRONMENTAL SENSITIVITIES

There are three threatened or endangered species present in the Wood River Barge Dock area. These species are the Indiana Bat, the Least Tern, and the Bald Eagle.

The National Wetlands Inventory has delineated wetlands in this area. The wetlands quadrangle maps titled *Wood River, Columbia Bottom, Bethalto,* and *Alton* delineate the wetlands in the area. Water bodies in the area include the Mississippi River, and the Missouri River (which joins the Mississippi River just south of the barge dock). The Chain of Rocks Canal runs parallel and is connected to the Mississippi just west of Granite City.

Areas of concern in the response area include the U.S. Army's St. Louis Area Support Center in Granite City, the Lewis and Clark Historical Site located 5 miles north of Granite City, and the Alton National Cemetery in Alton.

Although no specific U.S. Wildlife Refuges occur on the Upper Mississippi River downstream of the Wood River Barge Dock, assistance can be obtained from the U.S. Fish and Wildlife Service in identifying and protecting fish and wildlife during a spill response.

! U.S. Fish and Wildlife Ecological Services, Marion, IL

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Wood River Barge Dock Critical/Sensitive Areas

ACCESS/STAGING AREAS

There are also a large number of private commercial boat facilities that may be available during a response. These other facilities are listed in the Local Contingency Plan and Spill Response Plan. Aerial surveillance during a response will best locate access and staging areas.

CRITICAL (ECONOMICALLY IMPORTANT) AREAS

Note: References to the bank (east or west) indicates which side of the river the feature is on. East indicates the Illinois, Kentucky, or Tennessee side. West indicates the Missouri side.

LOCATION (River Mile/Bank)	DESCRIPTION
(b) (3), (b) (7)(F)	

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

CRITI
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AREA

[redacted]

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CRITICAL (ECONOMICALLY IMPORTANT) AREAS

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

[redacted]

ENVIRONMENTALLY SENSITIVE AREAS

Note: References to the bank (east or west) indicates which side of the river the feature is on. East indicates the Illinois, Kentucky, or Tennessee side. West indicates the Missouri side.

LOCATION (River Mile / Bank)	DESCRIPTION
(b) (3), (b) (7)(F)	

[redacted]

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Wood River Barge Dock Critical/Sensitive Areas

ACCESS/STAGING AREAS

Note: References to the bank (east or west) indicates which side of the river the feature is on. East indicates the Illinois, Kentucky, or Tennessee side. West indicates the Missouri side.

LOCATION (River Mile/Bank)	NAME
193.2 / East	Chouteau Island
188.9 / West	N. Riverfront St. Louis, MO
182.6 / East	Venice, IL
181.7 / West	Municipal Dock St. Louis, MO
158.4 / West	Kimmswick, MO
158.2 / West	Hoppe's Marine Service Kimmswick, MO
152.2 / West	Herculaneum, MO
132.2 / East	Ft Chartres Landing Ft Chartres Island, IL
130.7 / East	Columbia Quarry Landing Randolph County, IL
125.5 / West	Little Rock Landing Ste. Genevieve, MO
116.3 / East	Fort Gage, IL
109.5 / East	Chester, IL
109.3 / West	Claryville, MO
81.4 / West	Willenburg, MO
80.0 / East	Grand Tower, IL

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Wood River Barge Dock Critical/Sensitive Areas

ACCESS/STAGING AREAS	LOCATION (River Mile/Bank)	NAME
	79.5 / East	Grand Tower Boat Ramp Grand Tower, IL
	66.6 / West	Trail of Tears State Park, MO
	52.5 / West	Cape Girardeau, MO
	52.3 / West	Huckstep Oil Co. 300 N Main Street Cape Girardeau, MO
	44.0 / East	Thebes, IL
	0.7 / East	Cairo, IL
	Begin Lower Mississippi River Mile designation (Upper 0 = Lower 953.8)	
	889.0 & 888.3 / West	N. Madrid, MO
	880 / East	Nolan Island II Tiptonville, TN
	Airport Access	
	Heliport - Fostaire Aviation at River Mile 179.8/West	
	St. Louis Regional Airport - E. Alton, IL	
	St. Louis Downtown-Parks Airport - Cahokia, IL	
	Cairo Municipal Airport - Cairo, IL	
	Cape Municipal Airport - Cape Girardeau, MO	

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MISSISSIPPI RIVER AREA

USGSTopographical Quadrangle Maps
(1:24,000 Scale)

Aultenburg, MO-IL
Aulton, IL-MO
Arlington, KY-MO
Baysville, MO-KY
Belgique, MO-IL
Bloomsdale, MO-IL
Bondurant, KY-MO-TN
Cache, IL-MO
Cahokia, IL-MO
Cairo, IL-KY-MO
Cape Girardeau, MO-KY
Cape Girardeau-NE, MO
Charleston, MO-IL
Chester, IL-MO
Columbia Bottom, MO-IL
Crosstown, MO-IL
Danby, MO
Granite City, IL-MO
Herculaneum, MO
Hickman, KY-MO-TN
Hubbard Lake, MO-KY- TN
Kaskaskia, IL-MO
McClure, IL-MO
Mooring, TN-MO
Neely's Landing, MO-IL
New Madrid, MO-IL
Oakville, MO-IL
PointPleasant,MO-TN- KY
PrairieDuRocker, IL-MO
Rockwood, IL-MO
Scott City, MO
Selma, MO-IL
Ste. Genevieve, MO-IL
Thebes, IL-MO
Thebes SW, MO-IL
Tiptonville, TN-MO-KY
Valmeyer, IL-MO
Ware, IL-MO
Webster Groves, MO-IL
Wickliffe, KY-MO
Wickliffe SW, MO-KY
Wolf Island, MO-KY
Wolf Lake, IL-Mo
Wood River, IL-MO
Wyatt,MO-IL-KY

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Wood River Barge Dock General Information Summary

DESCRIPTION OF WOOD RIVER DOCK

Wood River Dock Facilities

The Barge Dock Facility consists of a converted work barge approximately 230' long and 45' wide, moored by steel cables to steel pipe pilings. Two cells are located in line with the barge to facilitate moorings and provide facility protection. Access to the barge dock is via a walkway, approximately 75' long, from the shore to the work barge. The barge dock has a total of five marine loading arms (4 - 8" & 1 - 6") for connection to the transport barges. Eight and ten inch steel marine jumper assemblies connect three manifolds located on the barge dock to the pipelines going to shore.

The barge dock facility can either deliver or receive crude oil or refined petroleum products. Two 10" refined product pipelines and one 14" crude oil pipeline connect the barge dock facility to the Marathon Pipe Line LLC Wood River Station. These pipelines proceed north from the

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

The Barge Dock Facility is available for operations 24 hours per day, 365 days per year. The facility is manned only when barges are present or arrival is expected.

The maximum draft vessel accepted at the Wood River Barge Dock is 20 feet at mean low water.

Two of the five loading arms can be used simultaneously. As many as six barges may be docked at one time. Total breasting distance cannot exceed 540' and none of the barges may exceed 300' x 55'. This arrangement will consist of two barges end to end with two additional barges abeam of each of these. This configuration results in two barges long and three barges wide.

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MARTINSVILLE RESPONSE ZONE
DOCK INFORMATION (Continued)

WORST CASE VOLUMES

Wood River Barge Dock Response Scenarios/Cleanup Calculations

Three different Planning Volume and Cleanup calculations are detailed below based on the "average most probable", "maximum most probable", and "worst case" discharges. Group I through Group IV oils are received and delivered at the Wood River Barge Dock. No Group V oils are received or delivered. The facility is restricted to only receiving or delivering crude oil or refined petroleum products at a time.

Planning Volume Calculations

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

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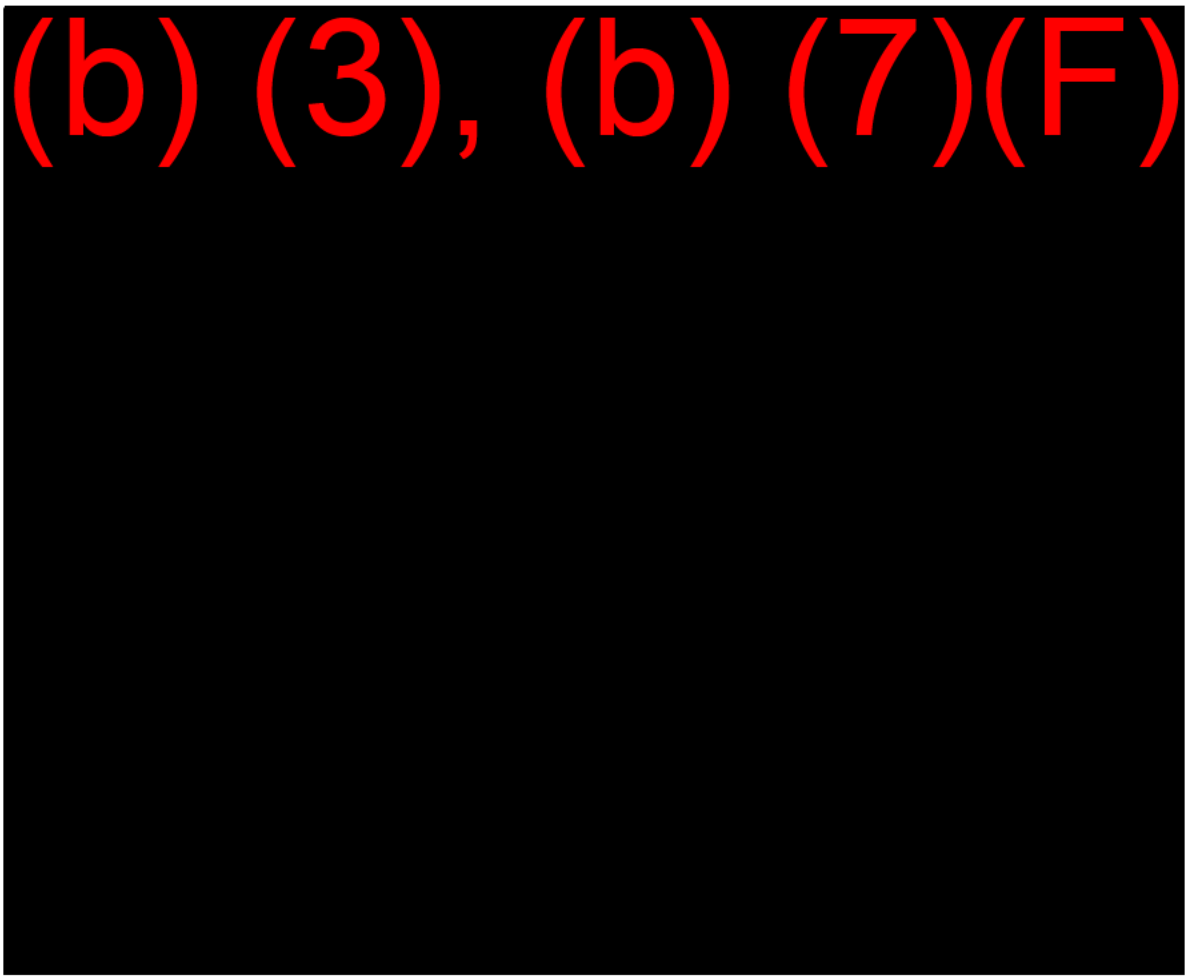
MARTINSVILLE RESPONSE ZONE
DOCK INFORMATION (Continued)

WORST CASE VOLUMES (Cont=d)

Planning Volume Calculations (Cont=d)

"Worst Case" Discharge Calculation (Cont=d)

The "worst case" discharge is based on crude oil due to higher flow rates resulting in a larger spilled volume. Crude oil also meets the definition of persistent oil as opposed to the refined petroleum products which meet the definition of non-persistent oil. All of the discharges for non-persistent refined petroleum products would be less than the volumes calculated for crude oil above.



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MARTINSVILLE RESPONSE ZONE
DOCK INFORMATION (Continued)

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

[redacted]

MARTINSVILLE RESPONSE ZONE
DOCK INFORMATION (Continued)

WORST CASE VOLUMES (Cont=d)

Cleanup Calculations and Response Resources (Cont=d)

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

Tier 3 = 1,404 bbls (58,968 gals)

Containment boom at the Wood River Station and Local Emergency Response Contractor shall be available to contain the spill or protect critical and environmentally sensitive area. The required amount of boom is not expected to exceed 15,000 ft.

Approximately 70 men are expected to be needed for both the on-water and shoreline oil recovery operations. Boom and personal can be supplemented using a regional emergency response contractor.

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MARTINSVILLE RESPONSE ZONE
DOCK INFORMATION (Continued)
WORST CASE SCENARIO EQUIPMENT PLANNING

FACILITY	COTP ZONE	HIGH VOLUME AREA?	VOLUME (BBL)[A]
(b) (7)(F), (b) (3)			

GROUP - EMULSION FACTOR[B] (Circle Appropriate)		AREAS IMPACTED (Circle Appropriate)	
I - 1.0	III - 2.0V - 1.0	River	Offshore
II - 1.8	IV - 1.4	Inland/Nearshore	

☐ PLANNING VOLUMES FOR ON-WATER RECOVERY ☐

Area	Volume[A]	X	Percentage[1]	X	Emulsion Factor[B]	=	Planning Volume[C]
River/Canal	(b) (7)(F), (b) (3)						
Inland/Nearshore		X		X		=	
Offshore		X		X		=	

☐ PLANNING VOLUMES FOR SHORELINE RECOVERY ☐

Area	Volume[A]	X	Percentage[2]	X	Emulsion Factor[B]	=	Planning Volume
River/Canal	(b) (7)(F), (b) (3)						
Inland/Nearshore		X		X		=	
Offshore		X		X		=	

☐ ON WATER RECOVERY FOR EACH TIER ☐

TIER 1
(6 hours for high volume port/otherwise 12 hours)

Area and Sustainability	BBLS[C]	X	Factor	=	BBLS[D] (not to exceed 10,000 BBL/Day)	
River/Canal 3 days	(b)	X	.30	=	(b)	or 1,500 BBL/Day
Inland/Nearshore 4 days		X	.15	=		or 10,000 BBL/Day
Offshore 6 days		X	.10	=		or 10,000 BBL/Day

[1] From Table 2 - recovered floating oil.

[2] From Table 2 - oil on shore.

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MARTINSVILLE RESPONSE ZONE
DOCK INFORMATION (Continued)
WORST CASE SCENARIO EQUIPMENT PLANNING (Continued)

☐ ON WATER RECOVERY FOR EACH TIER (Continued) ☐

TIER 2
(30 hours for high volume port/otherwise 36 hours)

Area and Sustainability	BBLS[C]	X	Factor	=	BBLS[E] (not to exceed 20,000 BBL/Day)	
River/Canal 3 days	(b)	X	.40	=	(b)	or 3,000 BBL/Day
Inland/Nearshore 4 days		X	.25	=		or 20,000 BBL/Day
Offshore 6 days		X	.165	=		or 20,000 BBL/Day

TIER 3
(54 hours for high volume port/otherwise 60 hours)

Area and Sustainability	BBLS[C]	X	Factor	=	BBLS[F] (not to exceed 40,000 BBL/Day)	
River/Canal 3 days	(b)	X	.60	=	(b)	or 6,000 BBL/Day
Inland/Nearshore 4 days		X	.40	=		or 40,000 BBL/Day
Offshore 6 days		X	.21	=		or 40,000 BBL/Day

☐ TEMPORARY STORAGE CAPACITY ☐

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

[redacted]

APPENDIX A
CODY

PHMSA 000117371

Cody Response Zone – General Information Summary

Name, Address, and Telephone Number of Operator:	Main Office: Marathon Pipe Line LLC 539 South Main Street Findlay, Ohio 45840-3295 419-421-4002 (Voice) 419-421-4018 (Fax) Cody Response Zone Office: Marathon Pipe Line LLC 5555 San Felipe Road Post Office Box 4816 (Zip 77210) Houston, Texas 713-629-6600 (Voice) 713-296-4494 (Fax)
Description of Pipeline:	There are several segments ranging in size between gathering lines and 16" in diameter.
Location of Response Zone:	Within Montana and Wyoming. See maps in Appendix F for details and Appendix A for a list of counties, local contacts, and notification telephone numbers.
Name and Telephone Number of Qualified Individual (QI):	Shawn Lyon 419-421-4002 (Office) (b) (6) (Home) (Cell)
Name and Telephone Number of Alternate Qualified Individual (Alt QI):	Randy Stansberry 713-920-4443 (Office) (b) (6) (Cell)
Basis for Significant and Substantial Harm:	Pipeline is near water intakes and environmentally sensitive areas. It also crosses waterways.
Type of Oil Transported:	Crude oil

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Cody Response Zone – General Information Summary

Worst Case Discharge (Pipeline)

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

[redacted]

- Basin – Byron 8" Crude
- Garland Battery "1 – Byron 8" Crude
- Byron Battery #2 – Byron 6"
- Byron – Silvertip 12"-10" Crude
- Silvertip – Silvertip Exxon 8" Crude
- Elk Basin – Silvertip 8" Crude
- Chatham – Basin 8" Crude
- Chatham – Casper 16" Crude
- Gebo – Chatham 6" Crude
- Circle Ridge - Maverick
- Chatterton – Chatterton Junction 4"
- Maverick – Pilot Butte Crude
- Steamboat Battery CE Junction – Steamboat Junction 6"
- Pilot Butte Truck Unload – Pilot Butte Truck Unload Junction 6"
- Winkleman Dome – Winkleman Dome Junction 6"
- Steamboat Battery C – Steamboat Battery E Junction 4"
- Steamboat Battery E Junction – Steamboat Battery CE Junction 4"
- Steamboat Battery E – Steamboat Battery E Junction 4"
- Pilot Butte – Lost Cabin 8" Crude
- Gooseberry – Tank 5 Crude
- Tank 5 – Chatham 8" Crude
- Little Buffalo Basin – Gooseberry Booster 6"
- Oregon Basin – Byron 12" Crude
- Oregon Basin – Chatham 14" Crude
- Oregon Basin Battery #2 North – Oregon Basin 8"
- Basin Station, Tank 660, External Floating Roof
- Chatham Station, Tank 202, External Floating Roof
- Chatham Station, Tank 203, External Floating Roof
- Chatham Station, Tank 206, External Floating Roof

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- Lost Cabin Station, Tank 301, External Floating Roof
- Tank 5 Station, Tank 662, External Floating Roof
- Pilot Butte Station, Tank 103, Internal Floating Roof
- Mavrick Station, Tank 1155, Internal Floating Roof
- Byron Station, Tank 51, External Floating Roof
- Byron Station, Tank 71, External Floating Roof
- Byron Station, Tank 72, External Floating Roof
- Byron Station, Tank 655, External Floating Roof
- Oregon Basin Station, Tank 150, External Floating Roof
- Oregon Basin Station, Tank 667, External Floating Roof
- Silver Tip Station, Tank 50, External Floating Roof

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

MPLLC **MPL LLC Emergency Number** 800-537-6644

Region Manager
Randy Stansberry — Office: 713-920-4443
Pasadena, TX — Cell: (b) (6)

ES&R Representative - Safety
Steve Clegg — Office: 307-754-5763 x234
Powell, WY — Cell: (b) (6)

ES&R Representative - Environmental
Wyatt Kintner — Office: 985-535-6127
Garyville, LA — Cell: (b) (6)

Region Operations Superintendent
Jeremy Jaquillard — Office: 985-535-6127
Pasadena, TX — Cell: (b) (6)

Human Resources Consultant
Nicole Hall — Office: 419-421-3398
Findlay, OH — Cell: (b) (6)

Region Accountant
Lauren Stuck — Office: 419-421-4278
Findlay, OH — Cell:

Corporate Emergency Response Team 1-877-MAPLINE
(CERT activates EST)

MPL LLC Counsel
Woody Gearheart — Office: 419-421-2386
Findlay, OH — Cell: (b) (6)

Right of Way Specialist
Terry L. Thompson — Office: 859-745-4790
Indianapolis, IN — Cell: (b) (6)

Field Services Manager
Ed May — Office: 419-421-3704
Findlay, OH — Cell: (b) (6)

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Operations Supervisor
Frank Gonsalez — Office: 307-347-9241
Worland, WY — Cell: (b) (6)

Maintenance Supervisor
Thaddeus J. Paul — Office: 307-754-5761 ext. 236
Powell, WY — Cell: (b) (6)
Radio: 2

Construction & Maintenance Supervisor
Charles E. Sullivan — Office: 307-754-5461 ext. 228
Powell, WY, DOT, HAZ, RESP — Home: (b) (6)
Cell:
Radio: 36

Marathon Oil Company – Cody Personnel

Eddie Hill
HES Manager
Office: 307-527-2125
Home: (b) (6)
Cell:

Bob Whisonant
Operations Manager
Office: 307-527-2103
Home: (b) (6)
Cell:

Bryan Beautz
Emergency Preparedness Coordinator
Office: 713-296-3548
Home: (b) (6)
Cell:

Federal Government	National Response Center	800-424-8802 202-267-2675
	PHMSA Pipeline Safety Western Region Office	720-963-3160
	USCG	800-DAD-SAFE 202-372-2100
	St. Louis M.S.O.	314-539-3091
	OSHA	800-321-OSHA (6742)
	WY OSHA	307-777-7786
	Region 8	720-264-6550
State Government	**Montana** Montana Department of Disaster	

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

and Emergency Services	406-324-4787
Montana Highway Patrol	406-444-3780
BLM - Montana - Local District Office – Billings, MT	406-896-5013
One Call	811 or 406-755-UDIG (8344)

Wyoming

DEQ	307-777-7781
Air Quality Division	
Lander, WY	307-332-6755
Cheyenne, WY	307-777-7391
Casper, WY	307-473-3455
Water Quality Division	
Lander, WY	307-332-3144
Cheyenne, WY	307-777-7781
Casper Operations Area	307-473-3465
Solid and Hazardous Waste Division	
Lander, WY	307-332-6924
Casper, WY	307-473-3450
Cheyenne, WY	307-777-7752
Wyoming BLM Field Offices	
South Big Horn - Worland District Office	307-347-5100
North Big Horn - Cody Field Office	307-578-5900
Casper District Office	307-261-7600
Wyoming Oil and Gas Commission	307-234-7147
Wyoming Burn Permits	307-332-6755
Wyoming Department of Homeland Security	307-777-4663 307-777- 4321 after hours
Wyoming Highway Patrol	800-442-9090 In State 307-777-4321 Out of State
Wyoming Game & Fish Dept. Cheyenne (HQ)	307-777-4600

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Cody Regional Office	307-527-7604
One Call	800-849-2476 or 811

AERIAL PATROL

Brentco Aerial Patrol	888-597-5532 (Day) 970-209-3500 (Nights)
Jeff Wise	(b) (6) (Home)
Jeff Wise	(Cell)
Rick Vincent	(Home)
Rick Vincent	(Cell)

INITIAL RESPONDER

OSRO Address	Telephone Number	USGC Classification
Clean Harbors Billings, MT	800.645.8265 (24 hr number)	COTP Upper Mississippi Rivers MM, W1, W2, W3 Canal MM, W1, W2, W3 Facilities MM, W1, W2, W3
G. M. Stewart Evanston, WY 82931	307-789-8005	None See Equip Listing
Mel's Water Service 120 Clark St., Lysite, WY 82642	307-235-2132 **307-876-2289**	None See Equip Listing

WORSTCASE RESPONDER

OSRO Address	Telephone Number	USGC Classification
Clean Harbors Billings, MT	800.645.8265 (24 hr number)	COTP Upper Mississippi Rivers MM, W1, W2, W3 Canals MM, W1, W2, W3 Facilities MM, W1, W2, W3 COTP Miles City, MT Rivers W2, W3 Canal W2, W3 Facilities W2, W3
Veolia Environmental Services (Germantown, WI)	800-688-4005 (24 hr number)	COTP Lake Michigan (Chicago) Rivers MM, W1, W2, W3 Canal MM, W1, W2, W3 Facilities MM, W1, W2, W3
Marine Pollution Control (Detroit, MI)	800-521-8232 (24 hr number)	COTP Upper Mississippi Rivers MM, W1, W2, W3

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

		Canals MM, W1, W2, W3 Facilities MM, W1, W2, W3

CONSTRUCTION

OSRO Address	Telephone Number	USGC Classification
Brandon Construction	307-754-3910	Construction
Northstate	307-754-7271	Construction
P. E Grosch	307-347-3332	Construction
Flint Energy	800-580-7641	Construction
Wortham Construction	307-347-3526	Construction
High County Construction	307-332-4933	Construction

CO-OP

OSRO Address	Telephone Number	USGC Classification
Montana-Wyoming Spill Co-op Equipment Stored at: Conoco Pipeline Company Cenex Pipe Line Company	406-255-5601 or 5602 800-231-2551 800-421-4122	None See Equip Listing
Southeast Wyoming Oil Spill Association C/O Kinder Morgan Pipeline	307-995-2041 or 307-995-2040	None See Equip Listing

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts By Area / Station

Basin Station

Washakie Memorial Hospital (Worland)		307-347-3221
North Big Horn Hospital (Lovell)		307-548- 5200
Ambulance	(Worland)	307-347-3221 or 911
	(Lovell)	307-548-5200 or 911
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)		800- 822-7201 or 307-577-7201
Poison Control		800-955-9119 (Cody) 800-222-1222 (National)
Fire (Rural) Dist. No. 3 (Basin)		307-568-2324
Police (Basin)		307-568-2341
Sheriff Big Horn County		307-568-2324
WY Highway Patrol		800-442-9090 or 307-777-4301
Now: Rocky Mountain Power		888-221-7070
Wyoming One-Call		800-849-2476 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts By Area / Station

Byron Station

Powell Hospital		307-754-2267
Ambulance	(Lovell)	307-548- 5200 or 911
	(Powell)	307-754-2267 or 911
Poison Center		800-955-9119 or 800-222-1222
Fire	(Lovell)	307-548-2215 or 911
	(Powell)	307-754-2211 or 911
LEMC for City of Lovell		307-548- 2516
LEMC for Big Horn County		307-548- 2516
Powell City Police		307-754-2212 or 911
Sheriff (Big Horn County)		800-500-2324 or 911 307-568-2324 307-568-3823 307-568-2035
Sheriff (Park County)		307-754-8700 or 911 307-754-2214 (fax)
WY Highway Patrol		800-442-9090 or 307-777-4321 or 307-777-4301 307-777-4288 (Fax)
Now: Rocky Mountain Power		888-221-7070 (24 hr.)
Wyoming One-Call		800-849-2476 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	Casper Station	
	Wyoming Medical Center	800-822-7201
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
	Poison Control	800-955-9119 or 800-222-1222
	Fire (Casper)	307-235-8222 or 911
	Police (Casper)	307-235-8278 or 911
	Sheriff Natrona County	307-235-9282 or 911
	WY Highway Patrol	800-442-9090 or 307-777-4321
	Wyoming One-Call	800-849-2476 or 811
	Kinder Morgan Pipeline (USA)	888-449-7539

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Chatham Station

Washakie Memorial Hospital (Worland)	307-347-3221
Ambulance	307-347-3221
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
Poison Control	800-955-9119 800-822-1222
Fire (Worland)	307-347-4253
Police (Worland)	307-347-4253
Sheriff Washakie County	307-347-2242
WY Highway Patrol	800-442-9090 or 307-777-4321
Now: Rocky Mountain Power	888-221-7070
Wyoming One-Call	800-849-2476 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts **Gooseberry Booster**

Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
Ambulance	307-864-3114 or 911
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
Poison Control	800-955-9119 or 800-222-1222
Fire (Thermopolis)	307-864-3114
Sheriff Hot Springs County	307-864-2622
WY Highway Patrol	800-442-9090 or 307-777-4301
800- 445-0613 Now; High Plains Power	
Wyoming One-Call	800-849-2476 or 811
Marathon Oil Company Grass Creek Field Office	307-867-2311 (day)
Citation Oil & Gas	307-868-9300 (day)

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Kirby Station

Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
Ambulance	307-864-3114 or 911
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
Poison Control	800-955-9119 800-222-1222
Fire (Thermopolis)	307-864-3114
Police (Thermopolis)	307-864-3114
Sheriff Hot Springs County	307-864-2622
WY Highway Patrol	800-442-9090 or 307-777-4321
888-221-7070 Now: Rocky Mountain Power	
Wyoming One-Call	800-849-2476 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts **Little Buffalo Basin**

Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
Ambulance	307-864-3114 or 911
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
Poison Control	800-955-9119 or 800-222-1222
Fire (Thermopolis)	307-864-3114
Sheriff Hot Springs County	307-864-2622
WY Highway Patrol	800-442-9090 or 307-777-4301
800- 445-0613 Now: High Plains Power	
Wyoming One-Call	800-849-2476 or 811
Marathon Oil Company Grass Creek Field Office	307-867-2311 (day)
Citation Oil & Gas	307-868-9300 (day)

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Basin Station Telephone Numbers

Local Contacts	Basin Station	
	Washakie Memorial Hospital (Worland)	307-347-3221
	North Big Horn Hospital (Lovell)	307-548-5200
	Washakie County EMS (Worland)	307-347-9191
	North Big Horn Hospital Ambulance Service (Lovell)	307-548-5258
	Wyoming Life Flight (Air Ambulance/Trauma and Advance Life Support)	307-577-7201
	Poison Control	800-222-1222 or 800-955-9119
	Big Horn Volunteer FD	307-672-7465
	Basin Police	307-568-2341
	Sheriff Big Horn County	307-568-2324
	WY Highway Patrol	307-777-4321 or 307-777-4301
	Pacific Power and Light Company	877-548-3768 800-221-7070
	Wyoming One-Call	800-849-2476

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Byron Station Telephone Numbers

Local Contacts By Area / Station	Byron Station	
	Powell Hospital	307-754-2267
	North Big Horn Hospital	
	Ambulance Service (Lovell)	307-548-5258
	Powell Valley Healthcare (Powell)	307-754-2267
	Poison Center	800-955-9119 or 800-222-1222
	Big Horn Fire District	307-548-6427
	Powell City Fire Department	307-754-2211
	LEMC for Big Horn County	307-548-2516
	Powell City Police	307-754-2212
	Sheriff (Big Horn County)	307-548-2324 or 307-568-2324
	Sheriff (Park County)	307-754-8700 (Powell) 307-527-8700 (Cody)
	WY Highway Patrol	307-777-4321 or 307-777-4301
	Pacific Power and Light Co.	877-548-3768
	Wyoming One-Call	800-849-2476

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Casper Station Telephone Numbers

Local Contacts	Casper Station	
	Wyoming Medical Center	307-577-7201 800-822-7201
	Wyoming Life Flight (Air Ambulance/Trauma and Advance Life Support)	307-577-7201
	Poison Control	800-955-9119 or 800-222-1222
	E-911 Dispatch	307-235-8278
	Casper Fire/EMS	307-235-8222
	Casper Police	307-235-8225
	Sheriff Natrona County	307-235-9282
	WY Highway Patrol	307-777-4321 or 307-777-4301
	Wyoming One-Call	800-849-2476
	Kinder Morgan Canada Inc.	888-449-7539 888-876-6711

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Casper Station Telephone Numbers

Local Contacts	Casper Station	
	Wyoming Medical Center	307-577-7201 800-822-7201
	Wyoming Life Flight (Air Ambulance/Trauma and Advance Life Support)	307-577-7201
	Poison Control	800-955-9119 or 800-222-1222
	E-911 Dispatch	307-235-8278
	Casper Fire/EMS	307-235-8222
	Casper Police	307-235-8225
	Sheriff Natrona County	307-235-9282
	WY Highway Patrol	307-777-4321 or 307-777-4301
	Wyoming One-Call	800-849-2476
	Kinder Morgan Canada Inc.	888-449-7539 888-876-6711

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Gooseberry Booster Telephone Numbers

Local Contacts	Gooseberry Booster	
	Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
	Amblance	Dispatch Sheriff
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800-422-2222 or 307-577-7201
	Poison Control	800-955-9119 or 800-222-1222
	Thermopolis Fire	307-864-2821
	Thermopolis Police	307-864-3114
	Sheriff Hot Springs County	307-864-2622
	WY Highway Patrol	307-777-4321 or 307-777-4301
	High Plains Power Inc.	800-826-3446
	Wyoming One-Call	800-849-2476
	Marathon Oil Company Grass Creek Field Office	307-867-2311 (day)
	M W Petroleum Corp	307-868-9300 (day)

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Hamilton Dome Station Telephone Numbers

Local Contacts	Hamilton Dome Station	
	Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
	Ambulance	Dispatch Sheriff
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800-442-2222 or 307-577-7201
	Poison Control	800-955-9119 or 800-222-1222
	Thermopolis Fire	307-864-2821
	Thermopolis Police	307-864-3114
	Sheriff Hot Springs County	307-864-2622
	WY Highway Patrol	307-777-4321 or 307-777-4301
	High Plains Power	800-826-3446
	Wyoming One-Call	800-849-2476
	Rocky Mountain Pipeline Company	307-867-2414

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	Lost Cabin Station	
	Wyoming Medical Center (Casper)	800-822-7201
	Ambulance	911
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
	Poison Control	800-955-9119 or 800-222-1222
	Fire	911
	Sheriff Fremont County	911 or 307- 856-7200
	WY Highway Patrol	800-442-9090 or 307-777-4321
	High Plains Power	800-445-0613
	Wyoming One-Call	800-849-2476 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	Notches Station	
	Wyoming Medical Center	800-822-7201
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
	Poison Control	800-955-9119 or 800-222-1222
	Fire (Casper)	307-235-8222 or 911
	Sheriff Natrona County	307-235-9282 or 911
	WY Highway Patrol	800-442-9090 or 307-777-4321
	High Plains Power	800-445-0613
	Wyoming One-Call	800-849-2476 or 811
	Now: Citation Oil	307-234-1563
	Working hours local	
	Colt	307-277-8897
	Glen	307-267-4307

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Oregon Basin Station

West Park Hospital (Cody)	307-527-7501
Ambulance	911
Poison Center	800-955-9119 or 800-222-1222
Fire	307-527-8700
Police (City)	307-527-8700
Sheriff (Park County)	307-527-8700
Highway Patrol	800-442-9090 or 307-777-4321 or 307-777-4301 307-777-4288 (Fax)
888-221-7070 (24 hr.) Now: Rocky Mountain Power	
LEPC	307- 527-8760
Wyoming One-Call	800-849-2476 or 811
Fourbear Field (day) David Flores	307-868-2410 (b) (6) (cell)
Fourbear OB Terminal	307-587-2458
MOC Oregon Basin Field Office (day)	307-587-4226
State Water Division 3	307- 347-4882
Rocky Mountain Pipe Line Company	866-800-7677

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts — **Pilot Butte Station – Maverick Station – Circle Ridge - Steamboat**

Riverton Memorial Hospital	800-967-1646 or 307-856-4161
Ambulance	911
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
Poison Control	800-955-9119 or 800-222-1222
Fire (Fremont Co. Vol. Fire Dept.)	911 or 307-857-3030
Sheriff Fremont County	911 or 307- 856-7200
WY Highway Patrol	800-442-9090 or 307-777-4321
High Plains Power	800-445-0613
Wyoming One-Call	800-849-2476 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Powell Office

Powell Hospital (Powell)	307-754-2267
Ambulance (Powell)	307-754-2267
Poison Center	800-955-9119 or 800-222-1222
Fire (Powell)	307-754-2211 or 911
Police (Powell)	307-754-2212
Sheriff (Park County)	307- 527-8700 307-754-2214 (Fax)
WY Highway Patrol	800-442-9090 or 307-777-4321 or 307-777-4301 307-777-4288 (Fax)
Wyoming One-Call	800-849-2476 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	**Silver Tip Station**	
	Powell Hospital	307-754-2267
	Ambulance	307-754-2267
	Poison Center	800-955-9119 or 800-222-1222
	Fire (Powell)	307-754-2211 or 307-754-5227 or 911
	Vol. Fire Dept. (Montana)	406-446- 1234
	Police (Powell)	307-754-2212 307-754-2213 307-754-2214 (Fax)
	Sheriff (Park County)	307- 527-8700
	Sheriff (Carbon County)	406-446-1234
	WY Highway Patrol	800-442-9090 307-777-4321 or 307-777-4301 307-777-4288 (Fax)
	888-221-7070 (24 hr.) Now: Rocky Mountain Power	
	Encore Elk Basin Field Office (day) (After Hours)	 307-754-7300 307-754-7390
	Exxon Pipe Line Company Silver Tip Station (day) After Hours – Emergency	 307-754-9070 713-656-1234
	State Water Division 3 (Park County)	307- 347-4882
	Montana One Call	800-424-5555 or 811

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts

Tank No. 5 Station

Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
Ambulance	307-864-3114 or 911
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800- 822-7201 or 307-577- 7201
Poison Control	800-955-9119 or 800-222-1222
Fire (Thermopolis)	307-864-3114
Police (Thermopolis)	307-864-3114
Sheriff Hot Springs County	307-864-2622
WY Highway Patrol	800-442-9090 or 307-777-4301
Now: Rocky Mountain Power	888-221-7070
Wyoming One-Call	800-849-2476 or 811
Marathon Oil Company Grass Creek Field Office	307-867-2311 (day)

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	**Montana**		
	Carbon County		
	Sheriff	406-446-1234	
	LEPC Carbon County, MT	406- 446-1038	
Local Contacts	**Wyoming**		
	Big Horn County		
	LEPC	307-548- 2516Sheriff	800-500-232
		307-568-2324	
		307-568-3823	
		307-568-2035	
	LEPC (North Bighorn Hospital)	307-548- 5200	
	Park County		
	Sheriff	307- 527-8700	
	LEPC	307-527- 8760	
	Natrona County		
	Sheriff	307-235-9282	
	LEPC	307-235- 9200	
	Fremont County		
	Sheriff	307-856-7200	
	LEPC	307-856-2374	
	Hot Springs County		
	Sheriff	307-864-2622	
	LEPC	307-864- 4649	
	Washakie County		
	Sheriff	307-347-2242	
	LEPC	307-347-3331	

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Downstream Sensitive Sites

Others

Tri-State Bird Rescue & Research	302-737-7241
	302-737-9562 (Fax)
24-Hr Pager – Dr. Heide Stout	800-710-0696
Cell Phone	(b) (6)
24-Hr Pager – Dr. Eileen Gilbert	800-710-0696
Cell Phone	(b) (6)
24-Hr Pager – Dr. Susie Michaelson	888-441-0702
Cell Phone	(b) (6)

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Kirby Station Telephone Numbers

Local Contacts	**Kirby Station**	
	Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
	Ambulance	Dispatch Sheriff
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800-442-2222 or 307-577-7201
	Poison Control	800-955-9119 or 800-222-1222
	Fire (Thermopolis)	307-864-2821
	Police (Thermopolis)	307-864-3114
	Sheriff Hot Springs County	307-864-2622
	WY Highway Patrol	307-777-4321 or 307-777-4301
	Pacific Power and Light Company	877-548-3768 800-221-7070
	Wyoming One-Call	800-849-2476

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Little Buffalo Basin Telephone Numbers

Local Contacts — **Little Buffalo Basin**

Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
Ambulance (Thermopolis)	Dispatch
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800-422-2222 or 307-577-2222
Poison Control	800-955-9119 or 800-222-1222
911 Dispatch (Cody) (Powell)	307-527-8700 307-754-8700
Park County Fire	307-527-8525
Park County Sheriff (Cody) (Powell)	307-527-8708 307-754-8708
WY Highway Patrol	800-442-9090 or 307-777-4321 or 307-777-4301 307-777-4288 (Fax)
High Plains Power Inc.	800-826-3446
Wyoming One-Call	800-849-2476
Marathon Oil Company Grass Creek Field Office	307-867-2311 (day)
M W Petroleum Corp	307-868-9300 (day)

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Lost Cabin Station Telephone Numbers

Local Contacts	Lost Cabin Station	
Wyoming Medical Center (Casper)		800-822-7201 307-577-7201
Ambulance	(Riverton) (Lander)	307-857-3669 307-332-3241
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)		800-442-2222 or 307-577-2222
Poison Control		800-955-9119 or 800-222-1222
Fremont County Fire District		307-857-3030
Sheriff Fremont County		307-332-5611 307-856-7200
WY Highway Patrol		307-777-4321 or 307-777-4301
High Plains Power		800-826-3446
Wyoming One-Call		800-849-2476

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Notches Station Telephone Numbers

Local Contacts	Notches Station
Wyoming Medical Center (Casper)	800-822-7201 307-577-7201
Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800-442-2222 or 307-577-2222
Poison Control	800-955-9119 or 800-222-1222
Casper Fire	307-235-8222
Natrona County Sheriff	307-235-9282
WY Highway Patrol	307-777-4321 or 307-777-4301
High Plains Power	800-445-3446
Wyoming One-Call	800-849-2476
Belle Fourche Pipe Line (88 Oil)	307-756-3292 (24hr)

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Oregon Basin Station Telephone Numbers

Local Contacts

Oregon Basin Station

West Park Hospital (Cody)	307-527-7501
Ambulance	Dispatch
Poison Center	800-955-9119 or 800-222-1222
911 Dispatch (Cody) (Powell)	307-527-8700 307-754-8700
Park County Fire	307-527-8525
Police (City)	307-527-8700
Park County Sheriff (Cody) (Powell)	307-527-8708 307-754-8708
Highway Patrol	307-777-4321 or 307-777-4301
Pacific Power and Light Co.	800-221-7070 (24 hr.) 887-548-3768
Park County Homeland Security	307-527-1860 (Cody) 307-754-1860 (Powell)
Wyoming One-Call	800-849-2476
Four Bear Oil Field (day)	307-868-2410
Goldmark Engineer Inc.	307-587-2458
MOC Oregon Basin Field Office	307-587-4226
State Water Division 3	307-856-0747 (Riverton)
Rocky Mountain Pipe Line Company	307-867-2414

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Pilot Butte - Maverick – Circle Ridge - Steamboat Telephone Numbers

Local Contacts	Pilot Butte Station – Maverick Station – Circle Ridge - Steamboat	
	Riverton Memorial Hospital	800-967-1646 or 307-856-4161
	Ambulance	307-332-3241 307-857-3669
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Live Support)	800-442-2222 or 307-577-2222
	Poison Control	800-955-9119 or 800-222-1222
	Fremont County Fire District	307-857-3030
	Sheriff Fremont County	307-332-5611 307-856-7200
	WY Highway Patrol	307-777-4321 or 307-777-4301
	High Plains Power	800-826-3446
	Wyoming One-Call	800-849-2476

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Powell Office Telephone Numbers

Local Contacts

Powell Office

Powell Valley Healthcare		307-754-2267
Ambulance (Powell)		307-754-2267 or Dispatch
Poison Center		800-955-9119 or 800-222-1222
911 Dispatch	(Cody)	307-527-8700
	(Powell)	307-754-8700
Powell Fire		307-754-2211
Powell Police		307-754-2212
Park County Sheriff	(Cody)	307-527-8708
	(Powell)	307-754-8708
WY Highway Patrol		307-777-4321 or 307-777-4301
Wyoming One-Call		800-849-2476

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	**Silver Tip Station**	
	Powell Valley Healthcare	307-754-2267
	Ambulance	307-754-2267 or Dispatch
	Poison Center	800-955-9119 or 800-222-1222
	911 Dispatch (Powell)	307-754-8700
	Powell Fire	307-754-2211
	Red Lodge Fire Rescue (Montana)	406-446-2320
	Police (Powell)	307-754-2212
	Park County Sheriff (Cody) (Powell)	307-527-8708 307-754-8708
	Sheriff (Carbon County)	406-446-1234
	WY Highway Patrol	307-777-4321 or 307-777-4301
	Pacific Power and Light Co.	800-221-7070 (24 hr.) 877-548-3768
	Howell Petroleum Elk Basin Field Office (day) (After Hours)	 307-754-7300 307-754-7390
	Exxon Pipe Line Company Silver Tip Station (day) After Hours – Emergency	 307-754-9070 713-656-1234
	State Water Division 3 (Powell)	307-754-3145
	Montana One Call	800-424-5555

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Local Contacts	Tank No. 5 Station	
	Hot Springs County Memorial Hospital (Thermopolis)	307-864-3121
	Ambulance	Dispatch Sheriff
	Wyoming Life Flight (Air Ambulance/Trauma and Adv. Life Support)	800-422-2222 or 307-577-7201
	Poison Control	800-955-9119 or 800-222-1222
	Fire (Thermopolis)	307-864-2821
	Police (Thermopolis)	307-864-3114
	Sheriff Hot Springs County	307-864-2622
	WY Highway Patrol	307-777-4321 or 307-777-4301
	Pacific Power and Light Company	800-221-7070 877-548-3768
	Wyoming One-Call	800-849-2476
	Marathon Oil Company Grass Creek Field Office	307-867-2311 (day)

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Montana Telephone Numbers

Local Contacts

Montana

Carbon County

Sheriff	406-446-1234
LEPC Carbon County, MT	406-425-2071
DES Carbon County, MT http://dma.mt.gov/DES/	406-324-4777
Montana One Call	800-424-5555

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Wyoming Telephone Numbers

Local Contacts

Wyoming

Big Horn County	
LEPC	307-548-2516
Sheriff	800-500-2324
	307-568-2324
North Bighorn Hospital	307-548-2771
Park County	
Sheriff	307-754-8710
LEPC	307-527-1860
Natrona County	
Sheriff	307-235-9282
LEPC	307-235-9205
Fremont County	
Sheriff	307-332-5611
LEPC	307-856-2374
Hot Springs County	
Sheriff	307-864-2622
LEPC	307-864-4649
Washakie County	
Sheriff	307-347-2242
LEPC	307-347-2741

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CODY RESPONSE ZONE
TELEPHONE NUMBERS

Downstream Sensitive Sites

Others

Tri-State Bird Rescue & Research	302-737-7241 302-737-9562 (Fax)
24-Hr Pager – Dr. Heide Stout	800-710-0696
Cell Phone	(b) (6)
24-Hr Pager – Dr. Eileen Gilbert	800-710-0695
Cell Phone	(b) (6)
24-Hr Pager – Dr. Susie Michaelson	888-441-0702
Cell Phone	(b) (6)

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Cody Response Zone Critical/Sensitive Areas

CRITICAL AREAS

The critical and sensitive areas, potentially affected public drinking water intakes, lakes, rivers and streams within a five mile radius of the pipelines within the response zone are shown on maps kept at MPL LLC's office.

ENVIRONMENTAL SENSITIVITIES

The most frequently found threatened or endangered species found in the area is the Bald Eagle. The Grizzly Bear has been noted in Freemont and Park Counties, WY and Carbon County, MT. In addition, the American Peregrine Falcon was documented in Carbon County. The Black Footed Ferret was found in Park County; however, it has not been seen in the past three years in this area.

Currently wetlands have been mapped by the National Wetlands Inventory in much of the area. The Shoshone River has been classified as a riverain (generally described as places where water flows within a channel), lower perennial, unconsolidated shore, seasonally flooded wetland. Areas surrounding the river have been defined as palustrine (nontidal, freshwater, vegetated wetland) in nature, temporarily or seasonally flooded, and generally span up to one half mile across the river in the area southwest of classified as a riverain, permanently flooded wetland. Surrounding the river for up to one quarter mile across are palustrine wetlands. Areas along Bitter Creek (west of the Shoshone and southwest of Byron) are considered palustrine wetlands. The Sidon Canal, which parallels the Park/Big Horn County line approximately one half mile east of it, is considered an excavated riverain, semipermanently flooded wetland. The Elk Lovell Canal, west of Whistle Creek, is classified similarly to the Sidon Canal. In addition, numerous palustrine wetlands exist in the area west of Byron. The National Wildlife Inventory has also delineated wetlands in Park County, WY although the map will not be available until later in 1993. No Federally delineated wetlands are mapped in Carbon County, MT.

Other areas of concern are the Wind River (including shore areas) and the sandy Muskrat Creek bed. Several ditches cross the area, including one which parallels the Wind River approximately one mile east of it in the vicinity of the pipeline crossing; and three more ditches running east/west located one to three miles south of the pipeline on the west side of Wind River. The Pilot Canal is located north of the pipeline and about one mile west of the Wind River. Approximately one quarter mile north of the pipeline, but south of the Pilot Canal, a small creek parallels the pipeline until just east of the Boysen Reservoir. Another creek runs just north of this one, but only on the west side of the Wind River.

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Cody Response Zone Critical/Sensitive Areas

ENVIRONMENTAL SENSITIVITIES (Cont'd.)

There are six National Forests and many other areas of concern within the response zone. The National Forests include: the Shoshone National Forrest (14 miles West of Meeteetse, WY); the Bighorn National Forest (18 miles east of Byron, WY); the Custer National Forest and the Gallatin National Forest (both exist along the Montana/Wyoming border in Carbon County); the Shoshone National Forest (in the southwest portion of Freemont county); and the Big Horn National Forest (in the northeast corner of Washakie county). Also of note are the Pryor Mountain National Wildhorse Range in Carbon County; the Absaroka Wilderness Area (14 miles west of Meeteetse, WY); the Buffalo Bill State Park (7 miles west of Cody); the Cloud Peak Wilderness Area (18 miles east of Byron, WY); the Big Horn Canyon National Recreation Area (ten miles east of Byron, WY); the Hot Springs State Park (seven miles south of Kirby); the Boysen State Park/Boysen Reservoir (seven miles northwest of Shoshoni); the Popo-Agie Primitive Area (located one mile north of Atlantic City); the Wind River Indian Reservation; the Big Horn Canyon National Recreation Area (located ten miles east of Byron); the Big Horn National Forest (located eighteen miles east of Byron); and Cloud Peak Wilderness Area (located eighteen miles east of Byron).

ACCESS/STAGING AREAS

Airports

Yellowstone Regional Airport	Cody, WY
South Big Horn County Airport	Greybull, WY
Gillette-Campbell County Airport	Gillette, WY
Billings Logan International Airport	Billings, MT
Bridger Airport	Bridger, MT
Laurel Airport	Laurel, MT
Casper Airport	Casper, WY
Sheridan County Airport	Sheridan, WY
Buffalo Airport	Buffalo, WY
Worland Municipal Airport	Worland, WY
Riverton Regional Airport	Riverton, WY
South Big Horn County Airport	Greybull, WY

Staging Areas

The station nearest to the emergency site will in most incidents act as the equipment and manpower staging area. Other incidents may lend themselves to convenient vacant lots or seldom used roads near the cleanup and leak site areas. The Operations Section Chief will draw on

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local knowledge of the area involved in the specific incident to locate staging areas as required.

ACCESS/STAGING AREAS (Cont'd)

Boat Launch and Water Access

Boat launching and water access can typically be performed from developed or recreational areas and bridges along the impacted water way. The Cleanup Unit Leader and his people along with aerial surveillance will identify possible launch and access sites.

POTENTIALLY AFFECTED INTAKES AND SENSITIVE AREAS

Public Drinking Water Intakes

The following are potentially affected public drinking water intakes in or in close proximity to the area within a radius of five miles of the pipelines within the response zone.

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

[redacted]

Environmentally Sensitive Areas

The following are potentially affected environmentally sensitive areas in or in close proximity to the area within a radius of five miles of the pipelines within the response zone.

Buffalo Bill State Park
Big Horn Canyon National Recreation Area
Girl Scout National Center West
Hot Springs State Park

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Cody Response Zone Critical/Sensitive Areas

CRITICAL AREAS Basin to Byron Crude Line

DESCRIPTION

A. Agrarian Ditch

B. Little Dry Creek

C. Foster Gulch

D. Lovell Canal

E. Shoshone River Canal

F. Sidon Canal

Whistle Creek to Byron Crude Line

DESCRIPTION

A. Sidon Canal

B. Various Irrigation Ditches

C. Marathon Oil Company Garland Office

CRITICAL AREAS Byron to Silver Tip Crude Line

DESCRIPTION

A. Byron Waste Water Swamp

B. Sidon Canal

C. Deaver Irrigation System

D. Polecat Creek

E. Frannie Canal

F. Little Polecat Creek

G. Silver Tip Creek

H. Howell Production Facilities

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I. Town of Byron

J. Marathon Oil Company Polymer Plant (idled and abandoned)

CRITICAL AREAS

Oregon Basin to Amoco Oregon Basin Crude Line

DESCRIPTION

A. Desert Ranch

B. Marathon Oil Company

C. Amoco Pipe Line Company

CRITICAL AREAS Byron to Glacier Crude Line

DESCRIPTION

- Continental Pipeline Company (Houston, Texas Operations Center)

Byron to/From Oregon Basin Crude Line

DESCRIPTION

A. Town of Byron

B. Town of Lovell

C. Sidon Canal

D. Whistle Creek Canal

E. Shoshone River

F. Local farms and ranches

G. Local oil companies

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Oregon Basin to Chatham Crude Line

DESCRIPTION

A. Sand Coulee (directly south of Oregon Basin Station)

B. Greybull River

C. Fifteen Mile Creek

CRITICAL AREAS

Gooseberry to Tank 5 Crude Line

DESCRIPTION

A. Gooseberry Creek

B. Enos Creek

C. Grass Creek

D. L. U. Ranch

E. Other Ranches

Tank 5 to Chatham Crude Line

DESCRIPTION

A. Cottonwood Creek

B. Grass Creek

C. Big Horn River

D. Local Ranches

CRITICAL AREAS

Chatham to Basin Crude Line

DESCRIPTION

A. Chatham Station to River Dome Junction

1. Big Horn River

2. 15 Mile Creek

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3. 10 Mile Creek
4. Big Horn Canal
5. (b) (3), (b) (7)(F)
6. City of Worland
7. Local Ranches

B. River Dome Junction to Basin Station

1. Big Horn River
2. Big Horn Canal
3. City of Manderson
4. City of Basin
5. Local Irrigation Systems
6. Local Ranches

CRITICAL AREAS Chatham to Basin Crude Line

DESCRIPTION

1. Upper Hanover Canal
2. Lower Hanover Canal
3. Big Horn River
4. Big Horn Canal

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

7. Local Ranches

Basin to Byron Crude Line

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Cody Response Zone Critical/Sensitive Areas

A. (b) (3), (b) (7)(F)

B.

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Cody Response Zone Critical/Sensitive Areas

CRITICAL AREAS

Basin to Byron Crude Line (Cont'd)

	DESCRIPTION
C.	Greybull River
D.	Dry Creek
E.	City of Basin
F.	Wyoming Retirement Home
G.	Basin City Water Department

Oregon Basin to Chatham Crude Line

	DESCRIPTION
A.	Fifteen Mile Creek
B.	Gooseberry Creek
C.	Cottonwood Creek
D.	Little Gooseberry Creek

Gebo to Chatham Crude Line

	DESCRIPTION
A.	Big Horn River
B.	Town of Kirby
C.	Local Ranches
D.	Local Irrigation Systems

Chatham to Lost Cabin Crude Line

	DESCRIPTION
A.	Big Horn River
B.	Town of Kirby

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Cody Response Zone Critical/Sensitive Areas

CRITICAL AREAS

Chatham to Lost Cabin Crude Line (Cont'd)

	DESCRIPTION
C.	Kirby Creek
D.	Bridger Creek

Pilot Butte to Lost Cabin Crude Line

	DESCRIPTION
A.	(b) (3), (b) (7)(F)
B.	

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

[redacted]

Lost Cabin to Casper Crude Line

DESCRIPTION

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

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

[redacted]

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

CRITICAL AR

[redacted]

See the Strip Maps for more detail

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Marathon Petroleum Company LP

Section	Topic	Appendix	Topic
1.0	Introduction	A	Response Zones and Dock Information
2.0	Notification Procedures	B	Glossary
3.0	Response Actions	C	Forms
4.0	Safety, Health and Security	D	Site Safety and Health Plan
5.0	Response Teams	E	Incident Action Plan
6.0	Command Posts/Staging Areas	F	Response Zones and Dock Maps
7.0	Communications	G	Inland and Navigable Waterway Containment and Recovery Strategies
8.0	Resources	H	NOAA's Shoreline Assessment Manual
9.0	Training and Exercises	I	Cross References, DOT Final Rule, USCG Plan Requirements - Final Rule and Minerals Management Service - Final Rule
10.0	Spill Prevention and Detection Methods	J	Spill Prevention/Operations and Maintenance Documents
11.0	ICS Section Job Descriptions		

B

Acronym	Definition
#1 LSD	Low Sulfur Diesel (kerosene)
#2 LSD	Low Sulfur Diesel (truck diesel)
A/P	Accounts Payable
AA	Aboveground Additive
ACC	American Chemistry Council
ACE	Achievement of Company Excellence
ACM	Asbestos Containing Material
ACP	Area Contingency Plan
ACT	Active (N-Vision status)
ADA	Americans with Disabilities Act
ADP	ADP Consulting
AFE	Authority for Expenditure
AGM	Above Ground Marker
AIM	Asset Information Manager
ALARA	As Low As Reasonably Achievable
ALIRTS	Auditing, Lessons Learned, Incident, Recommendation Tracking System
AM	Area Manager
ANPRM	Advanced Notice of Proposed Rulemaking
ANSI	American National Standards Institute
AP-42	Compilation of Air Pollutant Emission Factors
APC	Air Pollution Control or Area Project Coordinator
API	American Petroleum Institute
APL	Application Process Leader
APP	Approved (N-Vision status)
APW	Accounts Payable Workflow
AQMD	Air Quality Management Division
ASME	American Society of Mechanical Engineers
AST	Aboveground Storage Tank
ASTM	American Society for Testing Methods (is no longer an acronym – now ASTM International)
ASV	Automatic Shut off Valve
ATE	Asphalt Terminal Engineering
ATG	Automatic Tank Gauge
ATOM	Asphalt Terminal Engineering Manual
ATU	Allotment Trading Unit
B/D	Barrels per Day
BACT	Best Available Control Technology
BAP	Baseline Assessment Plan
BAT	Breath Alcohol Test
BBLS	Barrels
BBP	Bloodborne Pathogen
BBS	Behavior Based Safety
BD	Business Development
BDL	Below Detection Limits
BEA	Baseline Environmental Assessments (MI)
BER	Business Expense Report
BETX	Benzene, Ethylene, Toluene, Xylene
BIF	Boiler & Industrial Furnance
BMP	Best Management Plan
BNA	Base/Neutral & Acids Analysis (semi-volatile)
BO&P	Business Operations & Planning
BOCA	Building Officials and Code Administrators
BOD	Biochemical (Biological) Oxygen Demand
BOE	Barrel of Oil Equivalent
BOL	Bill of Lading
BPD	Barrels per Day
BPH	Barrels per Hour
BQL	Below Quantification Limit (but detectable in a laboratory)
BRGA	Brand Retail Gasoline Additive
BS&W	Basic Sediment & Water
BTSC	Brownfields Technology Support Center
BTU	British Thermal Unit
BTX	Benzene, Toluene, Xylene Analysis
BWON	Benzene Waste Organic NESHAP

C	Capital or Completed (Nvision Status)
C of A	Certificate of Analysis
C&I	Controls & Instrumentation
C&M	Construction & Maintenance
CA	Capital AFE FAA designation
CAA	Clean Air Act
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CAP	Corrective Action Plan
CAS	Chemical Abstracts Service
CBT	Computer Based Training
CCP	Commercial Chemical Product
CCR	Continuous Catalytic Reformer
CDA	Confirmatory Direct Assessment
CDL	Commercial Driver License
CDR	Commission, Decommission & Recommission Plan
CEI	Compliance Evaluation Inspection
CEM	Continuous Emissions Monitor
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERP	Corporate Emergency Response Plan
CERT	Corporate Emergency Response Team
CESQG	Conditionally Exempt Small Quantity Generator
CFC	Chorofluorocarbob
CFH	Cubic FT/HR
CFR	Code of Federal Regulations (U.S.)
CGA	Common Ground Alliance
CHCA	Could Affect High Consequence Area
CHP	Chemical Hygiene Plan
CHRIS	Chemical Hazards Response Information System
CHWMEG	Commercial Hazardous Waste Management Evaluation Group (is no longer an acronym – now CHWMEG)
CIS	Close Interval Survey
CME	Comprehensive Monitoring Evaluation
CMFL	Circumferential Magnetic Flux Leakage for Axial flaws
CMMS	Computerized Maintenance Management System
CMP	Contract Management Process
CMS	Compliance Monitoring System
CMT	Crisis Management Team
CO	Carbon Monoxide or Change Order
CO2	Carbon Dioxide
COC	Certificate of Coverage or Change of Custody
COD	Chemical Oxygen Demand
COLIWASA	Composite Liquid Waste Sampler
COTP	Captain of the Port
CP	Cathodic Protection
CPMM	Corporate Procurement & Materials Management
CR	Capital Replacement
CRLLC	Catlettsburg Refining
CRO	Corrosion Repair Order
CRP	Compliance Response Plan
CSE	Confined Space Entry
CSI	Compliance Sampling Inspection
CSP	Certified Safety Professional
C-Store	Convenience Store
CTLO	Coal Tar Light Oil
C-TPAT	Customs Trade Partnership Against Terrorism
CTS	Construction Tank Service (Contractor)
CUTCD	Ultrasonic Crack - Circumferential Flaw
CWA	Clean Water Act
DA	Direct Assessment/Analyst or District/Division Analyst
DAA	Driver Access Authorization
DAF	Dissolve Air Flotation
DAFW	Days Away From Work

DBA	Decibel, a scale used in noise measurement
DCM	Depth of Cover Management
DCP	Detroit Coker Project
DCVG	Direct Current Voltage Gradient
DE	District/Division Engineer
DEI	Designated Environmental Incident
DEP	Department Environmental Protection
DEQ	Department of Environmental Quality
DGF	Dissolved Air Flotation
DHOUP	Detroit Heavy oil Upgrade project
DHS CFATS	Department of Homeland Security Chemistry Facility of Anti Terrorism Standard
DHT	Distillate Hydrotreater
DI	De-Ionized (water)
DM	District/Division Manager
DMR	Discharge Monitor Report
DNAPL	Dense Nonaqueous Phase Liquid
DNR	Department of Natural Resources
DO	Dissolved Oxygen
DOC	Department of Commerce
DOCR	Design or Change Request
DOE	Department of Energy
DOI	Department of Interior or Declaration of Inspection
DOJ	Department of Justice
DOT	Department of Transportation
DOT OPS	Department of Transportation Office of Pipeline Safety
DP&PI	Damage Prevention & Public Impact
DP&RR	Damage Prevention and Right of Way Relations
DPGD	Decision Peformance Goal Diagram
DQ	Driver Qualification
DQA	Data Quality Assessment
DQL	Data Quality Level
DQO	Data Quality Objective
DRE	Destruction & Removal Efficiency
DRO	Diesel Range Organics
DS&S	Data Systems and Solutions
DSP	Decision Support Package
E	Expense
E&I	Electrical & Instrumentation
E&S	Environment and Safety
EBD	Enterprise Buyers Desktop
EC	Emergency Coordinator
ECC	Emergency Control Center
ECDA	External Corrrosion Direct Assessment
ECHO	Enforcement and Compliance History Online
ECRS	Environmental Computer Reminder System
EDF	Environmental Defense Funch
EDP	Emergency Planning Districts
EEOC	Equal Employment Occupation Commission
EEZ	Exclusive Economic Zone
EFC	Estimated Final Cost
EHS	Extremely Hazardous Substance
EMA	Emergency Management Agency
EMAT	Electro-Magnetic Acoustic Transducer
EMT	Emergency Management Team
ENV	Environmental
EOC	Emergency Operations Center
EP	Environmental Professional
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPM	Electrical Preventative Maintenance
ER	Emergency Response
ERA	Electronic Routing and Approval
ERAP	Emergency Response Action Plan
ERG	Emergency Response Guidebook

ERM	ERM Consulting
ERMS	Emission Reduction Monitoring System
ERP	Emergnecy Reduction Plan
ERT	Emergency Response Team
ERW	Electrical Resistant Welding
ES	Emergency Services
ES&R	Environment Safety & Regulatory (Pipeline's HES Department)
ES&S	Corporate Environment, Safety and Security
ESCBA	Escape Self Contained Breathing Apparatus
ESG	Emergency Support Group
ESHAA	Environmental, Safety, and Health Auditing Association
ESR	Engineering Service Request
EST	Emergency Strike Team
ETS	Environmental Technical Services
EVP	Educational Volunteer Program
EX	Expense/Expansion of Markets or Facilities
EXT MFL	External Magnetic Flux Leakage for Circumferential Flaws
F&A	Finance & Administration
FAA	Financial Approval Authority
FBP	Final Boiling Point
FCCU	Fluid Catalytic Cracking Unit
FEED	Front-End Engineering & Design
FEMA	Federal Emergency Management Agency
FEMS	Fugitive Emission Management System
FEP	Field Efficiency & Planning
FESOP	Federally Enforceable Source Operating Permit
FFOS	First Federal on Scene
FHID	Fall Hazard ID
FI	Field Instruction
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FMLA	Family and Medical Leave Act
FOC	Findlay Office Complex
FOP	Form of Proposal
FOSC	Federal On-Scene Coordinator
FPAR	Federally Permitted Air Release
FR	Fire Retardant or Federal Register
FRP	Facility Response Plan/Fire Resistant Program
FSP	Facility Security Plan
FTMS	Field Task Management System
FTZ	Free Trade Zone
FWPCA	Federal Water Pollution Control Act
GAAP	Generally Accepted Accounting Principles
GAL	Gallons
GAUGE PIG	Gauge Pig
GEO - HIGH	Geometry - High Resolution
GEO - HIGH-GI	Geometry - High Resolution - GPS for Earth Movement
GEO - LOW	Geometry - Low Resolution
GFCI	Ground Fault Circuit Interrupter
GIMP	Gas Integrity Management Plan
GIS	Geographical Information Systems
GME	Garyville Major Expansion
GMP	Guaranteed Maximum Price
GPM	Gallons per Minute
GPS	GPS Tool
GRO	Gas Range Organics
GW	Ground Water
H	Hold
H2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant
HASP	Health & Safety Plan
HAZMAT	Hazardous Materials
HAZOP	Hazard & Operability
HAZWOPER	Hazardous Waste Operations and Emergency Response
HC	Hydrocarbons

HCA	High Consequence Area
HCL	Hydrochloric Acid
HES	Health, Environment, and Safety
HES&S	Heath, Environment, Safety and Security
HES/HESS	Health, Environment, Safety & Security
HF	Hydrogen Fluoride
HFO	Heavy Fuel Oil
HLA	High Level Alarm
HMRT	Hazardous Materials Response Team
HMTA	Hazardous Materials Transportation Act
HON	Hazardous Organic NESHAP
HOUP	Heavy Oil Upgrade Project
HQ	Headquarters
HR	Human Resource
HRT&D	Human Resources, Training & Development
HS	Hazardous Substance
HSD	High Sulfur Diesel
HSWA	Hazardous & Solid Waste Amendments
HVAC	Heating, Ventilation, and Air Conditioning
HW	Hazardous Waste
HWIR	Hazardous Waste Identification Rule
HWM	Hazardous Waste Management
HWRT	Hartford Wood River Terminal
HYDROE	Subpart E Hydrotest
HYDROS	Spike & Subpart E Hydrotest
IC	Incident Command
ICC	Incident Command Center
ICDA	Internal Corrosion Direct Assessment
ICP	Integrated Contingency Plan
ICR	Ignitable, Corrosive, or Reactive
ICS	Incident Command System
IDEM	Indiana Department of Environmental Management
IDHL	Immediate Danger to Life and Health
IDL	Instrumentation Detection Limit
IDP&R	Integrity, Damage, Prevention and Risk
IEEE	Institute of Electrical & Electronical Engineers
IEPA	Illinois Environmental Protection Agency
IGF	Induced Gas Flotation
IH	Industrial Hygiene
ILI	In-Line Inspection
IMIS	Integrated Management Information System
IMP	Integrity Management Plan Rule
IMS	Information Management System
IPL	In-Line Inspection Project Leader
IRD	Illinois Refining Division
IRTH	Information Retrieval Ticket Handling System
ISGOTT	International Safety Guide for Oil Terminals and Tankers
IT	Information Technology
IVD	Injector Valve Deposit
JO	Job Order
JSA	Job Safety Analysis
KDEP	Kentucky Department of Environmental Protection
KECO	Kenova-Columbus 14" Products Pipeline
KEEP	Knowledge Exchange & Enhancement Program
KMS	Knowledge Management System
KY PSC	Kentucky Public Service Commission
LA	Lien Affidavit
LCP	Local Oil & Hazardous Substances Contingency Plan
LCSS	Life & Career Self-Service
LDAR	Leak Detection and Repair
LDEQ	Louisiana Department of Environmental Quality
LDR	Land Disposal Restriction
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Committee

LEV	Local Exhaust Ventilation
LNAPLs	Light Non-Aqueous Phase Liquids
LNG	Liquidfied Natural Gas
LOOP	Louisiana Offshore Oil Port
LOTO	Lock Out Tag Out
LOV	Living Our Values
LP-CCR	Low Pressure Continuous Catalytic Regeneration
LPG	Liquefied Petroleum Gas
LPMR	Land & Pipeline Management Report
LQG	Large Quantity Generator
LRD	Louisiana Refining Division
LTTD	Low Temperature Therma Desorption
LW	Lien Waiver
M&R	Maintenance & Reliability
M&S	Material & Supply
M&TE	Marketing and Transportation Engineering
MACT	Maximum Achievable Control Technology
MAOP	Maximum Allowable Operating Pressure
MAP	Marathon Ashland Petroleum or Malfunction Abatement Plan
MAP Award	Marathon Ashland Petroleum Award
MAPL	Marathon Ashland Pipe Line LLC
MAPLLC	Marathon Ashland Petroleum Limited Liability Company
MARCP	Marathon Ashland Responsible Carrier Program
MATD	Marathon Ashland Transportation Division
MDEQ	Michigan Department of Environmental Quality
MDL	Method Detection Limit
MESA	Marathon Employee Safety Awareness
MFL - HIGH	Magnetic Flux Leakage- High Resolution for Circumferential Flaws
MFL - LOW	Magnetic Flux Leakage- Low Resolution for Circumferential Flaws
MFL - Wire	Axial Magnetic Flux - Wire Line
MG/KG	Milligrams per Kilogram/Parts per Million
MGP	Manufactured Gas Plant
MI	Mechanical Integrity
MIPL	Mechanical Integrity Process Leader
MMS	Minerals Management Service (part of DOI)
MNA	Monitored Natural Attenuation
MNO	Minnesota Operations
MnRD	Minnesota Refining Division
MOB	Main Office Building
MOC	Marathon Oil Company (Upstream)or Management of Change
MOCR	Management of Change Request
MOP	Marine Operating Procedures or Maximum Operating Pressure
MPA	Malfunction Prevention and Abatement
MPC	Marathon Petroleum Company LLC (Downstream)
MPCA	Minnesota Pollution Control Agency
MPL	Marathon Pipe Line LLC
MPMP	Marathon Project Management Process
MPV	Miscellaneous Process Vent
MRD	Michigan Refining Division
MRT	Marine Repair Terminal
MSD	Marine Safety Detachment
MSDS	Material Safety Data Sheet
MSPI	Marathon Safety Performance Index
MSV	Management System Verification
MTBE	Methyl Tertiary Butyl Ether
MTD	Marathon Transportation Division
MTR	Marine Transportation Related
MVA	Motor Vehicle Accident
MW	Monitoring Wells
NAAQS	National Ambient Air Quality Standard(s)
NACE	National Association of Corrosion Engineers
NAPL	Non-Aqueous Phase Liquid (free product)
NAVA	??
NAVIC (NVIC)	Navigation & Vessel Inspection Circular

NB	Non-Budgeted
NCCER	National Center for Construction Education Research
NCMS	National Compliance Management Services
NCP	National Oil & Hazardous Substane Pollution Contingency Plan
ND	Non Detect
NDE	Nondestructive Examination
NEA	Negative Exposure Assessment
NEC	National Electric Code
NR	Needs Review to Determine Baseline Assessment
NEO	New Employee Orientation
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFA	No Further Action
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NO2	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration (part of DOC)
NOCS	Notification of Compliance Status
NOI	Notice of Intent
NORM	Naturally Occurring Radioactive Materials
NOV	Notice of Violation
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPRA	National Petrochemical and Refiners Association
NPRM	Notice of Proposed Rulemaking
NRC	National Response Center or Nuclear Regulatory Commission
NRDA	Natural Response Damage Assessment
NRPM	Notification of Proposed Rule Making
NRS	National Response System
NRT	National Response Team
NSPS	New Source Performance Standard
NSR	New Source Review
NTE	Not to Exceed or Northern Terminal Engineering
O&GE	??
O&L	Operations and Logistics
O&M	Operation and Maintenance
O.R.C.	Ohio Revised Code
OBSM	Oil Bearing Secondary Material
OE	Operational Excellence
OI&I	Occupational Injury and Incident
OIG	Office of the Inspector General)EPA)
OIS	Operational Information System
OLIE	Online Enrollment
OMB	Office of Management and Budget
OMMP	Operations Maintenance and Monitoring Plan
OP	Operating of Process Improvements
OPA	Oil Pollution Act
OPA 90	Oil Pollution Act of 1990 (U.S.)
OPS	Office of Pipeline Safety
OQ	Operator Qualification
ORD	Ohio Refining Division
ORIR	OSHA Recordable Incident Rate
ORPL	Ohio River Pipeline
ORSANCO	Ohio River Valley Water Sanitation Commission
OS	
OSB	Off Spec Blend
OSC	On-Scene Coordinator
OSHA	Occupational Safety & Health Administration
OSRO	Oil Spill Response Organization
OSWER	Office of Solid Waste and Emergency Response
OTH	Other
OVA	Organic Vapor Analyzer
OWS	Oil Water Separator
P&CM	Planning & Cost Management

P&CS	Purchasing & Commercial Services
P&ID	Process and Instrumental Drawings
P&M	Prevention & Mitigation
P2	Pollution Prevention
PACM	Presumed Asbestos Contaminated Material
PADEP	Pennsylvania Department of Environmental Protection
PAH	Polycyclic Aromatic Hydrocarbons
PAIC	Previously Approved Informational Copy
PBT	Persistent, Bioaccumulative and Toxics
P-Card	Procurement Card
PCB	Polychlorinated Biphenyl
PCS	Petroleum Contaminate Soil
PCW	Petroleum Contact Water
PD	Performance Development
PDU	Production Distribution Unit
PE	Professional Engineer or Project Engineer
PEL	Permissible Exposure Limit
PEOPLE Projec	Pipeline Excellence Opportunity People Learning
PEP	Project Execution Plan
PG	Performance Grade
PHA	Process Hazard Analysis
PHMSA	Pipeline and Hazardous Materials Safety Administration
PI	Pipeline Integrity or Plant Information
PIC	Potential Impact Circle
PIF	Project Idea Form
PII	Project Improvement Initiative
PIP	Pipeline Integrity Process or Practice in Place
PIR	Potential Impact Radius
PIT	Powered Industrial Truck
PL	Project Leader
PLC	Programmable Logic Controller
PM	Preventative Maintenance or Project Manager or Particulate Matter
PM	Preventive Maintenance or Performance Management
PM or PL	Project manager or Project Leader
PM-10	Particulate Matter with an Aerodynamic Diameter < or= to 10 microns
PM-2.5	Particulate Matter with an Aerodynamic Diameter < or= to 2.5 microns
PMC	Precious Metal Catalyst
PMEP	Project Management Enhancement Project
PMP	Preventative Maintenance Plan
PO	Purchase Order
POS	Point of Service
POTW	Publicly-Owned Treatment Works
PPB	Part per Billion
PPE	Personal Protective Equipment
PPM	Parts per Million
PQ	Product Quality
PQL	Practical Quantitation Levels
PREP	Preparedness for Response Exercise Program
PRP	Potentially Responsible Party
PSA	Pressure Swing Absorption
PSBSC	Project Specific Basic Service Contract
PSD	Prevention of Significant Deterioration
PSIG	Pounds per Square Inch Guage
PSM	Process Safety Management
PTE	Potential to Emit
QA/QC	Quality Assurance/Quality Control
QaPjP	Quality Assurance Project Plan
QI	Qualified Individual
QIP	Quality Improvement Plan
R	Retirement
R&M Accountin	Refining & Marketing Accounting
RA	Regional Administrator
RACT	Reasonably Available Control Technology
RAD	Refining Analytical Development Laboratory

RADA	Refining Analytical & Development
RATA	Relative Accuracy Test
RBOB	Reformulated Blend-Stock for Oxygenated Blending
RC	Responsible Care
RCC	Reduced Crude Conversion
RCMS	Responsible Care Management System
RCP	Regulatory Compliance Partners, Inc. (Contractor)
RCRA	Resource Conservation and Recovery Act (U.S.)
RCV	Remote Controlled Valve
RFG	Reformulated Gasoline
RFI	Request for Information
RfP	Request for Proposal
RfR	Ready for Reuse
RI	Records of Invention
RI/FS	Remedial Investigation/Feasibility Study
RLR	Replace, Lower & Recondition
RM	Reimbursable
RM&T	Risk Management & Trading or Refining, Marketing & Transportation
RMP	Risk Management Professional
RMS	Response Management System
RNA	Remediation by Natural Attenuation
RNROQ	Request for New or Revised Operator Qualification Form
RO	Reverse Osmosis
ROI	Return on Investment
ROST	Rapid Optical Screening Tool
ROW	Right-of-Way
RPL	Rehab Project Leader
RPR	Rupture Pressure Ratio
RQ's	Reportable Quantities
RRAA	Roles, Responsibilities, Authority and Accountability
RRC	Regional Response Center
RRT	Regional Response Team
RSPA	Research and Special Programs Administration
RT	Rescue Team
RTO's	Regenerative Thermal Oxidizers
RTW	Return to Work
RVP	Reid Vapor Pressure
SACM	Suspect Asbestos Containing Material
SAP	Systems, Applications & Products in Data Processing
SARA	Superfund Amendments and Reauthorization Act
SCAT	Single Card Access Technology
SCBA	Self Contained Breathing Apparatus
SCC	Stress Corrosion Cracking or Source Classification Code
SCCDA	Stress Corrosion Cracking Direct Assessment
SCCL	System Corrosion Control Leader
SCFH	Standard Cubic Ft/Hr
SCOT	Shell Claus Off-gas Treating
SD&P	Supply, Distribution & Planning
SDG	Sample Delivery Group
SDWA	Safe Drinking Water Act of 1986
SEC	Security & Exchange Commission
SERC	State Emergency Response Commission
SFM	State Fire Marshall
SI	Surface Impoundment
SIC	Standard Industrial Classification (Codes)
SIHO	Structure Intended for Human Occupancy
SIL	Systems Integrity Leader
SIP	State Implementation Plan
SIR	Statistical Inventory Reconciliation
SMART	Significant, Measurable, Aligned, Realistic and Time bound Goals
SME	Subject Matter Expert
SMT	Spill Management Team
SO2	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry

SOMP	Standard Operating and Maintenance Procedure
SONS	Spill of National Significance
SOP	Standard Operating Procedure
SOW	Scope of Work
SOx	Sulfur Oxides
SPCC	Spill Prevention Control and Countermeasures
SPI	Standard Practice Instructions
SPL	(initials don't stand for anything) P&CS' Purchasing System
SPP	Strategic Project Plan
SPU	Specialty Pretreating Unit
SPWD	South Pass West Delta
SQG	Small Quantity Generator
SRC	Safety Related Condition
SREA	Superfund Recycling Equity Act
SRI	Superfund Redevelopement Initiative
SS	Safety & Security
SSA	Speedway SuperAmerica
SSI	Security Sensitive Information
SSMP	Start-up, Shutdown, and Malfunction Plan
SSP	
STATS	Sales Tax Administration through Statistics
STE	Southern Terminal Engineering
STEP	Safety Takes Everyone's Participation
STP	Success Through People
SVE	Soil Vapor Extraction
SVP	Security Vulnerability Assessment
SWDA	Solid Waste Disposal Act
SWI	Safe Work Instruction
SWMU	Solid Waste Management Unit
SWPPP	Storm Water Pollution Prevention Plan
T&C	Title & Contract
T&L or TNL	Transportation and Logistics
TAA	Terminal Access Agreement
TAB	Total Annual Benzene
TACO	Tiered Approach to Cleanup Options
TAPAA	Trans-Atlaska Pipeline Authorization Act
TASD	Terminal Automation System Direction
TC	Toxicity Characteristics
TC/WAT	Water Accumulation Tank
TCLP	Toxic Characteristic Leaching Procedure
TDC	?Total Dynamic Control? (term used at refinery for computer that watches process)
TDU	Thermal Desorption Unit
TEDI	Toxic Emissions Data Inventory
TEEL	Temporary Emergency Exposure Limit
TM	Terminal Manager
TMDL	Total Maximum Daily Load
TMG	Terminal Manager Guideline
TNRCC	Texas Natural Resource Conservation Commission
TOC	Total Organic Compounds
TOM	Terminal Operations Manual
TPDES	Texas Pollutant Discharge Elimination System
TQ	Threshold Quantity
TRCC	Texas Railroad Commission Regulation
TRD	Texas Refining Division
TRI	Toxic Release Inventory
TSAS	Terminal Security & Automation System
TSCA	Toxic Substances Control Act (U.S.)
TSD	Treatment, Storage, and Disposal
TSDF	Treatment, Storage, and Disposal Facility
TSI	Thermal System Insulation
TSIF	Thermal System Insulation Facility
TSP	Total Suspended Particulate
TSS	Total Suspended Solids
TT&L	Terminal, Transport and Logistics

TT&M	Terminals, Transport & Marine
TVL	Temperature Vapor/Liquid Ratio
TVP	True Vapor Pressure
TWA	Time Weighted Average
UB	Unbudgeted
UHC	Underlying Hazardous Constituent
UIC	Underground Injection Control
UL	Underwriters Laboratories
UPSTREAM	Exploration and Production
URS	URS Consulting
USC	United States Code
USCG	United States Coast Guard
USCOE	U.S. Army Corp. of Engineers
USDA	United States Department of Agriculture
UST	Underground Storage Tank
UTCD / UTWM	Ultrasonic Crack - Axial Flaw & Wall Measurement
UTM	Universal Transverse Mercator Coordinates
UTWM	Ultrasonic Wall Measurement
VAR	Volumetric Additive Reconcilation
VCP	Voluntary Clean-up Program
VCS	Vapor Control System
VCU	Vapor Conbustor Unit/ Vapor Control Unit
VIP	Voluntary Incentive Program or Voluntary Protection Programs
VLN	Vehicle Locator Navigation
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound
VPP	Voluntary Protection Program
VRU	Vapor Recovery Unit or Vacuum Recovery Unit
VTA	Virtual Training Assistant
VTT	Vapor Tightness Test
WAP	Waste Analysis Plan
WBT	Web Based Training
WDNR	Wisconsin Department of Natural Resources
WMP	Waste Management Plan
WMVAP	Waste Management Vendor Approval Program
WMVAT	Waste Management Vendor Assessment Team
WRITF	Waste and Remediation Issues Task Force
WTI	Western Texas Intermediate
WWTP	Wastewater Treatment Plant
WWTU	Wastewater Treatment Unit
Z	Cancelled (N-Vision status)

MARATHON PIPE LINE LLC
DRILL EVALUATION DOCUMENTATION

GENERAL INFORMATION:

Drill Name _____

Response Zone _____ Drill Date & Time _____

Incident Location _____

Type of drill _____

DRILL OBJECTIVES: *(completed by the scenario originator before the exercise)*

1) _____

2) _____

3) _____

4) _____

5) _____

ACCOMPLISHMENT OF OBJECTIVES: *(completed by the Drill Leader after the exercise)*

1) _____

2) _____

3) _____

4) _____

5) _____

EVALUATION OF KEY ASPECTS:

The following eight items are reminders to the Drill Leader as to what important aspects of an exercise should be stressed. Not all aspects will apply to every drill. Comments and areas of improvement pertaining to the items should be specific and action oriented.

1) Drill Preparation

A) Was the drill properly planned to meet the objectives?

B) Did the scenario in any way prohibit the accomplishment of the objectives?

Comments / Areas of Improvement:

2) Emergency Response Plan (ERP)

A) Was the plan useful, or was it a hinderanc

B) Did the team demonstrated Plan understanding?

C) List other reference resources used in the drill and comment on their usefulness.

Comments / Areas of Improvement:

3) Initial Response

A) Was the response effort organized and orderly?

B) Was the response effort timely? List any avoidable delays.

C) Were the internal notifications completed successfully?

D) Were the necessary emergency and regulatory agency notifications successfully identified?

E) Were the contractor notifications completed successfully?

Comments / Areas of Improvement:

4) Deployment Activities

A) Were there any equipment deficiencies?

B) Were there any technique deficiencies?

C) Did the responders act as a team?

D) Did the responders demonstrate adequate deployment strategy and equipment knowledge?

Comments / Areas of Improvement:

5) Organization & Command

A) Was there a clear understanding of who was in charge?

B) Was ther a clear understanding of everyone's authority to make decisions?

C) Was there a clear understanding of everyone's responsibilities?

D) Were backup team members available and/or identified if required?

E) Was there proper teamwork among the command staff?

F) Were there deficiencies in the team structure or implementation of the ICS?

G) Was CERT, TEST, or ARP involvement considered and did they perform adequately?
CERT = Corporate Emergency Respons TEST = Technical Environmental Services Tean ARP = Area Response Planning (Committee)

Comments / Areas of improvment:

6) Planning

A) Were the meetings suitable for the intended purpose?

B) Were the forms suitable for the intended purpose?

C) Were suitable maps and drawings available and properly marked?

D) Were the required resources (equipment, manpower, materials) properly identified?

E) Were the required resources confirmed to be available?

Comments / Areas of Improvement:

7) Support Functions

Were the following support functions adequately provided for?

A) Site Security
B) Purchasing
C) Office Services
D) Public Relations (press releases and media contact)
E) Safety & Environmental
F) Communcications
G) Transportation & Logistics
H) Accounting & Finance
I) Legal
J) Government Affairs
K) Medical

Comments / Areas of Improvement:

8) Overall Performance Dimensions of the Response Team

A) Did the response team demonstrate adequate preparedness?

B) Did the response team demonstrate adequate organizational skills?

C) Was the response team in command of the situation?

D) Did the response team exhibit cooperation among the different sections?

E) Did the response team communicate well among the sections?

Comments / Areas of Improvement:

GENERAL COMMENTS:

Strong Points of Performance:

Areas of Improvement:

Action Recommendations:	Responsibility	Due Date

EVALUATION CERTIFICATION:

Drill Leader _____ Signature _____ Date _____

Qualified Individual _____ Signature _____ Date _____

MARATHON PIPE LINE LLC
DRILL DEPLOYMENT FORM

TYPE OF EQUIPMENT DEPLOYMENT DRILL: (check all that apply)

Drill / Incident Name _____ Date _____

_____ Drill _____ Actual Response

_____ MAPL Equipment Deployment _____ OSRO Equipment Deployment

_____ At MAPL Facility _____ At Third Party Facility

Brief Description of Drill: _____

_____

_____

_____

_____ (add additional sheets if necessary)

DEPLOYMENT LOCATION INFORMATION:

Name _____ Location _____

Description _____

_____

Contact Person _____ Phone # _____

DEPLOYMENT DESCRIPTION: (one form per contractor if applicable)

Contractor Name _____

Address _____

Phone # _____ Fax # _____

Contact Person _____

Manpower Summary

IC _____

Safety _____

Ops. _____

Ops. _____

Ops. _____

Ops. _____

Ops. _____

Ops. _____

Ops. _____

(attach additional sheets if necessary)

Manpower Summary

Other _____

Other _____

Other _____

Other _____

Other _____

Other _____

Other _____

Other _____

Other _____

ATTACHED DOCUMENTATION:

_____ Contractor drill plan / evaluation _____ Contractor inspection / maintenance records

_____ Contractor training records _____ Extra descriptive sheets

DRILL CERTIFICATION: (if witnessed by a MAPL representative)

Wittness Name _____ Signature _____ Date _____

MARATHON PIPE LINE LLC
DRILL DOCUMENTATION SUMMARY

GENERAL INFORMATION:

Exercise Name _____

Response Zone _____ Date of Exercise _____

Incident Location _____

Drill Leader _____ Phone # _____

Office Location _____

Qualified Individual _____ Phone # _____

Office Location _____

Brief Description of Exercise: _____

_____

_____

_____

_____

TYPE OF DRILL / EXERCISE:

(Check all that apply)

_____ Notification Drill

_____ Level I Tabletop

_____ Level II Tabletop

_____ Level III Tabletop

_____ MAPL Equipment Deployment Drill

_____ OSRO Equipment Deployment Drill

_____ Unannounced Exercise

_____ Area Exercise

_____ Triennial Cycle - Element Credits Recieved

_____ Other _____
(actual response, third party drill, etc.)

ATTACHED DOCUMENTATION:

_____ ICS Form(s) _____

_____

_____ Exercise Attendance List

_____ Triennial Element Credit Form

_____ Equipment Deployment Documentation Form

_____ Drill and Exercise Evaluation Form

MARATHON PIPE LINE LLC
NOTIFICATION DRILL RECORD TRANSCRIPTION

GENERAL DRILL INFORMATION

Scenario Title: _____

Drill Leader: _____ Drill Date: _____

Scenario Location: _____

Pipeline System / Line Section: _____

State: _____ County: _____

Scenario Witness: _____ TIme of Drill Initiation: _____

Drill Leader / Call Back Phone Number: _____

NOTIFICATION DRILL OBJECTIVES

_____

_____

_____

_____

_____

_____

PHONE RECORD TRANSCRIPTION

TIME	CONTACTOR	CONTACTEE	COMMENTS

DRILL LEADER REVIEW / COMMENTS / SUGGESTIONS:

Drill Leader Signature: _____ Date: _____

QUALIFIED INDIVIDUAL REVIEW / COMMENTS / SUGGESTIONS:

Qualified Individual Signature: _____ Date: _____

MARATHON ASHLAND PIPE LINE LLC
TRIENNIAL CREDIT DOCUMENTATION

to be completed after each deployment or tabletop exercise)

GENERAL INFORMATION:

Drill Name: _____

Response Zone: _____ Date of Drill: _____

Response Plan Elements - Each element must be drilled within the triennial cycle

(check the elements that were exercised in this drill)

A. Organizational Design:

_____ 1. Notifications

_____ 2. Staff Mobilization

_____ 3. Operate Within ICS Structure

B. Operational Response:

_____ 4. Discharge Control

_____ 5. Assessment of Discharge

_____ 6. Containment of Discharge

_____ 7. Recovery of Spilled Material

_____ 8. Protection of Critical & Sensitive Areas

_____ 9. Disposal of Recovered Product

C. Response Support:

_____ 10. Communications

_____ 11. Transportation

_____ 12. Personnel Support

_____ 13. Equipment Maintenance & Support

_____ 14. Procurement

_____ 15. Documentation

Spill Management Team Tabletop Drills

(one of the annual tabletops in the triennial cycle must cover a worst case discharge)

_____ average most probable discharge (approximately 50 BBL)

_____ worst case discharge

_____ this drill is not a tabletop exercise

Unannounced Exercises

(one of the annual unannounced exercises in the triennial cycle must be an equipment deployment drill)

_____ equipment deployment

_____ tabletop

_____ This drill is not an unannounced exercise

FIGURE 2.15 ESTIMATING HYDROGEN SULFIDE (H_2S) RELEASES FROM SPILLS *(Taken from page 14 of the CERCLA §103 and EPCRA §304 Emergency Release Reporting Section of the Marathon Petroleum Company LLC Policy Manual)*

Considering H_2S concentrations are negligible in sweet materials (crudes, intermediates and products), H_2S release estimates are only necessary for sour materials (approximately 1% sulfur or greater). Obviously, the main material of concern is sour crude; however, sour natural gasoline (production condensate) can have high H_2S concentrations. In general, products and refinery intermediates should not be of concern for H_2S release reporting.

Because H_2S is volatile, measured H_2S concentrations are highly dependent on crude storage, transfer and sampling. Although soluble in crude, H_2S is a volatile compound whose boiling point (-76°F) is between ethane (-128°F) and propane (- 44°F). The evaporation rate greatly depends on the ambient conditions and the concentration of H_2S in the crude oil.

Given that H_2S is both a CERCLA Hazardous Substance and an EPCRA Extremely Hazardous Substance, H_2S releases are subject to reporting requirements under both statues. If the H_2S is indigenous to the material spilled (e.g., sour crude), the CERCLA Petroleum Exclusion would exempt the reporting of such spills to the NRC (see page 7). However, EPCRA release reporting to the affected LEPCs and SERCs is still required for H_2S releases "into the environment" whenever the 100-lb RQ is reached or exceeded in a 24-hour period.

With respect to EPCRA release reporting, note that for spills outside of the facility boundaries or into public access areas, all of the H_2S is considered released "into the environment" regardless of volatilization (see page 11). For spills which do not enter "into the environment" under EPCRA, a conservative estimate is to assume that the entire amount of H_2S contained in the spill will volatilize and enter "into the environment", thus triggering EPCRA release reporting whenever the 100-lb RQ is reached or exceeded in a 24-hour period. This estimation is provided as a guideline not withstanding other spill specific information. When available, MPLLC facilities may use more precise information; however, it is recommended that ambient air monitoring data be used to assess individual exposure as opposed to estimating H_2S release quantities from spills.

In lieu of any other information on the H_2S concentration in the material, a reasonable, conservative assumption is to use 100 ppmw. Based on this concentration and the material's API density, the spill amounts required to reach the H_2S 100-lb RQ are presented in the following table:

Density °API	***Spill Amount, bbls***	***Density °API***	***Spill Amount, bbls***	***Density °API***	***Spill Amount, bbls***
10	2,857	*28*	3,221	*46*	3,584
12	2,898	*30*	3,261	*48*	3,624
14	2,938	*32*	3,301	*50*	3,665
16	2,978	*34*	3,342	*52*	3,705
18	3,019	*36*	3,382	*54*	3,746
20	3,059	*38*	3,423	*56*	3,786
22	3,099	*40*	3,463	*58*	3,826
24	3,140	*42*	3,503	*60*	3,867
26	3,180	*44*	3,544	*62*	3,907

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FORMS (Printable 8.5 x 11)

OVM Badge Sample Form 2-3

AMT Field Data form 4

AMT Monitoring Log (Excel) 5

Exposure Assessment Plan 6-7

Personnel Tracking Table 8

Incident Information Form 9-10

Instrument Calibration Check 11

Marathon Urine Phenol Chart 12

Personal Exposure Monitoring Results 13

Photograph Log 14

Residential Monitoring Form 15

Sampling Pump Pre-Calibration 16

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OVM BADGE SAMPLE FORM

Incident Name:	Sampler Name:	Date:

Environmental Conditions □ Ice □ Rain □ Snow □ Other _____
Temp. _____ °F Wind: Direction _____ MPH _____
Barometric Pressure _____ inches Hg Relative Humidity _____ %

Employee Name Component/Contractor	ID No.	Start	Stop	Badge No.	PPE Worn	Specific Area Worked/Task

(See reverse side)

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OVM BADGE SAMPLE FORM

Incident Name:	Sampler Name:	Date:

Environmental Conditions □ Ice □ Rain □ Snow □ Other _____
Temp. _____ ◦F Wind: Direction _____ MPH _____
Barometric Pressure _____ inches Hg Relative Humidity _____%

Employee Name Component/Contractor	ID No.	Start	Stop	Badge No.	PPE Worn	Specific Area Worked/Task

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Page ____ of ____

AMT FIELD DATA FORM

Incident Name:	Sampler Name:	Date:

Monitoring For:	Equipment Used (Circle Appropriate):			
	UltraRAE	Detector Tubes	Multigas/LEL	Other:

UltraRAE (VOC)	UltraRAE (Benzene)	Multigas/LEL	Other	Detector Tubes
Serial No.	Serial No.	Mfg/Model:	Mfg/Model:	Mfg:
Pre-Cal. Date/Time:	Pre-Cal. Date/Time:	Serial No:	Serial No:	Tube Type:
Post-Cal. Date/ Time:	Post-Cal. Date/Time:	Pre-Cal. Date/Time:	Pre-Cal. Date/Time:	Tube Range:
Calibration Gas Lot:	Calibration Gas Lot:	Post-Cal. Date/Time:	Post-Cal. Date/Time:	
	RAE-SEP Tube Batch#	Calibration Gas Lot:	Calibration Gas Lot:	

Monitoring Results

Location ID	Location Description/GPS Coordinates	Time	VOC (ppm)	Benzene (ppm)	LEL (%)	H_2S (ppm)	Other (List)	Observations/Comments	Sampler's Initials

Page ____ of ____

AMT FIELD DATA FORM

Monitoring Results								
Location ID	Location Description/GPS Coordinates	Time	VOC (ppm)	Benzene (ppm)	LEL (%)	H_2S (ppm)	Other (List)	Observations/Comments

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EXPOSURE ASSESSMENT PLAN

Incident Name:	**Location:**
Date/Time Prepared:	**Prepared by:**

Exposure to:

(Attach related MSDS)

Purpose of Plan:

Personnel Exposure Monitoring

Prioritized Work Task and Location	Planning Cycle *Indicate 8 hrs 12 hrs Other*	No. of Employees On Task	No. of Employees To Monitor	Monitoring Method *(OVM/Sorbent Tube/Other)*

Area/Residential Exposure Monitoring

Location ID #	Location Description (Including background samples)	Monitoring Method Code	Frequency

Exposure Monitoring Method Codes

A – AreaRAE	E – Detector Tube:	I – Other
B – Handheld Multigas	F – OVM	J – Other
C – Handheld PID/VOCs	G – Sorbent tube:	
D – Benzene Specific PID/GC	H – Grab (Summa Can. Or Bag)	

(See reverse side)

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Exposure Assessment Plan, page 2

Resources

Air Monitoring Teams

Name/Organization	Name/Organization	Work hours

Monitoring Equipment

Manufacturer	Model	Cal. Gas Required	Expendables Required

Included Attachments/Appendices

- □ Map(s)
- □ Real-Time Air Monitoring Field Data Form(s)
- □ Marathon Urine Phenol Protocol
- □ Residential Clearance Monitoring Form(s)
- □ Hydrocarbons Exposure Assessment Procedure
- □ Hydrogen Sulfide/Toxic Gases Exposure Procedure
- □ Particulate Exposure Assessment Procedure
- □ Environmental Noise Exposure Assessment Procedure
- □ OVM Protocol
- □ PID Protocol
- □ Summa Canister Protocol
- □ AreaRAE Protocol
- □ Other: _____
- □ Other: _____
- □ Other: _____
- □ Other: _____

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PERSONNEL TRACKING FORM

(Any personnel entering /departing a work area or hot zone shall report to the site supervisor or designated representative).		
NAME & COMPANY	**LOCATION**	**TIME-ENTRY/EXIT**

INCIDENT INFORMATION FORM

Incident Name:	**Location:**
Date/Time Prepared:	**Prepared by:**
Date/Time of Incident:	**Type of Incident:** (spill, gas/vapor release, fire, etc.)

Product(s) of Concern:

(Attach MSDS)

Product Components of Concern	Occupational Exposure Limit	Test Method	Comments/Other
□ Benzene	1 ppm (TWA)	UltraRAE/GC	
□ Hydrocarbons (VOC's)		Multigas/PID	
□ LEL	10%	Multigas	
□ Oxygen	<19.5% or >23.5%	Multigas	
□ Hydrogen Sulfide	10 ppm (TWA)	Chemical sensor / Detector Tube	
□ Hydrogen Fluoride	0.5 ppm (TWA)	Chemical sensor / Detector Tube	
□ Carbon Monoxide	25 ppm (TWA)	Chemical sensor / Detector Tube	
□ Sulfur Dioxide	0.5 ppm (TWA)	Chemical sensor / Detector Tube	
□ Ammonia	25 ppm (TWA)	Detector tube	
Other Contaminants			
□			
□			
□			

CURRENT SITUATION

Incident Status (Source Control & Response:

Environmental Conditions:

□ Ice □ Rain □ Snow □Other_____

Temp. _____° F Wind: Direction _____ MPH _____

Barometric Pressure _____inches Hg Relative Humidity _____%

SAFETY

Employee Impact:

Community Impact:

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Incident Information, Page 2

Initial Air Monitoring Data:

_____% O_2 _____% LEL _____ppm H_2S _____ppm Benzene Other: _____

Personal Protective Equipment Required:

□ Impervious suits _____	□ Respirators _____
□ Gloves _____	□ Eye Protection _____
□ Flame resistant clothing _____	□ Personal flotation _____
□ Hard hats _____	□ Boots _____
□ Hearing Protection _____	□ Other _____

Diagram with impacted areas, landmarks, wind direction, monitoring locations, etc. indicated:

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INSTRUMENT CALIBRATION CHECK

Calibration Results must be in the following range:

LEL: ____% to ____% 0_2: ____% to ____% VOC ____ppm to ____ppm

H_2S: _____ ____ ppm to ____ ppm Other: _____ ____ ppm to ____ ppm

Other: _____ ____ ppm to ____ ppm Other: _____ ____ ppm to ____ ppm

If instruments cannot be calibrated to the above manufacturer's listed ranges, the instrument must be taken out of service and repaired.

Instrument ID	Date	Time	Calibration Results	Calibrated by:	Comments
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm _____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		
			LEL _____% 0_2 _____ % VOC _____ ppm ____ ____ppm H_2S _____ ppm ____ ____ppm		

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MARATHON OIL COMPANY/CONTRACTOR EMPLOYEES
URINE PHENOL RESULTS

Incident Name:	Location:

Collection Date /Time	Accession Number*	Results (mg/l)
OSHA Limit – End of Shift Determination		75 mg/L

*Accession numbers are provided to maintain medical confidentiality. This is the unique number of an individual's laboratory report.

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PERSONAL EXPOSURE MONITORING RESULTS

Incident Name:			Location:				
Date	**Employee Name Component/Contractor**	**ID No.**	**Sample Duration (Minutes)**	**Substance**	**Monitoring Results**	**Exposure Limits**	**Units**

PHOTOGRAPH LOG

Incident Name:	Location:	
Photographer(s):	Date:	Time:

	Sequence or ID# of this photograph:
	Location of the subject within the area:
	General compass direction of the orientation of this photograph:
	General description of this subject:

	Sequence or ID# of this photograph:
	Location of the subject within the area:
	General compass direction of the orientation of this photograph:
	General description of this subject:

	Sequence or ID# of this photograph:
	Location of the subject within the area:
	General compass direction of the orientation of this photograph:
	General description of this subject:

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PERSONAL EXPOSURE MONITORING RESULTS

Incident Name:			Location:				
Date	**Employee Name Component/Contractor**	**ID No.**	**Sample Duration (Minutes)**	**Substance**	**Monitoring Results**	**Exposure Limits**	**Units**

RESIDENTIAL MONITORING FORM

Incident Name:	**Location:**
Date:	**Time:**
Occupant Name:	**Address:**

Survey Team:

MPC/Contractor Representative:

MPC/Contractor Representative:

Diagram	Measurement Location	Substance & Concentration	Units
First Floor	**1.**		
	2.		
	3.		
	4.		
	5.		
Second Floor	**6.**		
	7.		
	8.		
	9.		
Basement	**10.**		
	11		
	12.		
Note: If garage is present, note location at appropriate level and record sample point.	X Measurement location on diagram		

Observations:

Odors: No _____ Yes _____ If yes, describe: _____

Containers of VOC sources: _____

_____

Indication of Smoking in residence: No _____ Yes _____

Comments: _____

_____

Note: Equipment S/N and Calibration information recorded on calibration forms.

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SAMPLING PUMP PRE-CALIBRATION LOG

Incident Name:					Location:			
Equipment ID	**Mfg/Model**	**Serial No.**	**Date**	**Time**	**Flowrate (ml/min or Lpm)**	**Method of Calibration**	**Sampling Media**	**Calibration by**

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION
CRUDE OIL, GAS WELL LIQUIDS, OR ASSOCIATED PRODUCTS LOSS REPORT

Form H-8
(Eff. 6/4/70)

1. Field Name (as per current proration schedule, including reservoir, if applicable)		2. RRC District
3. Company	Check appropriate block(s): ☐ Producer ☐ Transporter ☐ Other _____	4. County
5. Lease Name(s) and RCC Lease Number(s) (if applicable)		
6. Location where Liquid Hydrocarbon (crude oil, gas well liquids, or associated products) Loss occurred (Section, Block, & Survey)		
7. Description of Facility from which Liquid Hydrocarbon Loss Occurred		
8. Name of Landowner where Liquid Hydrocarbon Loss Occurred	9. Type of Liquid Hydrocarbon Loss ☐ Crude Oil ☐ Gas Well Liquid ☐ Other _____	
10. Date Liquid Hydrocarbon Loss Occurred	11. Date Liquid Hydrocarbon Loss Reported to RRC District Office by Telephone or Telegraph	
12. Total Barrels of Liquid Hydrocarbon Lost in Lost in Leak or Spill	13. Total Barrels of Liquid Hydrocarbon Recovered	14. Barrels of Liquid Hydrocarbon Unrecovered (Net Loss)
15. Did Liquid Hydrocarbon Loss Affect Inland or Coastal Water? (If yes, explain.)		
16. Cause of Liquid Hydrocarbon Loss (Explain.) (If additional space is required, attach page(s).)		
17. Remedial Measures Taken and How Successful (Explain.)		
18. Remarks		

I declare under penalties prescribed in Article 6036c, R. C. S., that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Date _____ Signature _____

Company _____ Name of Person (type or Print) _____

Street Address or P.O. Box _____ Title of Person _____

City, State _____ Zip Code _____ Telephone Area Code _____ Number _____

(COMPANY MUST COMPLY WITH THE INSTRUCTIONS ON THE REVERSE SIDE HEREOF.) (OVER)

[redacted]

D

ICS 208 - Site Safety Plan

Incident:	**Prepared by:** **at:**
Period:	**Version Name:**
Revision:	
Applies To Site:	
Products:	(Attach MSDS)

SITE CHARACTERIZATION

Water:
Wave Height: _____ WaveDirection: _____
Current Speed: _____ Current Direction: _____
Land: _____ Use: _____
Weather: _____ Temp: _____
Wind Speed: _____ Wind Direction: _____

Pathways for Dispersion:

Site Hazards

☐ Boat Safety	☐ Fire, explosion, in-situ burning	☐ Pump hose
☐ Chemical hazards	☐ Heat stress	☐ Slips, trips, and falls
☐ Cold Stress	☐ Helicopter operations	☐ Steam and hot water
☐ Confined Spaces	☐ Lifting	☐ Trenching/Excavation
☐ Drum handling	☐ Motor vehicles	☐ UV Radiation
☐ Equipment operations	☐ Noise	☐ Visibility
☐ Electrical operations	☐ Overhead/buried utilities	☐ Weather
☐ Fatigue	☐ Plants/wildlife	☐ Work near water
☐ Other	☐ Other	☐ Other

Air Monitoring

%02: _____ **%LEL:** _____ **ppm Benzene:** _____
ppm H2S: ☐ **Other (Specify):**

CONTROL MEASURES

Engineering Controls

☐ Source of release secured ☐ Valve(s) closed ☐ Energy source locked/tagged out
☐ Site secured ☐ Facility shut down ☐ Other _____

Personal Protective Equipment

☐ Impervious suit ☐ Respirators
☐ Inner gloves ☐ Eye protection
☐ Outer gloves ☐ Personal floatation
☐ Flame resistance clothing ☐ Boots
☐ Hard hats ☐ Other _____

Additional Control Measures

☐ Decontamination ☐ Stations established
☐ Sanitation ☐ Facilities provided - OSHA 29 CFR 1910.120n
☐ Illumination ☐ Facilities provided - OSHA 29 CFR 1910.120m
☐ Medical Surveillance ☐ Provided - OSHA 29 CFR 1910.120fq

ICS 208 - Site Safety Plan

Incident:	Prepared By:	at:
Period:	Version Name:	

WORK PLAN

☐ Booming ☐ Skimming ☐ Vac trucks ☐ Pumping ☐ Excavation
☐ Heavy equipment ☐ Sorbent pads ☐ Patching ☐ Hot work ☐ Appropriate permits used
☐ Other

TRAINING

☐ Verified site workers trained per OSHA 29 CFR 1920.120

ORGANIZATION

Title	Name	Telephone/Radio
Incident Commander:		
Deputy Incident Commander:		
Safety Officer:		
Public Affaire Officer:		
Other:		

EMERGENCY PLAN

☐ Alarm system: _____
☐ Evacuation plan: _____
☐ First aid location _____

Notified

☐ Hospital		Phone:
☐ Ambulance		Phone:
☐ Air ambulance		Phone:
☐ Fire		Phone:
☐ Law enforcement		Phone:
☐ Emergency response/rescue		Phone:

PRE-ENTRY BRIEFING

☐ Initial briefing prepared for each site

INCLUDING ATTACHMENTS/APPENDICES

Attachments

☐ Site Map
☐ Hazardous Substance Information Sheets
☐ Site Hazards
☐ Monitoring Program
☐ Training Program
☐ Confined Space Entry Procedure
☐ Safe Work Practices for Boats
☐ PPE Description
☐ Decontamination
☐ Communication and Organization
☐ Site Emergency Response Plan

Appendices

☐ Site Safety Program Evaluation Checklist
☐ Confined Space Entry Checklist
☐ Heat Stress Consideration
☐ Cold Stress and Hypothermia Consideration
☐ First Aid for Bites, Stings, and Poisonous Plant Contact
☐ Safe Work Practice for Oily Bird Rehabilitation
☐ SIPI Site Pre-Entry Briefing
☐ Personnel Tracking System

COLD STRESS AND HYPOTHERMIA INFORMATION

Frostbite and hypothermia are the two major hazards of working in cold temperatures. A cold environment can reduce the temperature of the body and cause shivering, reduced mental alertness, and sometimes loss of consciousness. However, a healthy worker who is properly protected and takes reasonable precautions can function efficiently and safely in cold environments.

I. FACTORS AFFECTING COLD EXPOSURES.

A. Important factors contributing to cold injury:

- exposure to humidity and high winds,
- contact with moisture or metal,
- inadequate clothing,
- age, and
- general health.

Physical conditions that worsen the effects include:

- fatigue,
- allergies,
- vascular disease,
- smoking
- drinking, and
- certain specific drugs or medicines.

B. If someone becomes fatigued during physical activity, they will be more susceptible to heat loss. As exhaustion approaches, the body's ability to contract the blood vessels diminishes; blood circulation occurs closer to the skin; and rapid loss of heat begins. Sedative drugs and alcohol increase the risk of hypothermia by dilating the blood vessels near the skin which increases heat loss and lowers body temperature.

C. The actual effects of a cold environment on the body also depend upon how well the skin is protected. An insulating barrier affects the rate of heat loss from by radiation, convection, conduction, and evaporation.

D. Environmental factors include wind and humidity, as well as temperature. The faster the air movement, the greater the effects of cold exposure.

II. HYPOTHERMIA. Cold injury can be localized or generalized. Frostbite, frostnip, or chilblain are examples of localized injuries. Hypothermia is a generalized (threatening the whole body) cold injury which can be life threatening.

A. Hypothermia is an abnormally low body temperature caused by exposure to cold in air or in water. Hypothermia results as the body looses heat faster than it can produce it. Air temperatures alone is not enough to judge the cold hazard of a particular environment.

Hypothermia causes often develop in air temperatures between 30 - 50°F. When you figure in such factors as wind chill, the effective temperature can be significantly lower.

B. Pain in the extremities may be the first warning of dangerous exposure to cold. Severe shivering must be taken as a sign of danger requiring removal from the cold exposures.

C. Early warnings of hypothermia are uncontrollable shivering and the sensation of cold; the heartbeat slows and sometimes becomes irregular, the pulse weakens, and the blood pressure changes. Fits of shivering, vague or slurred speech, memory lapses, incoherence, or drowsiness are some symptoms which may occur. Other symptoms which may be seen before unconsciousness are cool skin, slow, irregular breathing, low blood pressure, apparent exhaustion, and inability to get up after a rest.

D. HANDLING COLD STRESS AND HYPOTHERMIA VICTIMS.

1. A worker should go immediately to a warming shelter if any of the following symptoms occur:

   - pain in the extremities (or frostnip),
   - onset of heavy shivering,
   - excessive fatigue,
   - drowsiness, or
   - euphoria.

   A litter should be used if possible for all but the mildest cases.

2. The main objective in handling potential cases of hypothermia is rewarming the body core evenly and without delay. HOWEVER, doing it TOO RAPIDLY can disrupt body functions such as circulation.

   The outer layer of clothing should be removed when entering a warm shelter. The remaining cl

   Alcohol should not be consumed.

3. If medical help is not immediately available:

   Keep the person quiet, but keep them awake, if possible. Avoid unnecessary movement. If it's necessary to move a hypothermia victim, use a litter - the exertion of walking could aggravate circulation problems.

4. In a case of mild hypothermia where the person is conscious, the body may be packed with heat packs or warm towels at the neck, groin, and armpits.

   As the extremities begin to recover warmth give conscious victims sweet, warm drinks. AVOID caffeine or alcoholic drinks. Don't rewarm the core and the extremities at the same time. The sudden return of the cool blood pooled in the extremities to the heart can cause shock.

E. WATER IMMERSION VICTIMS. Flotation is the most important factor in water immersion survival, but may not be available if not provided in advance (see protective clothing notes below).

1. It is especially important to keep your head dry.

2. Avoid thrashing about and assume the HELP position (Heat Escape Lessening Posture) by crossing wrists over chest and drawing knees close to your chest to avoid losing body heat. By using the HELP position, the head, neck, armpit, and groin areas are protected which are all high heat loss areas.

3. If others are in the water with you, huddle together to reduce heat loss, aid in rescue, and boost morale.

F. HYPOTHERMIA SUMMARY:

Symptoms
- Pain in the extremities
- Uncontrollable shivering
- Reduced body core temperature
- Cool skin
- Rigid muscles
- Slowed hear rate
- Weakened pulse
- Low blood pressure
- Slow irregular breathing
- Memory lapses
- Slow slurred speech
- Drowsiness
- Incoherence
- Uncoordination
- Diminished dexterity and judgement

Possible Causes
- Exposure to low air temperatures
- Exposure to high winds
- Water immersion
- Inadequate clothing
- Allergies
- Recent alcohol consumption

- Smoking
- Prescription medications
- Exhaustion
- Dehydration

Treatment

- Remove person from wind, snow, rain
- Minimize use of energy by person
- Keep person awake
- Remove wet clothing
- Get person into dry clothing
- Wrap blanket around the person
- Pack neck, groin, armpits with warm towels
- Don't rewarm extremities and core at the same time
- Give sweet warm drinks to conscious person
- Remove person to medical facility

III. OTHER COLD STRESS INJURIES:

A. FROSTBITE

Symptoms

- Whitened areas on skin
- Burning sensation at first
- Blistering
- Affected part cold, numb, and tingling

Possible Causes

- Exposure to cold
- Age (very young or old)
- Underlying disease

Treatment

- Cover the frozen part
- Provide extra clothing and blankets
- Bring person indoors
- Place the part in warm water or rewarm with warm
- If no water is available, wrap gently in a sheet and blanket or place frostbitten fingers under armpits
- Discontinue warming when the affected part becomes flushed and swollen
- Exercise part after rewarming but do not allow the person to walk after the affected parts thaws
- Give sweet warm fluids to conscious person
- If feet are affected, put on dry socks over footwear
- If cheeks are affected, cover cheeks with warm
- DO NOT rub the part with anything
- DO NOT use heat lamp
- DO NOT use hot water bottles
- DO NOT place part near hot stove

- DO NOT break blisters
- Obtain medical assistance ASAP

B. CHILBLAIN

Symptoms
- Recurrent localized itching, swelling, and painful inflammation of the fingers, toes, or ears
- Severe spasms

Possible Causes
- Inadequate clothing
- Exposure to cold and moisture
- Underlying disease

Treatment
- Remove to warmer area
- Consult physician

C. FROSTNIP

Symptoms
- Skin turns white

Possible Causes
- Exposure to cold

Treatment
- Remove to warmer area
- Refer to treatment for frostbite

D. ACROCYANOSIS

Symptoms
- Hands and feet are cold, blue, and sweaty

Possible Causes
- Exposure to cold
- Inadequate clothing
- Underlying disease

Treatment
- Remove to warmer area
- Loosen tight clothing
- Consult physician

E. TRENCH FOOT

Symptoms
- Edema (swelling) of the foot
- Tingling, itching
- Severe pain
- Blistering

Possible Causes
- Exposure to cold and dampness

Treatment	•	Remove to warmer area
	•	Refer to frostbite treatment
	•	Consult physician

F. RAYNAUD'S DISEASE

Symptoms	•	Fingers turn white and stiff
	•	Intermittent blanching and reddening of the fingers
	•	Affected area tingles and becomes very red or
Possible Causes	•	Exposure to low air temperature and high winds
	•	Inadequate clothing
	•	Underlying disease
Treatment	•	Remove to warmer area
	•	Consult physician

IV. EVALUATING COLD EXPOSURE HAZARDS

A. Common sense will dictate how much clothing to wear and when to get into a warm area in most cases. However, some work environments require more complex evaluation.

B. Evaluation a work environment to determine the degree of cold stress involves measuring air temperature, wind speed, and the amount of energy expended by the worker.

C. Air temperature can be measured by an ordinary bulb thermometer. Wind speed can be measured in a variety of ways but can also be estimated as follows:

5 mph - light flag moves,
10 mph - light flag fully extended,
15 mph - raises newspaper sheet,
20 mph - blowing and drifting snow.

D. Table 2 in the Cold Stress section of the latest edition of the American Conference of Governmental Industrial Hygienists (ACGIH). TLV booklet estimates effective temperature using actual temperature and wind speed. This booklet also provides additional guidelines for controlling cold exposure hazards.

V. PREVENTING COLD STRESS

A. REDUCE MANUAL WORK LOAD. When cold stress is a concern, personnel exposures should be reduced by eliminating manual operations as much as possible. Power tools, hoists, cranes, or lifting aids should be used to reduce the metabolic work load and to reduce the duration of human exposure. Fatigue is also a compounding stress factor.

B. DEHYDRATION. Working in cold areas causes high water losses through the skin and lungs, because of the dryness of the air. Increased fluid intake is essential to prevent dehydration. Warm, sweet, caffeine-free, non-alcoholic drinks and soups should be available a the work site for fluid replacement and caloric energy.

C. WARM LOCATIONS FOR BREAKS. For outdoor work such as beach cleaning, where it will be difficult to warm the work area, it is particularly important to provide frequent breaks in a warm location. These locations should also be stocked with warm fluids to help warming and prevent dehydration. Workers should be encouraged to take frequent breaks in warm shelters at temperatures below 20°F. A work-rest schedule should be implemented using Table 3 in the Cold Stress section of the latest edition of the ACGIH TLV booklet for guidance.

D. INDOOR/OUTDOOR WIND BREAKS & SHELTER. The work area should be shielded if the air velocity at the job site is increased by wind, drafts, or ventilating equipment. For example, bird/mammal rehabilitation may be conducted in large warehouse type buildings where heating may be difficult. Wet work stations (such as washing or drying stations) should be enclosed by barriers to reduce drafts.

E. SCHEDULING AND TASK MANAGEMENT. Schedule the coldest work for the warmest part of the day. Move work to warmer areas whenever possible. Assign extra workers to highly demanding tasks. Make relief workers available for workers who need a break.

The BUDDY SYSTEM is required for all waste site operations. This is particularly important when working in stressful environments.

Minimize sitting still or standing around for long periods.

Older workers need to be extra careful in the cold. Additional insulating clothing and reduced exposure time should be considered for these workers.

Sufficient sleep and good nutrition are important for maintaining a high level of tolerance to cold.

F. PROTECTIVE CLOTHING/EQUIPMENT.

1. GENERAL Considerations.

35°F. Workers exposed to air temperatures of 35° or lower who become immersed in water or whose clothing gets wet should be given dry clothing immediately and treated for hypothermia.

30°F. At temperatures below 30°, metal handles of tools should be covered with thermal insulating material. Unprotected metal chair seats should not be used.

-25°F. In addition to the common sense approach of providing adequate warm clothing; continuous exposure of skin should not be permitted when the wind chill factor results in an equivalent temperature of -25°F.

2. INSULATION. It is essential to preserve the air space between the body and the outer layer of clothing to retain body heat. The more air pockets each layer of clothing has, the better the insulation.

   a. Outer layer should be windproof and waterproof. Wool, for example, is a very useful insulator for undergarments but looses much of its insulating value as an outer garment. These outer layers should not prevent sweat evaporation.

   b. Dirty or greasy clothing loses much of it's ingestive value. Air pockets are crushed or filled, and heat can escape more easily.

   c. Denim is not a good protective fabric. It is relatively loosely woven allowing moisture to enter, and this also body heat to escape.

   d. Any interference with the circulation of blood reduces the amount of heat delivered to the extremities. All clothing should be loosely worn and unrestrictive.

3. CHEMICAL PROTECTIVE CLOTHING (CPC) CONSIDERATIONS. While CPC is important for protecting personnel from hazardous exposures, it is important to remember that CPC ensembles have undesirable, as well as desirable impacts on the cold stress on personnel.

   a. UNDESIRABLE EFFECTS. The desired insulating effect of clothing is negated if clothing interferes with the evaporation of sweat from the trunk of the body, or when the skin or clothing is wet. CPC ensembles typically interfere with the evaporation of sweat. Protective clothing (for cold chemical protection) also add to the workload/fatigue of workers. When cold stress is a concern, care should be exercised in selecting ensembles which contribute to cold stress without meaningful chemical exposure protection. This is particularly true for those parts of the ensemble protecting the trunk of the body.

   b. DESIRABLE. Liquids conduct heat better than air and have a greater capacity for heat than air. For example, a spill of cold gasoline on skin can freeze the tissue very quickly. Chemical resistant gloves, such as neoprene with cotton inserts, should be worn to prevent this localized cold stress.

4. PRIORITY CLOTHING. The most important parts of the body to protect are the FEET, HANDS, HEAD, and FACE. Keeping the head covered is important because as much as 40% of body heat can be lost when the head is exposed.

5. ENSEMBLE OPTIONS. The following items should be considered for addition to worker ensembles in cold environments:

___A cotton t-shirt and shorts under two-piece cotton and wool thermal underwear. Two-piece long underwear is preferred because the top can be removed and put back on as needed.

___Socks with high wool content. Use thin inner socks and thick outer socks. If cold, wet feet are a concern the socks should be changed during the mid-shift break.

___Wool or thermal trousers (lap trousers over boot tops to keep out snow or water)

___Felt-lined, rubber-bottomed, leather-topped boots, with a removable insole (for heavy work).

Or, with chemical protective boots, air insole cushions and felt liners (steel toes/shank boots should be avoided unless needed for specific safety concerns).

___Wool shirt or sweater over a cotton shirt.

___Wool knit cap (watch cap),

Or (if hard hats are required) specially made hard hat liners.

___Face mask or scarf (vital when working in cold wind). NOTE: Face protectors must be periodically removed so the worker can be checked for signs of frostbite.

___Double-layered goggles with foam padding around the edges (extremely cold environments).

___Insulated gloves.

60°F, or lower, for sedentary work,
40°F, or lower, for light work, and
20°F, or lower, for moderate work.
0°F, or lower, wool mittens should be used instead of gloves.

6. ENSEMBLES FOR WORK WHEN WATER IMMERSION MAY OCCUR.

a. Flotation (personal or throwable devices) are extremely important to avoid unnecessary swimming which will increase the rate of body heat loss.

b. Air trapped between layers of clothing will provide buoyancy and heat insulation, but Personal Flotation Devices (PFDs) offer the best chance for survival in cold

water. Type III PFDs include float coats and mustang suits which provide flotation and thermal protection.

c. Preposition throwable flotation devices in boats or work areas near water.

7. SELECTION OF MATERIALS:

Material	Advantages	Disadvantages	Wear in
Wood	Stretches without damage. Insulates well when wet.	Heavy weight. Absorbs moisture. Skin irritant.	Layer 1-3
Cotton	Comfortable. Lightweight.	Absorbs moisture.	Layer 1-2
Silk	Lightweight. Durable. Good insulator. Washes well.	Expensive. Does not transfer moisture well.	Layer 1
Nylon	Lightweight. Durable. Wind resistant. Water resistant.	Impervious to perspiration. Flammable.	Layer 3
Down	Lightweight. Durable. Good instructor when dry.	Expensive. Hard to dry. Poor insultator when wet.	Layer 2-3
Polyester	Does not absorb moisture (Insulates even when wet).	Heavier than down. Does not compress as well as down.	Layer 2-3

DECON PROCEDURES AND LAYOUT

EQUIPMENT NEEDED (LEVEL A/B/C/D)

STATION 1: EQUIPMENT DROP/OUTER GLOVE WASH & RINSE:

____ folding table
____ small plastic tub with scrub brush, filled with soapy water (outer glove wash)
____ small plastic tub filled with water (outer glove rinse)
____ chem wipes, spray bottle, paper towels (equipment decon at equipment drop)
____ OTHER: _____
_____

STATION 2: OUTER BOOT WASH/RINSE:

____ 2' x 3' plastic tub, with boot brush assembly and scrub brush, filled with soapy water (outer boot wash)
____ 2' x 3' plastic tub filled with water (outer boot rinse)
____ OTHER: _____
_____

STATION 3: PROTECTIVE SUIT WASH/RINSE:

____ deluge shower with fittings, or
____ outer suit wash:
___ 2'x3' plastic tub partly filled with soapy water
___ bucket with scrub brush, filled with soapy water
___ pressure sprayer filled with soapy water.
____ outer suit rinse:
___ 2' x 3' plastic tub partly filled with water
___ pressure sprayer filled with water
____ OTHER: _____
_____

STATION 4: OUTER BOOT/GLOVE REMOVAL:

____ garbage can
____ OTHER: _____
_____

STATION 5: a: BOTTLE CHANGE/SCBA REMOVAL STATION:

____ stool
____ spare SCBA bottles
____ spare outer gloves & boots/booties

STATION 5: b: GLOVE/BOOT/BOOTIE REMOVAL:

____ garbage can

STATION 6: MASK WASH STATION:

____ folding table
____ two-compartment plastic tub (or two small plastic tubs), one half filled with cleaner/sanitizer solution and scrub brush, and the other half filled with rinse water
____ OTHER: _____
_____

STATION 7: MEDICAL MONITORING STATION/FIRST AID:

____ chair
____ medical monitoring equipment
____ OTHER: _____

_____

DECONTAMINATION OF OIL SPILL PPE

Personnel with contaminated clothing and equipment shall leave the Work Area by following the check marked decon procedures:

____ Wipe off or clean oily equipment and PPE clothing.

_____

_____

____ Inspect PPE clothing for rips or other damage. Inspect the inside of PPE clothing for signs of oil penetration. Discard PPE if it is damage or oil observed on the inside of the PPE.

_____

_____

____ Store oily equipment in contaminated equipment storage.

_____

____ Store oily PPE clothing in labeled lockers.

_____

____ Discard oily articles in appropriate trash bins.

_____

____ Remove, clean, and inspect respirators.

_____

____ Store cleaned respirators in respirator storage.

_____

____ Place cloth coveralls in laundry basket or discard if excessively dirty.

_____

____ Wash face and hands with soap and waters.

_____

____ Check marked equipment that will be used for decontamination areas:

___ Decon shelter

___ Banner tape for setting off "Warm Zone"

___ Placards and markers for setting off "Warm Zone"

___ Saw horses, wood stakes, hammers, and nails

___ Area for new/clean equipment storage

___ Area for new PPE storage

___ Area for clean cloth coverall storage

___ Hangers for oily PPE clothing

___ Lockable storage for street clothing

___ Waterless soap

___ Soapy water for respirators

___ Sterilizing solution for respirators

___ Plain water for respirators

___ Clean plastic bags for respirator storage

___ Towels and/or paper towels

___ Sorbent pads

___ Cleaning rags

___ Lined bins for oily debris

___ Trash cans and trash bags for other debris/garbage

___ _____

___ _____

___ _____

___ _____

___ _____

___ _____

Heat Stress Considerations
(from NIOSH 86-112)

The following heat stress information has been taken primarily from NIOSH Publication 86-112 "Working in Hot Environments".

A. HEAT STRESS CONSIDERATIONS. The Site Safety Officer or Site Safety Supervisor for the entire response should make heat stress determinations throughout the day. If it is determined that a heat stress hazard exists, an alert should be passed to all teams to implement mandatory rest periods. The Site Safety Officer/Supervisor should generally be guided by the American Conference of Governmental Industrial Hygienists (ACGIH) guidelines in determining work/rest periods. Fluids should be available at all times and encourage during mandatory rest periods.

B. Safety Concerns: Certain safety problems are common to hot environments. The frequency of accidents, in general, appears to be higher in hot environments than in more moderate environmental conditions. One reason is that working in a hot environment lowers the mental alertness and physical performance of an individual. Increased body temperatures and physical discomfort promote irritability, anger, and other emotional states which sometimes causes workers to overlook safety procedures or to divert attention from hazardous tasks.

C. Health Concerns: Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders.

C.1. HEAT STROKE.

C.1.a. SIGNS AND SYMPTOMS. Heat stroke is the most serous of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.

(1) A heat stroke victim's skin is hot, usually dry, red or spotted.

(2) Body temperature is usually 105°F or higher, and

(3) the victim is mentally confused, delirious, perhaps in convulsions, or unconscious.

C.1.b. MEDICAL ATTENTION. Unless the heat stroke victim receives quick and appropriate treatment,

DEATH CAN OCCUR.

Any person with signs or symptoms of heat stroke requires immediate hospitalization.

SEND SOMEONE TO GET MEDICAL ASSISTANCE/EMT IMMEDIATELY!!!

While waiting for medical assistance first aid should be immediately administered. This includes:

(1) removing the victim to a cool area,

(2) thoroughly soaking the clothing with water, and

(3) vigorously fanning the body to increase cooling.

C.2. HEAT EXHAUSTION. Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke.

Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt.

C.2.a. SIGNS AND SYMPTOMS. A worker suffering from heat exhaustion:

(1) still sweats; but

(2) experiences extreme weakness or fatigue, giddiness, nausea, or headache.

In more serous cases:

(3) the victim may vomit or lose consciousness;

(4) the skin is clammy and moist,

(5) the complexion is pale or flushed, and

(6) the body temperature is normal or only slightly elevated.

C.2.b. MEDICAL ATTENTION. GENERAL treatment:

(1) notify the site EMT,

(2) have the victim rest in a cool place, and

(3) have the victim drink plenty of liquids.

Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

CAUTION -- PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT WHAT TO DO UNDER THESE CONDITIONS.

Heat Stress Considerations
(from NIOSH 86-112)

C.3. HEAT CRAMPS.

C.3.a. SIGNS AND SYMPTOMS. Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss.

C.3.b. MEDICAL ATTENTION. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth.

CAUTION -- PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT WHAT TO DO UNDER THESE CONDITIONS.

C.4. FAINTING. A worker who is not accustomed to hot environments and who stands erect and immobile in the heat may faint.

C.4.a. SIGNS AND SYMPTOMS. With enlarged blood vessels in the skin and in the lower part of the body due to the body's attempts to control internal temperature, blood may pool there rather than return to the heart to be pumped to the brain.

C.4.b. MEDICAL ATTENTION. Upon lying down, the worker should soon recover. By moving around, and thereby preventing blood from pooling, the patient can prevent further fainting.

C.5. HEAT RASH. Heat rash, also known as prickly heat, is likely to occur in hot, humid environments where heat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time.

C.5.a. SIGNS AND SYMPTOMS. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance.

C.5.b. MEDICAL ATTENTION. Workers can prevent this by resting in a cool place part of each day and by regularly bathing and drying the skin.

C.6. TRANSIENT HEAT FATIGUE. Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance.

D. Preparing For Work In The Heat. One of the best ways to reduce the heat stress of workers is to minimize heat in the workplace. However, at oil spills heat is difficult to control, while working outdoors and exposed to various weather conditions.

Humans are, to a large extent, capable of adjusting to the heat. This adjustment to heat, under normal circumstances, usually takes about 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable.

Workers who return to work after vacation or extended illness may be affected by the heat in the work environment. Whenever such circumstances occur, the worker should be gradually reacclimatize to the hot environment.

E. Mechanization. Heat stress depends, in part, on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. Therefore, one way of reducing the potential for heat stress is to make the job easier or lessen its duration by providing adequate rest time. Mechanization of work procedures can often make it possible to isolate workers from the heat source and increase overall productivity by decreasing the time needed for rest.

F. Work/Rest Periods. Rather than be exposed to heat from extended periods of time during the course of a job, workers should, wherever possible, by permitted to distribute the workload evenly over the day and incorporate work-rest cycles or regular (and enforced) breaks. Work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin.

Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. Rest areas should be as close to the work areas as possible, and provide shade. Shorter but frequent work-rest cycles are the greatest benefit to the workers.

G. Drinking Fluids. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of seat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced.

Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A workers, therefore, should not depend on thirst to signal when and how much to drink.

5 to 7 ounces of fluids should be consumed every 15 to 20 minutes to replenish the necessary fluids in the body.

There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones.

Heat acclimatized workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat production is high. If for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food.

Salt tablets **SHOULD NOT** be used.

CAUTION -- PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT WHAT TO DO UNDER THESE CONDITIONS.

H. Protective Clothing and Heat Stress. Clothing inhibits the transfer of heat between the body and the surrounding environment. Therefore, in hot jobs where the air temperature is lower than skin temperature, wearing clothing reduces the body's ability to lose heat into the air. When air temperature is higher than skin temperature, clothing helps to prevent the transfer of heat from the air to the body. The advantage of wearing additional clothes, however, may be nullified if the chemical protective cloths interferes with the evaporation of sweat.

ON-SITE MEDICAL MONITORING (ENTRY TEAM)

Entry team personnel (including all personnel potentially entering controlled areas in LEVEL (A/B/C) are to be monitored for blood pressure and pulse rate.
There are numerous factors which effect allowable ranges so that each individual must be evaluated on a case-by-case basis by the site EMT (or other medical personnel), site safety officer, and site supervisor.
The following TYPICAL values are provided ONLY as one starting guideline:

- Max Blood Pressure: 140 diastolic/100 systolic
- Max Pulse Rate: 100 bpm

NAME: _____

CASE: _____ CASE NO.: _____

DATE: _____ EXPOSURE RISK: HIGH / MED / LOW

PROTECTIVE EQUIPMENT: _____

_____

SUBSTANCE(S) INVOLVED: _____

_____

CONCENTRATION/LENGTH OF EXPOSURE:_____

_____

MEDICAL TESTING: _____

COMMENTS: _____

_____

_____

****

PRE-ENTRY MEDICAL MONITORING:

WEIGHT: _____TEMPERATURE: _____METHOD:_____

PULSE: _____B.P.: SYSTOLIC ____/DIASTOLIC _____ METHOD:

MONITORING CONDUCTED BY: _____

****

SUPERVISOR (RO/RS) VERIFICATION:

NAME: _____

COMMENTS: _____

Site Safety Briefing Documentation Form

INCIDENT: _____

INCIDENT DATE: _____ **BRIEFING TIME:** _____

TOPICS: _____

ATTENDEES:

Name: _____ **Company:** _____ **Employee#:** _____

CONDUCTED BY: _____

SMALL BOAT SAFETY

The following guidelines should be followed when personnel are boarding a vessel:

1. Have hands free to ensure good balance.

2. Become familiar with the layout of the boat.

3. Know where emergency equipment (e.g., fire extinguishers, life jackets, life rings, and life rafts) is stored.

4. Know how to use emergency equipment.

5. Have and wear a U.S. Coast Guard approved personal flotation device.

6. Wear proper clothing.

While onboard a vessel, personnel should:

1. Follow the instructions of the Vessel Captain about their actions on the vessel.

2. Follow the instructions of the supervisor about the performance of their duties in the response effort.

3. Watch out for slippery deck surfaces, especially if they are covered or stained with oil.

4. Use sorbent pads to clean up oil and/or to improve traction along walkways.

5. Use safety lines when working on the deck.

6. Watch out for erratic boat motions in rough water.

7. Avoid taking medicines for seasickness if they make you drowsy.

8. Know their location and surrounding circumstances, and avoid being distracted by the task at hand.

9. Be aware of ropes and lines on deck.

10. Wear gloves when working with ropes or cables to avoid burns and cuts.

11. Wear a life jacket at all times.

12. Keep safety railings and/or chains in place until it is necessary to remove them to work; replace the railings and/or chains as soon as possible.

Personnel should know what to do should they fall overboard into cold water. Their bodies will lose heat many times faster in the water than in the air, especially from the head, neck, armpits, and groin. While they are in the water they should:

1. Orientate themselves to floating hazards around them.

2. Move away from hazards if they are in danger; otherwise stay put until they are rescued.

3. Look for a flotation aid thrown from a vessel.

4. Avoid unnecessary movement of their arms and legs.

5. Float as still as possible, with legs together, elbows close to sides, and arms folded across the front of the life jacket.

6. Try to keep head and neck out of the water.

7. Stay calm.

8. Try to raise an alarm; if the life jacket has a light or whistle, use it.

9. Attempt to swim back to the vessel **only** if it is close at hand.

If personnel observe someone falling overboard, they should:

1. Keep their eyes on the victim.

2. Point to the victim while raising the alarm; notify others by calling "man overboard."

3. Throw a flotation aid to the victim - not at the victim, but near enough so that he/she can easily swim to the device.

If the victim is rational but shivering when he/she is pulled onboard, he/she should put on dry clothes or a blanket, and rest in a warm environment. If the victim is semiconscious or unconscious, personnel should:

1. Check for breathing and heart beat; administer artificial respiration or CPR, if necessary.

2. Move the victim to a warm environment.

3. Remove the victim's clothes, but never massage the skin.

4. Wrap the victim in a blanket to prevent further heat loss.

5. Never attempt aggressive warming.

6. Attempt gentle rewarming by placing a bottle filled with warm water next to the victim's head, neck, armpits, or groin.

MARATHON
_____ INCIDENT

SOLID WASTE MANAGEMENT PLAN

DATE
Valid until _____

SOLID WASTE MANAGEMENT

1) **OILY ABSORBENT BOOMS AND SORBANT MATERIALS -** Oily booms and absorbent materials will be placed in the _____ rolloff boxes staged at various pickup locations. Booms and sorbants should be dewatered prior to placement in boxes. Any material which is leaking free liquid is not permitted in rolloff boxes.

2) **OILY VEGETATION** - Oily vegetation may be placed in _____ rolloff boxes, or staged on visqueen for future disposal. Vegetation which is dripping liquid may not be placed in rolloff boxes. Vegetation staged on visqueen must be covered with visqueen to prevent runoff during rain. Accumulated oil should be removed regularly from vegetation staged on visqueen. Visqueen areas must be diked if necessary to prevent runoff. Work areas and roll-off staging areas must be free of sink holes or other sensitive geologic formations.

3) **CLEAN VEGETATION** - Clean vegetation may be staged in piles for future disposal, after inspection to ensure it has no oily vegetation mixed in. Clean vegetation must not be placed in rolloff boxes.

4) **MISCELLANEOUS OILY MATERIALS -** Miscellaneous oily material, (rainsuits, soil, rocks, gloves, rags, ropes, boots, etc.) may be placed in _____ rolloff boxes. Drums, electrical equipment and other unknown sources of contamination must not be discarded. If any of these types of materials are found, they must be segregated for further waste determination. No materials leaking free liquids may be placed in rolloff boxes.

5) **NON-OILY TRASH** - Non-oily trash (food waste, unoiled PPE, cardboard boxes, etc.) must not be placed in rolloff boxes. It should be disposed of in domestic trash containers.

6) **INSULATION MATERIAL** - All collectable insulation material is to be identified for collection by certified asbestos handlers from _____. The material is to be wetted and double bagged and disposed of properly by _____.

CONTAINMENT MANAGEMENT

1) **ROLLOFF BOXES -** Rolloff boxes will be supplied with liners and covers. Liners must

be kept in place, and boxes covered when not in use to keep out rain. NO FREE LIQUIDS ARE PERMITTED IN ROLLOFF BOXES. LIQUIDS WILL CAUSE BOX PICKUP TO BE REJECTED. Notify the Environmental Unit when a box is full and pickup will be arranged. A new box will be brought to replace the full one unless the Environmental Unit is notified otherwise. Report any problems or requests for additional boxes to the Environmental Unit.

2) **WASTE STAGING AREAS** - Oily vegetation or booms may be staged on visqueen prior to placing in rolloff boxes. Visqueen staging areas must be bermed on all sides to prevent runoff of any liquids. Staged materials must be covered with visqueen to prevent rain accumulation. Staging areas must be inspected regularly and any accumulated free liquid removed. Actions will be taken to minimize soil contamination between the spill area and the roll-off boxes.

SAMPLING

1) Representative samples of the oily debris will be collected by _____ and analyzed for TCLP (haz- non-haz constituents, pests and herbs). Waste may not be disposed until TCLP results are received and reviewed by the Environmental Unit.

_____
Marathon

_____
State Agency

_____
Federal Agency

WASTEPLAN.DOC
WATERPOL/72
2/25/02

TL - Work Permit Process (TNL-SFT-00007-PRS)	
Marathon Petroleum Company LP	
Document Owner: Yeo, Michael	**Effective Date:** <effectiveDate>

TL - Work Permit Process (TNL-SFT-00007-PRS)

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1.0 Overview

Purpose

This document describes the general requirements associated with the Transportation and Logistics (TL) Work Permit process.

Scope

This process applies to all TL employees, contractors and guests at TL owned and operated facilities.
Note: A work permit is not required for operator-performed non-invasive Cold Work within TL. Each organization must define the exceptions and activities that do not require work permits.

2.0 Content

Process Description

A work permit is required for maintenance, repair, or construction activities that occur at or on any TL facility or equipment. This document describes

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the process for Completing a Work Permit, performing a Joint Job Site Visit (JJSV) and Annually Assessing the Work Permit program.

3.0 Work Permit Process

Completing a Joint Job Site Visit (JJSV)

Step	Who	Action	Result
1	Owning Department and Servicing Group Representative	Perform a JJSV: • For any invasive work, or • When requested by either party.	The JJSV is completed and the information required to complete a work permit has been gathered.
Reference: The Joint Job Site Visit Procedure details requirements for Joint Job Site Visits.			

Completing a Work Permit Form

Step	Who	Action	Result
1	Permit Writer and a Servicing Group Representative	Complete the Work Permit	The Work Permit is completed.
2	Permit Writer/ Owning Department and Servicing Group Representative	Closes or cancels a Work Permit	The Work Permit is closed or canceled.
3	Permit Writer	Changes a Work Permit	The Work Permit is changed
Reference: Completing the Work Permit Form Procedure details requirements for completing the Work Permit.			

Completing an Annual Assessment

Step	Who	Action	Result
1	HES personnel and the Owning Department.	Annually study assessment information gathered on the performance	The TL Life Critical Annual Assessments are completed.

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		of Life Critical work tasks	
2	TL Employees and Management	Assess Life Critical tasks.	TL HES Assessment Checklists and AWARE Behavior Based Safety (BBS) observations are completed.
3	ESR/HESS Manager	Analyzes the assessments, identifies trends and communicates action items to Management	Management receives action items.

Consulting

Step	Who	Action	Result
1	Owning Department	• Is available for consultation during work, and • Informs the Servicing Representative(s) of: ○ Changes in conditions or activities that affect the job, or ○ An operating emergency.	Servicing Representative is aware of any changes in the work conditions.

4.0 Management of the Process

Management of the Process

Each Operating Organization establishes an auditing process to annually require HES and Owning Department personnel to audit information

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gathered on the executing of Life Critical jobs. Refer to TNL-SFT-00052-PRS Life Critical Annual Assessment.

5.0 Training and Competencies

Training and Competencies

The individual TL component training organizations are responsible for developing and delivering training associated with this document.

6.0 Definitions

Joint Job Site Visit (JJSV)

A meeting between an representative and at least one Servicing Group or Work Party Representative of all parties working from the permit, at the specific location where the job will be conducted.
Important:

- The meeting discussion addresses the work scope and safety aspects of the permit.
- The Servicing Group/Work Party Representative attending the JJSV must communicate the information covered in the JJSV to all members of their work party.

Owning Department

The term refers to the department that owns and operates process, process-related, and/or utility equipment, machinery, building, and/or systems.
The Owning Department within:

- MPL and TTR usually is the Region (MPL) and District (TTR) Operations, and
- The Marine Organization is Maintenance for the Marine Repair Facility and the Engineer for barges.

Permit Writer

The Owning Department representative or designee identified as responsible for issuing the permit to the Servicing Group Representative leader, such as a Task Supervisor or other person in charge of the work to be performed.
Note: This is typically someone within the Operating Organization.

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ESR/HESS Manager TL Environmental Safety and Risk/Health, Environmental, Safety and Security Manager.

Servicing Group/ Supervisor Representative The individual responsible for supervising the activities of the work party for a specific job or task.

7.0 Associated Information

Forms The following forms and attachments are related to this document.

ID	Title
TNLWORK PERMIT	Work Permit
N/A	TL HES Assessment Checklist

References The following references are related to this document.

Citation	Title
TNL-SFT-00052-PRS	Life Critical Annual Assessment

Related Documents The following documents are related to this document.

Document Number	Title
TNL-SFT-00005-PRS	Confined Space Entry Program
TNL-SFT-00006-PRS	Elevated Work
TNL-SFT-00008-PRS	Hot Work
TNL-SFT-00012-PRS	Energy Isolation
TNL-SFT-00029-POL	Life Critical Policy
TNL-SFT-10007-PRD	Completing the Work Permit Form
TNL-SFT-10019-PRD	Joint Job Site Visit

8.0 Administrative Information

Document Development The following were involved with the development of the document, including Identifying Requirements, Drafting and Validation.

Name	Organization	Role

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E. L. Gray	TL	Document Owner / SME Lead / Trainer
N. M. Schmits	MTE	Writer
J. C. Greenhill	Marine	User
D. Dodge	TTR	User
D. Stahl	MPL	User
B. Knobel	MTE	User
S. M. Burkett	MPL	User
None		Stakeholder - Implementation

Owner Initials

This table verifies that the Team followed the process for developing this document.

Document Owner	Organization and Title	Initials and Date
E. L. Gray	TL ESS HES Professional	On File 01/17/2013

Approver Signature

By signing this section, the Approver verifies that the Document is ready for implementation.

Approver	Organization and Title	Signature and Date
C. S. Willis	TL ESS Manager	On File - 01/18/2013

9.0 Document Management

Variances

Variances to this document can be granted by the TL ESS Manager. These variances have been granted:

Description of Variance	Date Approved	Date Expires
None		

Publishing Information

The following Users will receive notice that this document was published. Add more lines if needed.

User ORG Code(s)	Date Published
10002309	1/21/2013
Contractor Website	

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Records Management

The record retention for this document is Policy, Standard, Procedure or Guideline (ACT+6).
The retention for the T
Permit Type:

- Content Category = Permit - Work Safety Non-Confined Space (7 years) / Content Type = Permit - Work Safety - Non-Confined Space
- Content Category = Permit - Work Safety - Confined Space (ACT+30 years) / Content Type Permit - Confined Space Entry or Hot Work
- Terminals will maintain for the life of the record.
- MPL will be maintained at the Area Office for 2 years plus the current year then sent to Document Service Center (DSC).

Life Critical Assessment form once entered into SafeACT – Paper version maintained no longer then one year.

Review Cycle

The following is needed for Document Control purposes.

Review Cycle	Next Review Date	Custodial Organization
36 months	01/15/2016	TL ESS

The Document Owner has the authority to require a shorter review cycle. If a shorter review cycle is specified, include the reasoning for that decision.

The TL ESS Manager will maintain this document at the frequency specified in the Review Cycle section of this document.

10.0 Summary of Document Changes

This table lists the summary of the latest changes to this document.

Date	Section	Description
10/04/2013	Forms	Added hyperlink for TL HES Assessment Checklist
06/11/2013	All	Updated Format
	7.3	Removed hierarchy and added related documents
01/15/2013	Various	• Completing a Joint Job Site Visit • Added Reference to JJSV procedures. • Completing a Work Permit Form

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		○ Added Reference to Completing the Work Permit Form procedures. ▪ Completing an Annual Assessment – ○ Step 1 ▪ Removed the TL Work Permit Assessment Checklist and added the Life Critical Annual Assessment. ○ Step 2 ▪ Changed Local Operations to TL Employees ▪ Removed Contractor Performance Assessment and added TL HES Assessment Checklist and Behavior Based Safety (BBS). ○ Management of Process – Added TL Life Critical Annual Assessment. ○ Forms – Updated section ○ References – Added Section
09/01/2010	All	First issue

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Marathon Pipe Line LLC	
Waste Management Plan	
Owning Organization: ES&R	**Document No.:** MPL-HES-00382-PRS
Document Owner: E. F. Dauterive, ES&R HES Professional	**Effective Date:** 9/18/2013
Superseded: MPLHES020 Waste Management Plan	

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1.0 Overview

1.1 Purpose

This document establishes guidelines for proper waste management in accordance with applicable regulations.

The Waste Management Plan:

- Verifies continued compliance with environmental regulations, and
- Demonstrates Marathon Pipe Line's (MPL) commitment to the environmental components of Responsible Care®.

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1.2 Scope

This document applies to all facilities and assets owned and/or operated by MPL that generate waste.

1.3 Health, Environmental & Safety

- Appropriate Personal Protective Equipment (PPE) must be used by the following personnel when handling waste to avoid contact:
  - Employees,
  - Inspectors, and/or
  - Contractors.
- Only personnel trained in emergency response should respond if a release of hazardous waste occurs.

2.0 Waste Minimization

2.1 Waste Minimization Commitments

The following describe a general overview of waste minimization commitments.

- Marathon Petroleum Company LLC (MPC) established a commitment to reduce and prevent waste and emissions/releases among all operations.
  Note: Refer to regulation 40 CFR 262.41(a)(6-7).
- MPC Health, Environmental, and Safety (HES) outline requirements for establishing a waste minimization program in accordance with the Pollution Prevention and Waste Minimization Standard.
- MPL is committed to:
  - Minimizing the amount/toxicity of waste generated, and
  - Evaluating viable reuse and recycling options, and
    - Refer to the "PIPELINE to Excellence" commitments.
  - Following all requirements outlined in Responsible Care.

Note: For more details on waste minimization, see MPL's Waste Minimization Plan.

3.0 Waste Vendor Approval

3.1 Waste Vendor Approval

- The Waste Vendor Approval Process is outlined in the Waste Management Vendor Approval Program (WMVAP) Standard.
- Employees of MPC are responsible for using waste vendors who have been approved, including:
  - Waste disposers,
  - Waste transporters, and

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- Recyclers, such as:
  - Scrap salvagers,
  - Used oil recyclers, and
  - Off-spec product recyclers.

3.2 Waste Vendor Requirements

The following describe waste vendor requirements.

- Prior to use waste vendors must also be approved under other programs, such as:
  - Contractor Safety approval process,
    - Waste vendors performing safety- sensitive activities at MPL facilities.
  - Corporate Transporter Vetting Program,
    - Waste vendors providing transportation services that involve Department of Transportation (DOT) hazardous materials including hazardous waste.
      Note: Approved prior to use according to the "Business Partner Pre-Qualification Review Standard".
- A Waste Services Contract, managed by the Procurement Group, is also required.
  Note: Refer to the Contract Management Process (CMP) website or contact an MPL Contract Specialist for more information.

4.0 Waste Container Marking and Labeling

4.1 Marking and Labeling Process

The following describes marking and labeling of waste containers.

- Mark and label all waste containers including drums and roll-off boxes according to the following guidelines:
  - Empty used drums should be labeled as "**Empty Drum**" providing information on what the drum last contained, along with a National Fire Protection Association (NFPA) label as appropriate.

If...	Then...
An empty chemical drum having any residue is to be returned to a vendor,	The drum should still have the original manufacturer's label. **Note:** The drum should have original DOT warning labels if the chemical is a DOT hazardous material.
The original labels are missing or illegible,	• Mark the drum with the DOT shipping name and use the required DOT label. • For non-DOT chemicals, use an "EMPTY DRUM" label noting previous contents.

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	o Place an NFPA label next to it, indicating the hazards of that chemical considering any residue that may remain.
An empty used drum is to be disposed of,	An "**Empty Drum**" label is not required if: • The drum meets "RCRA-Empty" criteria. • The drum is crushed immediately and placed into a roll-off, or • The original manufacturer's label is still in place. **Note:** Landfills are not allowed to accept liquids. Verify there is no leakage caused by crushing of the drum.

o New drums are:
- Stored in an area posted as "New Drum Storage" or similar, or
- Labeled individually with "Empty Drum" labels.
  -Write "New" in the "Drum Last Contained" area of the label with a permanent-type marker, such as a paint pen.
  Note: All drums, including new drums, are stored with labels readily visible.

o Label all waste and recycle containers with the appropriate waste label (and DOT label as applicable for hazardous waste and reclaimable product), such as:
- Non-Hazardous Waste,
- Hazardous Waste,
- Satellite Accumulation,
- Universal Waste,
- Used Oil, or
- Reclaimable Product.

Note: Complete labels with a fine-tipped permanent marker or ball point pen that doesn't smear.

o Place labels on containers prior to or immediately after adding wastes.

If...	Then...
Material is considered "off-spec" (not a waste), **Note:** Material is sent offsite to process/reclaim.	Use a Reclaimable Product label along with the appropriate DOT warning label. **Note:** Place labels on the container <u>just prior to or immediately upon first adding waste</u>.

o A roll-off must be labeled so it can be easily seen by employees and/or contractors.
- The label may be attached to the roll-off, or

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- Placed in a zip-lock baggy and taped to the roll-off for easy removal by the container owner.

o The Operation Information System (OIS) assigns waste container numbers to each waste container entered.
- This container number is written on the container waste label or directly on the drum.

o Roll-offs or other bulk containers not owned by MPL usually have a container marking (number) that can be used for waste tracking.
- This number should be entered in the OIS container entry for cross-reference to the OIS-assigned container number.

o The profile number assigned by the waste disposer should be:
- Marked on the waste container adjacent to the waste or reclaim label, or
- Written on the label itself if there is room to do so.

Note: This aids in correlating the entries on the waste manifest when verifying loads during transport, or when the disposer receives the load.

o DOT warning label(s) are required for certain hazardous wastes and recyclable materials such as off-spec product.
- Place DOT label adjacent to the waste or reclaim label.
- A warning label is required for each hazard class (flammable and corrosive materials would need two warning labels).
- The primary warning label indicates the specific hazard number, such as the number 3 being specific for flammable.

Note: The hazard number for the secondary hazard is NOT included.

o Place drum labels in the upper one-third on the side of the drum with any markings adjacent to the labels.

Note: For examples showing the placement of labels and markings refer to Drum Labeling and Management Poster and Example of Drum Marking and Labeling.

o Leaking or damaged waste containers must be placed into an over-pack (salvage drum) and both containers must be labeled identically. The over-pack must be marked to indicate "Recovery Drum or "Salvage Drum".

Notes:
- For examples of labels, refer to Typical Waste/DOT Labels, which provide the style/order numbers for various labels.
- For ordering labels, refer to Waste Related Labels and Forms.

5.0 Waste Storage and Handling

5.1 Waste Storage Containers

The following describes the handling of waste in storage containers.
- Label all waste storage containers in accordance with Section 4.0 Waste Container Marking and Labeling.

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- Waste containers in poor condition or leaking will:
  - Have contents immediately transferred to a container that is in good condition, or
  - Be placed into a salvage drum or over-pack and labeled identically.
- Containers must be compatible with the waste to be stored to not impair the ability to contain the waste.
  - Avoid mixing incompatible waste unless approved by the Field Environmental Professional (EP), such as:
    - Flammables/oxidizers, and
    - Hazardous waste with non-hazardous.

    Note: Wastes should be containerized based on established waste profiles.
- Seal all waste containers except when:
  - Filling,
  - Sampling, or
  - Emptying.

  Note: When sealed properly, drum lids and bungs are in place and closed tight. Roll-off tarps are deployed and secured to prevent rainwater from entering (40 CFR 265.173).
- Use roll-off containers or other bulk containers for larger quantities of waste (typically > 10 drums) that do not contain liquid, such as:
  - Sandblast media, and
  - Contaminated soil.

If...	Then...
Bulk waste is in liquid or sludge form,	Store in a liquid tight container, such as a vacuum box.
Roll-offs arriving on-site are contaminated or in poor condition such as: • Torn tarp, or • Tie-downs missing,	Roll-off is rejected and returned to the vendor. **Note**: Notify the Field Environmental Professional (EP).
Roll-off or vacuum box is damaged,	• Reject the roll-off, or • Communicate with the driver and the Field EP to verify the responsibilities have been acknowledged and appropriately identified. **Note:** When roll-offs or other containers have been rejected, the Field EP must be notified immediately.

5.2 Designated

The following describe designated waste storage areas.

- Wastes are to be managed in areas clearly designated for waste storage.

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Waste Storage Areas

- Exceptions include:
  - Satellite accumulation containers required to be at or near the point of generation,
  - Roll-off boxes and other bulk containers due to physical constraints, and
  - Covered spoil piles used for temporary storage until they can be loaded into containers.
- Follow the Waste Storage Guidelines which details the management of waste containers at waste storage areas.

5.3 Satellite Accumulation Areas

The following describes satellite accumulation of hazardous wastes.

- There is no regulatory time limit for satellite accumulation.
  Note: MPL's best practice is to ship the waste off within one year.
- A maximum of 55 gallons of waste may be collected at or near the point of generation. You can have multiple wastes, but together they cannot exceed 55 gallons. MPL normally has only one waste stream at a satellite area. If there are other wastes to accumulate, we would set up separate satellite areas.
  Note: There can be more than one accumulation area.
- Satellite areas are kept separate and should be at or near the point of generation. Normally this would be in places such as the:
  - Manifold area (for strainer solids), or
  - Maintenance/mechanics shop (for aerosol cans, rags/wipes).
    Note: Do not place satellite containers in the waste storage area until it has been determined that the container is full and/or no longer needed.
- Satellite container must be under the control of the Operator.
- Date the drum as follows:

When...	Then...
The drum is full or no longer required,	• Enter the date on the Satellite Accumulation label as the "accumulation start date". • Verify that the container is moved to the waste storage area within 3 days of that date. **Notes**: • This date serves as the baseline for disposing within the allowed time frame. o 90 days for Large Quantity Generators (LQG) ,and o 180 days for Small Quantity Generators (SQG).
The drum has been moved to the waste storage area,	To avoid confusion about no longer being a satellite accumulation: • The drum may be re-labeled with a Hazardous Waste Label.

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	• Include the date that the container was moved to the waste storage area.

5.4 Waste Storage Area Inspections

The following describes inspections for waste storage areas.

- A weekly inspection is completed for all hazardous and non-hazardous waste containers by the Area Manager or designee using the Weekly Waste Inspection Form generated from the OIS waste tracking online database.
  Notes:
  - OIS pre-populates the form with containers that have been entered and are still onsite.
  - The form is:
    - Completed and signed by the Area and forwarded to the local Field EP by the 10th of the following month, or
    - Otherwise designated by the Field EP.
- Inspections include:
  - A review of the storage area as well as any universal waste and satellite containers, and
  - Assessments of:
    - The condition of containers,
    - Required marking and labeling,
    - Number and generation date of containers, and
    - Documentation of date, time and signature of the inspector.

  Note: If any deficiencies are found during the inspection, the Field EP should be notified immediately to identify and implement corrective actions. A work order can be generated as needed to correct the problem.

5.5 Hazardous Wastes VOC Monitoring

The following describes the requirements of hazardous wastes containing volatile organic compounds (VOCs).

- Close and seal all waste containers except when adding waste as required by RCRA Subpart CC and MPL requirements.
- Ensure container closure is consistent with container manufacturer's instructions.

Resource Conservation Recovery Act (RCRA)Subpart CC Requirements

- The Environmental Protection Agency (EPA) has specific requirements under Subpart CC for containers of hazardous waste that contain "volatile organic compounds", known as VOC's.
- Subpart CC has two options for determining compliance:
  - Test the waste to determine if the waste contains VOCs > 500ppm and use the appropriate controls, or
    Note: This is specialized sampling testing that MPL would not usually perform.
  - Verify that adequate controls are in place to make sure VOCs are not

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being emitted from the container at >500 ppm.
Note: This is determined as the difference between the maximum VOC reading and background.

Subpart CC Waste Container Control Levels

- There are three levels of control depending on:
  - Container design,
  - Organic content of the waste (light liquid service or not), and
  - Use of the container.

Notes:

- MPL does not conduct stabilization on-site so Level 3 controls would not apply to us.
- Most of our wastes are collected in DOT drums or other DOT containers and/or in not light liquid service and therefore only subject to Level 1 controls.
- Containers larger than 122 gallons of waste with VOCs, which are considered to be in light liquid service, need to meet Level 2 controls.
- See tables below for specific information on control levels.

Level 1 Controls
• Apply to all containers: o < 122gals,or o ≥ 122 gals NOT in light liquid service. • Comply with any one of three design options: o Meet DOT standards for containers, ▪ 49 CFR 173,178,179, and 180, or o Have a cover and closure device that forms a continuous barrier over the container to prevent visible gaps, or o Be an open-top container that has a barrier placed on or over the hazardous waste suppressing organic vapors to avoid exposing hazardous waste into the atmosphere.
Level 2 Controls
• Apply to containers equal to or >122 gals in light liquid service (for example, crude oil and petroleum products). • Comply with any one of three design options: o Meet DOT standards for containers, ▪ 49 CFR 173,178,179, and 180, or o Operate with no detectable emissions as defined in regulation 40 CFR 265.1081, or ▪ The difference between the maximum reading and background must be < 500 ppm when monitoring around the opening with an instrument such as a photo ionization detector. o Test the container for vapor tightness within a 12 month period. ▪ For testing, use Method 27 in Appendix A or regulation 40 CFR Part 60.

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Level 3 Controls
• Apply to containers being used to treat a hazardous waste by stabilization. • Comply with one of two design options: o Container is covered and vented directly through a closed-vent system to a control device, or o Container is open and located inside an enclosure that is exhausted through a closed-vent system to a control device.

Subpart CC Exceptions

- Most MPL facilities are considered Conditionally Exempt Small Quantity Generators (CESQG) or SQGs, in which case, the requirements of Subpart CC do not apply.

If...	Then...
A specific facility meets the LQGs status for waste on-site during a calendar month,	The organic hazardous wastes becomes subject to Subpart CC. **Note**: Refer to Level controls depending on type of container and whether or not waste is in light liquids service.

- Examples of wastes having >500ppm VOC's include:
  - o Cleaning solvents,
  - o Paint/solvent wastes, and
  - o Tank bottoms (if being disposed rather than recycled as off-spec product).

Note: As a safeguard, if any hydrocarbon-contaminated hazardous waste is expected to be generated in quantities requiring other than DOT drums, contact the Field EP prior to waste generation so that the proper waste container is ordered and if a VOC sampling and monitoring plan must be implemented.

VOC Monitoring of Waste for Level 2 Controls

- When performing VOC monitoring of hazardous waste for Level 2 controls:
  - o Take a background reading between three and six feet away from and upwind of the sealed/closed container,
  - o Take VOC readings at the container/cover interface around the entire perimeter of the container,
  - o Monitor the hazardous waste container for VOC's each time waste is added to the container or when the cover has been disturbed for any reason(after properly closing/sealing), and
  - o Record all readings on the Weekly Waste Inspection Form and enter the information in the comments section.

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If...	Then...
The net VOC reading is greater than 500ppmv,	• Contact the Field EP immediately, • Adjust the cover/seal on the container if possible and re-monitor to determine if below 500ppmv.
The net VOC reading is still greater than 500ppmv,	• Obtain a new cover, or transfer the waste to a new container, and • Monitor the new container for an appropriate reading of less than or equal to 500ppmv.

6.0 Manifesting and Transportation

6.1 Waste Manifest and Transport

The following describes the process of documenting and shipping hazardous wastes.

- The disposal facility or the local Field EP provides waste manifests.
- As of September 5, 2006, everyone is required to use the EPA Uniform Hazardous Waste Manifest when shipping hazardous wastes.
  Note: States can no longer require use of their own hazardous waste form. They may, however, still have a separate Non-Hazardous Waste Manifest form.
- For most hazardous waste, a Land Disposal Restriction (LDR) form may also be required and is typically provided by the disposer for completion by the Field EP.
  Note: The LDR form accompanies the hazardous waste manifest.
- The Area Manager or designee verifies the following process for preparing a shipment of waste for transportation to a disposal facility:
  - Reviews shipping papers for accuracy and completeness,
    - Enters :
      - Quantity of waste,
      - Type of container, and
      - Signature/date on the manifest.
  - Verifies that the waste profile number has been pre-printed on the manifest by the disposer,
    Note: The profile number may be hand-written on the waste entry line, in a comment, additional info box, or any place readily visible. It is not required by regulation, but helps in correlating the waste containers with the manifest.

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If...	Then...
A Uniform Hazardous Waste Manifest (UHWM) is used for non-hazardous waste,	• Cross out the word "Hazardous" in the form name at the top. **Note**: Use a non-hazardous manifest whenever possible.
In Illinois,	A UHWM is required for special waste. **Note:** Verify that the Transporter is permitted to haul Special Waste.
In Michigan,	A UHWM is required for all Liquid Industrial Waste (LIW), which is any waste or reclaimable material having free liquids. **Note:** Verify that proper State waste codes are used and that the Transporter is permitted to haul LIW.

- o Arranges for safe loading of all waste drums or other containers,
- o Meets all waste transports to sign the documentation,

  Note: Contractor employees may meet the transport, however hazardous waste manifests must be signed by a Marathon employee, with an exception made for non-hazardous waste shipments where necessary. For hazardous waste manifests, the person signing must be trained and current in both annual RCRA training and triennial hazmat shipping training.
- o Removes the "Generator First Copy" of the manifest and forwards to the local Field EP,

If...	Then...
The MPL facility receives the final signed copy of the hazardous waste manifest from the disposal facility,	The Area Manager forwards the original to the Field EP who verifies it was received within the proper time frame. • 60 days for SQGs, and • 45 days for LQGs.
The timeframe was exceeded,	The Field EP must file an exception report with the state or EPA as applicable.
In Illinois,	The local Field EP sends a copy of the signed hazardous waste manifest to the state within 2 days of shipment if waste was: • Generated within the state, or • Generated out-of-state but sent to an Illinois disposal facility. **Note**: Applies to hazardous waste and Poly Chlorinated Biphenyl (PCB) waste.

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6.2 Manifest Documentation

The following describes documentation needed for waste manifests.

- The Field EP maintains the:
  - Original manifest with all signatures (Generator, Transporter, Disposer) along with any associated paperwork, such as:
    Lan Ban Certification, and
    Sample analysis.
  - Bills of Lading (BOLs) or other documentation used for transporting off-spec product (not a waste) to a reclaim facility.
    Note: Refer to Shipping Hazardous Materials for information regarding BOLs for all other shipments.

7.0 Land Disposal Restrictions

7.1 Land Disposal Restrictions (LDR)

The following describes land disposal restrictions for hazardous waste only.

- Land Disposal Restrictions (LDR) is the evaluation and the identification of wastes being restricted from land disposal.
- As of May 8, 1990, no hazardous wastes are placed in land disposal units without first being treated to meet federally mandated standards.
- Land disposal includes, but is not limited to placement of hazardous wastes in:
  - Landfills,
  - Surface impoundments, or
  - Injection wells.
- Prior to determining if a waste should be "restricted", generator knowledge or a representative sample of the waste is obtained.
- The concentrations of the hazardous waste constituents in the sample are compared with specified concentration levels to determine if treatment is needed for the waste.
- Treatment may not be needed at all. If treatment is needed, one of the following standards must be complied with:
  - Concentration Based Treatment Standard which is treatment of the waste through the use of one or more demonstrated treatment methods reducing or immobilizing the concentration levels below specified limits, or
  - Technology Based Treatment Standard which is using a specified technology that has been demonstrated to effectively treat the waste.

7.2 Generator Requirements

The following describes generator requirements for landfill disposal.

- SQGs and LQGs determine if waste is restricted from landfill disposal.
- To identify waste material that is subject to landfill disposal restriction regulations either through testing or using generator knowledge, adhere to the following:

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- Identify all applicable EPA hazard waste codes,
- Determine the correct treatability group, such as:
  - Wastewater, or
  - Non-wastewater.
- Determine which treatment standards apply,
  - Refer to 40 CFR 268.
- Determine the presence of regulated constituents and their concentrations, and
- Compare treatment standards to constituents and their concentrations in the waste.

- Prior to being transported, LQGs and SQGs are required to complete a Land Disposal Restriction (LDR) notification form if wastes do not meet treatment standards.
- The signed LDR form is submitted to the Treatment Storage & Disposal (TSD) facility either prior to or with the initial hazardous shipment.
  Note: It is recommended that a copy of the LDR accompany each manifest.
- Many TSDs include the initial LDR as part of the profiling process and is therefore "on file" with the TSD of all shipments.
- The LDR indicates the shipment manifest number and is required with the first shipment.

Note: The LDR notification information may need to be changed if the waste changes. Discuss details with your TSD when profiling a new waste or making changes to an existing hazardous waste profile.

7.3 Documentation

A copy of the LDR is kept with the final signed manifest or alternately with the waste profile.
Note: LDRs should be readily available if requested by an agency.

8.0 Waste Profiles

8.1 General Information

The following is a general overview of profiling waste.

- All hazardous waste and most non-hazardous waste is profiled with the Treatment Storage Disposal (TSD) facility.
- Each TSD typically requires the use of their specific profile form.
- The waste profile:
  - Is specific to a particular waste stream,
  - Identifies the physical/chemical make-up of the waste stream, and
  - Provides ranges of constituents that may be present.
- The constituents represent the waste stream and total AT LEAST 100%.
  - The percent of a constituent may vary considerably and is typically represented as a range.

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- Avoid discrepancies on loads arriving at the TSD by using fairly large (but reasonable) ranges.

  Example:

  - "Oily dirt and debris" from a spill may include the following constituents (See table below):

Constituent	Percentage
Fuel oil, gasoline or crude oil	0 - 25%
Soil, rock, concrete	0 - 100%
Spill booms, spill pads, oily rags, clay absorbents	0 - 75%
Oily debris: wood, straw, plastic sheeting, PPE, steel pieces	0 - 75%

  Note: The total in this example is 275%.

- Generic profiles have been set up with Waste Management (WM) for a number of waste streams as shown in Waste Management Generic Profiles for MPL.
- These generic profiles can be used across MPL for disposal at most WM facilities.

Note: When any of these typically non-hazardous wastes should test hazardous, a separate profile is required.

8.2 Profile Documentation

Waste profiles are maintained as follows:

- **Generic wastes** are maintained by the Waste Coordinator in conjunction with the Waste Management Single Point of Contact.
  - For individual waste profiles, the Field EPs will create a separate 3-ring binder or file for wastes in their respective areas.

    Note: Individual waste profiles are maintained and labeled as "Waste Profile Logbook" or similar.
    - Label binder/files according to corporate records retention for generator waste records.
    - Maintain a summary spreadsheet of the profile in front of the log book/file for easy reference.

      Note: Refer to the Waste Profile Summary for an example of the summary spreadsheet.
    - Create files with the file name and the name of the TSD with the same retention. For example, **"Waste Profiles" – "name of TSD"**.

      Note: Create a separate file for each TSD and organize in an orderly fashion with a Waste Profile Summary placed in front of each TSD file.

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9.0 Sampling and Related Documentation

9.1 Sampling

The following describes sampling of wastes.

- Each time waste is generated, it is advisable to sample it for waste characterization purposes to determine if hazardous or non-hazardous.
- Waste characterization testing includes:
  - Ignitability,
  - Reactivity,
  - Corrosivity, and
  - Toxicity.
- This testing is by the Toxicity Characteristics Leaching Procedure (TCLP) Limits and includes metals, volatiles, semi-volatiles, and may include pesticides and herbicides where expected to be present.
- Paint Filter Test is necessary to determine if the waste contains free liquids.
- For non-liquid wastes, the Ignitability and Corrosivity testing is typically not required.
- Historical test data indicates that most of our typical waste streams are not hazardous.
- Distillate-impacted waste may not warrant testing each time the waste is disposed, but is recommended.
- Test all wastes annually unless not generated on a yearly basis.
- Test regularly:
  - Materials contaminated with gasoline and other volatile products having the potential of being hazardous, and
  - Products with benzene as a constituent.
- Sample waste generated from disturbing lead-based paint (such as sandblasting) each time, whether or not Blastox is being used.

9.2 Documentation

The following describes documentation of waste profiles and related information.

- Maintain all waste sample information in a "Sample Log Book" or file created on a yearly basis.
- The Sample Log Form is used for documenting waste sample information.
- The Sample Log Summary Form is used for lab analysis.
  Note: Sample Log Procedures are used as a guide for proper waste documentation.
- Sample laboratory results should be maintained with respective sample logs or otherwise be readily available.

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10.0 Generator Knowledge/ Documentation

10.1 Documentation Guidelines

The following describe proper documentation when using generator knowledge.

- Generator Knowledge should be used on a limited basis in lieu of sampling.
- Documentation is necessary to explain why sampling was not performed as part of the waste characterization.

If...	Then...
Generator Knowledge is being used with no sampling and analysis,	• Documentation is made on the Generator Knowledge form, and • All corresponding information is attached to the form, or the location of information needed is identified on the form, such as: o Material Safety Data Sheet (MSDS) number on MPL TeamView, and o Sample number in the Sample Log Book. **Note:** Attach the Generator Knowledge form along with related data to the final copy of the manifest for recordkeeping.
Partial analyticals are run, and General Knowledge is being used for those analyticals you do not run,	The Generator Knowledge form is: • Attached to the lab report along with any other related information, • Sample number in the Sample Log Book, and • Placed in the Sample Log Book or file.

- Examples of information that may be used for Generator Knowledge as noted by the EPA is as follows:
  - o Facility specific process flow diagrams or narrative descriptions of the process generating the waste.
  - o Chemical makeup of all ingredients or material used in the process that generates the waste.
  - o List of constituents that you know or have reason to believe are byproducts or side reactions to the process that produces the waste.
  - o MSDSs and/or product labels or substances in the process that generate the waste.

    Note: Manufacturers and suppliers are not always required to list all constituents a material may contain. This level of reporting may not be adequate to ascertain the constituent levels in waste to be characterized. Therefore, MSDSs should be viewed as a means of support and not as the primary means of providing generator knowledge.
  - o Data obtained from approved methods of sampling and laboratory analysis

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of waste generated from the same process using the same ingredients/materials.
- o Data obtained from literature regarding waste produced from a similar process using the same ingredients and/or materials.
- o Documentation of product specifications of input materials and output products.

11.0 Sorbents/Wipes, and Containers

11.1 General Information

The following gives a brief overview of sorbents, wipes, and containers for disposal.

- MPL maintenance activities involving the operation of our pipeline assets include:
  - o Repair/Replacement of parts and equipment,
  - o Response to minor leaks and other releases, and
  - o General cleaning/housekeeping.
- Various chemicals may be used for maintenance activities, such as:
  - o Solvents/degreasers,
  - o Lube oils (for various types see definition of "used oil" in Section 20), and
  - o Other lubricants, sealants, and coatings.
- Sorbents/ wipes are used to clean up minor drips and spills and to wipe down equipment during maintenance activities to avoid contamination with the environment.
- Sorbents/wipes are used in small quantities at any particular facility.
- The containers of chemicals we use may contain residues and must also be properly managed.
- The identification of contaminant types and the proper management of these types are very important.
- Sorbents/wipes contaminated with certain chemicals (like certain solvents) may be listed hazardous waste whether or not they test hazardous for characteristics.
- Mixing non-hazardous waste with any listed hazardous waste results in the mixture being hazardous, so we need to determine when it makes sense to mix such waste.
- The proper management of the chemical containers are also required. Factors include:
  - o Containers that are "RCRA Empty" and are not considered hazardous waste.
  - o To avoid mis-management of containers that may not be RCRA-empty, it is advisable to dispose of these containers along with the sorbents/wipes rather than throwing in the general trash.
  - o Containers that are not RCRA-empty must be evaluated as part of the

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profiling process to determine if hazardous or not.
- Containers with an acute hazardous waste are considered hazardous unless cleaned in accordance with regulation (triple rinsed).
  Note: Refer to the EPA Listed Hazardous Wastes (F,P,U) for more information on acute hazardous waste.

- Aerosol containers must be managed separately and NOT mixed with sorbents/wipes and other types of containers.
  Note: These are addressed later in this section.

11.2 Management of Sorbents, Wipes, and Containers

- Depending on the volume of this type waste, it may make sense to segregate these wastes as outlined below. For very small amounts, it would make sense to combine these wastes except for the aerosol containers which must be managed separately.

Crude Oil and/ or Petroleum Fuels

- Sorbents/wipes contaminated with crude oil or petroleum fuels can be managed as non-wastes under RCRA if sent for reclamation to recover the off-spec hydrocarbons.
  Note: There is an exclusion under RCRA for commercial chemical products being reclaimed to use as fuels. Refer to Table 1 at 40 CFR 261.2(c) (2) (ii) for commercial chemical products which are fuels and being burned as fuels.
- When reclaiming these materials:
  - Collect in an approved DOT open-top drum labeled "Materials for Recycle" or "Reclaimable Product".
  - Keep drum closed except when adding sorbents/wipes to the drum.
  - There is no regulatory time limit for storing as long as the drum is in good condition.
    - It is MPL best practice to have all containers removed within one year,
  - When the drum is full or otherwise no longer needed, contact:
    - An approved vendor (such as Aaron Oil Company) for recycling pick-up and/or the Field EP to make the appropriate arrangements.

    Note: Verify that the DOT proper shipping name for the respective type of petroleum product is marked on the container and used for the shipping paper.

Solvents/wipes with Solvents, Used Oil and Other Chemicals

- MPL strives to eliminate the use of solvents or other chemicals which could result in the generation of listed F, P, and U wastes, however certain solvents and degreasers are still being used which result in some of this waste being listed as hazardous waste, such as:
  - Toluene,
  - Xylene, as well as
  - Certain electrical contact cleaners.

  Note: Refer to EPA Listed Hazardous Wastes (F,P,U).
- Used oils, or sorbents/wipes with used oil only, would not typically be

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hazardous waste. However, when these same sorbents/wipes also contain any of the listed wastes or other chemical contamination that would fail any of the RCRA characteristics, then it would be hazardous as well.

- Other solvents and various chemicals used for maintenance purposes are not listed as hazardous wastes. Sorbents contaminated with these chemicals or containers with residual of any of these chemicals must be evaluated to determine if they would cause the waste to be either listed or characteristic waste.
- The Field EP must evaluate what type contaminants are likely to be present in the waste based on chemicals being used at a particular facility. This will determine if the waste must carry any EPA listed waste codes. The waste must also be tested to determine if any EPA characteristic codes apply (i.e., D001 if any flammable liquids are present).
- The Area must manage this waste as follows:
  - Collect in an approved DOT open-top drum and manage as satellite accumulation; otherwise, handle as hazardous waste subject to standard generator storage requirements.
    Note: Refer to Section 5.3 Satellite Accumulation Areas.
  - Keep drum closed except when adding sorbents/wipes to the drum.
  - Maintain the drum in good condition at or near the point of generation.
  - Store under the Satellite Accumulation provision.
  - Contact the Field EP when drum is ready for disposal and move to designated waste storage area within 3 days.
    Note: The Field EP arranges for disposal and transportation, and verifies that waste is registered and profiled properly.

Aerosol Cans

- As previously mentioned, aerosol containers must be managed separately due to issues with how the disposer needs to manage. **Store aerosol cans in a separate satellite drum.** Do not place aerosol cans in satellite drums with "sorbent/wipes and other containers".
- Aerosol cans should not be punctured unless approved equipment (such as the AeroSolv system) is used. Use of such equipment must be approved by ES&R.
- Due to the propellants used in aerosol containers, the waste would carry a D003 Reactive waste code. Typically at least some aerosol products being used also contain flammable liquids, in which case the waste would also carry a D001 Ignitable waste code. The types of aerosol products being used must be evaluated by the Field EP to determine what other EPA codes may apply

12.0 Universal Waste

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12.1 General Information

The following gives a brief overview of universal waste.

- The universal waste rule allows relaxed regulation of certain widely-generated wastes which would normally need to be managed as hazardous waste.
- The EPA classifies the following as universal waste:
  - Batteries,
    - Lead-acid,
    - Ni-cad, and
    - Lithium.

    Note: Other batteries, such as alkaline batteries can also be managed as universal wastes.
  - Lamps,
    - Fluorescent,
    - Mercury vapor,
    - High intensity discharge,
    - Neon,
    - High pressure sodium, and
    - Metal halide.
  - Mercury-containing equipment/devices, and
  - Pesticides.

  Notes:
- The following additional wastes have been added as state- only universal waste in states where MPL operations occur:
  - Antifreeze – Louisiana,
  - Paint – Texas, and
  - Cathode Ray Tubes (CRTs) – Michigan.
- Comply with the UW requirements of the generation state and the destination state, as well as the requirements of each state through which the UW is transported when transporting UW from one state to another.
- Recycling of universal wastes is not required by the EPA, but some states do have a recycling only restriction.

  Note: Recycling is always recommended.

12.2 Storage and Handling Requirements

The following describes storage and handling requirements for universal wastes.

- Store in structurally sound containers compatible with the waste stored.
- Do not mix different types of universal waste.
- Provide containers with adequate containment in the event of a release and keep closed except when adding waste.
- Store universal waste in a secure area protected from the weather and accidental damage.

  Note: This could be in the designated waste storage area if sheltered or another secured area which should be posted for universal waste.

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- Mark the container or label with the date that waste was first placed into it.
- Accumulate waste lamps in the original box if there are no other holes and the box is structurally sound.
  Note: Boxes can be obtained from waste disposers and is usually done via a "mail back" program such as Waste Management's LampTracker program.
- Collect waste batteries in one gallon plastic pails.
  Note: Plastic pails may be purchased through the mail back program.
- Conduct weekly waste inspections as with other wastes.

12.3 Labeling

The following describes labeling of universal waste.

- **Batteries**:
  - "Universal Waste – Batteries", or
  - "Waste Batteries", or
  - "Used Batteries".

  Note: For mixtures of dry cell batteries (alkaline, NiCd), add the words "dry mixed".
- **Lamps**:
  - "Universal Waste – Lamp(s)", or
  - "Waste Lamp(s)", or
  - "Used Lamps(s)".
- **Containing Devices**:
  - "Universal Waste – Mercury Containing Equipment", or
  - "Waste Mercury Thermostat(s)", or
  - "Used Mercury Thermostat(s).
  - "Universal Wastes – Pesticide(s)", or
  - "Waste Pesticide(s).

Note: Contact your Environmental Professional on how to label the container(s) if additional assistance is needed.

12.4 Accumulation "Holding - Time" Limits

The following describes holding time limits for universal wastes.

- Universal waste can only be accumulated for up to one year and then must be shipped off-site.
- The time clock starts when waste is first put into the container, not when it is full.
- Mark the container or label with the date waste is first put into the container.

Note: Refer to regulation 40 CFR 273.15. 273.35.

12.5 Universal

The following describes universal waste shipments.

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Waste Shipment

- Only ship universal waste to an approved universal waste handler or recycle/disposal facility.
  - o Self-transporting of universal waste off-site subjects the handler to transporter requirements and is discouraged.
    Note: Contact the Field EP for further guidance if this is necessary.
- Arrangements must be made with the recycle/disposal facility prior to any shipment and is normally done through the mail back program.
- When the container is full or ready for disposal, use the return shipping supplied if using the mail back program or contact the local Field EP for assistance.

If...	Then...
universal waste being shipped off-site is classified as DOT hazardous material, **Note:** Refer to regulation 49 CFR parts 171 through 180.	• Make sure the waste is properly: o Packaged, o Marked, and o Labeled for shipment. • Shipping paper is prepared in accordance with DOT requirements.
A universal waste generated in one state is transported through a state that does not recognize the waste as universal waste,	The EPA Uniform Hazardous Waste Manifest must be used.

12.6 Mercury Spills

Refer to Mercury Release Guidance for information on how to respond to a release of mercury from lamps and mercury containing devices.

13.0 Used Oil

13.1 General Information

The following gives a brief overview of used oil.

- Used oil (to be recycled) is covered under a separate set of regulations from the RCRA regulations for hazardous waste.
- The EPA established reduced requirements for these wastes under 40 CFR part 279 to encourage proper recycling.
  Note: RCRA regulations do not apply when Part 279 requirements are met. However, the generator is not obligated to comply with Part 279 and can instead follow RCRA requirements.

13.2 Business Types

The following terms are used within Part 279 for entities that handle used oil.

Generators

- Generators are the largest segment of the used oil industry and are typical to

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various commercial and industrial operations as well as maintenance of vehicles and equipment.

- Examples of Generators include:
  - Car repair shops,
  - Service stations,
  - Quick lube shops,
  - Government motor pools,
  - Grocery stores,
  - Metal working industries,
  - Boat marinas, and
  - Other industrial/commercial businesses falling under MPL

  Notes: Farmers producing less than 25 gallons per month on average and individuals generating used oil through the maintenance of personal vehicles and equipment are not subject to regulation under used oil management standards.

Transporters

- These are companies that pick up used oil from all sources and delivers to:
  - Re-refiners,
  - Processors, or
  - Burners.
- Transfer facilities include any structure or area where used oil is held for longer than 24 hours, but no longer than 35 days.
- Transfer facilities include:
  - Loading docks, and
  - Parking areas.

Re-refiners and Processors

- These are facilities that blend or remove impurities from used oil to be burned for energy recovery or reuse.
- Includes facilities that process used oil to be reused in new products such as lubricants.

  Note: EPA's management standards mainly focus on this group of used oil handlers.

Burners

- This category includes entities that burn used oil for energy recovery in:
  - Boilers,
  - Industrial furnaces, or
  - **Hazardous waste incinerators.**

  Note: An example would be a cement kiln.

Marketers

- These are handlers who:
  - Direct shipments of used oil to be burned as fuel in regulated devices, or
  - Claim that certain EPA specifications are met for used oil to be burned for energy recovery in devices that are not regulated.

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13.3 Generator Requirements

The following describes generator requirements for used oil that would apply to MPL.

- Generators managing used oil do not require an EPA ID number
- Store used oil in containers labeled "Used Oil".
- Maintain containers that are in good condition with no leaks.
- Comply with SPCC regulations where applicable if containers are ≥ 55 gallons.
- Offer used oil to Marketers or Burners who have:
  - Notified the agency of being able to manage off-specification oil, and
  - An EPA ID number.
- Only offer to Transporters who have an EPA ID number when hauling off-site.
- Respond to releases by:
  - Stopping the release,
  - Containing the released oil, and
  - Properly cleaning up/managing the released used oil and other materials.
- Generators managing used oil do not require an EPA ID number.
- Generators are allowed under the RCRA to burn oil generated on-site in their own oil-fired space heaters without registering as a Burner. No off-specification oil from off-site is allowed. However, certain state air requirements may apply.

Note: MPL does not burn used oil at our facilities.

13.4 Self-Transportation to Approved Collection Centers

The following describes the transportation of small amounts of used oil to approved collection centers.

- Generators may transport used oil without an EPA Generator ID Number to a collection center that is:
  - Produced at the generator's site, and
  - Collected from household do-it-yourselfers.
- The used oil is transported in a vehicle owned by the generator or by an employee of the generator.
- The generator transports no more than 55 gallons of used oil.
- The collection center is:
  - Registered,
  - Licensed,
  - Permitted, or
  - Recognized by a state/county/municipal government to manage used oil.

13.5 Self-

The following describes the transportation of specified amounts of used oil to aggregation points owned by the Generator (from one MPL site to another).

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Transportation to Aggregation Points (Generator Owned)

- The used oil is transported in a vehicle owned by the generator or by an employee of the generator,
- Transports no more than 55 gallons of used oil, and
- The generator transports the used oil to an aggregation point that is owned and/or operated by the same generator.

  Note: An aggregation point is simply a site or facility owned by the generator (such as MPL) that accepts, aggregates and/or stores used oil collected from other used oil generating sites owned or operated by the generator.

13.6 Used Oil Mixed In Crude Oil Pipelines

The following describe the mixing of used oil into crude oil pipelines.

- Used oil mixed with crude oil or natural gas liquids to be integrated into crude oil pipelines is exempt from used oil requirements under Part 279.
- Used oil is subject to Part 279 regulation **prior to mixing** with crude oil or natural gas liquids.
  - This means that we must still comply with the labeling, storage and self-transportation requirements outlined here until the used oil is inserted into the crude system.

13.7 Used Oil Containing PCBs

The following describes used oil containing PCBs.

- Used oil containing PCBs at any concentration less than 50ppm is subject to these used oil regulations.
- Used oil containing PCBs at concentrations of 50ppm or greater is subject to the PCB regulations at 40 CFR Part 761 and is not subject to RCRA hazardous waste regulation.
  - A PCB label is required on the container.
  - The used oil must be disposed by an approved method such as incineration.
  - PCB waste is typically regulated by states as "special waste" and disposal facilities must be permitted to accept. Transporters also typically require special permitting.

13.8 Used Oil Sampling

The following describes sampling of used oils.

- Generators are not required to sample used oil.
- Transporters determine if the total halogen content is above or below the 1,000 ppm to make sure that the used oil is not a hazardous waste under the rebuttable presumption of 40 CFR 279.10(b)(1)(ii).
- Transporters may request the following information from the Generator concerning:
  - Whether used oil is in compliance with rebuttable presumption, and
  - Whether used oil is classified as on-specification or off-specification.

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Note: See Section 13.11 Used Oil Sampling Specifications.

- MPL does not currently burn used oil on-site any facilities. However, if an MPL facility burns used oil on-site in a used oil burner, a sample of the oil needs to be tested twice a year to determine if on-specification or off-specification.

Note: On-site burning should be limited to on-specification used oil. Contact your local Field EP when planning to burn used oil on-site.

13.9 Rebuttable Presumption for Used Oil

The following describes rebuttable presumption for used oil.

- Used oils containing more than 1000ppm total halogen is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 40 CFR 261 Subpart D.
- The rebuttable presumption is an argument against used oil containing hazardous waste.
  - This can be shown by demonstrating that the used oil does not contain significant concentrations of halogenated constituents listed in Appendix VIII of 40 CFR Part 261,
- The rebuttable presumption does not apply to:
  - Used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are going to be reclaimed.
- The rebuttable presumption does apply to:
  - Used oils contaminated with CFCs mixed with used oil from sources other than refrigeration units.
- For total Halogen exceeding 1000ppm, use either of the following for documenting that used oil is not hazardous due to halogens (when applicable):
  - Re-sample used oil (consider alternative analytical method), or
  - Apply generator knowledge of the halogen content found in the process generating the used oil.

13.10 Burning in Space Heaters

The following describes burning used oil in space heaters.

- Generators may burn used oil in on-site used oil-fired space heaters provided that:
  - The heater burns only used oil that the owner/operator generates or receives from household do-it-yourself used oil generators,
  - The heater has maximum capacity of not more than 0.5 million Btu per hour,
  - The combustion gases from the heater are vented to the ambient air, and
  - The used oil does not need to meet on-specification limits if all of the above criteria are met.

  Note: See Section 13.11 Used Oil Sampling Specifications.

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13.11 Used Oil Sampling Specifications

The following describes "on-specification" limits.

- Used oil exceeding any of the following limits is considered "off-specification" and subject to additional requirements.

Constituent / Property	Allowable Level
Arsenic	5ppm maximum
Cadmium	2ppm maximum
Chromium	10ppm maximum
Lead	100ppm maximum
Flash Point	100 ° F minimum
Total Halogens	4,000ppm maximum (*)

13.12 Management of Used Oil Filters

The following describes management of used oil filters.

- Used oil filters must follow either of the draining procedures below or else must be tested to determine if hazardous or non-hazardous:
  - Hot drain the filter, or
  - Cold drain the filter.

Hot drain the filter

- Requires draining a filter that is at or near operating temperature for a minimum of 12 hours.
  - Any drained liquids are handled in accordance with requirements for used oil.
- Once properly drained, filters can be sent to a scrap metal recycler or thrown in the general trash.

Cold drain the filter

- Requires draining the filter for a minimum of 24 hours.
- Crush the filter if possible or punch a hole in the dome end for draining.
- Once properly drained, filters can be sent to a scrap metal recycler or thrown in the general trash.

Note: There should be no free oil from the filters.

14.0 Waste Contingency Plan

14.1 RCRA Requirements

- The following describes the process in which MPL complies with RCRA Hazardous Waste Contingency Plan requirements should we reach LQG status at any given time.
- The table below provides a cross-reference to where the required

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information is maintained by MPL.

MPL RCRA Contingency Plan

40 CFR 262-272 RCRA Hazardous Waste Regulations

40 CFR	Brief Description	Location in Facility Plan
General Facility Standards		
265.16	Personnel Training	• *ERP – Section 9 • Waste Management Plan – MPL-HES-00382-PRS • Training- Section 11
Subpart C Preparedness and Prevention		
265.31	Maintenance and Operation of the Facility	Online Operations & Maintenance Manual
265.32	Required Equipment: • Communications • Fire Extinguishers • Water hose/foam reducing equipment	• App. A – ERP • Emergency Action Plan- Section 4 • Inspection Form
265.33	Testing and Maintenance of Equipment	AIM – Work Order Process
265.34	Access to Communications or Alarm Systems	• ERP – Section 7 • Emergency Action Plan
265.36	Arrangements with Local Authorities	Right of Way (ROW) Manual – Public Awareness Letter
Subpart D Contingency Plan and Emergency Procedures		
265.51	Purpose and Implementation of Contingency Plan	ERP
265.52	Contents of Contingency Plan	ERP Index
265.53	Copies of Contingency Plan	ERP – Sections 1.3, 1.4
265.54	Amendment of Contingency Plan	ERP – Section 1.4
265.55	Emergency Coordinator	Emergency Action Plan (EAP)
265.56	Emergency Procedures	EAP, ERP, MPL-HES-00382-PRS (Waste Management Plan)

***Note:** Some facilities also have Facility Response Plans (FRP) in addition to the MPL ERP. The FRP has specific info related to SPCC Plans which are required for certain facilities known as "substantial harm" facilities.

15.0 Waste Tracking

15.1 Waste

• In 2013, MPL migrated from the Waste Summary Spreadsheet to the

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Tracking

Operation Information System (OIS) online waste tracking system.

- Weekly waste inspection logs are generated from OIS pre-populating the facility name and all containers currently on-site.
  Note: The Weekly Waste Inspection Log (Excel form) was replaced by OIS.
- The form is printed from OIS to:
  - Perform/document the inspection,
  - Apply the date,
  - Receive signature from the designated Area personnel, and
  - Send to the respective Field EP.

16.0 Waste Sampling Plan

16.1 Waste Sampling Plan

- The following is outlined in the Waste Management Sampling Plan:
  - Overview,
  - Sampling Protocol,
  - Sampling Introduction,
  - Petroleum Contaminated Spoil Piles,
  - Delineating Contamination un Undisturbed Soil,
  - Clean-up Confirmation in an Excavation,
  - Waste in a Roll-off Box,
  - Water Sampling,
  - Sample Preparation Procedures, and
  - Decontamination Procedures.

Notes:

- Refer to the Waste Management Sampling Plan for more details.
- A Waste Sampling PowerPoint Program was rolled out to the Field EPs in 2013 and is used to train selected field personnel who may assist with sampling.

17.0 Roles and Responsibilities

17.1 Roles and Responsibilities

The following describe the roles and responsibilities for the Waste Management Plan.

Who	What
Area Manager Project Manager/Leader	• Notifies the Field EP with the following information prior to waste being generated:

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	○ A detailed description of the waste expected such as: ▪ Waste types, ▪ Generation source, and ▪ Estimated amount. ○ Site location and address. ○ The cost center or the Authorization for Expenditure (AFE) number if the waste generated is associated with a project. • Makes sure all employees, inspectors, and/or contractors are familiar with the waste guidelines found in this document. • Notifies the Field EP immediately if a safety or an environmental concern arises from handling any waste material. • Follows the manifesting process referenced in Section 6.0 Manifesting and Transportation once Field EP has arranged for waste pick-up.
Area Manager	• Verifies: ○ All waste containers are entered into the OIS System, and ○ All weekly waste inspections are complete and documented.
Field Environmental Professional (EP)	• Provides cost estimate information to the Area or Project Manager regarding the following: ○ Storage container rental, ○ Transportation, and ○ Waste disposal. • Schedules delivery or pickup of waste containers or coordinates with Area/Project Manager. **Note**: The Area/Project Manager may schedule if agreed upon by Field EP. • Provides as needed: ○ Waste container marking and labeling information, and ○ Orders sampling kits. • Verifies that the site has a Generator ID number if/when hazardous waste is generated and that waste registration is maintained. **Note**: Some states require registration of non-hazardous and/or hazardous wastes. • Conducts or coordinates the sampling of waste containers as necessary. • Characterizes the waste as hazardous or non-

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E

ICS 201-1: Incident Briefing Map/Sketch

Incident:	Prepared By: at
Period: to	Version Name:

Current Situation:

(click in the box to select an image file)

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ICS 201-2: Summary of Current Actions

Incident:	Prepared By: at
Period: to	Version Name:

Incident Information

Incident Objectives

Objective

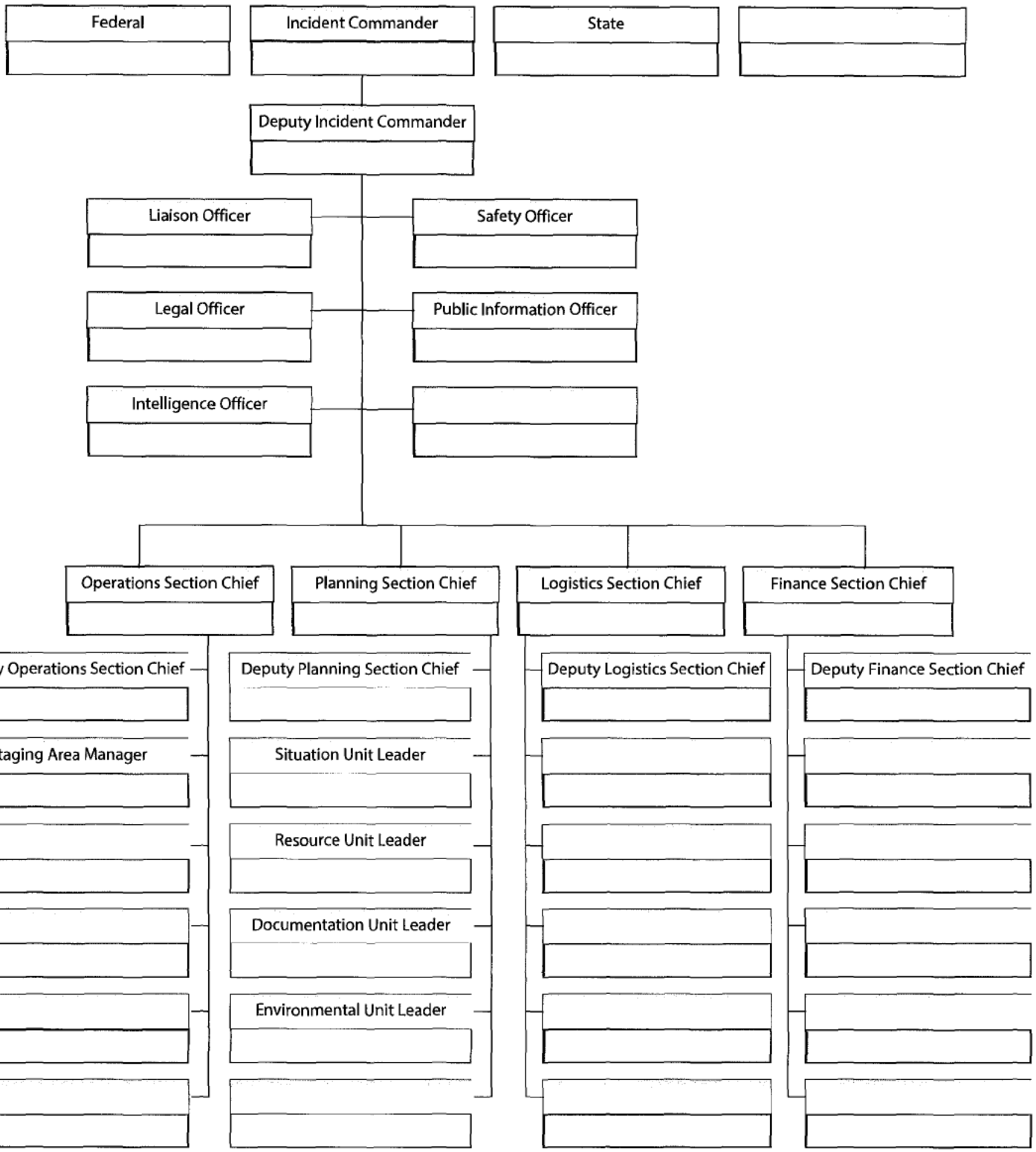
Summary of Actions & Events

Date & Time	Action/Event Description

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ICS 201-3 - Organization Chart

Incident:	Prepared By: at
Period: to	Version Name:



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ICS 201-4: Resource Summary

Incident:	Prepared By: at
Period: to	Version Name:

Resources

Supplier	Resource Type	Description	Quantity	Size	Area of Operation	Status	Status Date & Time
Supplier	Resource Type	Description	Quantity	Size	Area of Operation	Status	Status Date & Time

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ICS 201-4: Resource Summary

Incident:	Prepared By: at
Period: to	Version Name:

Resources

Supplier	Resource Type	Description	Quantity	Size	Area of Operation	Status	Status Date & Time

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ICS 208 - Site Safety Plan

Incident:	**Prepared by:** **at:**
Period:	**Version Name:**
Revision:	
Applies To Site:	
Products:	(Attach MSDS)

SITE CHARACTERIZATION

Water:
Wave Height: _____ WaveDirection: _____
Current Speed: _____ Current Direction: _____
Land: _____ Use: _____
Weather: _____ Temp: _____
Wind Speed: _____ Wind Direction: _____

Pathways for Dispersion:

Site Hazards

- ☐ Boat Safety
- ☐ Chemical hazards
- ☐ Cold Stress
- ☐ Confined Spaces
- ☐ Drum handling
- ☐ Equipment operations
- ☐ Electrical operations
- ☐ Fatigue
- ☐ Other
- ☐ Fire, explosion, in-situ burning
- ☐ Heat stress
- ☐ Helicopter operations
- ☐ Lifting
- ☐ Motor vehicles
- ☐ Noise
- ☐ Overhead/buried utilities
- ☐ Plants/wildlife
- ☐ Other
- ☐ Pump hose
- ☐ Slips, trips, and falls
- ☐ Steam and hot water
- ☐ Trenching/Excavation
- ☐ UV Radiation
- ☐ Visibility
- ☐ Weather
- ☐ Work near water
- ☐ Other

Air Monitoring

%02: _____ **%LEL:** _____ **ppm Benzene:** _____
ppm H2S: ☐ **Other (Specify):**

CONTROL MEASURES

Engineering Controls

- ☐ Source of release secured
- ☐ Site secured
- ☐ Valve(s) closed
- ☐ Facility shut down
- ☐ Energy source locked/tagged out
- ☐ Other _____

Personal Protective Equipment

- ☐ Impervious suit
- ☐ Inner gloves
- ☐ Outer gloves
- ☐ Flame resistance clothing
- ☐ Hard hats
- ☐ Respirators
- ☐ Eye protection
- ☐ Personal floatation
- ☐ Boots
- ☐ Other _____

Additional Control Measures

- ☐ Decontamination
- ☐ Sanitation
- ☐ Illumination
- ☐ Medical Surveillance
- ☐ Stations established
- ☐ Facilities provided - OSHA 29 CFR 1910.120n
- ☐ Facilities provided - OSHA 29 CFR 1910.120m
- ☐ Provided - OSHA 29 CFR 1910.120fq

ICS 208 - Site Safety Plan

Incident:	Prepared By:	at:
Period:	Version Name:	

WORK PLAN

☐ Booming ☐ Skimming ☐ Vac trucks ☐ Pumping ☐ Excavation
☐ Heavy equipment ☐ Sorbent pads ☐ Patching ☐ Hot work ☐ Appropriate permits used
☐ Other

TRAINING

☐ Verified site workers trained per OSHA 29 CFR 1920.120

ORGANIZATION

Title	Name	Telephone/Radio
Incident Commander:		
Deputy Incident Commander:		
Safety Officer:		
Public Affaire Officer:		
Other:		

EMERGENCY PLAN

☐ Alarm system: _____
☐ Evacuation plan: _____
☐ First aid location _____

Notified

☐ Hospital		Phone:
☐ Ambulance		Phone:
☐ Air ambulance		Phone:
☐ Fire		Phone:
☐ Law enforcement		Phone:
☐ Emergency response/rescue		Phone:

PRE-ENTRY BRIEFING

☐ Initial briefing prepared for each site

INCLUDING ATTACHMENTS/APPENDICES

Attachments

☐ Site Map
☐ Hazardous Substance Information Sheets
☐ Site Hazards
☐ Monitoring Program
☐ Training Program
☐ Confined Space Entry Procedure
☐ Safe Work Practices for Boats
☐ PPE Description
☐ Decontamination
☐ Communication and Organization
☐ Site Emergency Response Plan

Appendices

☐ Site Safety Program Evaluation Checklist
☐ Confined Space Entry Checklist
☐ Heat Stress Consideration
☐ Cold Stress and Hypothermia Consideration
☐ First Aid for Bites, Stings, and Poisonous Plant Contact
☐ Safe Work Practice for Oily Bird Rehabilitation
☐ SIPI Site Pre-Entry Briefing
☐ Personnel Tracking System

Weather Report

Incident:	Prepared By: at
Period: to	Version Name:

Present Conditions

Wind Speed:		Wave Height:	
Wind Direction From The:		Wave Direction:	
Air Temperature:		Swell Height:	
Barometric Pressure:		Swell Interval:	
Humidity:	%	Current Speed:	
Visibility:		Current Direction Toward:	
Ceiling:		Water Temperature:	
Next High Tide (Time):		Next Low Tide (Time):	
Next High Tide (Height):		Next Low Tide (Height):	
Sunrise:		Sunset:	

Description:

24 Hour Forecast

Sunrise:		Sunset:	
High Tide (Time):		High Tide (Time):	
High Tide (Height):		High Tide (Height):	
Low Tide (Time):		Low Tide (Time):	
Low Tide (Height):		Low Tide (Height):	

Description:

48 Hour Forecast

Sunrise:		Sunset:	
High Tide (Time):		High Tide (Time):	
High Tide (Height):		High Tide (Height):	
Low Tide (Time):		Low Tide (Time):	
Low Tide (Height):		Low Tide (Height):	

Description:

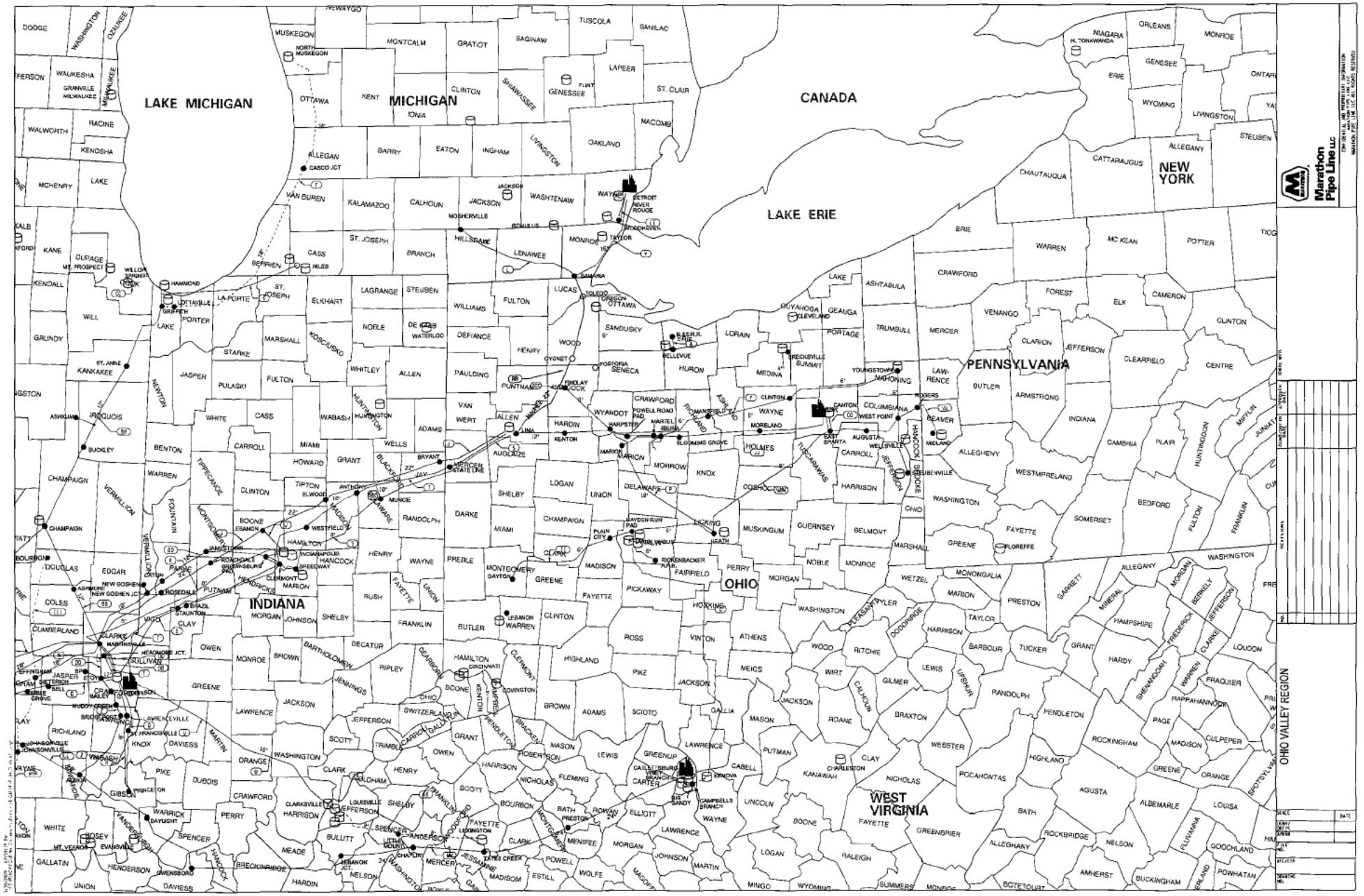
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Tactical Response Plans

Response Zone: Ohio Valley

Please refer to the following Tactical Response Plans that are available for this Response Zone:

Pipeline	River Crossing	City	State
Catlettsburg – Tri State	Big Sandy River	Catlettsburg	KY
Heath – Dayton 6"	Scioto River	Columbus	OH
Kenova – Columbus 14"	Scioto River	Columbus	OH
Kenova – Columbus 14"	Ohio River	Kenova	WV
Patoka – Owensboro 20"	Ohio River	Owensboro	KY
Robinson – Louisville 16"	Ohio River	Louisville	KY
Samaria – Detroit 14"	Huron River	Detroit	MI
Samaria – Detroit 14"	Raisin River	Monroe	MI


LAKE MICHIGAN
MICHIGAN
CANADA
LAKE ERIE
NEW YORK
PENNSYLVANIA
OHIO
INDIANA
WEST VIRGINIA
Marathon Pipe Line LLC
OHIO VALLEY REGION

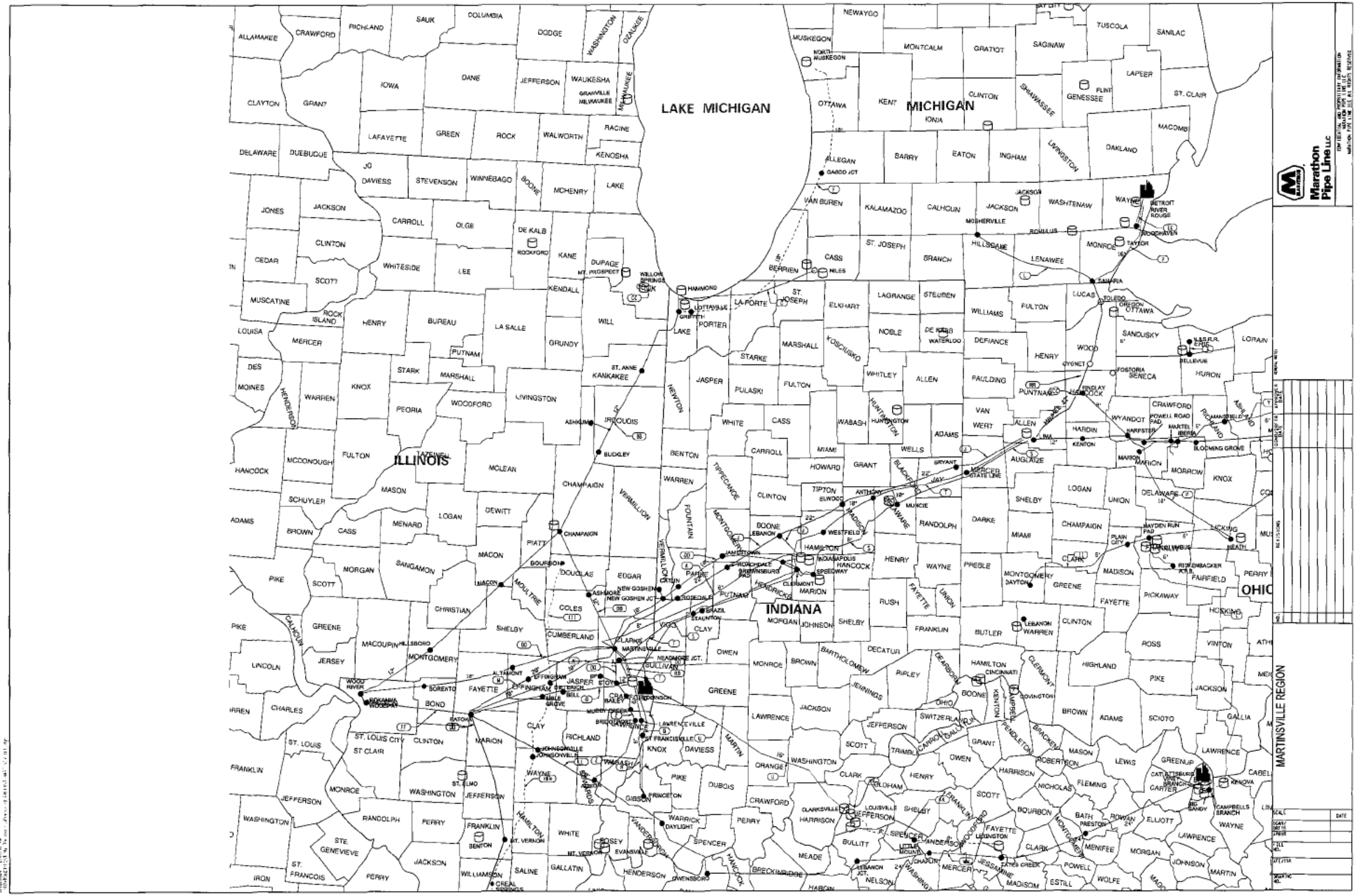
Tactical Response Plans

Response Zone: Martinsville

Please refer to the following Tactical Response Plans that are available for this Response Zone:

Pipeline	River Crossing	City	State
Giesman Junc – Mville 10"	Hurricane Creek	Mulberry Grove	IL
Robinson – Lima 10"	Honey Creek	Terre Haute	IN
Robinson – Lima 10"	Morse Reservoir	Noblesville	IN
Speedway – Muncie RIO 8"	White River (North)	Indianapolis	IN
Speedway – Muncie RIO 8"	White River (South)	Indianapolis	IN

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LAKE MICHIGAN
MICHIGAN
ILLINOIS
INDIANA
OHIO
Marathon Pipe Line LLC
MARTINSVILLE REGION

Tactical Response Plans

Response Zone: Houston

Please refer to the following Tactical Response Plans that are available for this Response Zone:

Pasadena Area

Pipeline	River Crossing	City	State
Texas City – Pasadena 16"	Armand Bayou	Baytown	TX
	Clear Creek	League City	TX
	Cow Bayou	Clear Lake	TX
	Dickinson Bayou	Dickinson	TX
	Horsepen Bayou	Pasadena	TX

Garyville Area

Pipeline	River Crossing	City	State
Garyville – Plantation 20"	Knox Branch	Baton Rouge	LA
	(b) (3), (b) (7)(F)	Baton Rouge	LA
	Shenandoah	Shenandoah	LA
	Lively Bayou	Baton Rouge	LA
St. James – Garyville 30"	Mississippi River	Convent	LA

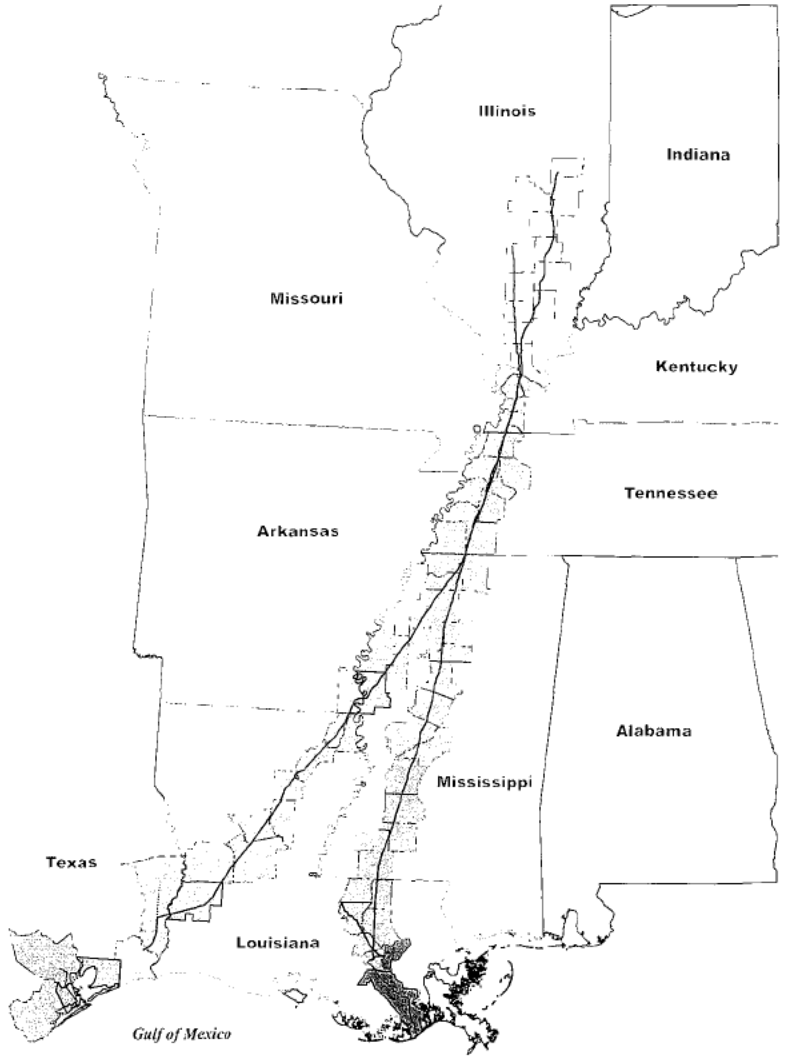
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Mid-South Area

Pipeline	River Crossing	City	State
Centennial	Boeuf River		
	Coldwater River	Lambert	MS
	Neches River	Beaumont	TX
	Hatchie River	Cotton Lake	TN
	Quiver River (North)	Tutwiler	MS
	Quiver River (South)	Tutwiler	MS
	Mississippi River	Greenville	MS
	Ohio River	Joppa	IL
	Ouachita River	Columbia	LA
	Pond Creek	Corinth	IL
	Lake of Egypt	Egyptian Hills	IL
	Red River	Alexandria	LA
	Sabine River	Fields	LA
	Wolf River	Collierville	TN

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Houston Response Zone
System Overview Map



Response Zone Counties/Parishes

Garyville
Louisiana
St. John the Baptist
Lafourche

Pasadena
Texas
Brazoria
Chambers
Galveston
Harris

*Patoka
Illinois
Clay
Coles
Cumberland
Douglas
Effingham
Franklin
Hamilton
Jefferson
Johnson
Marion
Massac
Pulaski
Shelby
Wayne
Williamson

* *Capline and Centennial Pipelines Only*

St. James
Louisiana
Ascension
East Baton Rouge
East Feliciana
Livingston
St. Helena
St. James

Mississippi
Amite
Copiah
Franklin
Hinds
Lincoln

Mid-South
Mississippi
Bolivar
Carroll
DeSoto
Grenada
Holmes
Madison
Marshall
Panola
Quitman
Sunflower
Tallahatchie
Tate
Washington
Yalobusha
Yazoo

Tennessee
Crockett
Dyer
Fayette
Gibson
Haywood
Lauderdale
Obion
Shelby
Tipton

Kentucky
Ballard
Carlisle
Fulton
Hickman
McCracken

Louisiana
Beauregard
Caldwell
East Carroll
Grant
LaSalle
Rapides
Richland
Vernon
West Carroll

Texas
Jasper
Jefferson
Newton
Orange

MH
Middleton House LLC
Consulting Planning Management

Marathon Pipe Line LLC
Houston Response Zone
Emergency Response Action Plan
Pipeline Map Set - System Overview

Source(s): USGS 1 x 2 Degree Tiles (1:250,000 scale)	Map(s): N/A	DWG NO: 110-001-ERP-02	REV: 0
Facility Specific Overlays By: C Middleton	Size: 50" x 30"	Date: 09/2013	Sheet: 2 of 29

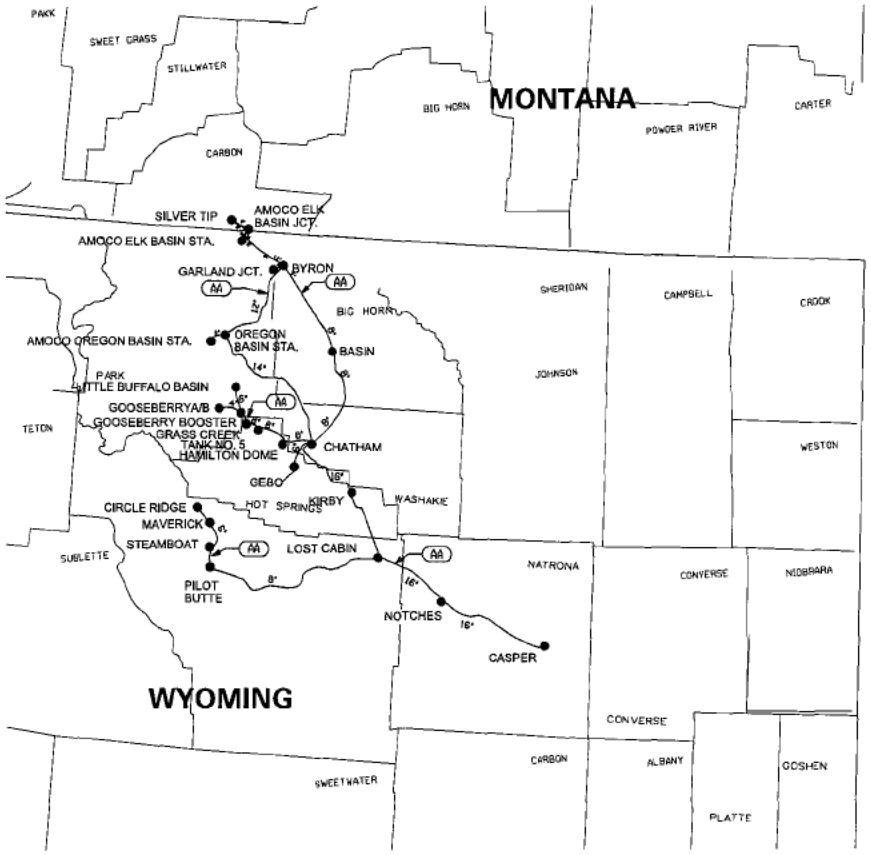
Tactical Response Plans

Response Zone: Cody

Please refer to the following Tactical Response Plans that are available for this Response Zone:

Pipeline	River Crossing	City	State
Chatham – Casper 16"	Big Horn	Worland	WY

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Marathon Pipe Line LLC

CODY REGION RESPONSE ZONE

G

APPENDIX G

INLAND AND NAVIGABLE WATERWAY CONTAINMENT AND RECOVERY STRATEGIES

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CONTAINMENT AND PROTECTION

MPL LLC's efforts to contain product releases should be initiated immediately upon their detection. Rapid and effective response operations are necessary in order to control the source, limit the spread of product, and prevent damage to the environment. This section outlines basic strategies and methods of commencing release containment and protection measures for land and saltwater environments. Specific instructions for implementing seventeen spill containment and protection techniques in various environments are given later in this section.

GENERAL CONTAINMENT CONSIDERATIONS

Containment activities will not be conducted in extreme wind, wave, or otherwise unsafe conditions. **The safety of MPL LLC and other personnel will always be accorded the highest priority**. In addition, the following safety considerations should be attended to:

- Deployment of containment equipment should be attempted only when conditions do not exceed the capabilities of the equipment or the vehicles used to deploy the equipment.

PRODUCT CHARACTERISTICS

Since all refined products are lighter than water, if spilled to a water source, they will float on the water's surface in the form of a slick. Depending on surface currents, winds, and physical boundaries, a slick can spread into several characteristic shapes. In the absence of physical boundaries, a slick may spread into a roughly circular, elliptical, or triangular shape. A circular slick is formed when there are no significant surface currents or winds whereas an elliptical slick is formed by moderate surface currents and winds. High winds and strong currents will create a more triangular-shaped slick. Each type of slick will widen and spread as it moves away from its source. Wave action, usually caused by winds, can increasingly distort these shapes and may eventually divide the slick into smaller streamers or windrows separated by sheen. It is much more difficult and costly (in terms of time, labor, and equipment) to contain and collect product once it has spread into windrows and streamers than when it is floating as a slick. In a release response, it is imperative to contain a spill before it spreads too wide for effective containment.

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CONTAINMENT AND PROTECTION TECHNIQUES

In an actual release, the decision to use specific containment and protection techniques will depend upon the circumstances, its location and potential movement, and prevailing weather and water conditions. A large spill could require the simultaneous use of these and other containment, protection, and clean-up procedures for contaminated areas. Initial containment and protection procedures are discussed for the following locations:

- on land
- in protected waters and along shorelines
- in open waters

LAND CONTAINMENT

URBAN AREAS

A release in an urban area can present many potential hazards to human safety. Prior to initiating control, protection, or containment actions in an urbanized area, the following factors must be considered:

- the presence of volatile vapors
- the potential hazards to human safety and environmental damage
- the potential sources of ignition, such as running vehicle and equipment motors, pilot lights, and sparks

In the event of a release in urban areas, human safety takes precedence over all other operations. Generally the best way to preserve human safety is by conducting rapid and effective containment, recovery, and clean-up operations. Promptly notify appropriate local authorities concerning any land spill.

To contain the flow from a release in an urban area, barriers can be constructed on or across streets to trap the product or divert its flow to a designated containment and recovery site (see Technique for Street Containment). Street dams can be constructed using sandbags, soil, or gravel. If a coarse material, such as large-sized gravel, is used for damming, line the upslope side of the dam with an impermeable material such as Visqueen. The height of the dam should be equal to the height of the street curb. If there is no curb, construct a substitute structure with sandbags, soil, and gravel shaped into a "U" configuration. Estimate the volume of the release in order to determine how far down slope from the spill to construct the dam. It can be assumed that a relatively flat 30-foot wide screen with 8-inch curbs will hold about 2.5 bbl of oil per linear foot. This means that a 100-foot long section of street will hold about 250 bbl of oil.

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A large volume release or one that threatens a sensitive area may need to be diverted before it is contained and cleaned up. It may be diverted down a side street or into a ditch by constructing a street diversion barrier. A diversion barrier is constructed out of the same type of materials as a street dam, e.g., sandbags, soil, and earth materials. The primary difference between a street dam and a street diversion barrier is that the street diversion barrier is constructed at an angle across the street whereas the street dam lies perpendicular to the flow of street traffic. The down slope end of the diversion barrier should be positioned to direct product toward the diversion area for collection and recovery. In selecting a diversion area, the first priority is to locate a safe, relatively hazard-free site. The next priority is to choose an area which is suitable to collect diverted product, in terms of equipment accessibility, traffic, space and size considerations, and proximity to sensitive resources.

Another method of containing a release on land is to flood the contaminated area with water. On streets with containment barriers across them, water flooding can decrease the amount of product contacting the street surface which can make clean-up operations easier. Also, since most of our products float on water, spilled material can be skimmed off the water's surface using vacuum trucks, skimmers, and various sorbents. Unpaved areas may also be flooded. Again, the floating oil can be diverted to lined containment pits for recovery (see Techniques for Earth Containment Berms) or directly recovered by vacuum devices, skimmers, or sorbents. Flooding may also minimize groundwater contamination by reducing the amount of product contacting or penetrating into the soil.

NONURBAN AREAS

Releases in nonurban areas can be contained by constructing dams or dikes around or in front of the spreading pools of product (see Techniques for Earth Containment Berms).

On flat terrain, product will spread radically due to surface tension forces. In order to limit its spread, construct dams around the perimeter of the spill using earthen materials, sandbags, hay bales, and plastic sheeting. Small releases may be contained and cleaned up by simply covering the pooled product with dirt. After soaking up the product, the dirt can be picked up and hauled to an approved disposal site.

When a leak source from the pipeline lies in a depression, the depression itself may serve as a containment structure. To limit the spread of product in a depression, block storm drain inlet structures and construct earth windrows around the spill's perimeter using bulldozers and motor graders. Under normal circumstances, product should never be forced or diverted into storm drain inlet structures.

STREET CONTAINMENT

USE

Barriers constructed across streets can be used to contain product flowing onto urban streets or highways.

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LIMITATIONS

Storage behind barriers, implementation time, and the availability of recovery equipment.

GENERAL INSTRUCTIONS

Construct barriers with sandbags, soil, or gravel. If coarse materials are used, the upslope side should be made impermeable with plastic sheeting or similar material. Barrier height should equal curb height. If no curb is present, construct the barrier in a "horseshoe" shape. Should a greater storage area be needed, a diversion barrier can be constructed at an angle across the street to direct product into a parking lot or open field where a larger containment barrier has been constructed. Recover product by pumping or vacuuming.

In constructing containment barriers, care must be exercised to minimize potential fire hazards. To avoid causing sparks, the blades of earth-moving equipment should not scrape the pavement, if present. The exhaust and ignition systems of on-scene motorized equipment should be shielded. (Spark arresters and elevated exhaust should be required on all equipment; use diesel-powered equipment when available.)

EQUIPMENT REQUIRED

Front-end loader and/or hand tools.

MAINTENANCE

Periodically check barrier for leakage and adequate height.

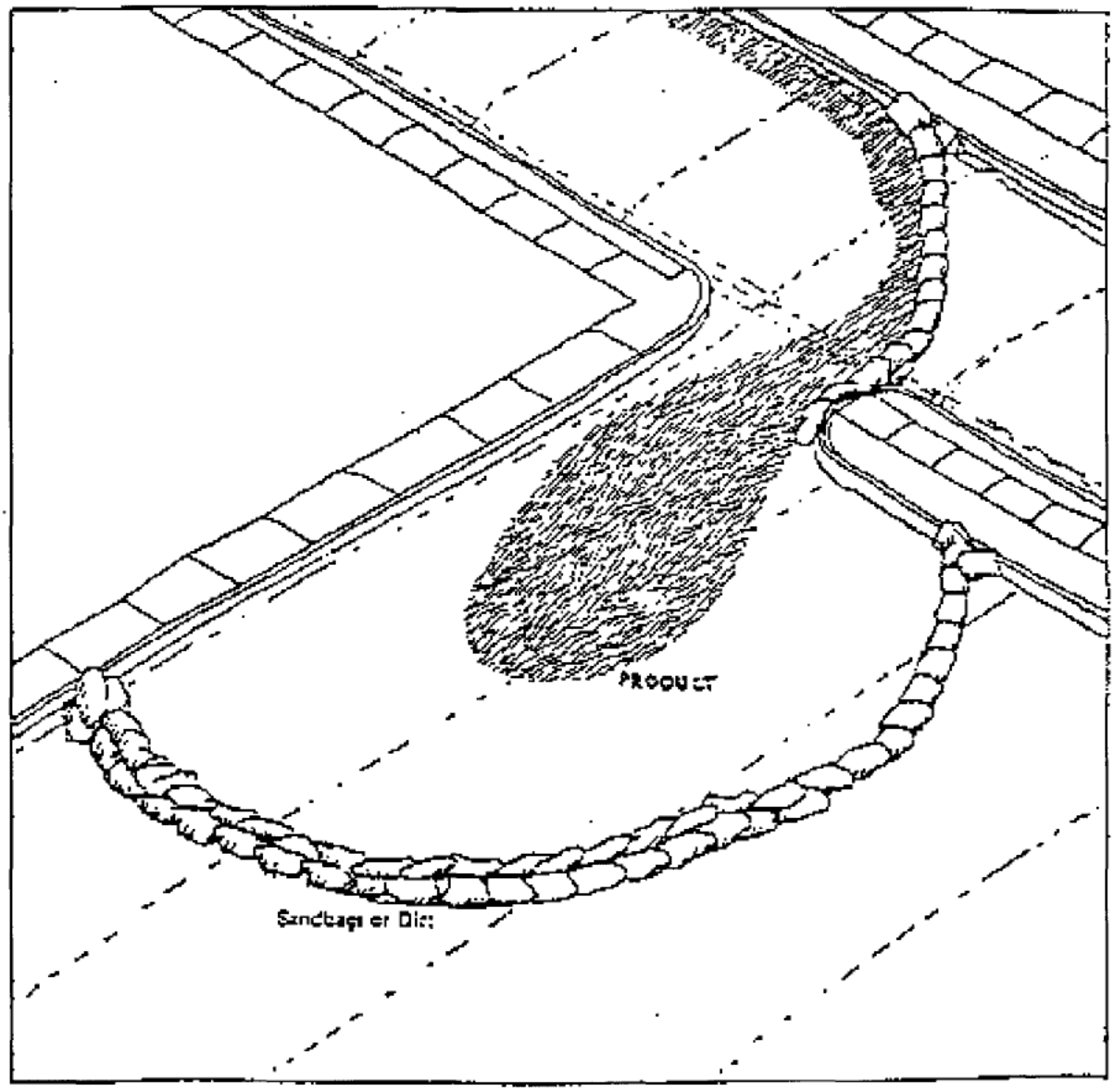
CLEANUP

Contaminated areas should be flushed with water. Direct the spray towards the containment site where the product may be skimmed or pumped out. Product Barrier materials must be removed for proper disposal. Remaining product can be removed with sorbents.

VARIATIONS

The area behind the barrier may be flooded with water in order to float the product. This makes recovery easier and prevents further surface contamination.

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DAM ON A LARGE PAVED AREA

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EARTH CONTAINMENT BERM

USE

Low barriers constructed with available materials (e.g. earth, gravel, sandbags, etc.) are used to contain surface spill flow on relatively flat or low-sloped terrain or wetlands.

LIMITATIONS

Accessibility, implementation time, highly permeable soils, and low viscosity product and environmental damage inflicted by excavation of berm material.

GENERAL INSTRUCTIONS

Use earthmoving equipment or manual labor to construct berms by forming materials into windrows or ridges in a "horseshoe" configuration. Width of containment opening should exceed that of the leading edge of the oncoming released product. Berm height and the size of the containment area are dependent upon the quantity of the release.

EQUIPMENT REQUIRED

Motor graders, bulldozers, front-end loaders, backhoe, and/or hand tools.

MAINTENANCE

Check berms periodically for leakage and adequate height.

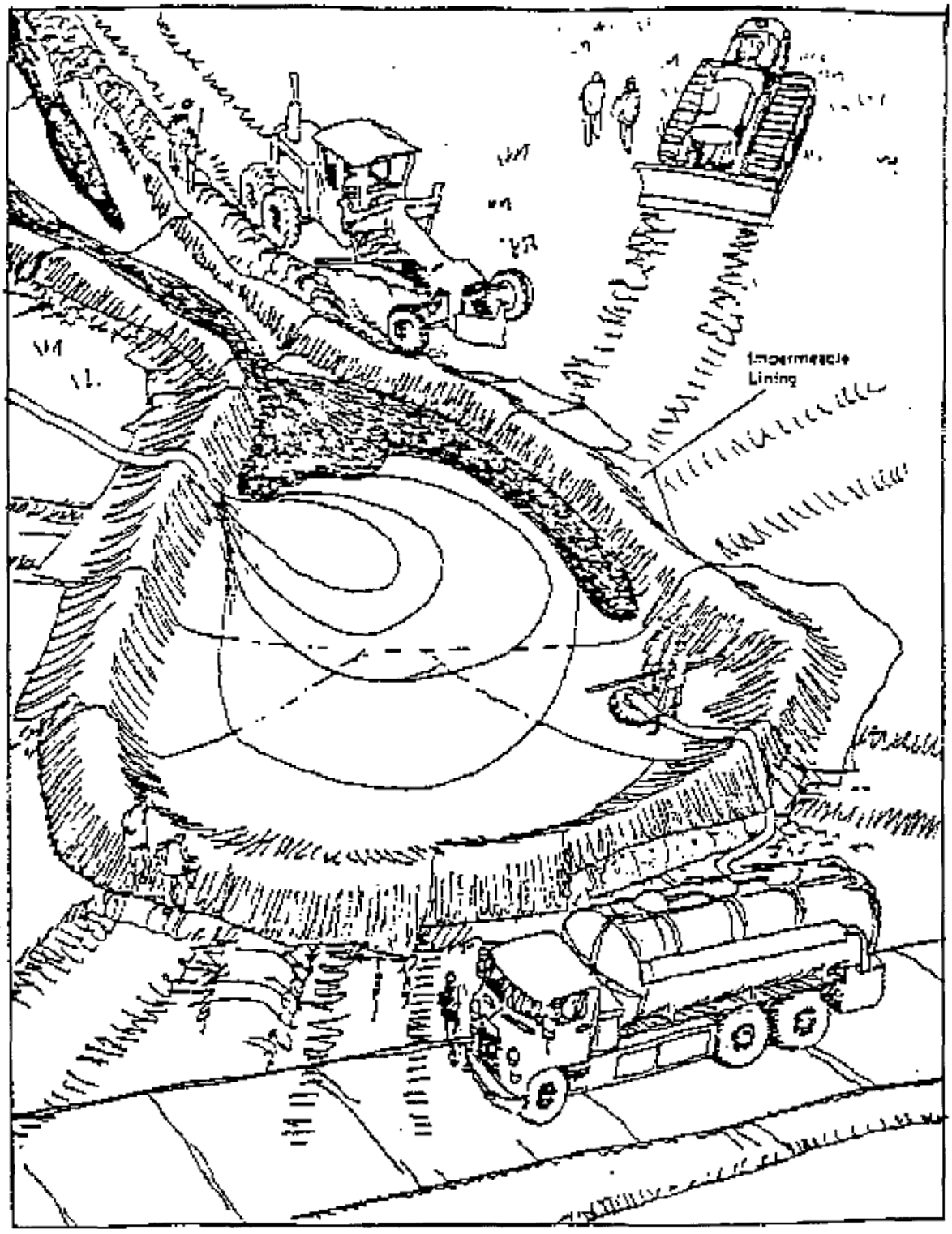
CLEANUP

Use sorbents to recover residual product pools. Remove or treat contaminated sediments. Backfill excavated area upon completion of clean-up operations.

VARIATIONS

In areas with a high groundwater table or high soil permeability, the containment area may be flooded and/or lined with plastic sheeting to inhibit soil penetration. Product can be recovered from the water surface by skimming. This technique may be useful in controlling product movement through secondary wetland drainage or wetland fringes. Earth containment berms can minimize surface disruption and restore normal circulation when cleanup has been completed.

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EARTH CONTAINMENT BERM (lined)

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BLOCKING DAM

BLOCKING DAM

USE

Dams are constructed across streambeds, ditches, or other dry drainage courses to block and contain any flowing product and to prevent its migration if affected by a rising tide.

LIMITATIONS

Accessibility, implementation time, adequate storage behind the dam flowing water, and the availability of construction materials.

GENERAL INSTRUCTIONS

Dam locations should have high banks on the upstream side with the dam well-keyed into the banks.

Construct the dam using on - or near-site earthen materials, such as sandbags, plywood sheets, or any material that blocks the flow of product. Excavate earthen materials from the upstream side to increase storage capacity. Product is recovered from behind the dam by pumping or using vacuum trucks. Plastic sheeting should be placed over the dam to prevent penetration and erosion.

EQUIPMENT REQUIRED

Bulldozer, front-end loader, backhoe, or hand tools.

MAINTENANCE

Periodically check the dam for leaks, structural integrity, and excessive oil buildup.

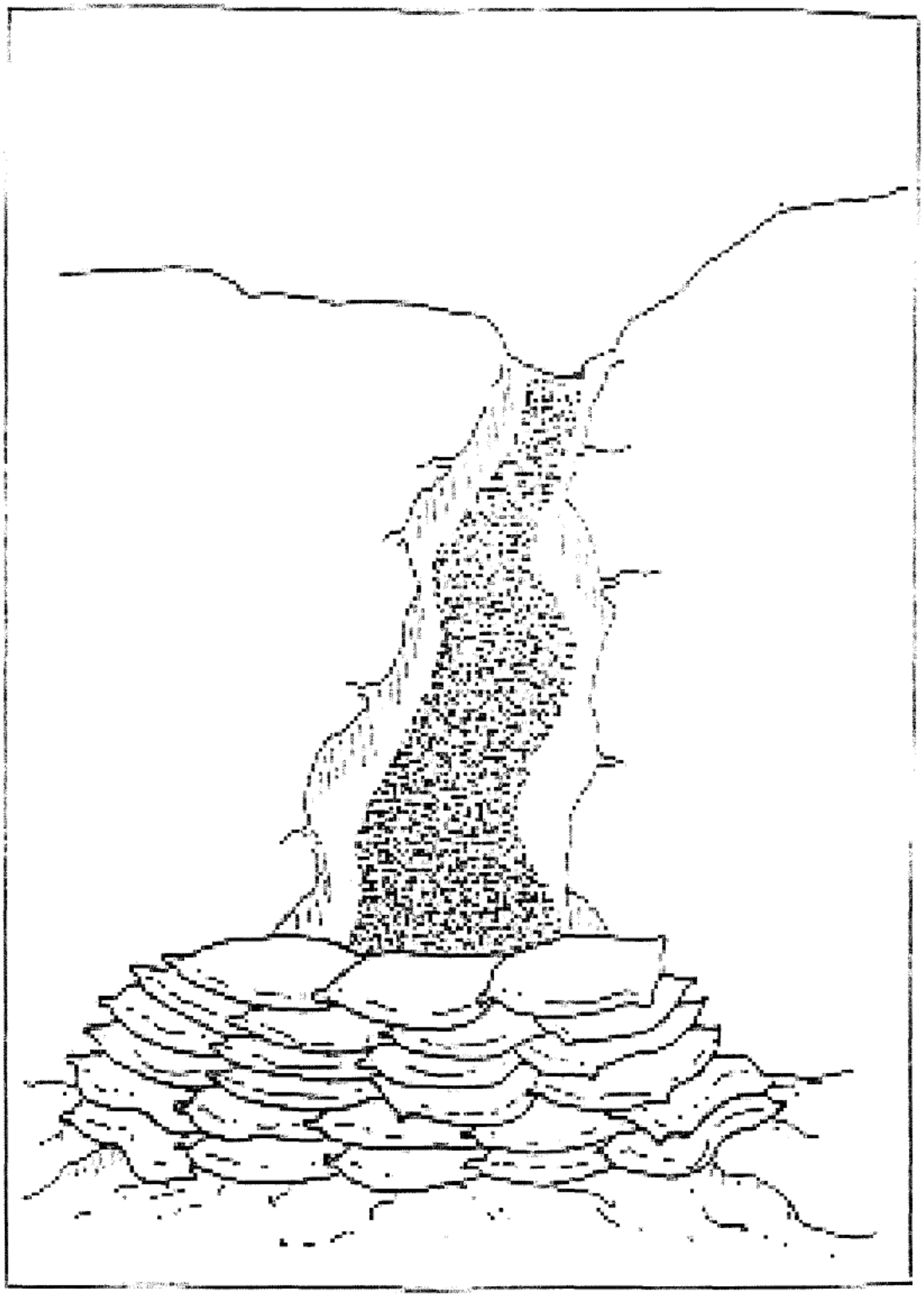
CLEANUP

Recover remaining product concentration or sheen with sorbents. Remove or treat contaminated sediments. Dismantle the dam or replace earthen materials in excavation site.

VARIATIONS

Containment area behind the dam can be water flooded to limit penetration into sediments.

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SANDBAG BLOCKING DAM

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CULVERT BLOCKING

CULVERT BLOCKING

USE

Boards, sandbags, inflatable plugs, or earthen materials are used to block culverts as a means of containing product flowing into ditches, creeks, or other drainage courses that feed into culverts. Culvert blocking may also be used to prevent product entering channels that are connected to larger bodies of water.

LIMITATIONS

Accessibility, implementation time, storage area behind culvert, flowing water, and culvert size.

GENERAL INSTRUCTIONS

Block the culvert by piling dirt, sand, or similar material over the upstream end of the culvert thereby creating a containment dam. Sandbags or plywood sheets are also effective. Inflatable plugs may be used if available at the site. Recover product by skimming, vacuuming, or pumping.

EQUIPMENT REQUIRED

Front-end loader and/or hand tools.

MAINTENANCE

Periodically check culvert for leakage.

CLEANUP

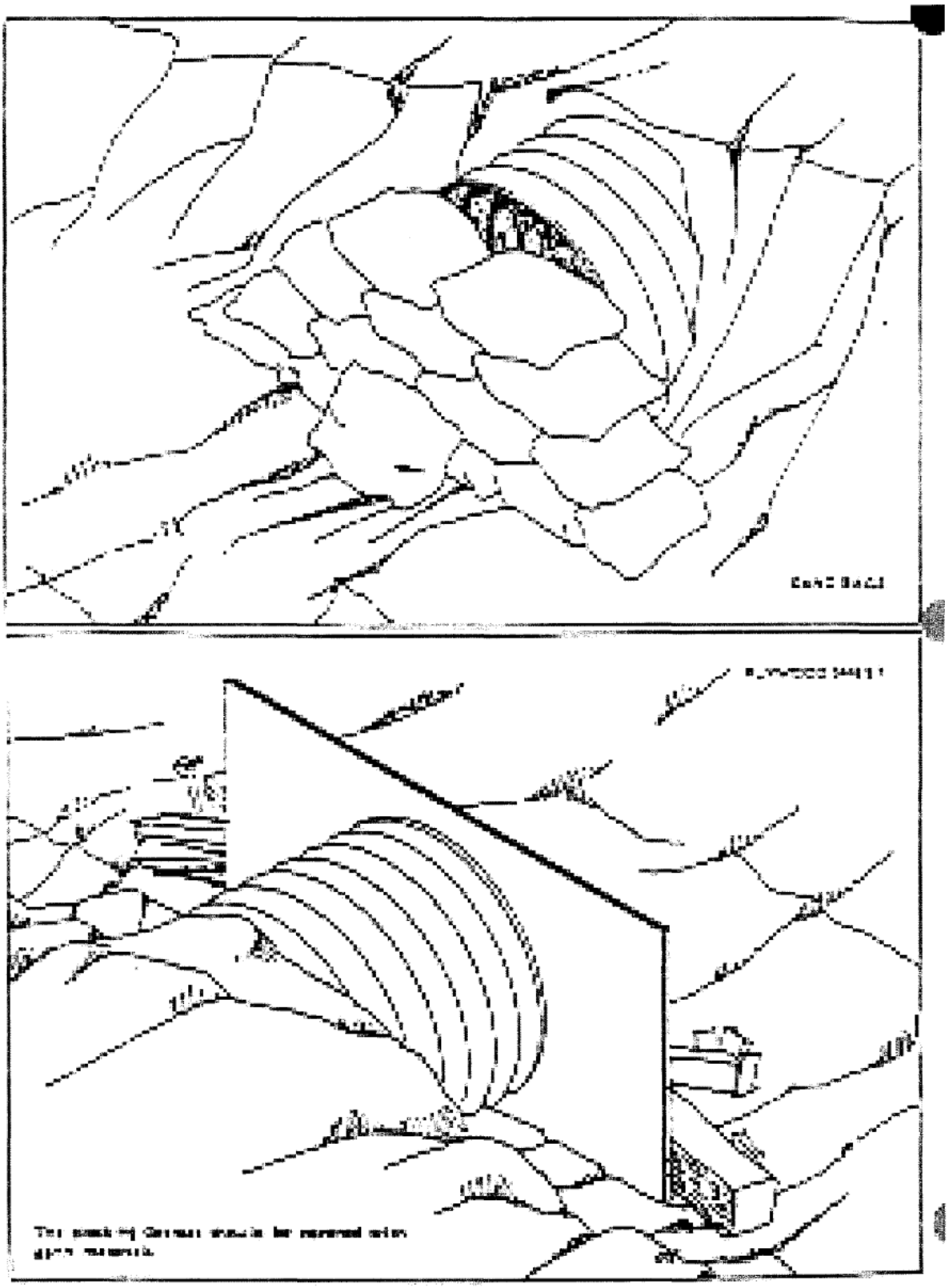
Remove and properly dispose of contaminated soil and remove the block from the culvert.

VARIATIONS

If water is flowing into a drainage ditch, it can be removed by pumping or siphoning to the culvert outlet or a nearby drainage course.

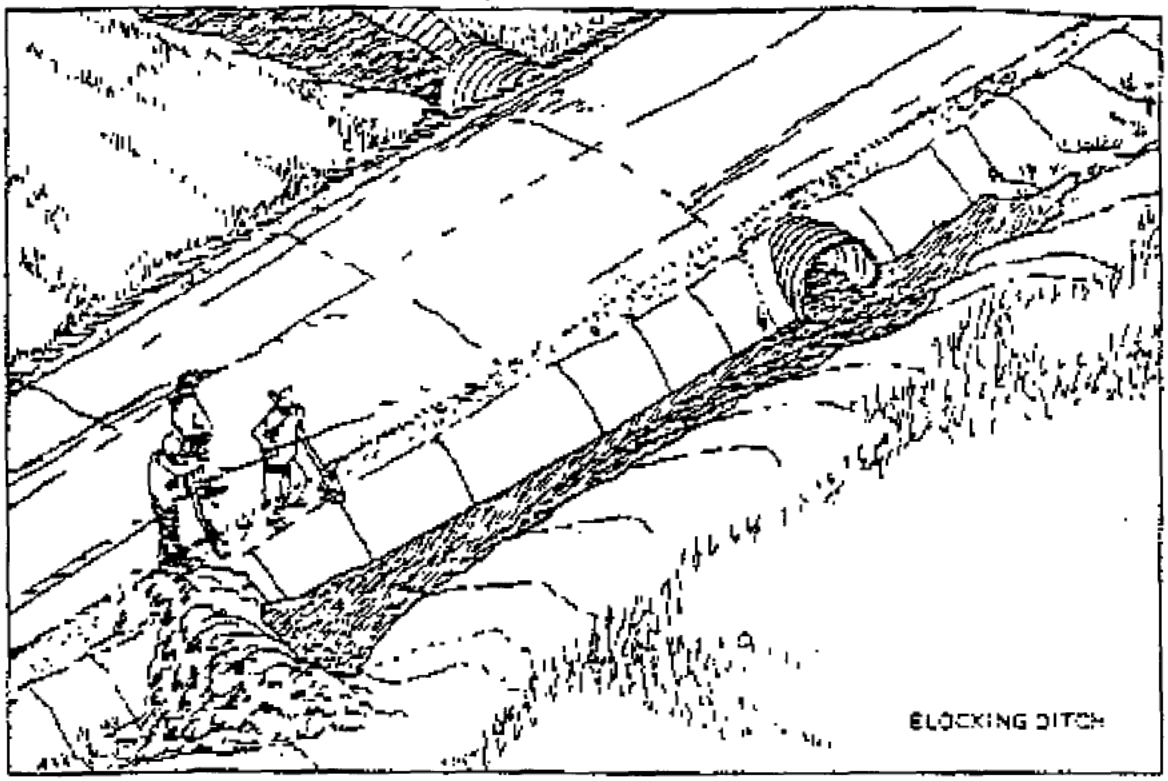
If there is little or no storage area upslope from a culvert, it may be advantageous to permit the product to pass through the culvert and to contain the release at the culvert outfall. In areas where a culvert outfall discharges into a borrow ditch, the borrow ditch can be dammed to form a storage area for the spilled product. If there is no ditch or similar structure draining the culvert outfall, a storage area can be created by constructing a horseshoe-shaped dam around the outfall.

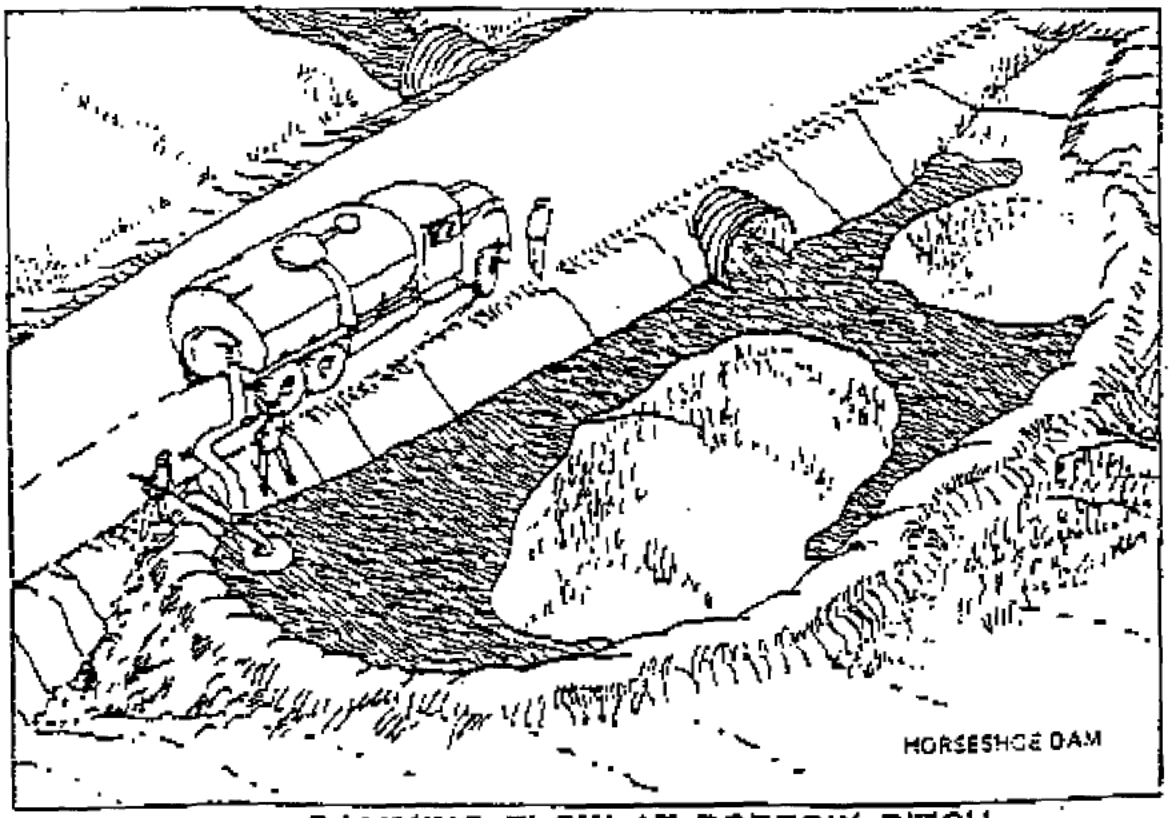
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CULVERT BLOCKING

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DAMMING FLOW AT BORROW DITCH

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STORM DRAIN BLOCKING

STORM DRAIN BLOCKING

USE

Sandbags, boards, and specially constructed mats are used to prevent product spilled onto roadways from entering urban storm drains.

LIMITATIONS

Implementation time.

GENERAL INSTRUCTIONS

For curb inlets, position a board over the curb inlet and hold it in place with a sandbag. Street inlets can be blocked similarly with a board or plastic sheeting. Specially constructed mats can be used expeditiously if they are kept on hand.

EQUIPMENT REQUIRED

None

MAINTENANCE

Periodically check for leakage.

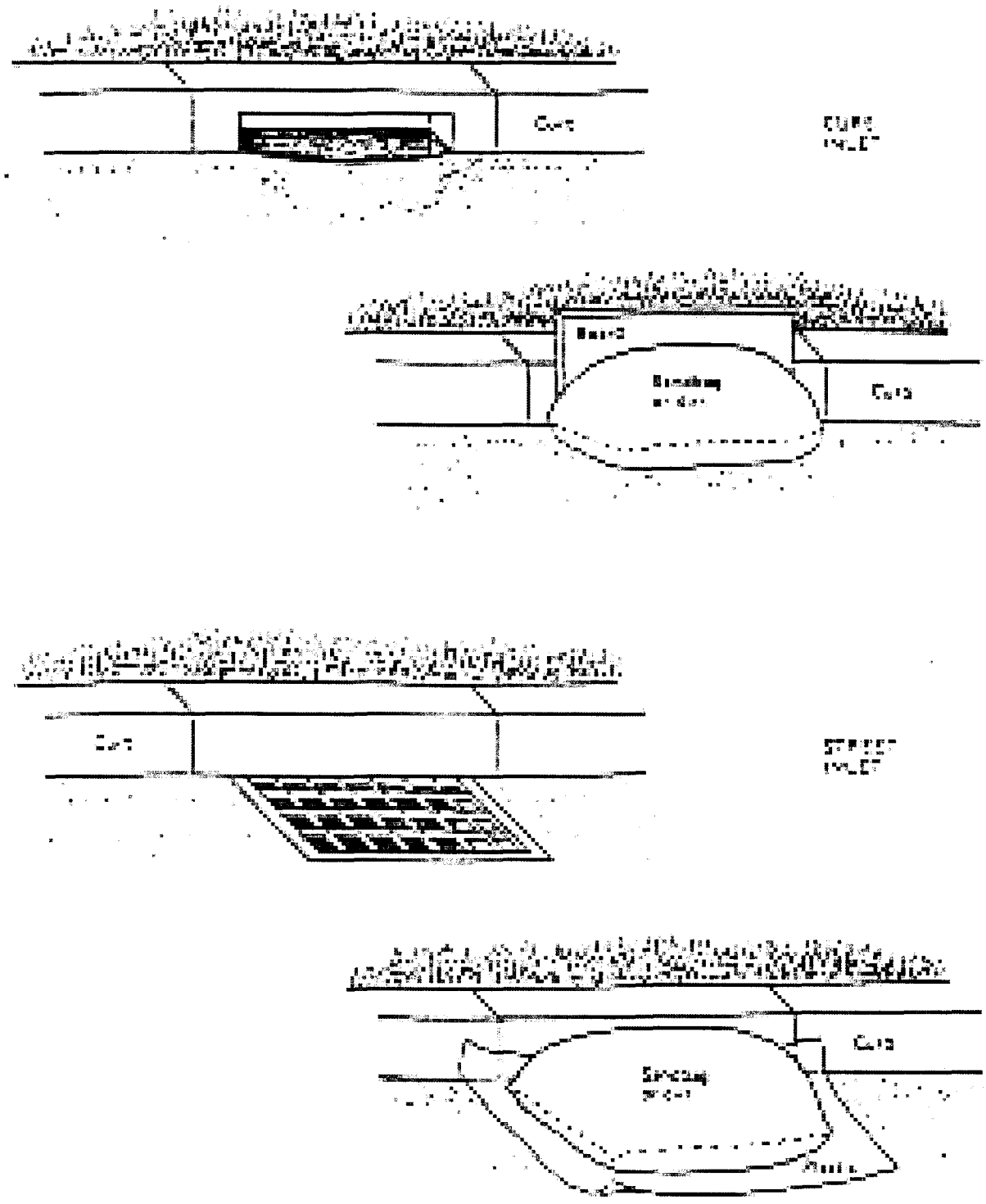
CLEANUP

Water flush streets to remove remaining product. Remove blocking materials from storm drains after vacuuming.

VARIATIONS

Other materials may be used to block inlets.

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STORM DRAIN BLOCKING TECHNIQUES

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SORBENT BOOMS/BARRIERS

SORBENT BOOMS/BARRIERS

USE

Sorbent booms or barriers constructed with fencing and sorbent materials are used to contain and recover product floating on creeks, streams, or tidal channels.

LIMITATIONS

Implementation time, large quantities of product, high current velocities, and excessive water depth for barriers.

GENERAL INSTRUCTIONS

Deploy sorbent booms across the waterway with each end anchored to the shore. Position each successive boom a few feet downstream from the previous boom.

Construct single-sided barriers by driving a line of posts into the stream bottom with wire mesh screen fastened to the upstream side. Place snare (sorbent) squares or strips in front of the screens and the current will hold them in place. In tidal channels with reversing currents, construct a double-sided barrier. Erect two parallel lines of posts across the channel and attach screen along each line of posts. Place sorbents in the area between the screens to trap floating product and contaminated debris.

Screen height for both types of barriers must be sufficient to prevent the scattering of loose sorbent from above or beneath the barrier as tidal flow levels change. The screen mesh must be compatible with the type and size of filler sorbent and able to withstand prevailing currents.

EQUIPMENT REQUIRED

Hand tools.

MAINTENANCE

Turn booms or sorbents regularly for maximum absorbency and replace them when they are completely saturated. Check booms or barriers periodically for leakage or damage.

CLEANUP

Store contaminated sorbents in approved leak-proof containers.

VARIATIONS

If significant quantities of product are to be encountered, construct multiple barriers. Recover oil pooling behind the barrier by skimming, pumping, or using sorbents.

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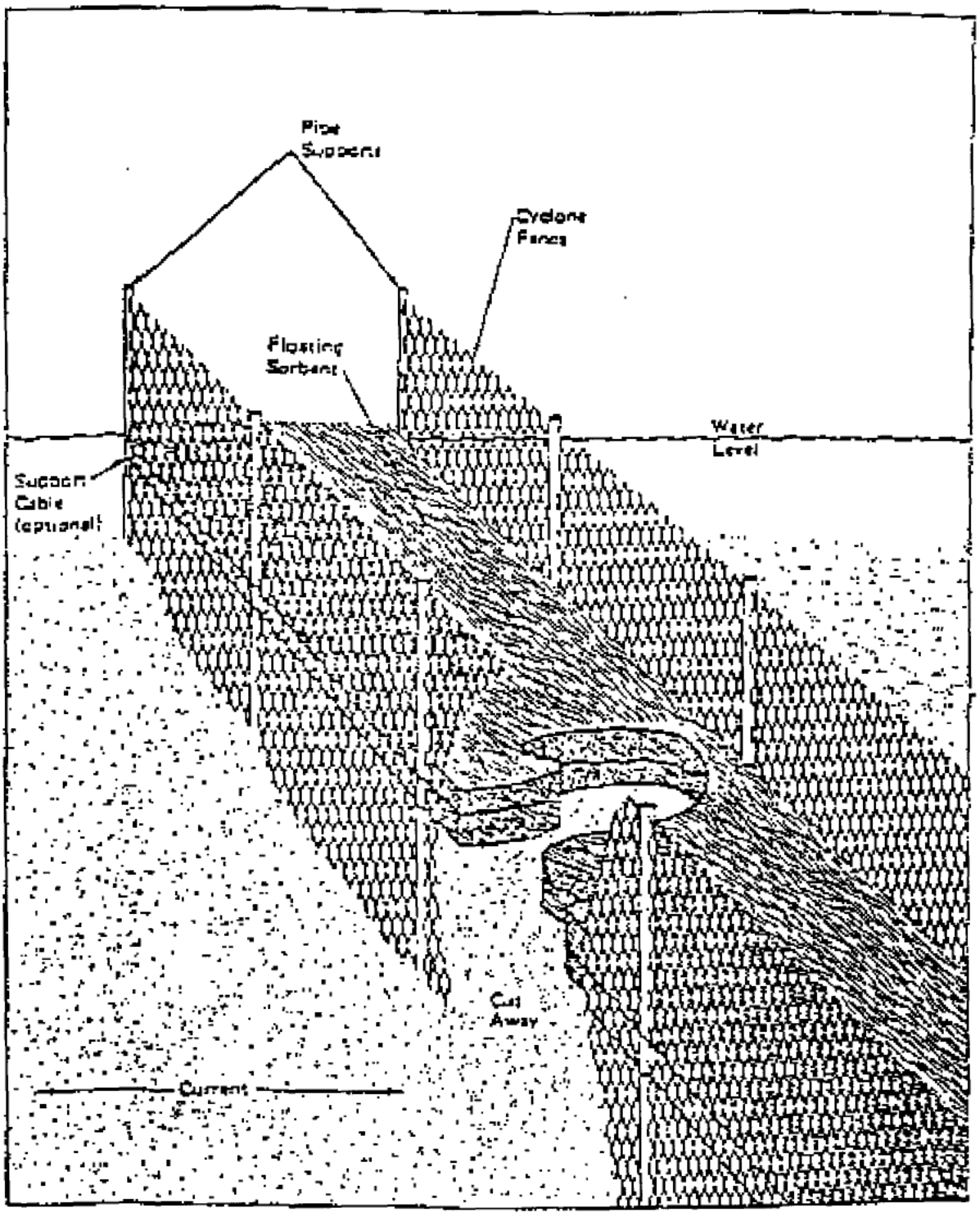


Figure 501-10 SORBENT BARRIER (water)

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FLOWING WATER DAMS

FLOWING WATER DAMS

USE

Dams are constructed across culverts, ditches, shallow streams, etc. to contain floating product while not obstructing the water flow.

LIMITATIONS

Accessibility, implementation time, availability of dam materials, water depth, and high current velocities.

GENERAL INSTRUCTIONS

Dam locations should have high banks on the upstream side with the dam well-keyed into the banks. Construct dam with on/near/site earthen materials, such as sandbags, plywood sheets, etc. Use heavy equipment or manual labor to excavate materials from the upstream side to increase dam storage capacity if needed. Make the upstream side impermeable with plastic sheeting, if required. Underflow dams utilize inclined or valved pipes that have a flow capacity greater than the stream flow rate. Place valved pipe(s) on the streambed and build a dam on top. Adjust the valve opening(s) until a constant water/product level is achieved behind the dam. Inclined pipes are placed in the dam at the lower end of the upstream side. The height of the raised end determines the water level behind the dam.

For overflow dams, water flows over the top of the dam and booms positioned behind the dam contain the floating product. Construct the dam as described above and cover it with plastic sheeting to prevent erosion. Anchor the boom several feet behind the dam. Pumps or siphons can also be used to pass water over the dam. To be effective, the pumping rate should be greater than the stream flow rate. These techniques are depicted in Figures C and D.

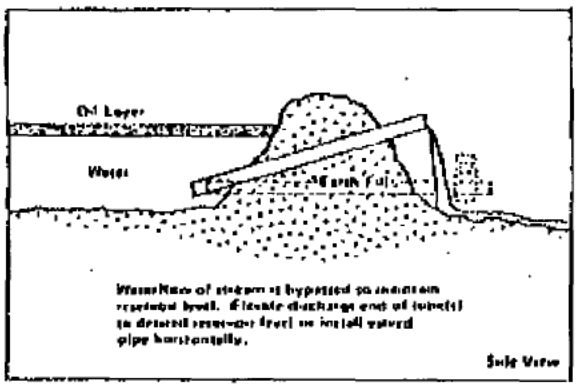
EQUIPMENT REQUIRED

Front-end loader, bulldozer, backhoe, or hand tools.

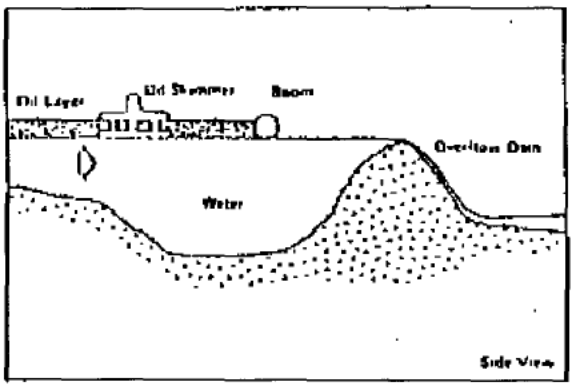
MAINTENANCE

Check dam periodically for leakage and integrity, replace eroded materials, and continually monitor water/product.

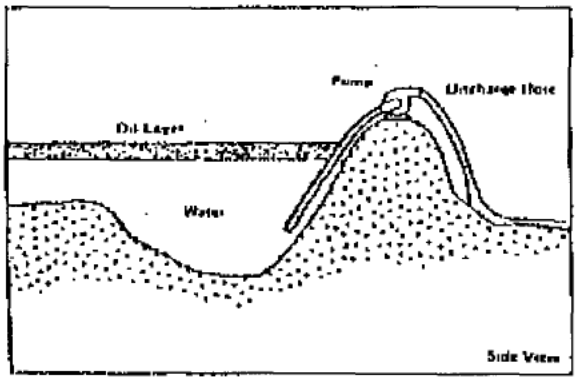
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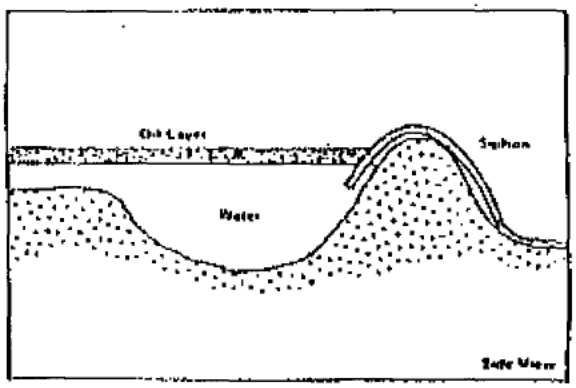
A. Underflow dam



B. Overflow dam



C. Overflow dam with pump



D. Overflow dam with siphon

FLOWING WATER DAMS

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QUIET WATER CONTAINMENT

USE

Booms are deployed to encircle and contain product in quiet waters where wind, wave, and current effects are minimal.

LIMITATIONS

Accessibility and implementation time.

GENERAL INSTRUCTIONS

Contain any released product flowing into a body of water at its entry point. Anchor one end of the boom to the shoreline. Using a boat, pull the other end out around the leading edge of the slick and back to the shore on the other side of the slick.

Small slicks, sheens or patches of product can be contained by completely encircling them with the boom. Anchor one boom end near the edge of the slick. Pull the other end around the perimeter of the floating product and attach it to the anchored end.

EQUIPMENT REQUIRED

Boat(s) with adequate power to tow the boom, anchors, and hand tools.

MAINTENANCE

Check booms periodically for leakage or broken, twisted, or submerged sections.

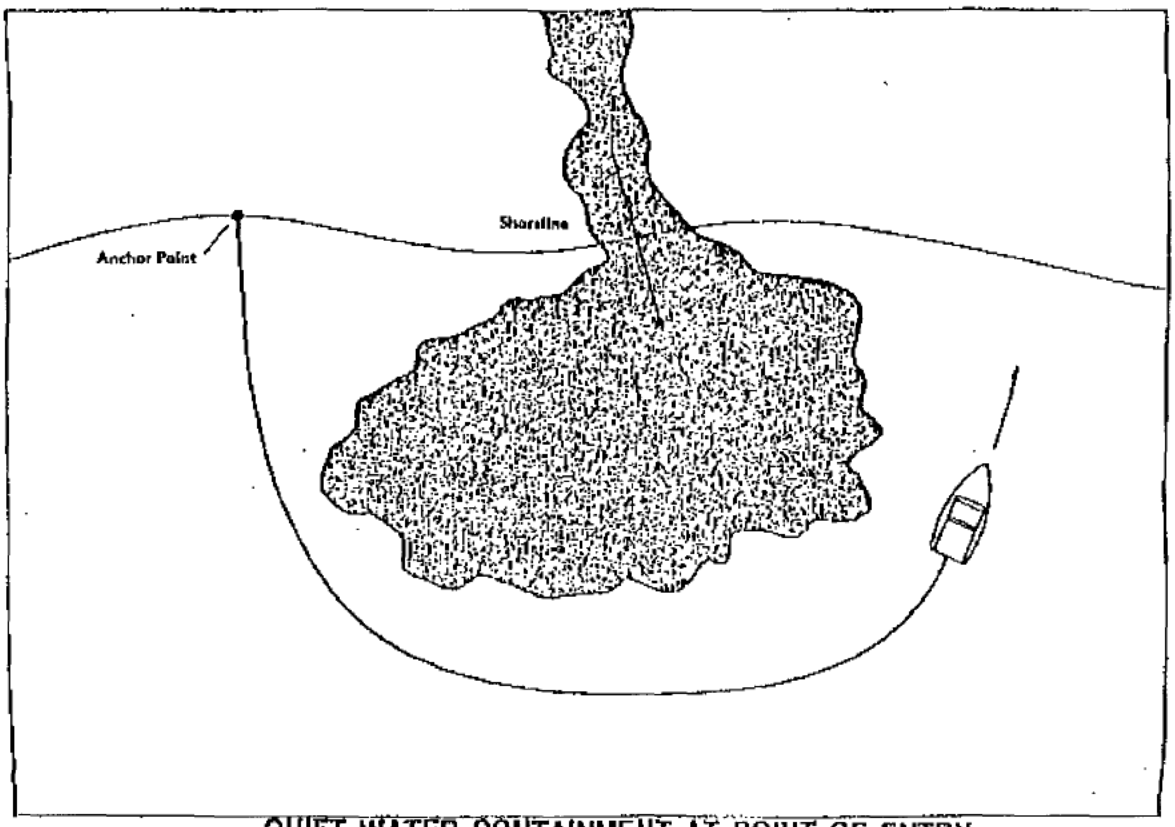
CLEANUP

Product contained within the boom is recovered by skimming. Remaining sheens are removed with sorbents.

VARIATIONS

If a spill in an estuary is too large for containment, product may eventually migrate to the estuary outlet. Booms can be placed across the outlet to contain and concentrate the product for vacuum recovery.

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QUIET WATER CONTAINMENT AT POINT OF ENTRY

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FLOWING WATER CONTAINMENT BOOM

USE

Booms are deployed at an angle across a waterway to contain product floating downstream for subsequent recovery.

LIMITATIONS

Accessibility, implementation time, current in excess of 2 knots, and water depths less than 1 foot below the boom skirt.

GENERAL INSTRUCTIONS

Use the currents to assist in the streaming and placement of the boom. For example, anchor one boom end to the shoreline, use a boat or winch to pull the free end across the river and anchor it slightly upstream. The optimum deployment angle depends on current velocity, boom length, and boom stability. In general, boom length should be four times the width of the waterway. As current velocity and boom length increase, the deployment angle relative to the shoreline decreases. To improve boom stability, anchor it in several places.

Remove product from the downstream end of the boom by skimming, pumping, or using vacuum trucks. A containment pit dug into the shoreline can expedite the containment and recovery process.

EQUIPMENT REQUIRED

Boat or winch, anchors, backhoe (to dig containment pit), and hand tools.

MAINTENANCE

Periodically check the boom for leakage and adjust its placement angle, if necessary. Also check boom for twisted damaged, or submerged sections. Check anchors for security.

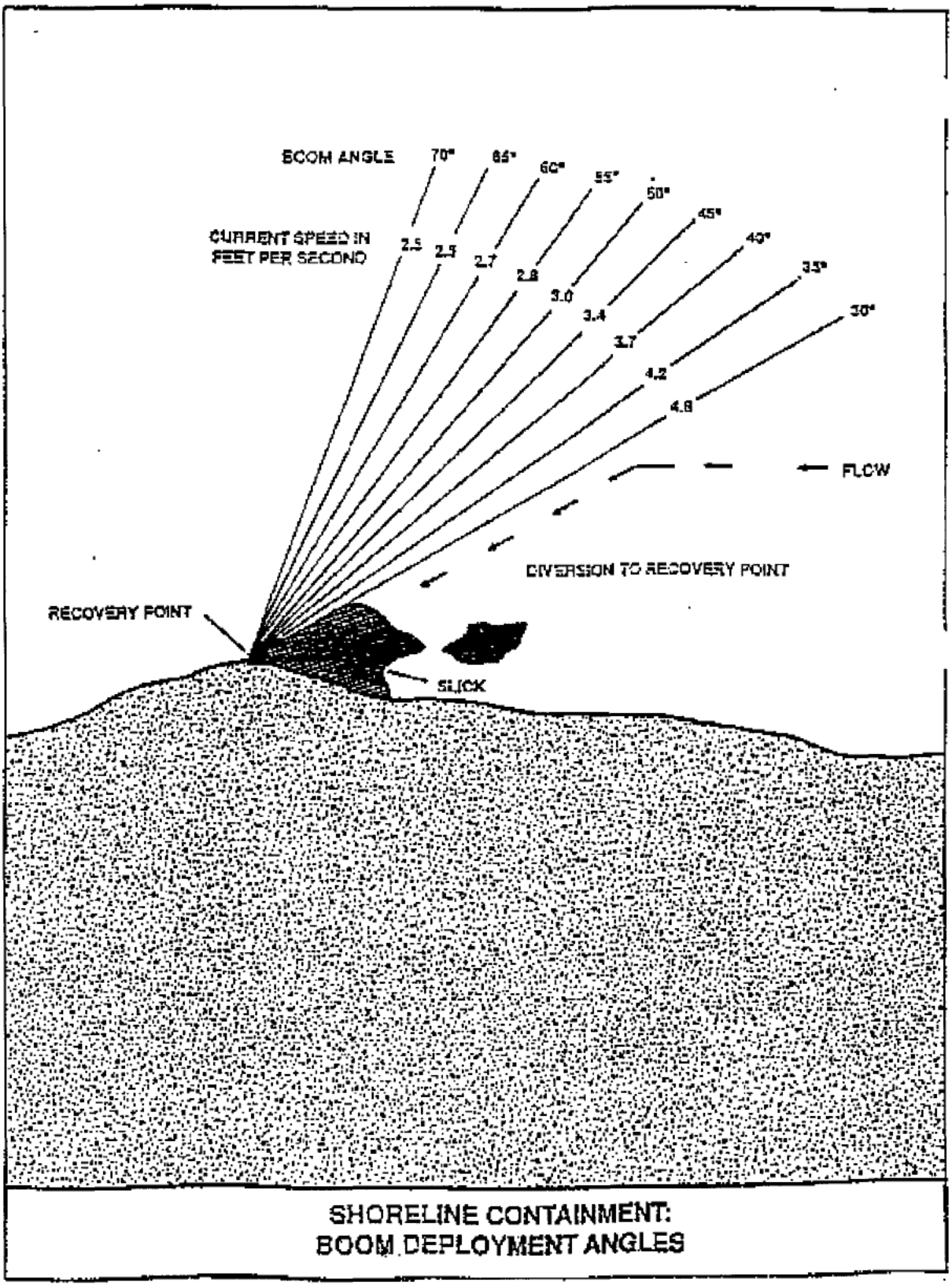
CLEANUP

Remaining sheens are recovered with sorbents. Booms are removed. Refer to shoreline clean-up methods.

VARIATIONS

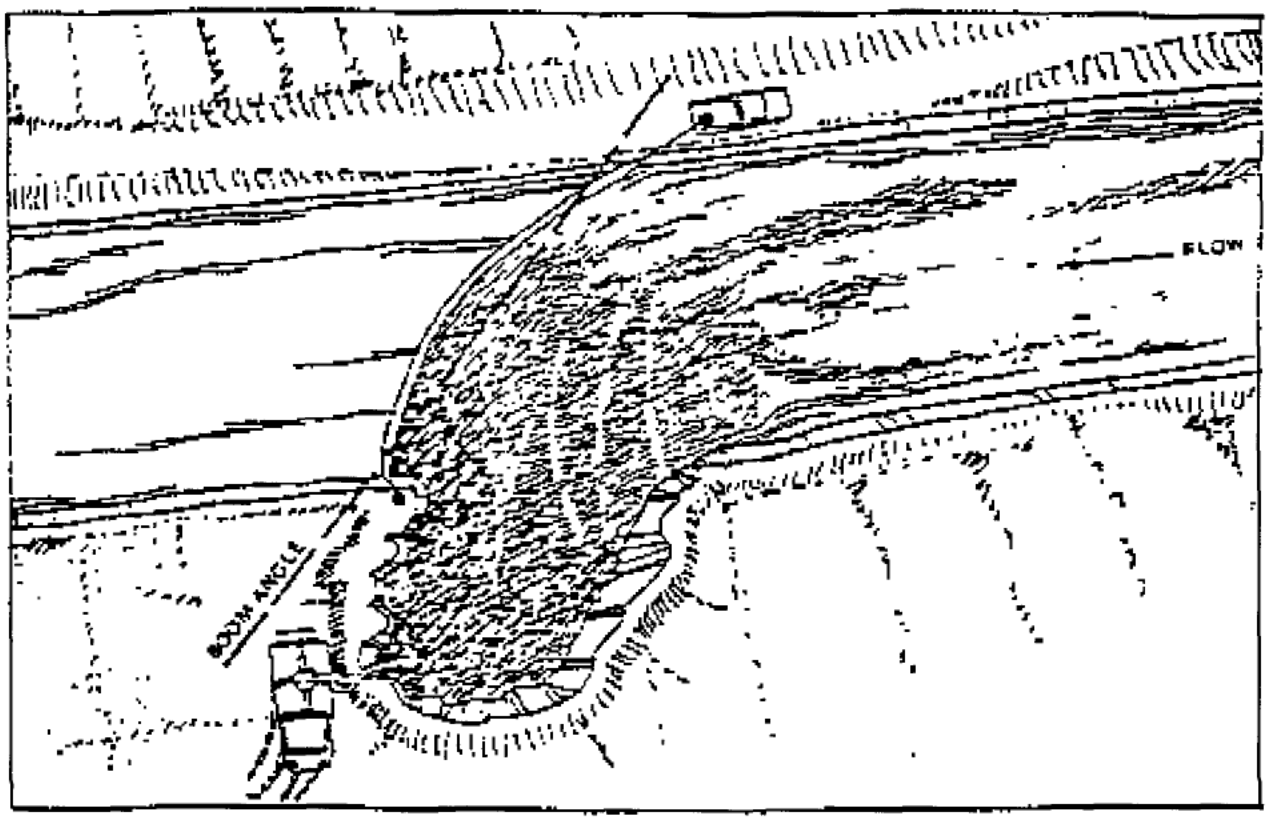
For wide rivers, deploy two or more booms from each bank with one positioned slightly downstream from the other. Anchor the free ends so that they overlap slightly past the mid-stream point. If not enough boom is available, deploy a single boom from the side of the river with the heaviest concentration of oil or from the outside shore of a bend in the river where oil concentrates naturally.

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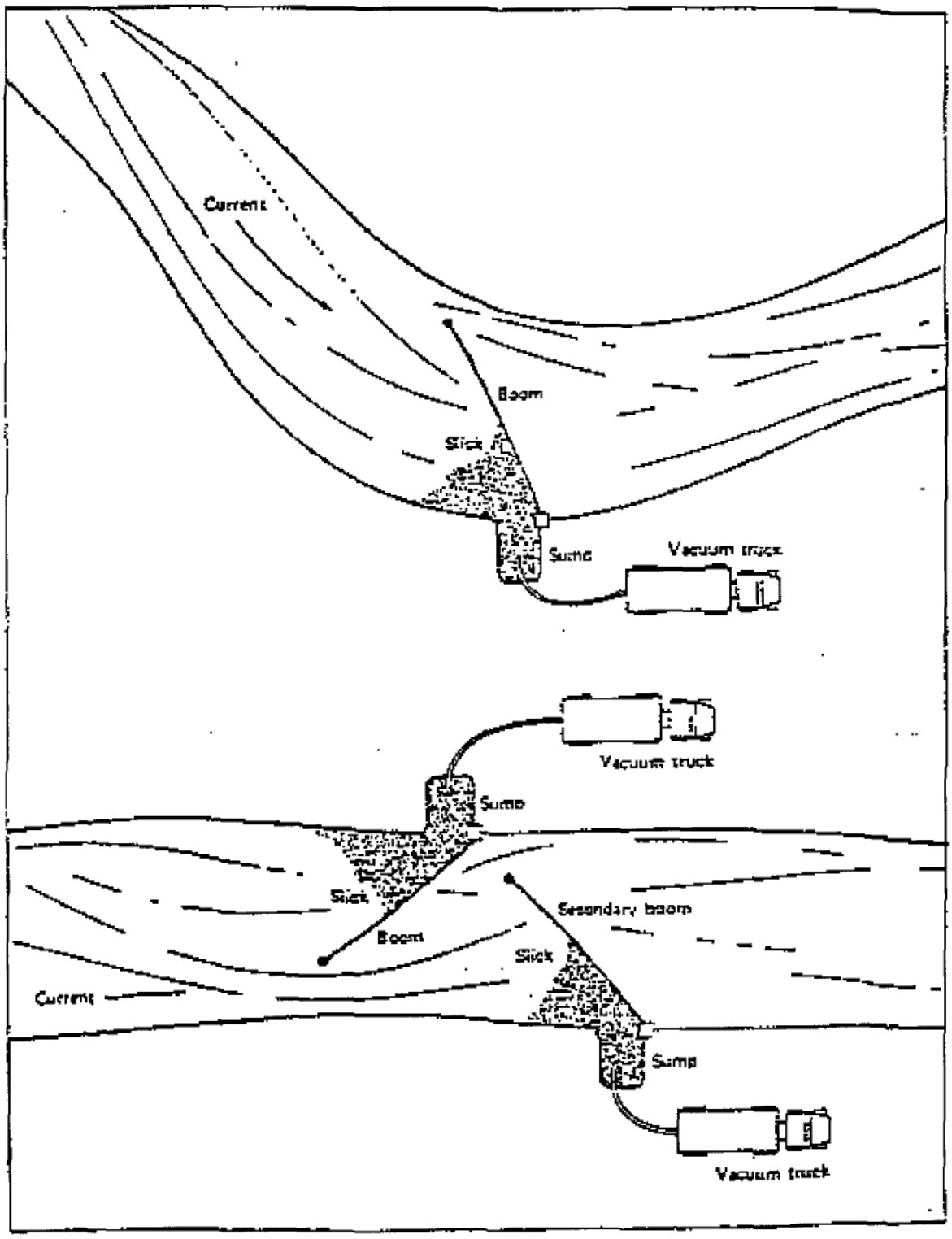
SHORELINE CONTAINMENT:
BOOM DEPLOYMENT ANGLES

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RIVER CONTAINMENT BOOMING

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WIDE RIVER CONTAINMENT BOOMING

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OPEN WATER CONTAINMENT

OPEN WATER CONTAINMENT CONTRACTOR ASSISTED

USE

Booms deployed in front of open water slicks or streamers are used to contain floating oil. Allow winds and currents to concentrate the product at the boom's closed end for recovery.

LIMITATIONS

Excessive spill size, implementation time, heavy seas, adverse weather, and availability of recovery equipment.

GENERAL INSTRUCTIONS

Position the deployment boat along one side of the slick's leading edge. Deploy the boom using an assist boat. Tow the free end around the slick's leading edge and hold it in place with the assist boat. Wind and currents will concentrate the product in the boom's apex where a boat can be positioned to begin skimming operations. Under strong wind and sea conditions, it may be advantageous to deploy upwind and chase the slick downwind in order to reduce the relative forces between the boom and the seas.

EQUIPMENT REQUIRED

Deployment boat(s), open water boom, and portable or self-propelled skimmer.

MAINTENANCE

Continually reposition the skimmer to the area of heaviest product concentration. Check the boom periodically for leakage and broken, twisted, or submerged section. The boom may require repositioning or redeployment if the current or wind direction changes appreciably.

CLEANUP

After skimming, remove product sheens using sorbents.

VARIATIONS

Two boats or two sea anchors can be used to deploy the boom in a catenary configuration. Tow the boom ends up either side of a slick until all the product is contained within the boom.

PERSONNEL AND EQUIPMENT REQUIREMENTS

Personnel and equipment requirements for boom deployment are dependent on the size of the release, the prevailing weather and corresponding condition, and the time needed to deploy

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equipment before the product reaches critical areas. The minimum personnel and equipment requirements for boom deployment under optimum conditions are listed in the Table below.

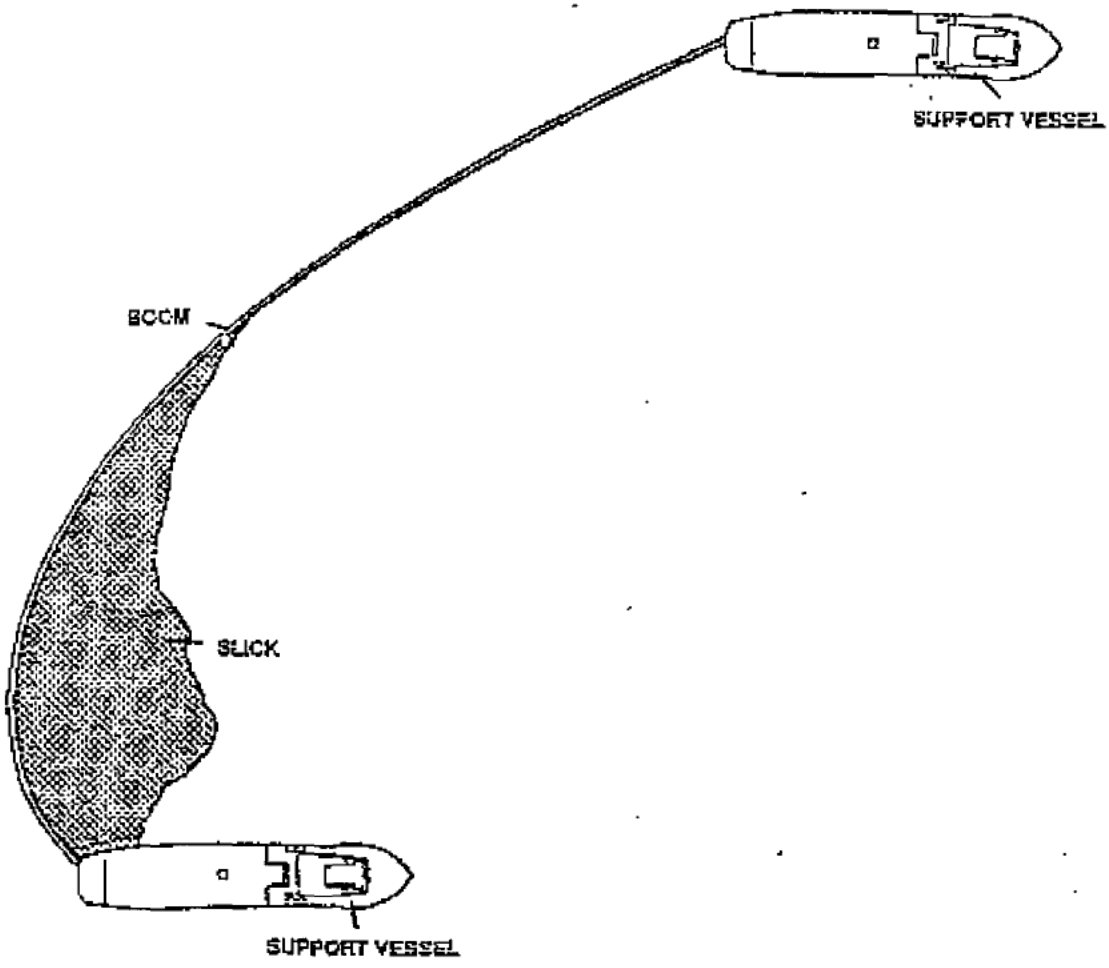
Personnel requirements refer to the number of extra individuals needed to support clean-up operations in addition to management and supervisory members of MPL LLC and personnel essential to the operation of vessels. Individuals assigned to operate specific equipment are given detailed instruction in the operation and maintenance of their assigned equipment.

MINIMUM PERSONNEL AND EQUIPMENT REQUIREMENTS FOR BOOM DEPLOYMENT

Type of Deployment Support	Personnel	Equipment
1. Open Water Booming	Vessel crew plus 4 people for each vessel	See Section 8.0 Resources
2. Diversion Booming Directly to Shore	Vessel crew plus 3 people	Work boat plus 1500-ft of curtain boom
3. Exclusion Booming	Vessel crew plus 3 people	20-ft work boat, 1000 to 1500 ft of boom, boom anchors, and a truck See Section 8.0 Resources

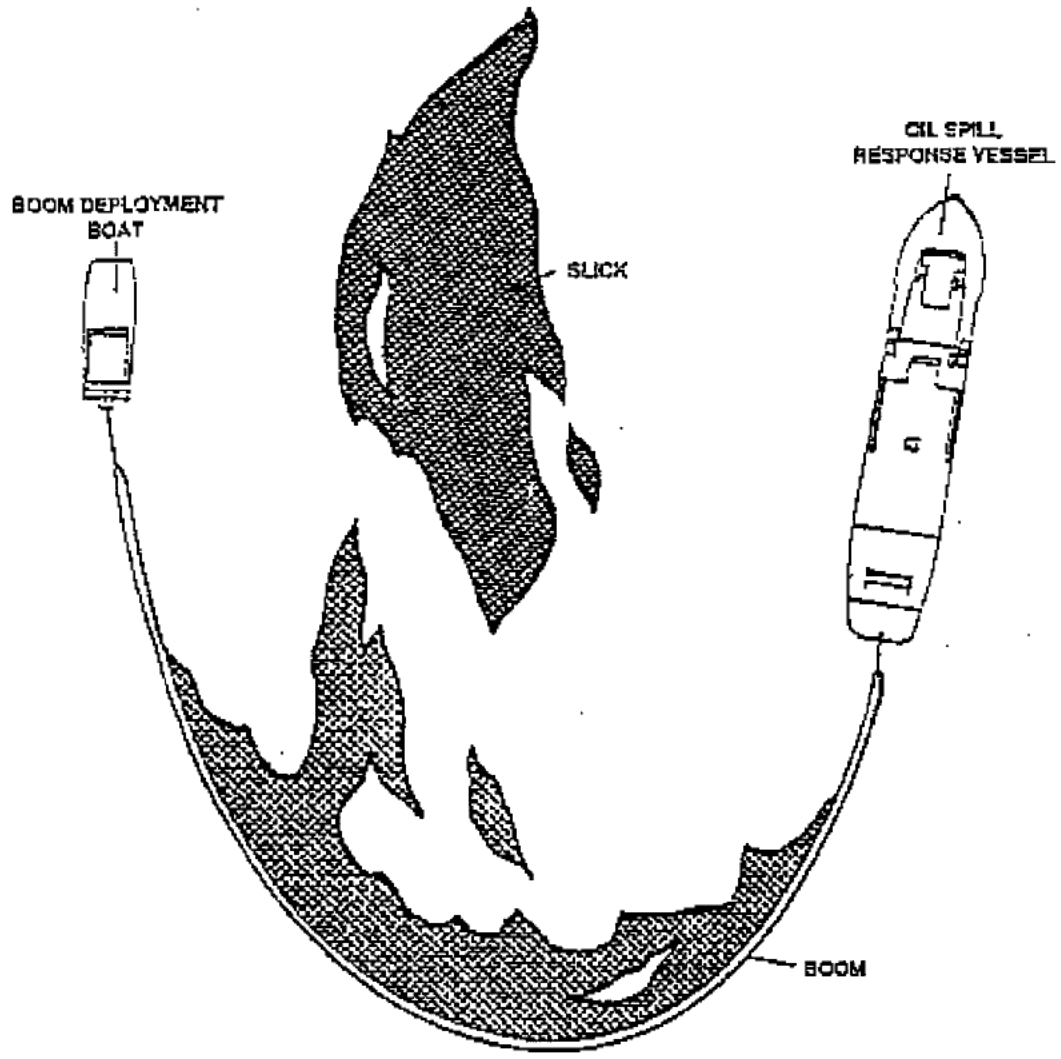
* More personnel and equipment may be required in the event of a large release.

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OPEN WATER CONTAINMENT :
BOOM IN "J" CONFIGURATION

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OPEN WATER CONTAINMENT :
BOOM IN A CATENARY CONFIGURATION

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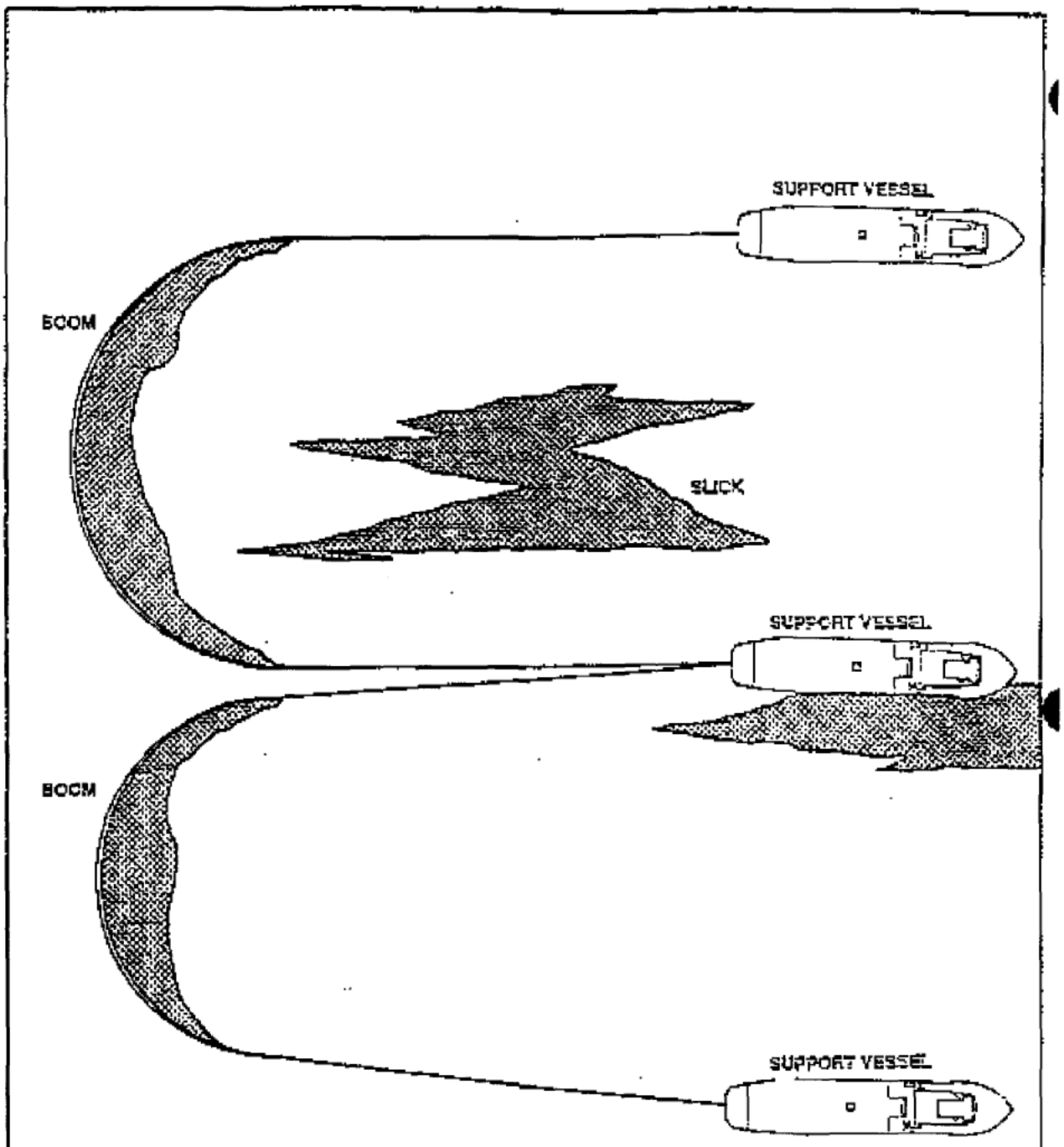


FIGURE OPEN WATER CONTAINMENT : BOOM IN "3" OR "W" CONFIGURATION

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EXCLUSION BOOMING

EXCLUSION BOOMING (CONTRACTOR ASSISTED)

USE

Booms are used to exclude oil from sensitive shorelines by deploying them along the area's periphery.

LIMITATIONS

Accessibility, implementation time, adequate water depth for effective boom placement, wave action, and current velocities.

GENERAL INSTRUCTIONS

Place booms across the area to be protected and anchor both ends to the shore. For inlets or harbor entrances, booms should be placed inside the openings where current velocities and wave action are lowest. To allow vessel passage through harbor waters, one boom end may be attached to a small, manned boat. Booms may also be deployed in a cascading configuration, as described later, which provides vessel passage and the exclusion of product. To maintain boom integrity, anchors should be placed at 100 foot intervals if substantial boom lengths are required.

EQUIPMENT REQUIRED

Anchors, boom deployment equipment (boats, tow lines, etc.), and hand tools.

MAINTENANCE

Check boom periodically for integrity, leakage, or twisted, broken or submerged sections. In tidal waters or areas with fluctuating water levels, reposition the boom and/or its anchor points as water levels change.

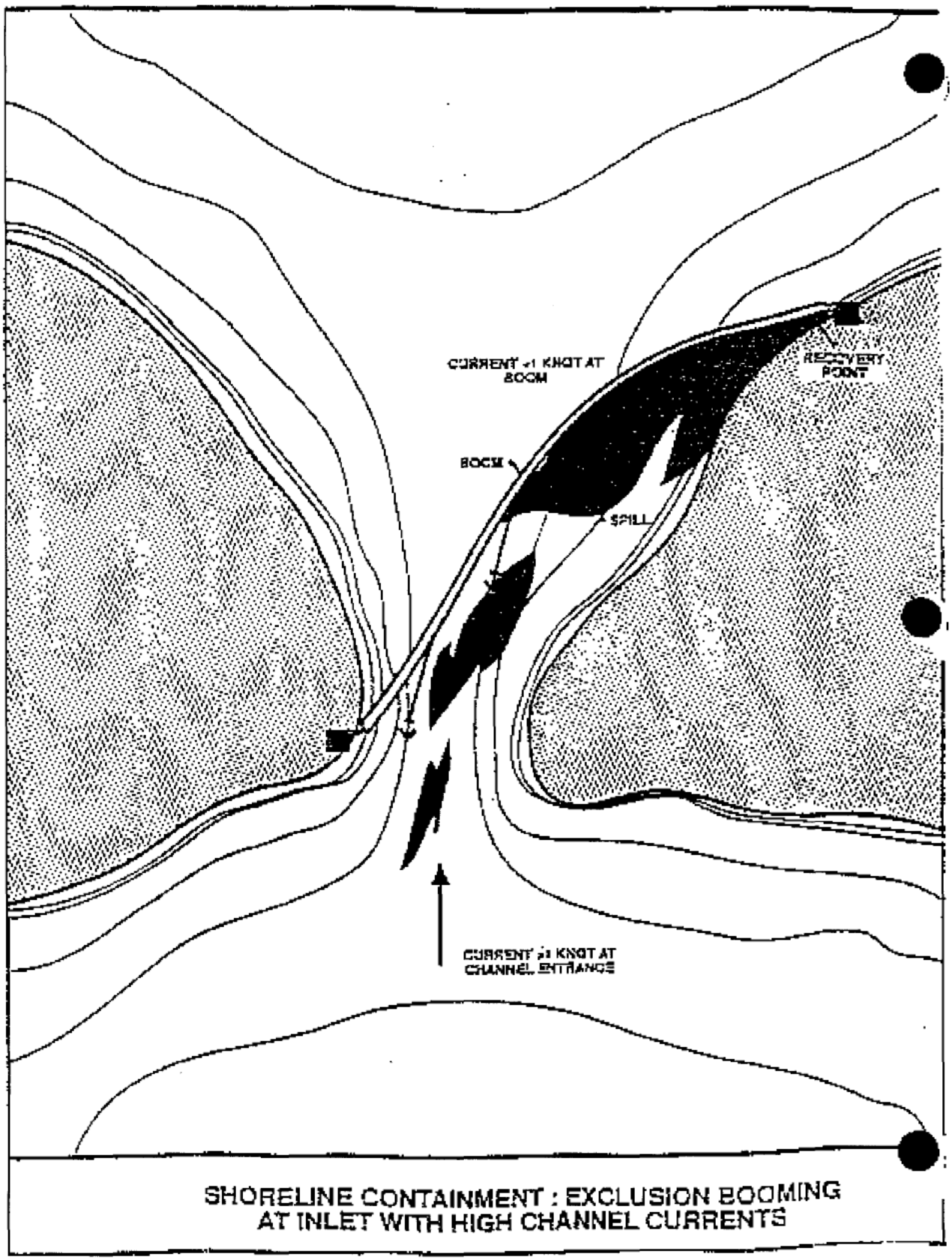
CLEANUP

Recover contained oil by skimming or pumping. Adjacent shorelines can be cleaned using techniques described in that Section.

VARIATIONS

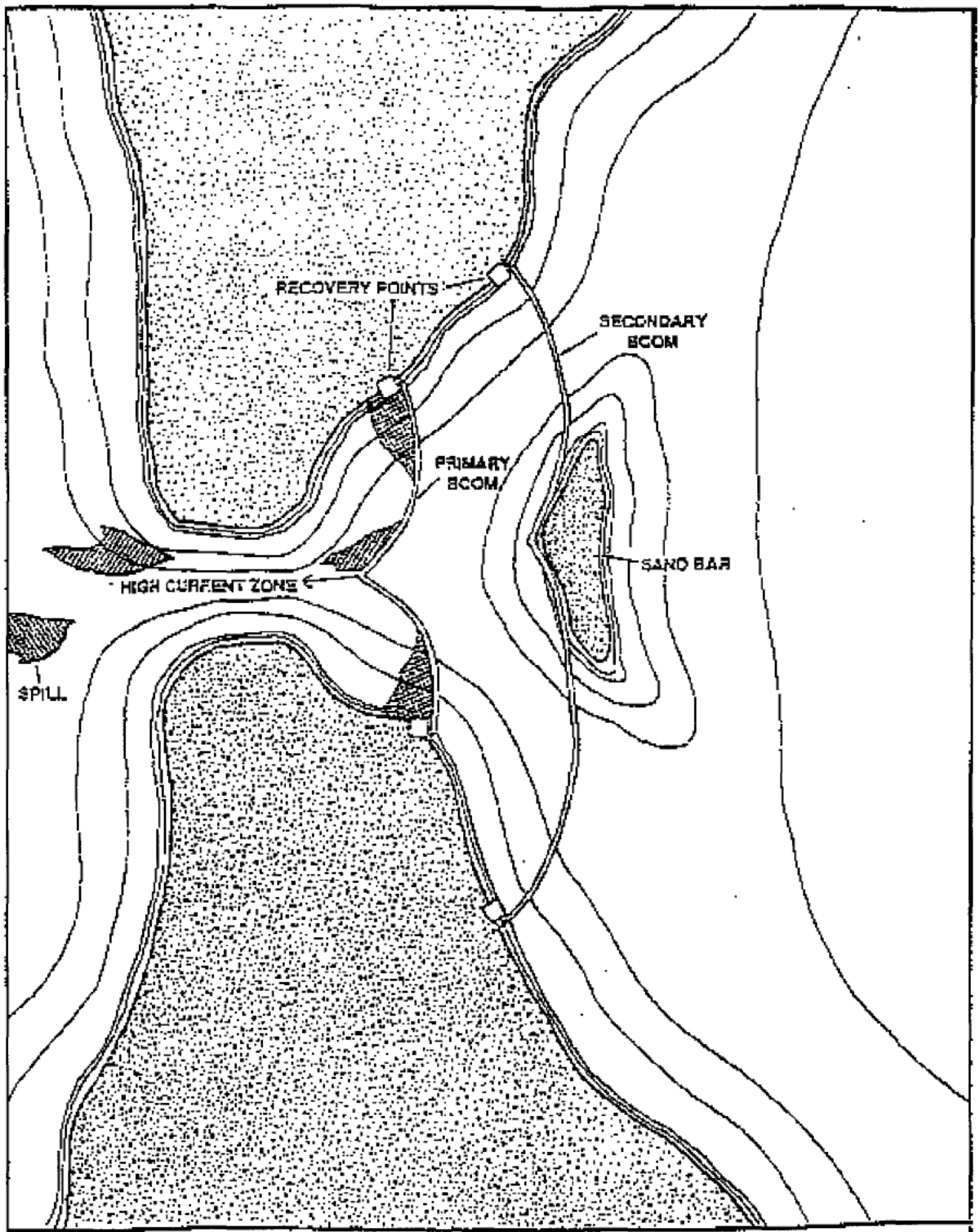
Double or triple booming may be employed in areas with high currents. Position a primary boom in the area of strongest currents and deploy secondary or tertiary booms several hundred yards behind the first as a backup safety measure.

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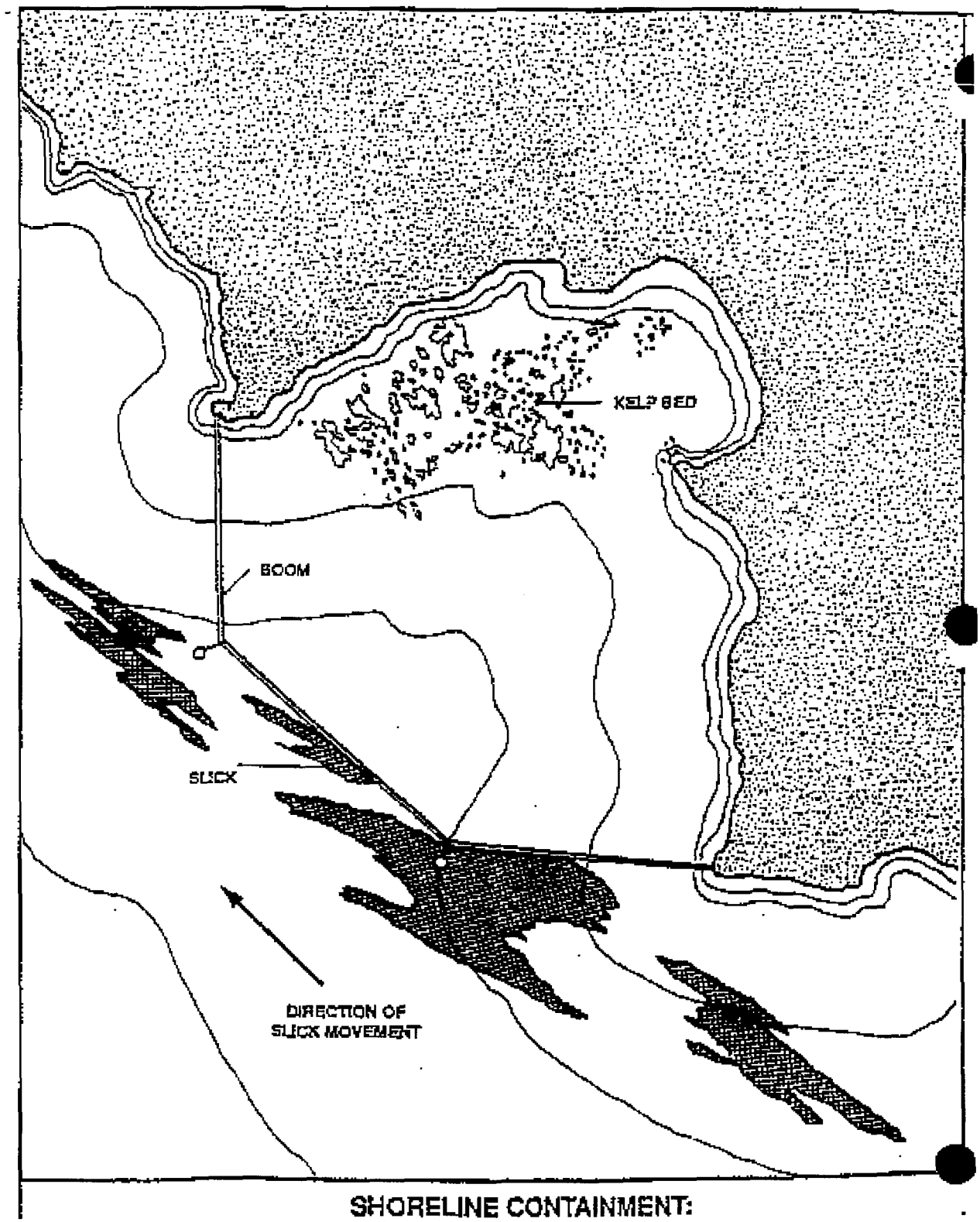
SHORELINE CONTAINMENT : EXCLUSION BOOMING AT INLET WITH HIGH CHANNEL CURRENTS

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SHORELINE CONTAINMENT : EXCLUSION
BOOMING AT THE MOUTH OF A BAY

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SHORELINE CONTAINMENT:

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CASCADING BOOMS (CONTRACTOR ASSISTED)

USE

A series of booms deployed in a cascading formation are used on rivers or coastal areas where currents are too strong for standard containment booming. Cascading Booms direct product to the shore for recovery.

LIMITATIONS

Accessibility, implementation time, currents over 2.5 knots, and soft stream bottoms.

GENERAL INSTRUCTIONS

Tow the lead boom to the opposite shore or to some point mid-stream and anchor it at an angle to the current. Deploy a second boom angled toward the shoreline and anchor the free end 25 to 30 feet downstream from the first so that it overlaps the trailing end of the lead boom. Deploy successive booms in the same manner until the shoreline is reached. Diverted product is recovered by skimming, pumping, or using vacuum trucks. A containment pit can be dug into the river bank or shoreline to assist oil recovery. The optimum boom deployment angle decreases as current velocity and boom length increase, unless several anchor points are set along the length of the boom.

EQUIPMENT REQUIRED

Deployment boat, anchors backhoe (to dig containment pit), and hand tools.

MAINTENANCE

Periodically check the boom for leakage and adjust the deployment angle, if necessary. Also, check the boom for damaged, twisted, or submerged sections. Check anchors for security.

CLEANUP

Remove booms and recover remaining sheens with sorbents. Clean shorelines using prescribed techniques.

VARIATIONS

If booms are unavailable or if the water is too shallow, berms may be constructed using streambed or nearsite materials arranged in a cascading configuration.

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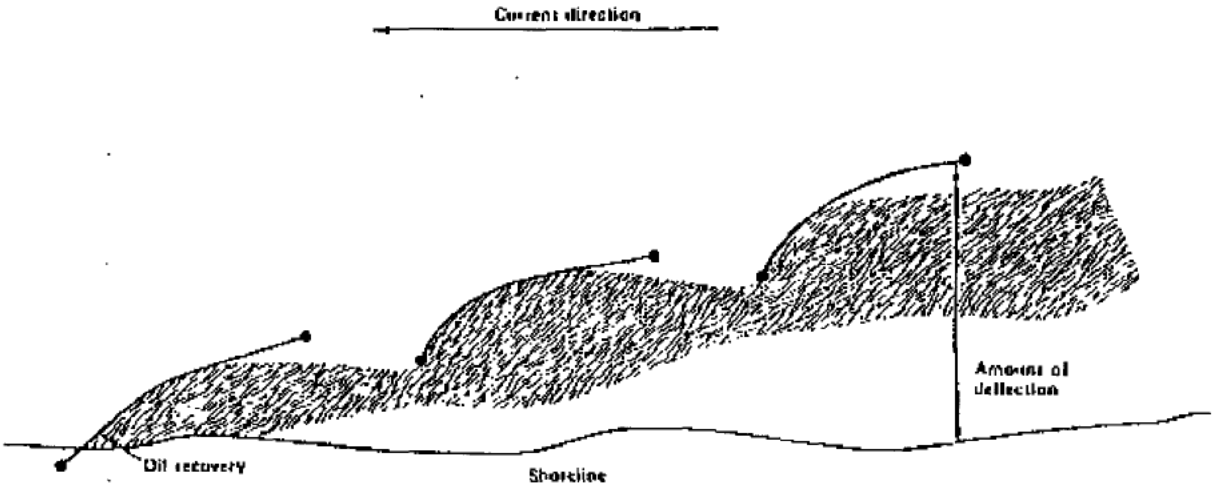


Figure 501-17 PLACEMENT CONFIGURATION OF 3 LENGTHS OF BOOM (Cascading Deflection Booms)

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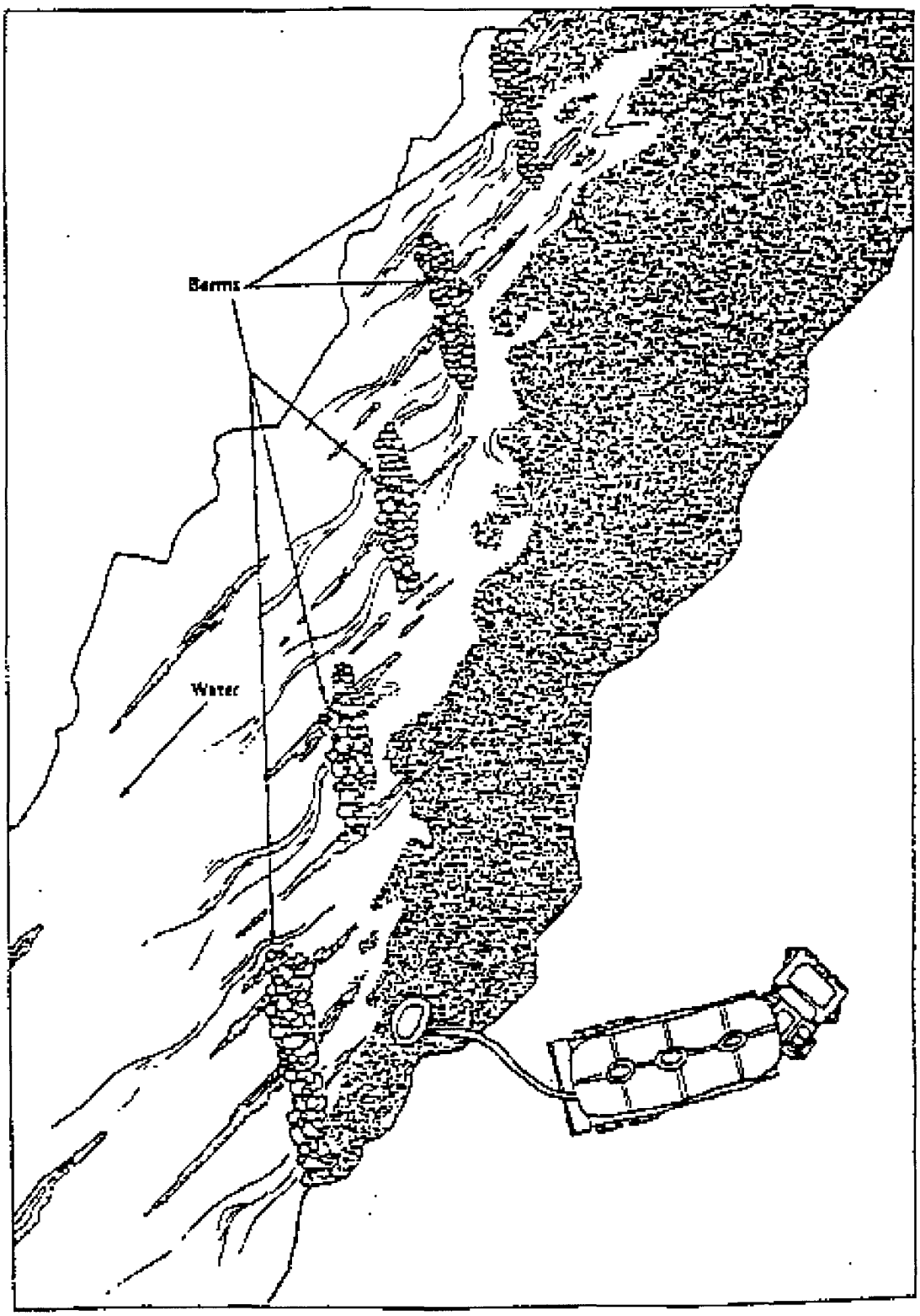


Figure 501-18 CASCADING BERMING

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MARINE DIVERSION BOOMING (CONTRACTOR SUPPORTED)

USE

Booms are positioned along low-energy shorelines to divert product away from sensitive shoreline areas to less sensitive onshore or offshore areas for subsequent recovery. Proven to be an effective booming technique in currents greater than 1 knot.

LIMITATIONS

Accessibility, implementation time, availability of deployment equipment, and heavy surf conditions.

GENERAL INSTRUCTIONS

Anchor one end of the boom to the shoreline and, using a vessel, position the boom's free end at an angle to the current. If product is being diverted to the shore, angle the boom's free end towards the oncoming flow. Product diverted towards the shore can be recovered by skimming or pumping. If product is being diverted away from the shore, angle the free end away from the approaching release. If the spill is large or continuing, the free end of the boom should also be anchored in place.

Two booms can be deployed to divert an approaching slick from a shoreline and into a floating skimmer. Secure one end of each boom to opposite sides of the skimmer and tow one free end along or parallel to the threatened shore. By towing the other free end toward open waters, the booms form a vee configuration to trap the encroaching product while the skimmer recovers the contained slick before it reaches the shore.

The optimum angle of boom deployment is dependent upon the type and length of boom used, the current velocity, and the shape and position of the approaching slick. Generally, the free end of the boom must be angled toward the shoreline as current velocity increases. To avoid boom failure in strong currents, the deployment angle must be smaller than in weak currents. The same relation is true with regard to boom length. The optimum deployment angle decreases as boom length increases unless the boom is anchored at several places along its length.

EQUIPMENT REQUIRED

Boom deployment boat, anchor(s), and hand tools.

MAINTENANCE

Check the boom periodically for leakage and broken, twisted, or submerged sections. The deployment angle may require periodic adjustment in the event of significant wind or current

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changes, product entrainment beneath the boom or excessive buildup behind the boom. The shoreline anchor point may require occasional repositioning due to tidal fluctuations.

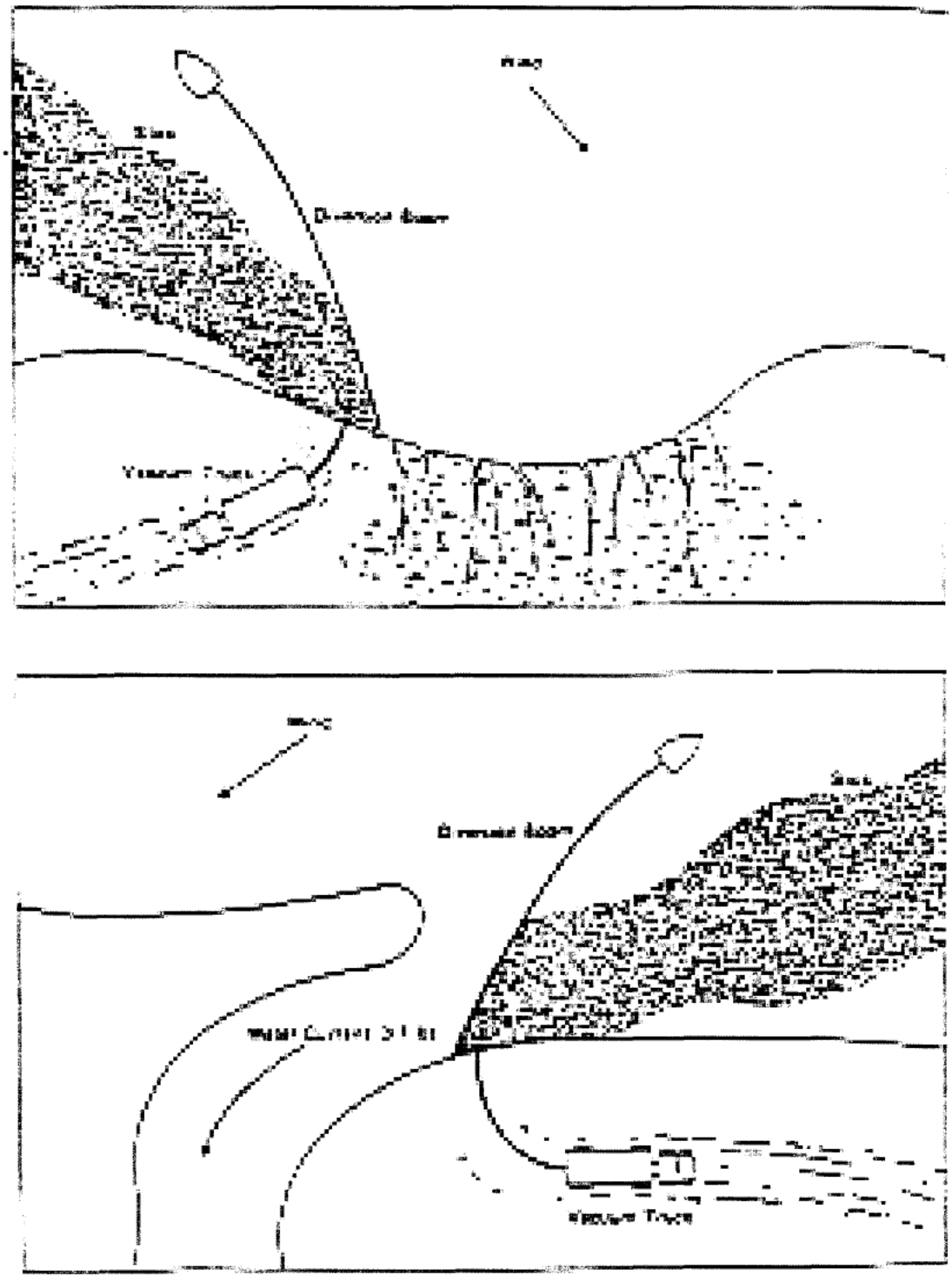
CLEANUP

Recover residual product sheens using sorbents.

VARIATIONS

For very low-energy shorelines, a secondary boom can be anchored parallel to the shore just beyond the surf line with the down-current end connected to the diversion boom. As the product flow is diverted towards the shore, the secondary boom prevents contamination of the shoreline.

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MARINE DIVERSION BOOMING TECHNIQUES
FOR PROTECTING SENSITIVE AREAS

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BEACH BERMING
CONTRACTOR ASSISTED

USE

Berms constructed along the mid-intertidal zone of a beach are used to prevent the spread of spill contamination to backshore areas.

LIMITATIONS

Implementation time, generally only effective for one to two tidal cycles, and not applicable on high-energy shorelines or during heavy storms.

GENERAL INSTRUCTIONS

Operate a motor grader parallel to the surf line to cast a windrow along the mid-intertidal area. Several passes are usually required to produce an adequate berm height. A bulldozer is usually required to assist the motor grader when it gets stuck. Bulldozers can also be used to build sand berms. If heavy equipment is unavailable, shovels may be used to construct berms.

EQUIPMENT REQUIRED

Motor grader and bulldozer and/or hand tools.

MAINTENANCE

Continually check berm for adequate height. Maintain or increase berm height as necessary.

CLEANUP

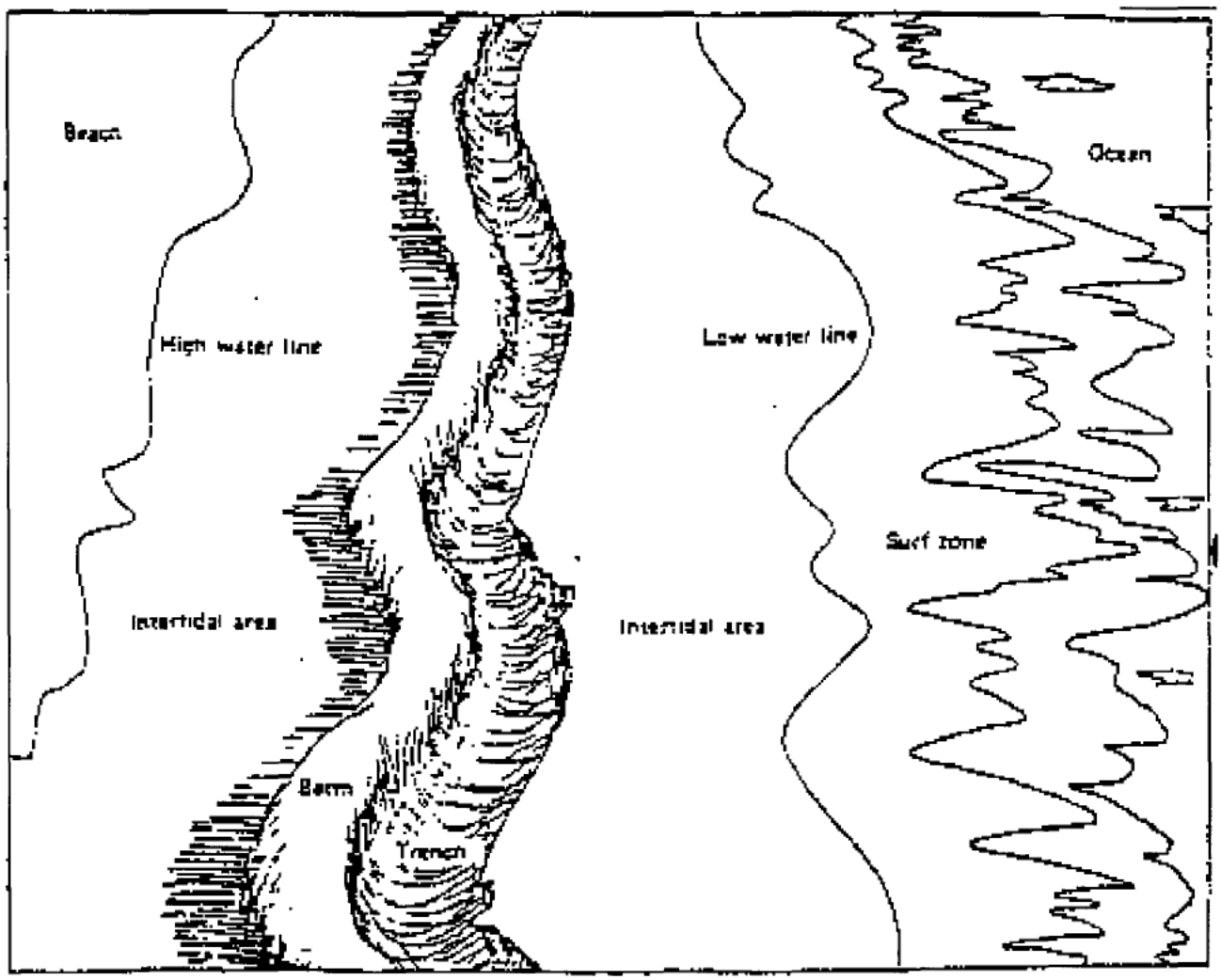
Remove or treat contaminated beach material using prescribed techniques.

VARIATIONS

A trench may be dug on the seaward side of the berm to assist in collecting incoming oil for subsequent removal. This could, however, allow deeper containment penetration into the sediments.

Berms with trenches on the backshore side can aid in containing runoff when flushing contaminated backshore and upper intertidal areas.

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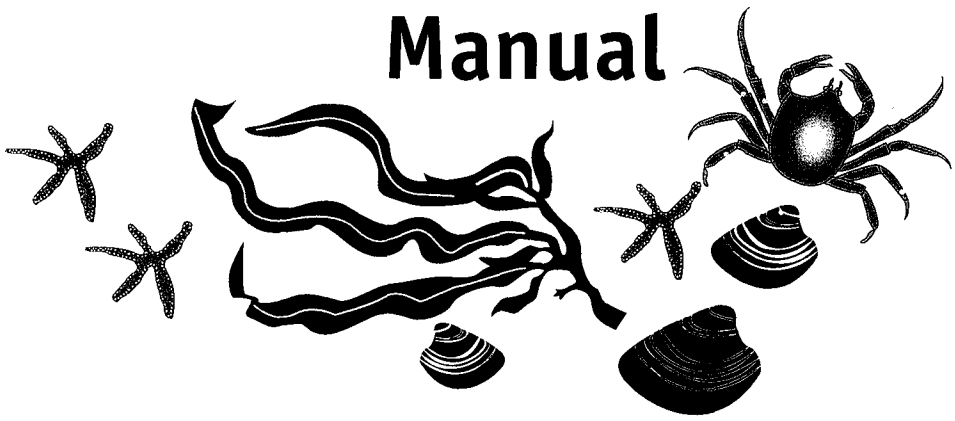


BEACH BERM

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H

Shoreline Assessment Manual



Third Edition

Office of Response and Restoration
Hazardous Materials Response Division
National Ocean Service
National Oceanic and Atmospheric Administration
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Seattle, Washington 98115

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National Oceanic and Atmospheric Administration.
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Purpose and use of this guidance

This manual and any internal procedures adopted for its implementation are intended solely as guidance. They do not constitute rulemaking by any agency and may not be relied upon to create a right or benefit, substantive or procedural, enforceable by law or in equity, by any person. Any agency or person may take action at variance with this manual or its internal implementing procedures.

Shoreline Assessment Manual

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1 The Shoreline Assessment Process



When spilled oil contaminates shoreline habitats, responders must survey the affected areas to determine the appropriate response. Although general approvals or decision tools for using shoreline cleanup methods can be developed during planning stages, responders' specific cleanup recommendations must integrate field data on shoreline habitats, type and degree of shoreline contamination, and spill-specific physical processes. Cleanup endpoints must be established early so that appropriate cleanup methods can be selected to meet the cleanup objectives. Shoreline surveys must be conducted systematically because they are crucial components of effective decisions. Also, repeated surveys are needed to monitor the effectiveness and effects of ongoing treatment methods (changes in shoreline oiling conditions, as well as natural recovery), so that the need for changes in methodology, additional treatment, or constraints can be evaluated.

This manual outlines methods for conducting shoreline assessments and incorporating the results into the decision-making process for shoreline cleanup at oil spills.

During a spill response shoreline assessment is a function that is commonly conducted under the Environmental Unit within the Planning Section of the Incident Command System (ICS). Further information regarding ICS and response structures and roles can be found in the Field Operations Guide (FOG) (USCG 2000). Figure 1 highlights how the shoreline assessment function fits into a typical ICS structure. Depending on the complexity of the spill response, the Technical Specialist role may actually exist as a team. The teams are often made up of representatives from state and federal resource agencies, the responsible party and the USCG or USEPA and should be trained and knowledgeable in their roles. Members of the team can be 1) Shoreline Assessment Coordinator and 2) Shoreline Assessment Team Leader or 3) Team member.

Bringing their agency's expertise, Shoreline Assessment Teams collect the data needed to develop a shoreline cleanup plan that maximizes the recovery of oiled habitats and resources, while minimizing the risk of injury from cleanup efforts. Consideration should always be given to:

- Potential for human exposure, by direct contact or by eating contaminated seafood;
- Extent and duration of environmental impacts if the oil is not removed;
- Natural removal rates;
- Potential for remobilized oil to affect other sensitive resources; and
- Likelihood of cleanup to cause greater harm than the oil alone.

Information from these assessments must meet the requirements of the cleanup operation, being both timely and of uniform quality and content. Finally, the teams must coordinate their field activities with the operational Divisions working in the areas being assessed. This ensures that all operations are conducted safely and that important information is exchanged.

The Shoreline Assessment Coordinator should be designated to manage the teams and synthesize their field data into reports used by the Environmental Unit and Planning Section to support the daily Incident Action Plan (IAP). The information and recommendations generated are used by the Planning Section and implemented by the Operations Section in shoreline cleanup. The National Oceanic and Atmospheric Administration's (NOAA) Scientific Support Coordinator (SSC) can help identify and coordinate staff to form the teams.

Other positions in the response structure may be involved in shoreline assessment. One such position is the Field Observer. They are usually two-person teams (sometimes called Rapid Assessment Teams) made up of representatives from the U.S. Coast Guard and the State lead agency that quickly deploy to problem sites to determine what is happening. The Field Observers report directly to the Situation Unit Leader who in turn communicates their information to other units in Planning and Operations. At least one of the Field Observers on the two-person team should have an operations background, with the other member trained in shoreline assessment.

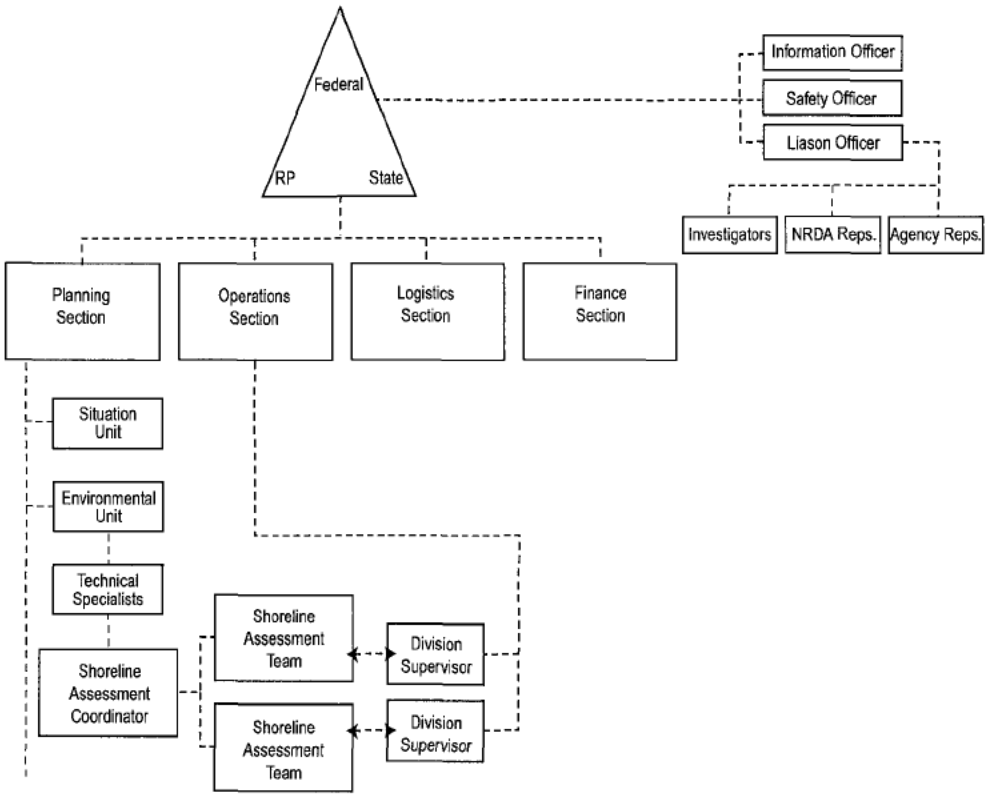


Figure 1. **The Unified Command Structure (UCS). Shoreline Assessment Teams and Technical Specialists under the Planning Section collect information on shoreline oiling conditions to support cleanup decision making. They can be involved in all phases of the cleanup until segments are signed off as complete.**

Shoreline assessment supports the response cleanup objectives and mandates of the response operations, as directed and managed by the Incident Commanders. Appropriate staff from all stakeholders in the spill response are involved in this activity. Problems have arisen in the past when agency and responsible party (RP) representatives were unavailable to support the response operational needs because of their focus on natural resource damage assessment (NRDA) activities. Much of the information collected during shoreline assessments applies directly to natural resource damage assessments and is readily shared. The shoreline assessment data must be collected quickly since it is necessary for operational decision-making. Experience has shown that the dual objectives of NRDA and shoreline assessment are best met when field surveys for these activities are well coordinated. A typical ICS structure includes a NRDA Representative who works through the Liaison Officer at the Command Staff level. The NRDA representative is responsible for coordinating NRDA needs and the activities of the Natural Resource trustees.

A commonly used acronym for all these activities is SCAT. This stands for *Shoreline Cleanup Assessment Team*, a name first developed during the *Exxon Valdez* oil spill (Owens & Teal 1990). SCAT programs have been adopted in many areas, particularly Canada, where SCAT manuals have been developed for the Atlantic Coast, Great Lakes, and British Columbia (Environment Canada 1992). The Texas General Land Office has incorporated SCAT teams into its response organization. However, SCAT has different connotations in different areas. Throughout this manual, we use "shoreline assessment" instead of SCAT to describe a process consistent with the basic objectives listed above.

The following sections of this manual describe the organizational and technical aspects of conducting a shoreline assessment. This manual is designed to be used as a field guide as well as a training tool.

At times, the needs or interests of private land users may not be fully addressed during spill response, since emergency-response cleanup objectives are developed specifically to protect natural resources and maximize recovery.

Information needs early in the spill

In the initial phase of a spill, the conditions may require immediate information on shoreline oiling in order to deploy cleanup contractors to problem areas. The Unified Command can direct Field Observers, who are organized under the Situation Unit, to gather such information. As well as knowing accepted terminology and cleanup guidelines, Field Observers must understand the key agency concerns about a spill, such as the types of shoreline or resource issues that need to be addressed by a Shoreline Assessment Team before the startup of cleanup activities. In some cases, Field Observers can scout-out spill areas to identify sites where shoreline assessment surveys are needed.

2 The Flexibility of Shoreline Assessment Methods

What is a Shoreline Assessment Program?

- A systematic approach that uses standard terminology to collect data on shoreline oiling conditions and support decision-making for shoreline cleanup;
- Flexible in terms of scale of the survey and detail of the data sets collected; and
- Multi-agency, with trained representatives from all interested parties, who have authority to make decisions:
  - ❒ Federal On-Scene Coordinator (FOSC)
  - ❒ Member of the NOAA Scientific Support Team
  - ❒ State On-Scene Coordinator (SOSC)
  - ❒ Resource managers (state and Federal agencies)
  - ❒ Responsible party (RP)
  - ❒ Landowners

The shoreline assessment process should be easily modified to fit the spill conditions; it should be as simple as possible, yet comprehensive enough to address all of the issues and concerns of shoreline cleanup. It must not be a slow, cumbersome process that keeps Planning and Operations waiting for key data. When delays occur, Operations will be forced get the information it needs on its own, and thus the work products of the Shoreline Assessment Teams will not be used. Two types of shoreline assessment are outlined below, representing a range of complexity. Many spills will require some elements of both: detailed surveys of specific problem areas, and application of general guidelines for cleanup of shorelines with simple cleanup requirements.

"Geographic" Shoreline Assessments

This assessment approach generates site-specific recommendations on resource protection and cleanup methodology.

involve...

- Completing forms and sketches for each segment; and
- Making detailed cleanup recommendations unique to each segment, identifying specific locations to be cleaned.

are used for...

- Very small spills where all sites can be readily inspected by the same team;
- Very large spills where many teams are required;
- Sites where many different shorelines types have been oiled; and
- Areas where full documentation of oiling conditions is required, such as:
  - ❒ Spill conditions where cleanup problems are not readily apparent (e.g., buried oil that must be located by digging, and when repeated surveys are needed to ensure that removal is complete); and
  - ❒ Areas with resource constraints that need to be specifically identified in the field.

"Topical" or "hot spot" shoreline assessments

This assessment approach is based on the assumption that the Operations Division Managers (who are responsible for directing the cleanup in a specific geographic area using several types of resources, such as task forces) can successfully implement spill-specific cleanup guidelines, thus reducing the need for site-specific surveys. Most often, this approach is appropriate when the degree of oiling is relatively uniform or uncomplicated, or when the shoreline type is not particularly sensitive, such as man-made structures. The cleanup guidelines should be detailed enough to prevent confusion about their use. Terminology used in the guidelines should reflect local usage (e.g., use "seaweed" rather than "brown algae" or "*Fucus* " if that is what the cleanup workers call it). **Figure 2** is an example of general cleanup guidelines.

involve...

- Conducting familiarization surveys by the team to identify oiling conditions and cleanup issues for each shoreline type or resource of concern;
- Developing spill-specific cleanup guidelines for each shoreline type, to be implemented in the field by Division Managers;

"Topical" or "hot spot" shoreline assessments (cont.)

- Meeting with Division Managers to make sure that they understand the cleanup guidelines, what leeway they have in implementing them, and the key issues of concern to the resource agencies;
- Spot-checking cleanup operations for compliance with cleanup guidelines and effectiveness toward achieving target cleanup endpoints; and
- Responding to requests from Operations to resolve "hot spot" problems encountered during cleanup activities.

are used for...

- Small-volume spills that spread over very large areas (such as stranding of tarballs on Gulf of Mexico beaches);
- Man-made shoreline types, such as seawalls, with few site-specific sensitive resource issues; and
- Cleanup work that continues for very long times because of chronic re-oiling or seasonal changes in shoreline oiling.

Other examples of shoreline assessments customized to spill conditions...

Tarball assessments during the *Buffalo* 292 spill (Galveston)

The cleanup of the *Buffalo* 292 spill at Galveston, Texas in March 1996 was divided into two phases: the first 12 days of the spill, when much of the oil stranded along the upper Texas coast near Galveston; and the next several weeks, when tarballs spread to the mid- and lower Texas coast, beyond Corpus Christi (Martin et al. 1997). During the first phase, a full geographic shoreline assessment was effectively conducted. However, the approach changed when the tarballs stranded on remote beaches with few structures, roads, or other landmarks to reference during surveys and communications. Instead of filling out forms and making sketches, the team:

- Established mile marker stakes at 1-mile intervals on the beach, with operational zones and shoreline segments then redefined in terms of the mile markers;
- Recorded the concentration and distribution of tarballs between the mile markers, using standard terminology;
- Used surveyors' flags to mark buried oil locations for the cleanup crews;
- Reported the shoreline impact descriptions by cellular phone to the Command Post (eliminating the need for face-to-face briefings); and
- Generated tabular reports by the Team Coordinator that were submitted to Planning and then Operations.

Figure 2.
Example of "topical" cleanup guidelines for a shoreline type.

GUIDELINES FOR HOT-WASH OF OILED RIPRAP/BULKHEADS

Julie N Spill, Portland, Maine

October 4, 1996

- Water temperature of hot wash not to exceed 40°C.
- Spray nozzle will be held at a distance of 6 inches or greater from the surface. All spraying/flushing will be into water for collection.
- No attached seaweed will be sprayed with hot water.
- Once the water level reaches the seaweed, hot-water washing will be terminated.
- Once hot-water washing is terminated, all released oil will be recovered immediately. Cold-water flushing of the seaweed is allowed when oil has accumulated in it.
- Removal of heavily oiled seaweed will be allowed in specified areas identified by the Shoreline Assessment Team. If seaweed is to be cut, the root attachment and a 12-inch stem will be left.
- Cold-water flushing will be conducted until no more oil is mobilized.
- Hot wash will be repeated until no free oil is released by the hot wash and no more than a stain (can't be scraped off with a fingernail) remains on the surface.
- Sorbents will be deployed along areas where sheens are being released from the shoreline.

NOTE: These guidelines will be revised, as needed, in response to changing conditions as the oil weathers.

Buried oil during the *Bouchard 155* (Tampa Bay) and *Buffalo 292* (Galveston) spills

Buried oil is a site-specific problem that must be delineated by labor-intensive digging to determine the areal extent of the buried layers. The presence of buried oil is noted on the shoreline survey form and delineated on a sketch map. However, depending on the skill of the sketcher and the complexity of the segment, cleanup crews may not be able to locate the buried oil by reading the forms and maps. Another approach, used during both the *Buffalo* 292 spill in Texas and the 1993 *Bouchard* 155 spill in Tampa Bay, is to provide the survey team with surveyor's flags to mark the location of buried oil to be removed.

3 Responsibilities of the Shoreline Assessment Team

- Describe shoreline types, oiling conditions, and physical setting
- Identify sensitive resources (ecological, recreational, cultural)
- Determine the need for cleanup
- Recommend shoreline cleanup methods and endpoints:
  - ❒ specify generic and site-specific constraints for cleanup activities
  - ❒ determine the need for follow-up surveys if archaeological and cultural resources are present
  - ❒ establish cleanup priorities
  - ❒ identify safety concerns for cleanup operations
  - ❒ monitor cleanup effectiveness and effects, suggesting changes where needed
  - ❒ determine when cleanup operations are no longer effective
  - ❒ conduct post-cleanup inspections before sign-off

Teams must answer these questions

- Is cleanup necessary at this site?
- Which cleanup methods are appropriate or recommended?
- Which constraints are needed to protect sensitive resources?
- What is the priority for cleanup at this site?
- Are cleanup operations being conducted properly?
- Is the cleanup method no longer effective, or causing collateral damage? Do we need to try another method?
- Are the targeted endpoints realistic and obtainable for the current spill conditions?
- Should cleanup operations be terminated at this site?

4 Roles of the Shoreline Assessment Team

The Shoreline Assessment Team consists of a Coordinator (usually from NOAA's Scientific Support Team or the State counterpart), Team Leaders for each team, and team members. Roles and responsibilities of each member are outlined below.

Team Coordinator

sets schedules and priorities

- Coordinates Shoreline Assessment Team response activities
- Conducts aerial reconnaissance survey to scope the shoreline oiling issues
- Ensures that all teams have the necessary representation and all members have the necessary training
- Develops daily assignments for each team, according to the needs of the Planning and Operations sections to meet the Unified Command response objectives
- Coordinates with natural resource damage assessment (NRDA) concerns on shoreline assessment to optimize data sharing
- Integrates cleanup concerns of the various resource agencies and managers into the decision-making process
- Arranges for equipment and transportation for the Shoreline Assessment Teams through the Logistics Section

leads development of cleanup guidelines

- Leads development of cleanup endpoints considering shoreline type, ecological sensitivity, recreational use, and aesthetic requirements, etc.
- Leads development of cleanup guidelines for implementing each cleanup method for the impacted shoreline types, based on agency concerns

leads reporting requirements

- Develops a survey and reporting schedule to produce survey results in time for incorporation into the Incident Action Plan (IAP)
- Ensures that teams use proper terminology and apply guidelines uniformly
- Receives reports from field teams and synthesizes them into a daily summary in IAP format and is accessible to the field teams if problems arise

Team Coordinator (cont.)

- Helps team reach consensus and reports dissenting opinions when consensus is not reached
- Briefs Planning and Operations chiefs on issues raised by the Shoreline Assessment Teams, particularly where cleanup methods must be modified to increase effectiveness or decrease impacts
- Continues to lead evaluation of targeted cleanup endpoints and modifies them as necessary
- Officially recommends termination of cleanup actions to the Unified Command when:

  1) cleanup endpoints have been reached,

  2) actions are no longer effective, or

  3) further cleanup would cause more harm than good.

Field Team Leader

- Is the most experienced person on the Team
- Manages the Team while it conducts field surveys
- Completes forms and sketches in the field
- Guides the Team toward consensus on cleanup recommendations, priorities, special constraints, etc., and notes dissenting opinions
- Briefs Team Coordinator on field survey results
- Reports cleanup issues identified by the Team that need to be addressed
- Recommends modifications to cleanup methods and target cleanup endpoints

Agency Reps. (local, state, and federal)

- Help collect data on oiling conditions and special agency considerations
- Are experts in resource sensitivity and priorities for response considerations
- Recommend site-specific constraints or precautions to be followed during cleanup
- Determine need for cleanup, considering cleanup guidelines and endpoints
- Recommend cleanup methods, priorities, and endpoints
- Identify need for surveys by archaeological or cultural resource specialists.

Operations Representative

- Is often the FOSC representative from the U.S. Coast Guard, either from the Marine Safety Office or one of the Strike Teams, or can also be provided by the RP representative or the State
- At times may include the Division Supervisor when the Team is in his/her area of responsibility (note dashed line in Figure 1 between the teams and the Division Supervisor)
- Helps collect data on oil conditions
- Evaluates appropriateness and operational feasibility of cleanup techniques
- Identifies logistical constraints and solutions, and estimates the level of effort needed



NOTE: Keeping the same individuals on a Team during the entire event ensures continuity in reporting and describing oil distribution and types of oiling.

5 Shoreline Assessment Activities

The following sections describe the full range of activities normally conducted as part of the shoreline assessment process.

5.1 Reconnaissance survey
5.2 Segmenting the shoreline
5.3 Developing spill-specific cleanup guidelines and endpoints
5.4 Pre-survey planning and team assignments
5.5 Shoreline surveys
5.6 Submitting reports to the Planning Section
5.7 Cleanup evaluation/effectiveness monitoring
5.8 Post-cleanup inspections
5.9 Final sign-off of cleanup activities

The degree to which each activity is implemented depends on the complexity of the spill. Flexibility is important; activities should be modified as appropriate to specific spill conditions.

NOAA and others have developed various resources and tools to assist Shoreline Assessment Teams in conducting each of these activities. Each section on an activity includes a list of the tools or resources that can be used. These tools and resource are briefly summarized below.

Shoreline Assessment Manual, 3rd edition: Describes the framework and process for developing shoreline cleanup strategies, including the formation of Shoreline Assessment Teams and the development of cleanup recommendations and target cleanup endpoints, standard methods for conducting field surveys and collecting data, reporting activities, and inspection and sign-off methods. The manual provides guidance, examples, and forms to assist decision-making and documentation for shoreline assessment and cleanup. The revised third edition was published by NOAA in August 2000.

Shoreline Assessment Job-Aid: A pocket-sized, laminated field guide used by members of Shoreline Assessment Teams to assist them in recording accurate field observations in a concise, systematic, and standard format. It consists of color photographic examples of all shoreline assessment terms, shoreline types, and cleanup methods. The Job-Aid was produced by NOAA in 1998.

Environmental Considerations for Oil Spill Response ("Marine Manual"): Provides information for making trade-off decisions in the selection of appropriate cleanup methods for specific habitats and oil types. Includes matrices for shallow subtidal and shoreline intertidal habitats which classify cleanup methods for five different oil types, according to their potential for causing adverse habitat impacts. Developed jointly by NOAA, the American Petroleum Institute (API), the U.S. Coast Guard (USCG), and the U.S. Environmental Protection Agency. In press.

Options for Minimizing Environmental Impacts of Freshwater Spill Response ("Freshwater Manual"): Similar to the Marine Manual, but addresses spill response in freshwater habitats. Prepared jointly by NOAA and API in 1995.

Environmental Sensitivity Index (ESI) Maps: Provide detailed data on shoreline habitats, sensitive biological and human-use resources, and life-history data on biological resources. Most ESI maps for the U.S. continue to be updated. Available in both hardcopy and digital formats.

Area Contingency Plan (ACP) Sensitive Areas Annex: Usually identifies sensitive resources and protection and cleanup priorities based on Area Committee input. Often a first responder's tool that may also include other useful information such as access points, collection areas, boom requirements, and expert and resource trustee contacts.

Facility Response Plans: Information related to the facility's response strategies for identifying and protecting sensitive resources.

Open-Water Oil Identification Job Aid for Aerial Observation: Field guide to assist in aerial observations of floating oil.

5.1 Reconnaissance survey

Objectives

- Obtain overall perspective on shoreline types and degree of contamination for a gross overview
- Determine areal extent of oiling on the shoreline
- Identify logistical constraints to shoreline access for both shoreline assessment and cleanup teams

Responsibility

- Usually conducted by the Shoreline Assessment Team Coordinator, although someone with local-area knowledge can also be a valuable participant

Methods

- Review Area Contingency Plan and ESI maps to become familiar with area and resource concerns
- Fly entire impact area (<400-500 feet at a max. 80-90 knots) in helicopter or high-wing aircraft
- Use GPS if available and topographic maps, nautical charts, and other maps identified in the Area Plan to record
  - ❒ flight path, including date and time,
  - ❒ objective descriptors of shoreline oiling conditions,*
  - ❒ location of floating oil, possibly affecting shoreline oiling conditions,
  - ❒ references to photographs/video taken,
  - ❒ access points for survey teams, especially in remote areas, and
  - ❒ visit representative ground sites to confirm and scale the degree of shoreline impacts and note special problems, such as potential for burial of oil, that could affect cleanup decision planning.

Tools

Overflight Job-Aid

Shoreline Assessment Job-Aid

ESI maps

Area Contingency Plan Sensitive Areas Annex

Facility Response Plans

* Objective oiling descriptors (Chap. 6, Fig. 5) must be modified according to observations made during aerial mapping.

5.2 Segmenting the shoreline

Objective

- Divide the shoreline into units, called segments, for recording and tracking survey data and making cleanup recommendations.

Responsibility

- Usually conducted by the Shoreline Assessment Team Coordinator, although someone with local-area knowledge can also be a valuable participant.

Methods

- When paper maps are used, 1:24,000-scale topographic maps provide consistent coverage and show access from land. When working from boats, nautical charts may be preferred.
- Base maps can be generated from digital databases, although they must have enough detail, such as street names and landmarks, so the teams can locate themselves in the field.
- Remember that the scale on nautical charts is in nautical miles, not statute miles as shown on vehicle odometers (1 nautical mile = 1.15 statute miles).
- Mark segments based on similarity of geomorphology (refer to ESI maps) and degree of oiling (ascertained from reconnaissance flight); local staff familiar with area should be involved.
- Segment boundaries should be readily recognizable in the field.
- Size segments appropriate to spill conditions and total area of impact (often 0.2 to 2.0 km long) using various lengths. Because separate forms are completed for each segment, interval should not be so small that the number of forms required becomes unmanageable for the size of the spill.
- Use divisions or names already in use by cleanup operations, when possible. Develop the segment-naming scheme with Operations so it is most useful.
- Pre-number segments with alphanumeric code (e.g., BI-9 for segment number 9 on Block Island; or 1-A for the first segment in cleanup zone 1). Remember that the spill responders may not be familiar with local geographic names.

Tools

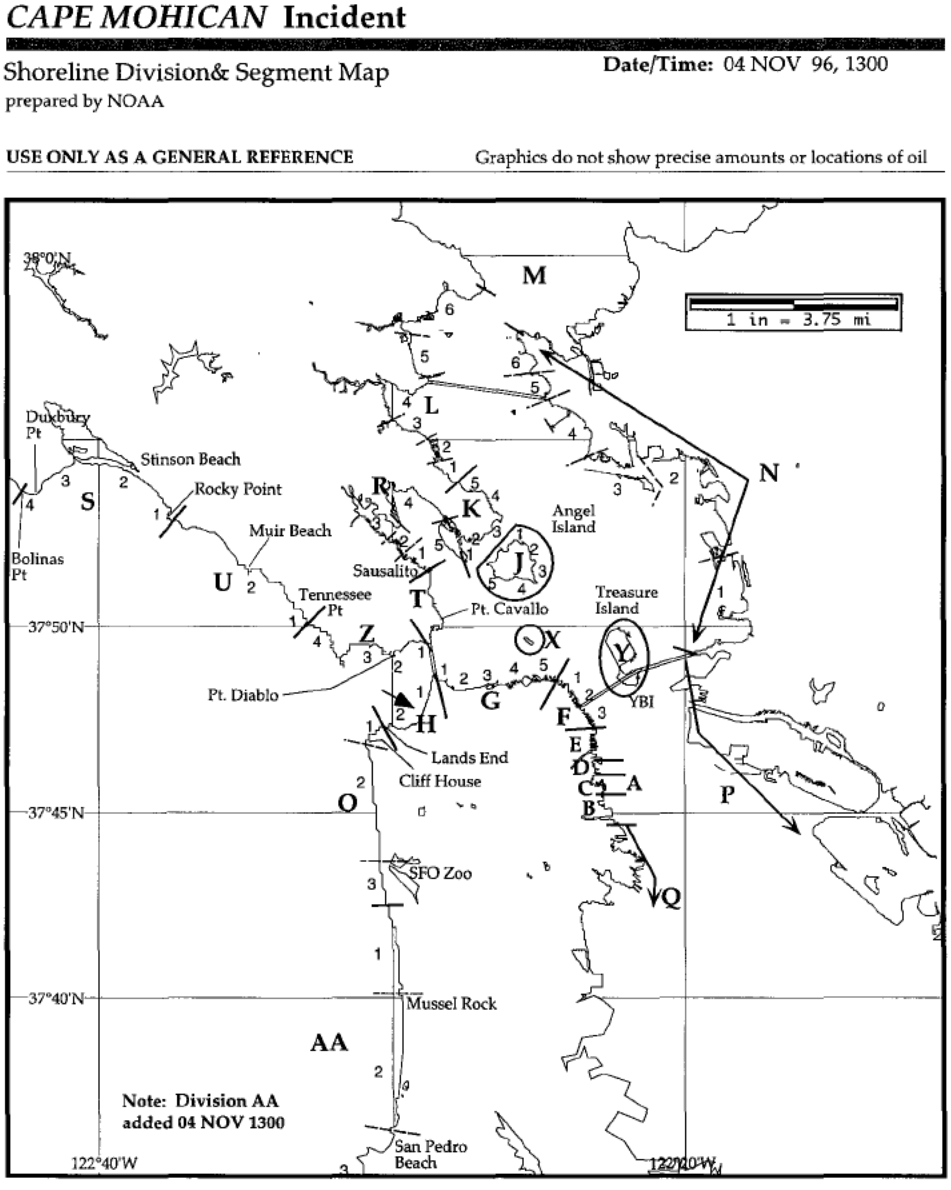
ESI maps

Area Contingency Plan maps

Shoreline Assessment Manual

Figure 3 shows a map with segments delineated from the 1996 *Cape Mohican* spill, San Francisco, California. The scale of the maps should be a function of the complexity of the area and the length of the segments. Different scales can be used for different zones within the same spill-impact area. The final maps should be 8.5 x 11 inches to fit into field packs and be readily copied and faxed.

Figure 3. Example of a shoreline division and segment map.



5.3 Developing spill-specific cleanup guidelines and endpoints

Objectives

- Guide Operations in conducting a specific *cleanup method* to minimize adverse environmental impact.
- Provide Operations with environmental and safety constraints on conducting cleanup activities in a *specific habitat*.
- Identify resource-specific constraints on cleanup activities.

Responsibility

- Shoreline Assessment Team Coordinator, Federal and state agency representatives, major landowners, and Team Leaders.

Methods

- Develop spill-specific cleaning objectives, guidelines, and target endpoints (Appendix B briefly describes current cleanup techniques; Appendix C describes response considerations; examples of cleanup endpoints for different shoreline types are provided in Figure 4).
- Evaluate proposed cleanup methods for potential habitat or resource effects.
- Identify time-critical and degree-of-use issues to be combined with cleanup priorities and endpoints.
- Identify sensitive resources associated with the oiled shorelines that may be adversely affected by the proposed treatment methods (e.g., rich intertidal biota on rocky shores where low-pressure ambient-water flushing will be used).
- Note archaeological or cultural resources along the shoreline or in nearby upland areas that could be disturbed by cleanup activities. Notify the State Historical Preservation Office (SHPO), if necessary.
- Write operational guidelines to minimize adverse impacts (e.g., restrict flushing operations to times when the rich biota zones are underwater). Date the guidelines in order to track revisions.
- Develop detailed plans to monitor the effectiveness and/or biological effects of a method, if needed.
- Have the Shoreline Assessment Teams observe actual operations to confirm the method's use, i.e., that the cleanup method is necessary and is not more damaging than the oil alone.
- Modify cleanup guidelines as the oil changes from weathering, rendering the technique ineffective, or when unacceptable impacts occur under actual use.

The NOAA/API response manuals for freshwater and marine spills are good sources of information on cleanup methods, applicable habitat types, guidelines on method selection, and probable biological constraints and environmental effects. Consult these manuals when evaluating cleanup methods.

Tools

Shoreline Assessment Manual
Marine and freshwater response manuals

Responders can produce spill-specific cleanup guidelines more easily if the issues were covered in the Area Contingency Plan and cleanup methods for these special concerns identified ahead of time. However, the Shoreline Assessment Team Coordinator should form a work group to evaluate cleanup options and make recommendations on other issues that arise during a spill. Besides reviewing published studies and case histories, they can also look at on-site testing for effectiveness and environmental effects of the proposed method(s) under the spill-specific conditions.

Selecting Cleanup Endpoints

Target cleanup endpoints are an integral part of spill-specific cleanup guidelines used for emergency oil-spill response. Endpoints are selected based on cleanup objectives to 1) minimize exposure hazards for human health; 2) speed recovery of impacted areas; and 3) reduce the threat of additional or prolonged natural resource impacts. These objectives lead to developing cleanup strategies that do not cause more harm to the environment than good.

Ideally, cleanup efforts will return the resource to its baseline condition without suffering further impact or affecting resources not initially impacted by the spill. Aggressive and inappropriate cleanup techniques can make matters worse. Less intrusive methods or natural recovery are often preferable. The best cleanup strategy is often not the one that removes *the most* oil. Rather, it is the strategy that removes oil that poses a greater risk of injury then would result from cleanup, and allows *remaining oil* to be removed by natural processes.

Figure 4 shows a hierarchy of cleanup endpoints that reflect this concept. Although the highest cleanup endpoint is removal of all visible oil, this is often impossible, particularly if there is a background rate of oil deposition (e.g., natural oil seeps or shipping traffic). In these cases, a more appropriate endpoint would be cleanup of visible oil, but not exceeding the background amount. When shoreline cleanup to achieve these endpoints is likely to cause added harm to the environment, three additional endpoints may be considered:

Figure 4. Hierarchy of endpoints for shoreline cleanup. Use these guidelines to develop spill-specific cleanup endpoints for terminating active cleanup.

No visible oil: not detectable by sight, smell, feel	This endpoint is often used for sand beaches where oil removal can be effective without delaying resource recovery. Visual inspections are preferred over chemical analyses because it is difficult to sample areas with high variability; time and costs of analysis; and lack of guidelines on what levels are safe. It may be appropriate to conduct limited sampling and analysis to confirm the visual endpoint as safe for human use, such as on recreational beaches.
Visible oil, but no more than background	This endpoint is often applied where there is a significant background rate of tarball deposition on the shoreline.
No longer releases sheens that will affect sensitive areas, wildlife, or human health	This endpoint is used where sheening persists after cleanup efforts become ineffective, or on sensitive habitats where further cleanup efforts will cause more harm than natural removal. Residual sheening should persist over a relatively short time period. A sheen is an oil film ranging from barely visible to dull colors. Sorbents effectiveness is usually limited in recovery of sheens. Consider the amount and duration of sheening, and the distance to sensitive resources, to determine if sheening poses a significant threat. Consider the degree of exposure: high wave/tidal exposure speeds removal, breaks up sheens; sheltered areas will sheen longer and sheens will be more persistent. Consider the degree and timing of use: temporary sheening may be tolerated in areas or during periods of low use; even minor sheens may not be tolerated in areas of high use, such as swimming beaches.
No longer rubs off on contact	This endpoint is usually defined as oil removal to a stain or coat, or weathering to the point that it is no longer sticky. It is appropriate for hard substrates (rocky shores, seawalls, riprap, gravel) and vegetation (salt marsh, mangroves). The objective is to prevent oiling of fur, feathers, and feet of wildlife, people, and property during contact with oiled surfaces. Consider the degree and timing of use: high-use areas often require higher cleanliness, whereas natural removal is allowed in low-use areas where further cleanup efforts will be disruptive.
Oil removal to allow recovery/recolonization without causing more harm than natural removal of oil residues	This endpoint is used where further oil removal will result in excessive habitat disruption (e.g., trampling of soft sediments and plant roots, mixing oil deeper, extensive sediment removal, vegetation cutting) or high biota mortality (e.g., from high-pressure, hot-water washing of intertidal communities). It is also used for areas with difficult access which limits the type of cleanup which can be conducted along that shoreline segment. Consider the potential for erosion from excessive sediment removal, particularly where erosion/deposition patterns of the beach cycle will re-work and clean sediments within an acceptable time frame.

Figure 4. Hierarchy of cleanup endpoints.

Examples of Cleanup Endpoints

1. Oil removal to the point where the shoreline no longer generates sheens that affect sensitive areas, wildlife, or human health;

2. Oil removal to the point where it no longer rubs off (e.g., becomes like a coat of black paint); and

3. Oil removal to the point that allows recovery/recolonization without causing more harm than leaving the oil in place.

Note that "visible" oil applies not only to oil on the surface, but also to buried oil that must be exposed by digging trenches into the sediments.

Examples of cleanup endpoints used at previous oil spills for different shoreline types are included below, to help you develop spill- and site-specific endpoints. Each spill will have a unique combination of oil type, rate of natural removal, biological sensitivity, and human-use issues that may lead to different endpoints.

Exposed Rocky Shores and Wave-Cut Platforms (ESI = 1A and 2)

Cleanup Trade-off Issues

Shoreline access is often difficult, dangerous, and limited to low tide and wave conditions.

Rapid natural removal rates are expected, so these shorelines usually have lower priority for cleanup. Thus, cleanup endpoints are seldom an issue because onshore cleanup activities are not initiated.

High wave energy at these sites usually breaks up sheens, limiting the distance sheens can spread and thus the areal extent of threat to sensitive resources.

Timing is often a critical component in allowing natural removal to proceed, particularly relative to the presence of migratory waterfowl, seabird nesting activity, and breeding activities of marine mammals.

Limited removal of persistent residues that are affecting sensitive resources (e.g., sources of sheens very near active bird nesting colonies) may be considered.

Examples of Cleanup Endpoints

Cleanup can be terminated when the shoreline no longer releases sheens that affect sensitive wildlife.

On exposed rocky shores used as marine mammal haulouts, persistent oil should be removed until the oil is no longer sticky, unless cleanup is too disruptive to animals at the site.

Solid Man-Made Structures (ESI = 1B and 8B)

Cleanup Trade-off Issues

Because these shoreline types often occur in developed areas with chronic sources of pollutants or habitat degradation nearby, they usually have low biological sensitivity.

More intrusive techniques are considered because of their lower biological use and the need to minimize human exposure in areas of high public use.

The lower part of the structure may have rich attached biota that should be protected during use of intrusive techniques.

Examples of Cleanup Endpoints

In industrial areas, cleanup can be terminated when the shoreline no longer releases liquid oil and heavy rainbow sheens when in contact with water. Sorbents are deployed until sheening ceases.

In areas of high public use, more intensive cleanup should be conducted to remove the oil until it no longer rubs off on contact (to no more than a stain) to minimize human contact or oiling of boats. In areas of low public use, visible oil can remain as stain and patches of coat.

Sand Beaches (ESI = 3 and 4)

Cleanup Trade-off Issues

High public use on beaches usually requires a quick cleanup and high degree of cleanliness.

The sand beach cycle is short, so reworked and relocated sediments often can be rapidly returned to their normal distribution on exposed beaches. Wave action can be an effective final "polishing" process, removing stain from sediments.

Oil on the surface of sand beaches is relatively easy to clean; however, difficulties arise when the oil is buried because of the amount of sediment that must be removed.

If sand can be replaced by existing nourishment projects, more sediment removal is generally allowed where oil must be quickly removed from public beaches.

Examples of Cleanup Endpoints

Cleanup can be terminated when no visible oil remains on the surface, except for scattered tarballs or swash lines of minute tarballs which may occur as the sand is reworked by the waves. All tarballs or tar patties that can be removed by reasonable cleanup techniques, or that can be remobilized, should be removed. Remaining tarballs and tar patties should be at or below normal background frequency. Increases in tarball frequency above background will require further cleanup.

Cleanup can be terminated when no oil layers are found in trenches dug into the beach. Buried tarballs should be at or below background frequency.

Mixed Sand and Gravel Beaches (ESI = 5) and Gravel Beaches (ESI = 6A)

Cleanup Trade-off Issues

Beaches with a significant amount of gravel are relatively difficult to clean because they have high potential for deep penetration and burial. Deeply penetrated oil can be a chronic source of sheens for months or longer.

Because natural replenishment rates of gravel are slow, sediment removal is usually minimal and natural removal is considered following gross oil removal.

The most difficult issue is removal of persistent, deeply penetrated oil because of the degree of physical disruption to both the beach profile and sediment distribution patterns. It is difficult to predict how long natural removal will take at a specific site.

Because gravel is mobilized mostly during storms, it could take months to years for a beach to return to normal after extensive physical disruption.

Examples of Cleanup Endpoints

Cleanup can be terminated when all liquid oil in the sediments has been removed. No more than a stain may remain on the gravel-sized sediments.

There should be no oil layers in pits dug by the inspection team. Occurrences of buried tarballs should be at or below background frequency.

Riprap Structures (ESI = 6B)

Cleanup Trade-off Issues

Riprap often occurs in developed areas with chronic sources of pollutants or habitat degradation nearby.

More intrusive techniques are considered because of their lower biological use and need to minimize human exposure in populated areas.

It is extremely difficult to completely remove oil from crevices and undersides of the riprap because of their inaccessibility. Sometimes the structure must be replaced, which can be highly intrusive.

With higher residues remaining, they can release sheens for weeks or longer.

Examples of Cleanup Endpoints

In industrial areas, cleanup can be terminated when the shoreline no longer releases liquid oil or heavy rainbow sheens when in contact with water.

Visible oil can remain as stain and patches of coat on the outer surface of the structure. All flushable oil in the crevices and on the sides and bottom of individual pieces of the riprap should be removed. It is not necessary to remove oil coat from these surfaces.

Sorbents can be deployed to recover sheens where needed to reduce impacts to sensitive resources.

In areas of high public use, more intensive cleanup is needed to remove the oil until it no longer rubs off on contact (to no more than a stain) to minimize human contact with the oil.

Exposed and Sheltered Tidal Flats (ESI = 7 and 9)

Cleanup Trade-off Issues

The risks of physical disruption and mixing of the oil are very high, thus passive cleanup (e.g., deploying sorbents) is often the only activity considered. Even then, extreme care is needed. Since there is usually another shoreline type at the upper intertidal zone, care is needed to prevent impacts to the lower tidal flat during cleanup activities along the higher shoreline.

Examples of Cleanup Endpoints

Use of sorbents can be terminated when the shoreline no longer releases sheens that will affect sensitive areas, wildlife, or human health.

Gross oil removal can be terminated when further cleanup efforts would result in excessive habitat disruption, causing more harm than natural removal of oil residues.

Marshes (ESI = 10A and 10 B)

Cleanup Trade-off Issues

Natural removal rates are very slow. Heavy oil on vegetation is usually removed only when the vegetation dies back and sloughes off.

Efforts generally focus on recovery of free oil trapped in the marsh and deployment of sorbents to pick up sheens. Most types of active cleanup in the marsh can cause significant habitat impact and slow recovery.

Heavy oil on marsh vegetation generally weathers to a dry coat within weeks, after which it poses a lower threat of oiling wildlife using the marsh.

Examples of Cleanup Endpoints

Cleanup can be terminated when there is no more free-floating oil in the marsh.

Use of sorbents can be terminated when the shoreline no longer releases sheens that will affect sensitive areas, wildlife, or human health.

5.4 Pre-survey planning and team assignments

Objective

- Determine areas to be surveyed and logistical and team assignments.

Responsibility

- Shoreline Assessment Team Coordinator.

Methods

- Revise the standard shoreline oiling codes and forms, if needed, to fit spill conditions.
- Select base maps showing the segment boundaries and names.
- Form teams with appropriate membership.
- Ensure that all team members have the required safety training. Each team member must review and sign the site safety plan, and discuss specific safety concerns related to shoreline assessment activities.
- Determine logistical requirements for the teams and coordinate requests through the Logistics Section.
- Assign team leaders.
- Assign survey areas (primary and backup) for each team, based on priorities, logistics, local expertise, and ownership.
- Distribute segment maps for primary and backup areas; distribute blank forms, codes, sketch maps (see Chapter 7 for forms and codes).
- Distribute field equipment (see checklist in Appendix A).
- Brief team on survey objectives, logistics, and safety issues.
- Discuss cleanup options guidelines and criteria for priorities.
- Discuss reporting requirements and schedules.
- "Calibrate" on the first day by having all team members visit a segment together and agree on how the oiling descriptions will be applied.

Tools

Shoreline Assessment Manual
Area Contingency Plan maps
Facility Response Plan maps

5.5 Shoreline surveys

Objectives

- Collect data on shoreline types, oiling conditions, and ecological and human-use resources for specific segments.
- Reach agreement on cleanup recommendations for specific segments.
- Confirm that recommendations are effective and beneficial to the environment (refer to list of questions in Chapter 3).

Responsibility

- Shoreline Assessment Team.

Methods

- Confirm segment boundaries.
- Conduct survey to identify shoreline types and extent of oiling.
- Describe the shoreline characteristics, surface oil conditions, buried oil conditions, and special considerations (ecological, recreational, cultural) using standard terms and codes.
- Sketch the segment, if appropriate, focusing on the oil distribution and special considerations.
- Note presence of submerged oil in nearshore zone for spills of heavy oil.
- Log and locate all photographs taken, and note the objective of each photograph.
- Collect oil and/or sediment samples based on identified needs.
- Discuss and agree on cleanup recommendations and priorities.
- Complete the surveys each day in time to meet reporting deadlines.

Tools

Shoreline Assessment Job-aid
Shoreline Assessment Manual

5.6 Submitting reports to the Planning Section

Objective

- Provide data needed to support shoreline cleanup decisions and operations.

Responsibility

- Shoreline Assessment Team Leader.

Methods

- Check all data for accuracy, completeness, and legibility.
- Copy all forms, sketches, and field notes for the field team as needed; keep originals on file.
- Summarize cleanup recommendations by segment.
- Debrief Shoreline Assessment Coordinator on special issues, problems, and recommendations.
- Create summary maps identifying segments to be cleaned, degree-of-oiling categories, or other products as needed (see Chapter 6 for sample formats for reporting results to Planning).

Tools

Shoreline Assessment Manual

NOTE: Shoreline Assessment Teams cannot direct cleanup contractors in the field, although the teams can document unapproved cleanup methods or improper techniques. The Coordinator will contact Operations staff, including division or group supervisors in the area, if possible, to rectify the problem.

5.7 Cleanup evaluation/effectiveness monitoring

Objective

- Evaluate field data routinely to monitor progress of cleanup activities and assess the need for modifying cleanup methods or endpoints.

Responsibility

- Shoreline Assessment Team Coordinator, Federal and State agency representatives, major landowners, and Team Leaders.

Methods

- Visit segments where cleanup activities are being conducted to ensure that approved methods are being properly implemented.
- Respond to requests from Operations for changes in approved cleanup methods to address specific problems or changes in oiling conditions that render the approved methods ineffective.
- Organize and conduct field testing and monitoring programs, if needed, during evaluation or use of innovative cleanup methods.
- Modify cleanup endpoints, as needed, with changes in oiling conditions or timing.
- Produce summary reports and documentation on special issues, problems, and changes in recommendations related to shoreline cleanup methods and endpoints.

Tools

Shoreline Assessment Manual

Marine and Freshwater Manuals

Area Contingency Plan

5.8 Post-cleanup inspections

Objective

- Inspect segments that Operations declares ready for sign-off before final approval.

Responsibility

- Each Shoreline Assessment Team.

Methods

- Operations notifies the Shoreline Assessment Team Coordinator that a segment is ready for inspection.
- Inspect the segment against agreed-upon cleanup endpoints (preferably using the same team that did the original survey). The original field sketch can be very helpful for evaluating effectiveness of the cleanup.
- Identify additional cleanup needed using standard shoreline assessment terminology forms and sketches, or develop special forms for this purpose (see Appendix D for sample forms).
- Recommend segment for final inspection.
- Recommend any longer-term monitoring or iterative procedures needed.

Tools

Shoreline Assessment Manual
Shoreline Assessment Job-Aid

5.9 Final sign-off of cleanup activities

Objective

- Approve the termination of cleanup activities at each segment.

Responsibility

- Sign-off Team (SOFT). Agencies must delegate sign-off authority to their representatives on the team. We recommend that, if possible, the same staff doing the shoreline assessments of an area be assigned to the SOFT.

Methods

- A SOFT is designated, usually with one member each from the FOSC, the SOSC, and the RP. Representatives from local agencies or land managers may be added for specific properties or resource concerns.
- The Team reviews cleanup endpoint guidelines and develops procedures for interpreting them. These guidelines are revised, as needed, relative to the oiling and resource conditions at the time of final inspection.
- Operations notifies Planning that the segment has passed inspection by the shoreline Assessment Team and is ready for final sign-off.
- The SOFT inspects the segment against the cleanup endpoint guidelines, approving those segments that meet the guidelines and recommending further cleanup for those segments which do not.
- A formal sign-off sheet for each segment is signed by each member.
- The sign-off approval can specify maintenance activities (e.g., deploying sorbent booms to recover oil sheens as long as sheens are being released, or maintaining an area to remove tarballs as they wash ashore after storms), but it is important that criteria for ending the maintenance activity be clearly specified.

Tools

Shoreline Assessment Manual

6 Shoreline Survey Terminology, Codes, and Forms

Field survey terms, codes, and forms

Using standard terminology to describe and report shoreline oiling conditions is the basic foundation of shoreline assessment. Ambiguous words, such as "heavy" oiling, do not provide the necessary detail to document the oiling condition or the need for and type of cleanup to be conducted. **Figure 5** lists the terminology and codes to be used by Shoreline Assessment Teams and demonstrates the need for trained teams who can consistently apply these terms to spill-specific conditions. Appendix D includes field estimator charts for uniformly applying percent cover estimates. The *Shoreline Assessment Job-Aid* is a valuable field tool to help teams use proper terminology. All team members must agree on how they will use these terms and codes for a specific spill. Thus, a calibration field exercise, conducted jointly by all team members, is always necessary.

You will need to modify these terms as appropriate for the spill. For example, most oiling descriptors have been developed for black oils. The Shoreline Assessment Team at the 1996 *North Cape* spill had to modify the descriptors for that spill of home heating oil (a light, refined oil that is essentially No. 2 fuel oil; **Figure 6**). Appendix D contains copies of all forms and terms.

We have used a range of forms to record the observations of shoreline assessment teams. All of the forms use the standard codes and terminology in **Figure 7**. Figure 7 shows the Shoreline Oiling Summary Form, as modified from the *Exxon Valdez* SCAT surveys and Environment Canada (1992). This form is the most complex and usually requires a high level of training to complete it properly. Operations staff also need specialized training to interpret the data, although they usually see summary reports.

Figure 5.
Shoreline oil terminology/codes for spills of black oil.

Oil Distribution

			Surface Oiling Descriptors - Width	
C	Continuous	91 - 100%	Very Narrow	< ____ m
B	Broken	51 - 90%	Narrow	>____ - <____ m
P	Patchy	11 - 50%	Medium	>____ - <____ m
S	Sporadic	1 - 10%	Wide	< ____ m
T	Trace	<1%		

Surface Oiling Descriptors - Thickness

PO	Pooled Oil (fresh oil or mousse > 1 cm thick)
CV	Cover (oil or mousse from >0.1 cm to <1 cm on any surface)
CT	Coat (visible oil <0.1 cm, which can be scraped off with fingernail)
ST	Stain (visible oil, which cannot be scraped off with fingernail)
FL	Film (transparent or iridescent sheen, or oily film)

Surface Oiling Descriptors - Type

FR	Fresh Oil (unweathered, liquid oil)
MS	Mousse (emulsified oil occurring over broad areas)
TB	Tarballs (discrete accumulations of oil <10 cm in diameter)
PT	Patties (discrete accumulations of oil >10 cm in diameter)
TC	Tar (highly weathered oil, of tarry, nearly solid consistency)
SR	Surface Oil Residue (non-cohesive, heavily oiled surface sediments, characterized as soft, incipient asphalt pavements)
AP	Asphalt Pavement (cohesive, heavily oiled surface sediments)
NO	No Oil
DB	Debris: logs, vegetation, rubbish, garbage, and response items such as booms

Subsurface Oiling Descriptors

SAP	Subsurface asphalt pavement (cohesive)
OP	Oil-Filled Pores (pore spaces are completely filled with oil to the extent that the oil flows out of the sediments when disturbed). May also consist of weathered oil, such as a buried lens of asphalt pavement.
PP	Partially Filled Pores (pore spaces partially filled with oil, but the oil does not flow out of the sediments when disturbed)
OR	Oil Residue (sediments are visibly oiled with black/brown coat or cover on the clasts, but little or no accumulation of oil within the pore spaces).
OF	Oil Film (sediments are lightly oiled with an oil film, or stain, on the clasts)
TR	Trace (discontinuous film or spots of oil, an odor, or tackiness)
NO	No Oil (no evidence of any type of oil)

Sediment Types

R	Bedrock outcrops	S	Sand (0.06-2 mm)
B	Boulder (>256 mm in diameter)	M	Mud (silt and clay, <0.06 mm)
C	Cobble (64-256 mm)	RR	Riprap (man-made permeable rubble)
P	Pebble (4-64 mm)	SW	Seawalls (impermeable)
G	Granule (2- mm)		

Figure 6. Shoreline oil terminology/codes for spills of light, refined oil.

Surface Oil Distribution (on sediments and nearshore water)

C	Continuous	91 - 100% cover
B	Broken	51 - 90%
P	Patchy	11 - 50%
S	Sporadic	1 - 10%
T	Trace	<1%

Surface and subsurface Oiling Descriptors - THickness

SM	Smell	No visible oil; detectable only by smell
FL	Film	Feels greasy when sediments are rubbed
SH	Sheen	Visible sheen on water surfaces
CT	Coat	Visible coating of oil
PO	Pooled	Liauid oil accumulated on surface

Surface Oiling Descriptors - Color

None	Brown
Shiny	Yellow
Rainbow	Red

Surface Oiling Descriptors - Width

N	Narrow	< 1 m
M	Medium	> 1 to <3 m
W	Wide	> 3 m; estimate width if possible

Sediment Types

R	Bedrock outcrops	S	Sand (0.06-2 mm)
B	Boulder (>256 mm in diameter)	M	Mud (silt and clay, <0.06 mm)
C	Cobble (64-256 m)	RR	Riprap (man-made permeable rubble)
P	Pebble (4-64 mm)	SW	Seawalls (impermeable)
G	Granule (2-4 mm)		

Sheen on Water Descriptors

	Approx. Layer-Thickness mm	Approx. Layer-Thickness inches	Approx. Volume per Area liters/km^2	Approx. Volume per Area gallons/nm^2
barely visible	0.00004	0.000002	50	40
silver sheen	0.00007	0.000003	100	75
first color trace	0.0001	0.000004	200	150
bright colors	0.0003	0.00001	400	300
dull colors	0.001	0.00004	1200	1000
dark colors	0.003	0.0001	3600	3000

Surface Oiling Descriptors - Width (modify for spill-specific conditions)

Very Narrow	< ____m
Narrow	>____-<____m
Medium	>____-<____m
Wide	< ____m

Figure 7. Example of a completed Shoreline Assessment Form, updated from a form developed by Owens and Teal (1990) and used by Environment Canada (1992). Forms in Figures 7 and 8 are completed for the same hypothetical survey conditions.

SHORELINE ASSESSMENT FORM for EXAMPLE **Spill** **Page** 1 **of** 1

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h standard/daylight)	Tide Height L/M/H
Segment ID: SP-02	28/08/00	1400 hrs to 1600 hrs	H/(M)/L
Segment Name: STATE PARK BCH			

Survey By: (Foot) / Boat / Helicopter / Overlook / _____ (Sun) / Clouds / Fog / Rain / Snow / Windy

2 SURVEY TEAM No. 1	Name	Organization	Phone Number
A.	SMITH	STATE DNR	
B.	JONES	STATE PARKS	
C.	HILL	NOAA	
D.	ADAMS	USCG	

3 SEGMENT Total Length 750 (m)/yd Length Surveyed 750 (m)/yd Differential GPS Yes/(No)

Start GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

End GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

4 SHORELINE TYPE — Select only ONE Primary (P) and ANY Secondary (S) types present

	Rocky Cliffs		Riprap
	Exposed Man-made Structures		Exposed Tidal Flats
	Wave-cut Platforms		Sheltered Rocky Shores
P	Fine-Medium grained Sand Beaches		Sheltered Man-made Structures
	Coarse-grained Sand Beaches		Sheltered Tidal Flats
	Mixed Sand and Gravel Beaches		Wetlands
	Gravel Beaches		Other _____

5 OPERATIONAL FEATURES — Oiled Debris? (Yes) / No Type WRACK Amount 10 bags

Direct backshore access? (Yes) / No Access restrictions NONE, PARKING LOT NEARBY

Alongshore access from next segment? (Yes) / No Suitable backshore staging? (Yes) / No

6 SURFACE OILING CONDITIONS — Begin with "A" in the lowest tidal zone

Zone ID	Tidal Zone				Oil Cover			Oil Thickness					Oil Character						
	LI	MI	UI	SU	Length (m)/ft	Width (m)/ft	Distr. %	PO	CV	CT	ST	FL	FR	MS	TB	TC	SR	AP	No
A		✓			250	2	20		✓					✓					
B			✓		750	1	50		✓					✓					

7 SUBSURFACE OILING CONDITIONS — Use letter of Zone location plus Number of trench, e.g., "A1"

Trench No.	Tidal Zone				Trench Depth (cm)/in	Oiled Interval cm-cm/in-in	Subsurface Oil Character						Water Table (cm)/in	Sheen Color B,R,S,N	Clean Below? Yes/No
	LI	MI	UI	SU			OP	PP	OR	OF	TR	No			
A1		✓			20	0-7			✓				20	S	Y
B1			✓		30	0-10			✓				30	S	Y
B2			✓		30	5-10			✓				30	R	Y

8 COMMENTS — Cleanup Recommendations; Ecological/Recreational/Cultural Issues/Wildlife Obs.

MANUAL REMOVAL ONLY - TO MINIMIZE SEDIMENT REMOVAL.

V. HIGH PRIORITY - STATE PARK AND HIGH RECREATIONAL USE.

SAW TWO PLOVERS WITH OIL SPOTS ON BREAST, NEAR PIER.

Sketch: Yes / (No) Photos: (Yes) / No (Roll# 1-1 Frames 7-9) Video Tape: Yes / (No) (Tape#_____)

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Figure 8 is a shorter form that allows field teams to circle the appropriate descriptors, minimizing the need to fill-in information and encouraging the use of standard terms. This form is most useful when the oiling is very uniform or simple.

Figure 8. Example of a completed Shoreline Assessment Form for a hypothetical survey.

SHORT SHORELINE ASSESSMENT FORM for EXAMPLE **Spill** Page 1 of 1

1. GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h standard/daylight)	Tide Height
Segment ID: SP-02	28/08/00		L/M/H
Segment Name: STATE PARK BCH		1400 hrs to 1600 hrs	H/M/L
Survey By: Foot / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy	

2. SURVEY TEAM No. 1	Name	Organization	Phone Number
	A. SMITH	STATE DNR	
	B. JONES	STATE PARKS	
	C. HILL	NOAA	
	D. ADAMS	USCG	

3. SEGMENT Total Length 250 (m) / yd Length Surveyed 750 (m) / yd Differential GPS Yes / (No)
Start GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min
End GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

4. SHORELINE TYPE Select only ONE Primary (P) and ANY Secondary (S) types present

	Rocky Cliffs		Riprap
	Exposed Man-made Structures		Exposed Tidal Flats
	Wave-cut Platforms		Sheltered Rocky Shores
P	Fine-Medium grained Sand Beaches		Sheltered Man-made Structures
	Coarse-grained Sand Beaches		Sheltered Tidal Flats
	Mixed Sand and Gravel Beaches		Wetlands
	Gravel Beaches		Other _____

5. OPERATIONAL FEATURES Oiled Debris? (Yes) / No Type WRACK Amount 10 bags
Direct backshore access? (Yes) / No Access restrictions NONE. PARKING LOT NEARBY
Alongshore access from next segment? (Yes) / No Suitable backshore staging? (Yes) / No

Zone ID A Description of oil in: Supra / Upper / (Mid) / Lower Tidal Zone (circle oil location)

Oil Band Dimensions	Surface Oil Distribution	Surface Oil Thickness	Surface Oil Type	Subsurface Oil Penetration	Subsurface Oil Burial
	<1%	Film	Fresh Oil	<1 cm / in	Clean Layer
Width: 2 (m) / ft	1-10%	Stain	(Mousse) / Tar	1-5 cm / in	___ cm / in
	11-50%	Coat	Tarballs/Patties	(5-10 cm) / in	NONE
Length: 250 (m) / ft	51-90%	(Cover)	Surface Oil Residue	>10 cm / in	Oiled Layer
	91-100%	Pooled	Asphalt Pavement	___ cm / in	___ cm / in
	20 %	___ cm / in	Other _____		

Zone ID B Description of oil in: Supra / (Upper) / Mid / Lower Tidal Zone (circle oil location)

Oil Band Dimensions	Surface Oil Distribution	Surface Oil Thickness	Surface Oil Type	Subsurface Oil Penetration	Subsurface Oil Burial
	<1%	Film	Fresh Oil	<1 cm / in	Clean Layer
Width: 1 (m) / ft	1-10%	Stain	(Mousse) / Tar	1-5 cm / in	5 (cm) / in
	11-50%	Coat	Tarballs/Patties	(5-10 cm) / in	
Length: 750 (m) / ft	51-90%	(Cover)	Surface Oil Residue	>10 cm / in	Oiled Layer
	91-100%	Pooled	Asphalt Pavement	___ cm / in	5-10 (cm) / in
	50 %	___ cm / in	Other _____		

8. COMMENTS Cleanup Recommendations; Ecological/Recreational/Cultural Issues; Wildlife Obs.

MANUAL REMOVAL ONLY - TO MINIMIZE SEDIMENT REMOVAL.
V. HIGH PRIORITY - STATE PARK AND HIGH RECREATIONAL USE.
SAW TWO PLOVERS WITH OIL SPOTS ON BREAST, NEAR PIER.

Sketch: Yes / (No) Photos: (Yes) / No (Roll# 1-1 Frames 7-9) Video Tape: Yes / (No) (Tape# _____)

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Figure 9a. Example of a completed Tarball Shoreline Assessment form for a hypothetical survey. This form is appropriate for spills where shoreline oiling is primarily in the form of tarballs.

TARBALL SHORELINE ASSESSMENT FORM for EXAMPLE **Spill** Page 1 of 1

1. GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h standard/daylight)	Tide Height
Segment ID: SP-02	28/08/00		L/M/H
Segment Name: STATE PARK BCH		1400 hrs to 1600 hrs	H/M/L

Survey By: (Foot) / Boat / Helicopter / Overlook / _____ (Sun) / Clouds / Fog / Rain / Snow / Windy

2. SURVEY TEAM No. 1	Name	Organization	Phone Number
A.	SMITH	STATE DNR	
B.	JONES	STATE PARKS	
C.	HILL	NOAA	
D.	ADAMS	USCG	

3. SEGMENT Description of Shoreline Surveyed: FROM PARKING LOT ACCESS, SOUTH TO THE NORTH SIDE OF THE PIER

Total Length: 750 (m)/yd Length Surveyed: 750 (m)/yd Differential GPS? Yes / (No)

Start GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

End GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

4. SHORELINE TYPE Select only ONE Primary (P) and ANY Secondary (S) types present

	Rocky Cliffs		Riprap
	Exposed Man-made Structures		Exposed Tidal Flats
	Wave-cut Platforms		Sheltered Rocky Shores
P	Fine-Medium grained Sand Beaches		Sheltered Man-made Structures
	Coarse-grained Sand Beaches		Sheltered Tidal Flats
	Mixed Sand and Gravel Beaches		Wetlands
	Gravel Beaches		Other_____

5. TAR BALL DESCRIPTION	AREA 1	AREA 2	AREA 3
Tar Balls Observed? **Oiled Debris Observed?** (Describe below)	(Yes) / No (Yes) / No	(Yes) / No (Yes) / No	Yes/No Yes/No
Tidal Zone Where the area of tarballs is located	LI / MI / (UI) / SU	LI / MI / (UI) / SU	LI / MI / UI / SU
Length Approximate alongshore length of shore in which tarballs/oiled debris are observed	250 (m)/yd	500 m/yd	m/yd
Width Across-shore width of the band on the shore in which tarballs/oiled debris are observed	2 (m)/yd	1 (m)/yd	m/yd
Average Number of Tar Balls within Area (e.g., 2/yd² within band; 3 per 100 yds along-shore; 6 total within area, etc.) Be specific.	1 - 15/m² X = 10/m²	20 per 100m	
Average Size of Tar Balls	5 (cm)/in	2 (cm)/in	cm/in
Size of Largest Tar Ball	10 (cm)/in	5 (cm)/in	cm/in
Type of Tar Balls	Weathered/(Fresh) Sticky?(Yes)/No	Weathered/(Fresh) Sticky?(Yes)/No	Weathered/Fresh Sticky? Yes/No
Tar Balls Collected?	Yes (No)	Yes (No)	Yes / No

6. COMMENTS **Cleanup Recommendations; Ecological/Recreational/Cultural Issues; Wildlife Obs.**

PATCHES OF OILED WRACK (TARBALLS) ALL ALONG HIDE-TIDE LINE. ESTIMATE 20 BAGS TO BE REMOVED. AREA 1, WITH MOST OILING, IS ADJACENT TO PIER, MANUAL REMOVAL ONLY. HIGH PRIORITY - STATE PARK WITH HIGH RECREATIONAL USE. SAW TWO PLAYERS WITH OIL SPOTS ON BREAST, NEAR PIER.

Sketch: Yes / (No) Photos: (Yes) / No (Roll# 1-1 Frames 7-9) Video Tape: Yes / (No) (Tape# _____)

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You may need to report summary statistics on the number of shoreline miles by degree-of-oiling categories. Use the descriptors in Figure 5, if possible. However, if you must use terms such as "heavy" and "moderate," use survey data to define them objectively. **Figure 10** shows a matrix that can be used to generate summary oiling

Figure 9b. Example of a completed Wetland Assessment Form for a hypothetical survey of a wetland.

WETLAND ASSESSMENT FORM for EXAMPLE **Spill** Page 1 of 1

1. GENERAL INFORMATION

Segment ID: SP-03	Date (dd/mm/yy): 28/08/00	Time (24h standard/daylight): 1206 hrs to 1400 hrs	Tide Height: L/M/H
Segment Name: STATE PARK MARSH			H/M/L

Survey By: (Foot) / Boat / Helicopter / Overlook / _____ (Sun) / Clouds / Fog / Rain / Snow / Windy

2. SURVEY TEAM No: 1

Name	Organization	Phone Number
A. SMITH	STATE DNR	
B. JONES	STATE PARKS	
C. HILL	NOAA	
D. ADAMS	USCG	

3. SEGMENT Total Length 400 (m)/yd Length Surveyed 400 (m)/yd Differential GPS Yes/(No)

Start GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

End GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

4. WETLAND CHARACTER Physical Setting: FRINGING MARSH ALONG INTRACOASTAL WW.

Wetland Type (Salt Marsh) / Fresh Marsh / Mangrove / Hardwood Bottomland / Other _____

Dominant Vegetation Type/Species: S. ALTERNIFLORA - SPARSELY VEGETATED

5. OPERATIONAL FEATURES Oiled Debris? Yes / (No) Type _____ Amount _____ bags

Direct backshore access? Yes / (No) Alongshore access from next segment? (Yes) / No Access only via boat? Yes / (No)

Suitable back- or alongshore staging? Yes / (No) Can substrate support foot traffic? (Yes) / No

Access restrictions: Rough trail on land side of marsh - no easy access to outer fringe

6. SURFACE OILING CONDITIONS Enter oil on substrate vs vegetation on different lines, using S or V after the Zone ID (e.g., AS for sediment, AV for vegetation). Indicate each on the cross-section below.

Zone ID	Tidal Zone: LI	MI	UI	SU	Oil Cover: Length (m)/ft	Width (m)/ft	Distri. %	Oil Thickness: PO	CV	CT	ST	FL	Oil Character: FR	MS	TB	TC	SR	AP	No	Oil on Plants (e.g. all, trunks, stems, leaves)
AV			✓		400	3	100			✓			✓							Stems
AS			✓		400	1	10		✓				✓							

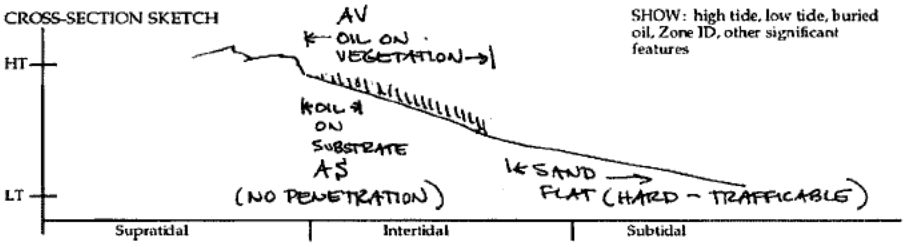
7. SUBSURFACE OILING CONDITIONS Describe in Comments Section and indicate on the cross-section below.

8. COMMENTS **Cleanup Recommendations; Ecological/Recreational/Cultural Issues; Wildlife Observations.**

OIL ON SUBSTRATE AT HIGH-TIDE LINE. DEPLOY SORBENTS ALONG OUTER MARSH FRINGE TO RECOVER RE-MOBILIZED OIL. EXPOSED TO SOME WAVES AND SIGNIFICANT BOAT WAKES, SO EXPECT HIGH RATE OF RE-MOBILIZATION. STAKE SORBENTS TO PREVENT FOULING IN VEGETATION. NO ENTRY INTO MARSH - WORK ONLY FROM THE WATER SIDE.

Sketch: Yes / No Photos: (Yes) / No (Roll# 1-2 Frames 10-15) Video Tape: Yes / (No) (Tape# _____)

CROSS-SECTION SKETCH



SHOW: high tide, low tide, buried oil, Zone ID, other significant features

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descriptors, in terms of what is defined as "heavy," "medium," "light," and "very light" for a specific spill. These summary descriptors are derived by combining the width of the oiled area and the surface oil distribution for each shoreline segment. The Shoreline Assessment Team Coordinator should complete this matrix when statistics and maps with summary oiling descriptors are needed. However, these terms should NOT be used by the Shoreline Assessment Teams during their field surveys. Terms such as heavy, moderate, light, and very light are *only* for final summaries and maps.

Figure 10.
Matrix for defining terms for shoreline oiling summaries (modified from Environment Canada 1992). Modify this matrix, especially the intervals for width of oiled areas, for specific spill conditions.

Oil Distribution	Width of Oiled Areas: >3 m Wide >6 m	1 - 3 m Medium 3 - 6 m	0.5 - 1 m Narrow 0.5 - 3 m	Very Narrow <0.5 m
Continuous 91 - 100%	Heavy	Heavy	Moderate	Light
Broken 51 - 90%	Heavy	Moderate	Light	Light
Patchy 11 - 50%	Moderate	Moderate	Light	Very Light
Sporadic 1 - 10%	Light	Light	Very Light	Very Light
Trace <1%	Very Light	Very Light	Very Light	Very Light

Example

Use a summary oil descriptor to report the surface oil conditions along the shoreline on maps and tabular summaries. These descriptors are:

- Heavy
- Moderate
- Light
- Very Light

We have assigned these summary oiling descriptors based on the Oil Category Width and the Surface Oil Distribution, as defined in the Shoreline Oil Terminology/ Codes (Fig. 5). The Shoreline Assessment Team Coordinator should obtain consensus on which combinations of oil width and distributionare used field by the

Shoreline Assessment Team to define heavy, moderate, light, and very light oiling. These descriptors are used only in summaries and not in the field by the Shoreline Assessment Team.

Shoreline Terminology/Codes

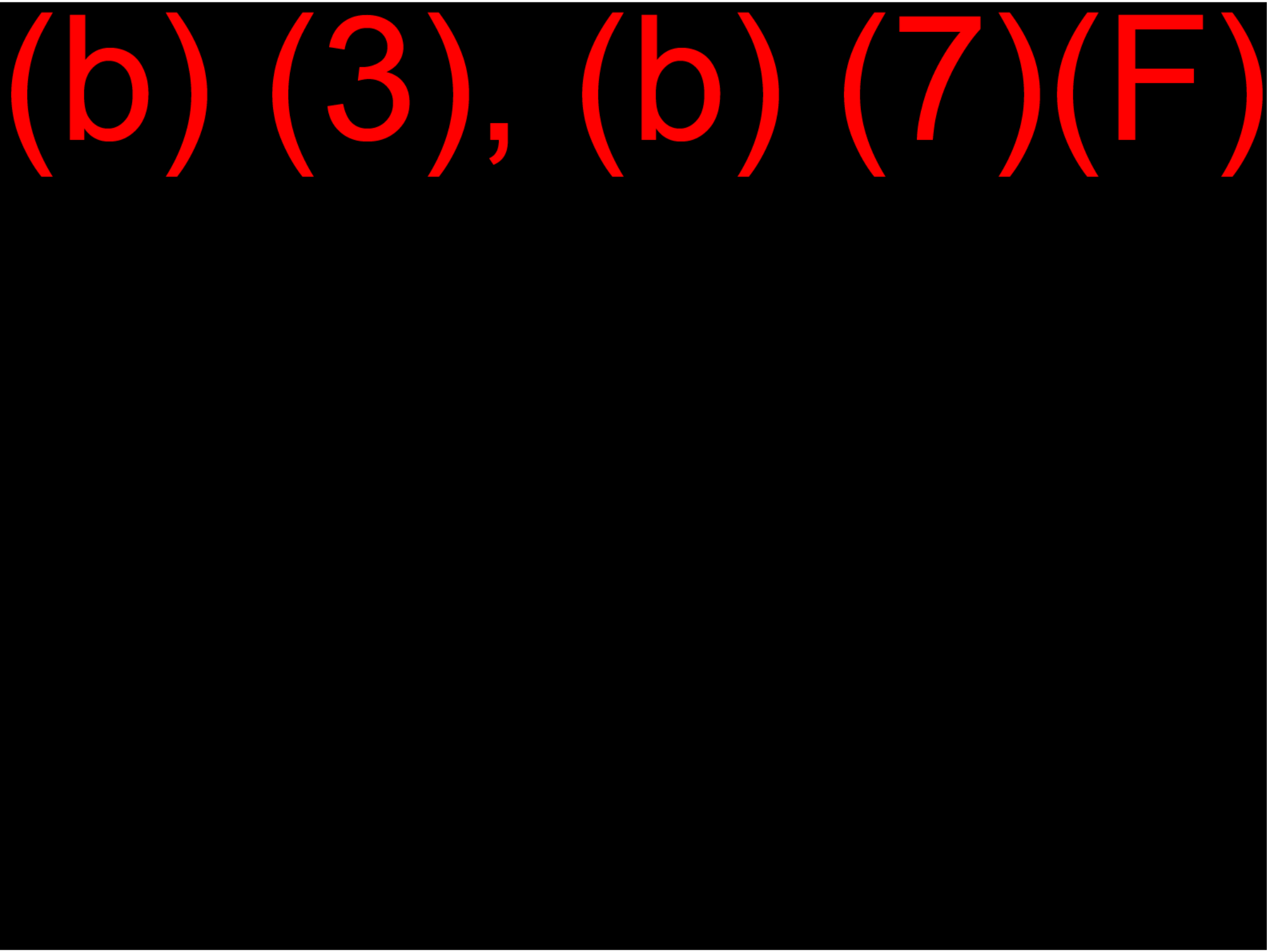
Remember that SCAT forms are not always needed and usually are not included in the reports generated for Planning and Operations. They are useful as a trigger for reminding the Assessment Team members of the types of observations they need to make during their surveys, as well as for detailed documentation of the shoreline oiling conditions. Operations is mostly interested in the final products of the survey: a description of the shoreline type and oiling conditions, the recommendation for cleanup, the cleanup method to be applied, and any site-specific guidance on how to proceed. These are the priority results that must be transmitted to Operations.

The Shoreline Terminology/Codes sheet in Figure 5 lists the common terms and abbreviations for describing the oil, sediments, and other features on the forms and sketch maps. The team walks the segment to collect field data while a team member records observations on the oiling conditions. It is very important to accurately measure or estimate the dimensions of each type of oil.

Areas containing surface oil are shown on a field sketch of the shoreline segment and described on the survey form. The oil locations, which can be designated by letters, are described systematically on the sketch. To investigate buried oil, trenches must be dug and measurements recorded of the degree and depths of subsurface oil. Number each trench and show each location on the sketch, using solid or open triangle symbols to distinguish oiled from clean trenches.

Field sketches are important

Sketches are a very important component of the field survey data. **Figure 11** shows a sample field sketch that accompanies the field form completed in Figures 7-9. Sketches are better than photographs at characterizing overall conditions. Sketches help reviewers put the tabular data on oiled area and type into perspective, which assists decision-making. They documemt conditions better than photographs, videotapes, or statistics, and they allow better temporal comparisons. The sketches are particularly useful for spills when Shoreline Assessment Teams change over time. They can be used during post-cleanup inspections of segments to identify the locations of oil that were to be removed, and become the blueprint against which the


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

effectiveness of the cleanup can be compared. Appendix E is a primer on drawing field sketches.

The objective of the shoreline surveys should always be remembered: to collect the information needed by decision-makers to formulate and approve shoreline cleanup plans. From these surveys, an Operations Section manager or supervisor should be able to use the data to develop a detailed cleanup plan, including equipment and manpower needs. Government agencies should be able to use this data, along with natural resources information, to develop cleanup priorities, identify site-specific or temporal constraints, and understand and approve the proposed cleanup plan.

Information flow and formats

The shoreline assessment results must be concisely and promptly reported to the Planning Section so that they can be incorporated into the IAP in a timely manner and distributed to other users **(Figure 12)**.

- The Shoreline Assessment Team reviews the observations and cleanup recommendations for each segment for accuracy and completeness. Each team member signs each form.

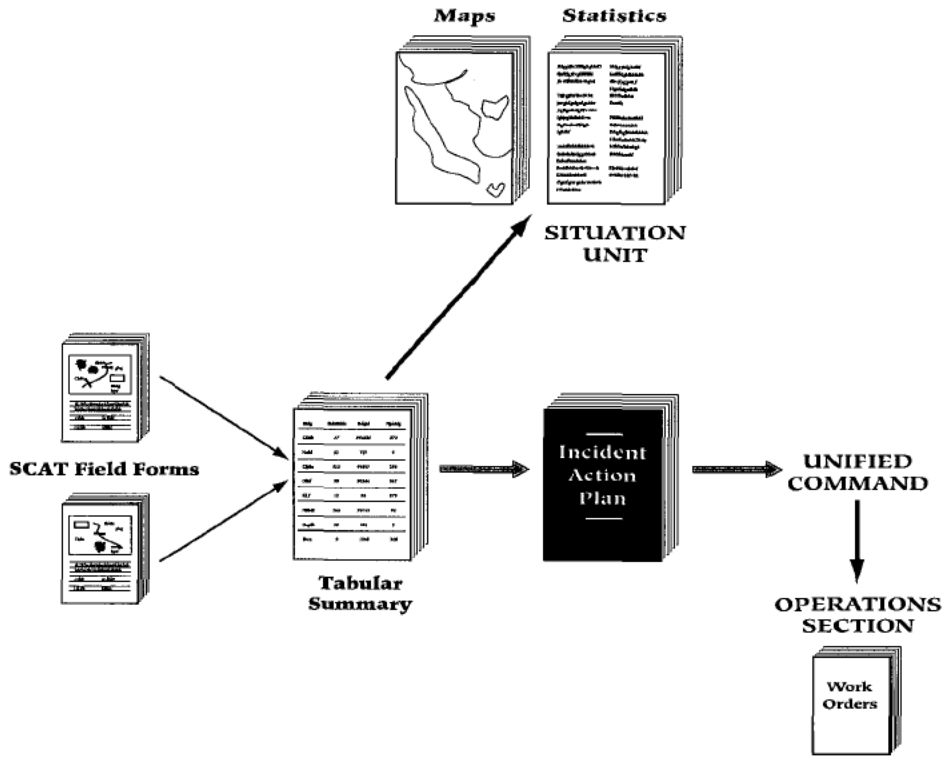


Figure 12.
Shoreline assessment information flow.

- The Shoreline Assessment Team Leader compiles all the survey forms for the day and submits them to the Team Coordinator. The Team Leader verbally debriefs the Team Coordinator on the results, issues, etc.
- The Shoreline Assessment Team Coordinator compiles the survey results into summaries by cleanup Division, in a format suitable for incorporating information for the IAP.

The Team Coordinator also verbally debriefs the Planning and Operations Section Chiefs on issues identified by the field teams. At this time, Operations can identify issues for the Shoreline Assessment Team to address. The original field forms must be summarized, and often two types of data summaries are needed: a tabular summary by segment or Division for the IAP; and graphic and tabular summaries for display by the Situation Unit. The Unified Command can specify the format of the tabular summary. **Figures 13-14** show examples of reporting summaries used in the past. The types of data that should be included in any format are:

SCAT forms always contain this information

Date: For some spills, changing conditions will require repeat surveys, so the date of the survey is very important.

Segment Number(s), Name, Division Number: Use the appropriate terms to refer to the shoreline segment. Group segments by Division.

Summary of oiling conditions: The oiling condition can rapidly change. You need to describe the oiling condition when the cleanup recommendation was made. The cleanup supervisor can determine whether the cleanup recommendation is no longer applicable and request a new assessment.

Cleanup recommendations: Use standard terms, as listed in the cleanup descriptions in Appendix B.

Site-specific constraints: Clearly identify these as to location and refer to unambiguous conditions in the field (e.g., do not allow cleanup crews to enter marshes).

You can graphically represent shoreline assessment data on maps and as statistical summaries. Use maps to show the distribution of oiled shoreline and the degrees of oiling. **Figure 15** shows a shoreline oiling map prepared for the 1996 *Julie* N spill

Figure 13.
Example of shoreline assessment report from the 1996 Buffalo 292 spill, Galveston, Texas.

Operational Period: 3-21-96/2100 to 3-22-96/2100

Shoreline segments visited (See attached maps for segment locations)

Fort Point (FP)
Big Reef Park (BR1, BR2, BR3, BR4)
South Jetty (BR5)
NE Pelican Island (PI)
Pelican Island, Sea Wolf Park (SP1, SP2, SP3)
Goat Island (GI1, GI2)
North Ferry Landing (NFL1, NFL2)

Shoreline segments requiring no cleanup action at this time (barring future impact). Many of the segments visited by SCAT on 3-20-96 require no cleanup action at this time.

SP1 - Oily film and trace tarballs in swash zone. **RECOMMENDATION** No cleanup recommended.

SP2 - Trace to sporadic tarballs in swash zone. **RECOMMENDATION** No cleanup recommended.

SP3 - No oil present.

FP - One spot of rip-rap near Big Reef impacted. 10 yds long, broken <5% coverage 200 yards due west from interchapter of Seawall Blvd. and shoreline. **RECOMMENDATION** No cleanup recommended, but watch for oiling on front and back of rip-rap with tidal change over next 2 days.

Shoreline segments requiring cleanup action. See attached reports for more detail.

BR1 - Reimpacted, sporadic mousse and tarballs with 10-15% coverage, no subsurface impact. No cleanup activity present. **RECOMMENDATION** Revisit by cleanup crew doing manual recovery, revisit daily.

BR2 - Reimpacted, continuous to sporadic with 10% coverage of film, mousse, and tarballs, no subsurface impact. No cleanup activity present. **RECOMMENDATION** Revisit by cleanup crew doing manual recovery, revisit daily.

BR3 - Continuous to patchy oiling with 20% coverage more evenly dispersed as compared to yesterday, no subsurface impact. Small cleanup crew (approx. 15 people) present. **RECOMMENDATION** Continue cleanup.

BR4 - 10-15% coverage, continuous to sporadic, no subsurface impact. Cleanup activity in progress. **RECOMMENDATION** Continue cleanup operations.

BR5 - Oil still leaching from South Jetty, snare being deployed and tended. **RECOMMENDATION** Maintain snare on both south and north side of South Jetty with frequent tending to ensure effective capture of oil leaching from riprap.

EB - No oil, but some type of film is present on surface, (maybe organic), some snare is starting to float up on East Beach near the jetty. **RECOMMENDATION** Visit by cleanup crew for manual recovery of snare and other oily debris washing up.

P1 - Trace to sporadic tarballs stranded in water and upper intertidal zone, film cover in wide to medium width with 100 yds of patchy tarballs trapped within, no subsurface impact. **RECOMMENDATION** Manual removal with snare placed in swash zone.

SCAT was performed at low to mid tide. High tide may relocate observed oil.

202 ICS 3/80	Prepared by:	Approved by (Incident Commander):

in Portland, Maine. Standardize definitions for the shoreline oiling categories (modify your definitions from Fig. 10). Use computer mapping software to tabulate the number of kilometers (or miles) of shoreline by oiling degree and cleanup status. These are important measures for reporting the progress of the cleanup.

While it is clear that Shoreline Assessment Teams should not direct cleanup contractors in the field, the team can meet with the Operations Division Supervisor when conducting surveys in his/her division. The team can invite the Operations Division Supervisor to:

Figure 14.
Example of shoreline assessment report from the 1996 Cape Mohican spill, San Francisco, California.

SCAT Cleanup Priorities and Methods **Page 1**

SEGMENT NAME:	Ocean Beach
DIVISION:	O
OIL TYPE:	Tarballs
OIL EXTENT:	1 m wide by 4.7 miles long
OIL LOCATION:	The high tide zone along the entire length of Ocean Beach
CLEANUP TECHNIQUES:	Small crew needed with a lawn roller and sorbent pads. The roller wrapped in pads picks up the tarballs from the beach. Tarballs mixed with vegetative debris in wrack line. The federally threatened snowy plovers (birds) have been oiled. A National Park Service representative should be on-scene during cleanup. Recommend 1 crew for manual removal.

SEGMENT NAME:	Muir Beach
DIVISION:	S
OIL TYPE:	Tarballs
OIL EXTENT:	1 m wide by 1,600 m long
OIL LOCATION:	In the high tide swash of the sand beach
CLEANUP TECHNIQUES:	Manual removal of tarballs. Rakes, shovels, and plastic bags required. Need 6 men.

SEGMENT NAME:	China Beach
DIVISION:	H-2
OIL TYPE:	Tarballs
OIL EXTENT:	Entire length of beach
OIL LOCATION:	
CLEANUP TECHNIQUES:	Trace tarballs scattered on beach. No further cleanup required. Ready to be examined for sign-off.

- accompany them on their survey (which is unlikely for most spills because of time demands on the Division Supervisor);
- accompany them on a quick walk-through after the survey is completed, going over the team's recommendations; or
- meet after the survey to go over their recommendations.

Direct communication with the Shoreline Assessment Team gives the Division Supervisor immediate feedback and a better understanding of the agency concerns, the details of which are lost as the survey reports are filtered through the IAP and the chain of command. However, this means that the Shoreline Assessment Team must be very concise during their debriefing with the Division Supervisor and not burden that individual with unnecessary technical detail.

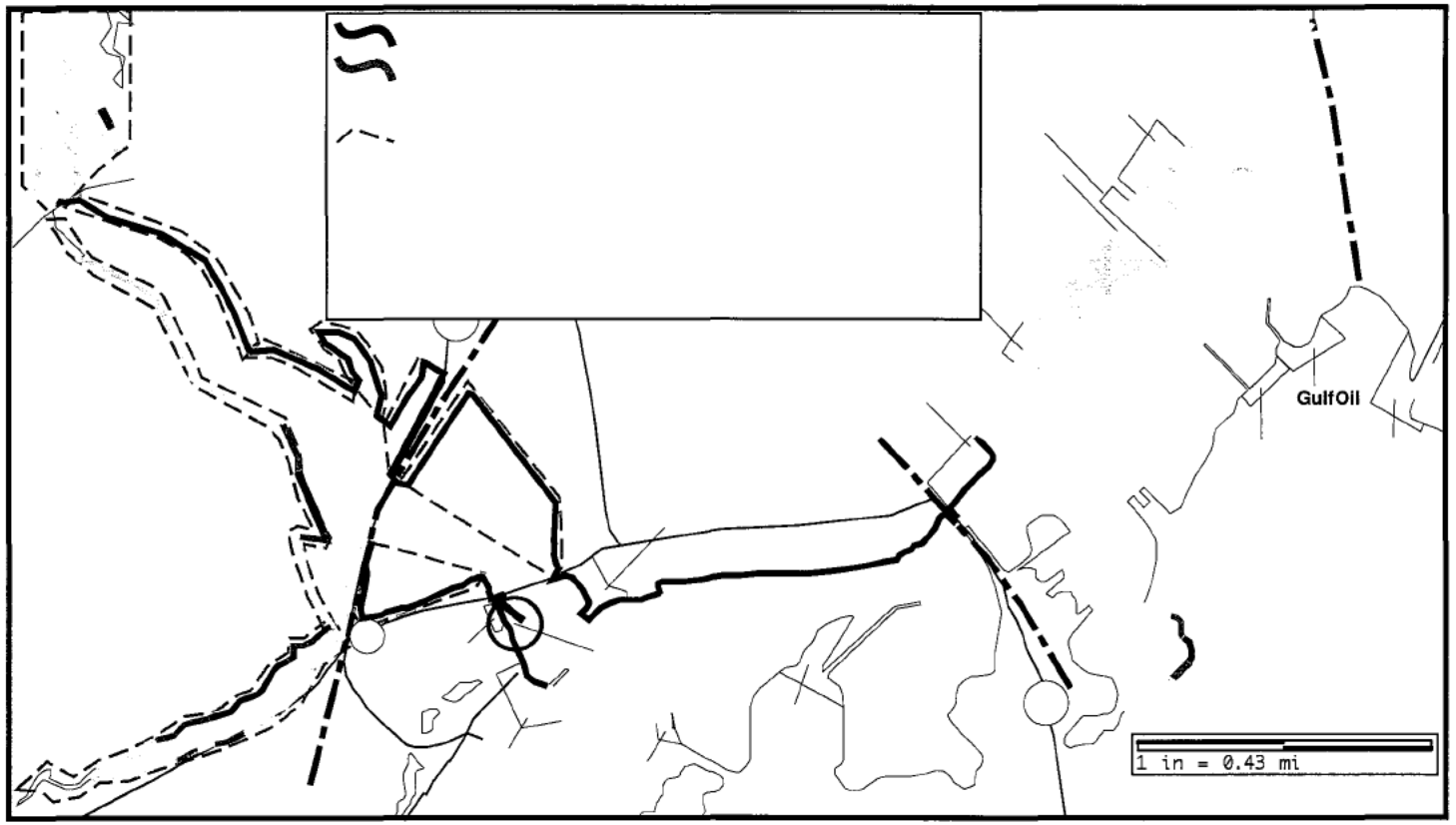


Figure 15. Example of shoreline oiling summary map, from the 1996 *Julie N* spill in Portland, Maine.

7 Planning for Shoreline Assessments

Define the Roles in the Area Plan

You are encouraged to plan ahead for shoreline assessments through the Area Committee. The Area Contingency Plan can identify the personnel, process, and logistics to be used for shoreline assessments before a spill occurs. It can also pre-approve the use of cleanup methods for special problem areas. This kind of pre-planning should include:

- Identifying Shoreline Assessment Team Coordinator (NOAA SSC or state counterpart); and
- Identifying a pool of state and Federal personnel who can represent their agencies' concerns and be available to do shoreline assessments for the duration of a spill. *These personnel must be trained in shoreline processes, terminology, and cleanup methods.*

Process

- Adopt a Shoreline Survey Evaluation Form.
- Develop a strategy for segmenting shorelines in your area on maps or charts.
- Pre-approve the use of cleanup methods for each shoreline type. Form workgroups to identify special cleanup concerns (e.g., cutting of oiled seaweeds, use of shoreline cleaning agents, recovery of submerged oil), research the cleanup options, and make recommendations on their use for inclusion in the Area Plan.
- Develop general guidelines for cleanup endpoints.
- Decide how to transition Shoreline Assessment Teams into Sign-off Teams;

Logistics

- Identify and acquire shoreline assessment equipment.
- Identify the need for air boats, boats, or special vehicles, particularly in remote areas.
- Identify the types of communications needed by field teams (e.g., radios, cellular phones).

8 Pre-Impact Assessments

Many times we are called to respond to the threat of an oil spill, such as when a grounding occurs close to shore or when an offshore slick threatens a coastline. In such cases, we often have time to develop useful spill-specific contingency plans.

An important part of planning for potential shoreline impacts is shoreline assessment. Pre-impact assessments focus primarily on identifying priority resources at risk and recommending the necessary preparedness actions in order to protect those resources in the event of an oil release. The use of a Shoreline Assessment Team, as identified for normal shoreline cleanup assessment, is an appropriate way to accomplish pre-impact shoreline assessment.

Pre-impact Activities

- Collecting data on shoreline types, and ecological and human-use resources along the entire coastline at risk.
- Identifying access and staging locations;
- Identifying any natural or preferred collection points;
- Identifying any areas that should be pre-cleaned of wrack or other debris; and
- Evaluating and recommending protection options, requirements, and priorities.

It is the responsibility of the Unified Command to scale the risk associated with potential spill scenarios and make a judgment call as to the level of pre-assessment effort that is warranted.

9 References

Environment Canada. 1992. Oilspill SCAT manual for the coastlines of British Columbia. Edmonton, Alberta, Canada: Technology Development Branch, Conservation and Protection, Environment Canada. 245 p.

Martin, R.D., I. Byron, & R. Pavia. 1997. Evolution of shoreline cleanup assessment team activities during the *Buffalo* 292 oil spill. *In* Proceedings of the International Oil Spill Conference, April 7-10, 1997, Fort Lauderdale, Florida, p. 33-39. API Publ. 4651. Wash. DC: American Petroleum Institute.

NOAA & American Petroleum Institute. 1994. Options for minimizing environmental impacts of freshwater spill response. Seattle: Hazardous Materials Response and Assessment Division, National Oceanic and Atmospheric Administration. 130 p. + appendices.

NOAA & American Petroleum Institute. In press. Environmental considerations for oil spill response. Seattle: Hazardous Materials Response and Assessment Division, National Oceanic and Atmospheric Administration.

Owens, E., & A. Teal. 1990. Shoreline cleanup following the *Exxon Valdez* oil spill: Field data collection within the S.C.A.T. program. *In* Proceedings of the 13th Arctic and Marine Oil Spill Program Technical Seminar, June 6-8, 1990, Edmonton, Alberta, Canada, p. 411-421. Ottawa, Ontario, Canada: Emergency Sciences Div., Environment Canada.

USCG (U.S. Coast Guard). 1996. Field operations guide: Incident Command System (ICS). ICS-OS-420-1. Wash. DC: Office of Response, U.S. Coast Guard.

Appendix A: Shoreline Assessment Equipment Checklist

Survey Gear

- ❒ Maps or charts of the survey area
- ❒ Clipboards and rubber bands
- ❒ Pencils, erasers, waterproof markers
- ❒ Field forms (code sheets, shoreline form, sketch sheets, photo logs)
- ❒ Field estimation charts (sand size, gravel size, percent cover)
- ❒ Field notebooks (waterproof)
- ❒ Segment map sheets
- ❒ Base sketch maps, if available
- ❒ Shovels
- ❒ Camera (35 mm) and color print film (ASA 64 and 100); extra batteries
- ❒ Videocamera and video tapes, if required; extra batteries
- ❒ Photo scale (15 cm)
- ❒ Tape measure (30 m) and ruler
- ❒ Range finder
- ❒ Hand-held GPS
- ❒ Compass, preferably Brunton
- ❒ Field pack
- ❒ Communication device (e.g., radio or cellular phone)
- ❒ First-aid kit

Personal Gear

- ❒ Good rain gear
- ❒ Knee-high, rubber boots or hip waders
- ❒ Work gloves
- ❒ "Tar-off" towelettes or similar hand cleaner
- ❒ Hat
- ❒ Sunscreen
- ❒ Drinking water
- ❒ Personal Flotation Device (PFD) if traveling by water/helicopter
- ❒ Personal day pack

Appendix B: Brief Descriptions of Shoreline Cleanup Methods

Shoreline Cleanup Methods

Introduction

This section describes methods currently in use during cleanup of oil spills in marine environments and habitats. For each method the following is provided: a summary of the objective in using the method, a general description of the method, applicable habitat types, conditions under which the methods should be used (constraints commonly applied to the use of the method to protect sensitive biological resources), and the environmental effects expected from the proper use of the method. Some of the methods listed require special authorization for use during a spill; appropriate agencies must be contacted about the need for special approvals.

A problem which occurs after all major oil spills is that there is a large quantity of oily wastes and debris that is generated and must be dealt with as part of the response action. A cleanup strategy that minimizes the impact to all sensitive aspects of the environment and minimizes the amount of oily wastes is the most optimal. History has shown that oily wastes or debris that have been buried inappropriately can result in formation of leachates that contaminate surface and groundwater resources. Each cleanup option should be examined with the problem of waste generation and disposal in mind.

Additional information and guidance for the application of shoreline cleanup methods appropiate for each shoreline type can be found in the "Marine Manual" and the "Freshwater Manual" jointly published by NOAA, the American Petroleum Institute, and others. In these manuals different cleanup methods are classsified by shoreline and oil types according to their potential for causing habitat impact. The matrixes in these manuals are a good starting point for identifying appropriate cleanup methods for specific spill conditions.

Natural Recovery

Objective

No attempt is made to remove any stranded oil, when there is no effective method for cleanup or to minimize impact to the environment. Oil is left to degrade naturally.

Description

No action is taken, although monitoring of contaminated areas is required.

Applicable Habitat Types

All habitat types.

When to Use

When natural removal rates are fast (e.g., gasoline evaporation or high energy coastlines), when the degree of oiling is light, access is severely restricted or dangerous to cleanup crews, or when cleanup actions will do more harm than natural removal.

Biological Constraints

This method may be inappropriate for areas used by high numbers of mobile animals (birds, marine mammals) or endangered species.

Environmental Effects

Same as from the oil alone.

Waste Generation

None.

Barriers/ Berms

Objective	To prevent entry of oil into a sensitive area or to divert oil to a collection area.
Description	A physical barrier other than a boom is placed across an area to prevent oil from passing. Barriers can consist of earthen berms or filter fences. When it is necessary for water to pass because of water volume, underflow or overflow dams are used.
Applicable Habitat Types	At the mouths of creeks or streams to prevent oil from entering from offshore, or to prevent oil from being released from the creek into offshore waters. Also, on beaches where a high berm can be built above the high-tide line to prevent oil from over-washing the beach and entering a sensitive back-beach habitat (e.g. lagoon).
When to Use	When the oil threatens sensitive habitats, and other barriers are not feasible. To protect sensitive areas when cleaning adjacent shorelines.
Biological Constraints	Responders must minimize disturbance to sensitive areas, such as shorebird nesting sites on beaches. Placement of dams and filter fences could cause excessive physical disruptions to the site, particularly in wetlands.
Environmental Effects	May disrupt or contaminate sediments and adjacent vegetation. The natural beach or shore profile should be restored (may take weeks to months on gravel beaches).
Waste Generation	Sediment barriers will become contaminated on the oil side and filter fence materials will have to be disposed of as oily wastes.

Physical Herding

Objective	To free any oil trapped in debris or vegetation on-water; to direct the movement of floating oil towards containment and recovery devices; or to divert oil away from sensitive areas.
Description	Plunging water jets, water or air hoses, and propeller wash can be used to dislodge trapped oil and divert or herd it to containment and recovery areas. May emulsify the oil. Mostly conducted from small boats.
Applicable Habitat Types	In nearshore areas where there are little or no currents, and in and around man-made structures such as wharves and piers. In streams where oil is trapped by debris.
When to Use	In low-current or stagnant water bodies, to herd oil towards recovery devices. In high current situations to divert floating oil away from sensitive areas, or dislodge oil from debris.
Biological Constraints	When used near shore and in shallow water, must be careful to not disrupt bottom sediments or submerged aquatic vegetation.
Environmental Effects	May generate high levels of suspended sediments and mix them with the oil, resulting in deposition of contaminated sediments in benthic habitats.
Waste Generation	None.

Manual Oil Removal/Cleaning

Objective	To remove oil with hand tools and manual labor.
Description	Removal of surface oil with hands, rakes, shovels, buckets, scrappers, sorbents, pitchforks, etc., and placing in containers. No mechanized equipment is used. Includes underwater recovery of submerged oil by divers with hand tools, for example.
Applicable Habitat Types	Can be used on all habitat types.
When to Use	Light to moderate oiling conditions for stranded oil or heavy oils that have formed semi-solid to solid masses that can be picked up manually. Also can be used in areas where roosting or birthing animals cannot or should not be disturbed.
Biological Constraints	Foot traffic over sensitive areas (wetlands, tidal pools, etc.) should be restricted or prevented. There may be periods when shoreline access should be avoided, such as during bird nesting.
Environmental Effects	Minimal, if surface disturbance by crew movement and waste generation is controlled.
Waste Generation	May generate significant quantities of oil mixed with sediment which must be properly disposed of or treated. Decontamination of hand tools may produce oily wastewater that must be treated properly. Worker personal protective gear is usually disposed of daily or decontaminated and the resulting oily wastewater treated properly.

Mechanical Oil Removal

Objective

To remove oil from shorelines and bottom sediments with mechanical equipment.

Description

Oil and oiled sediments are collected and removed using mechanical equipment such as backhoes, graders, bulldozers, dredges, draglines, etc. Requires systems for temporary storage, transportation, and final treatment and disposal.

Applicable Habitat Types

On land, wherever surface sediments are both amenable to and accessible to heavy equipment. For submerged oil, used in sheltered areas where oil accumulates. On water, used on viscous to solid oil.

When to Use

When large amounts of oiled materials must be removed. Care should be taken to remove sediments only to the depth of oil penetration, which can be difficult when using heavy equipment. Should be used carefully where excessive sediment removal may cause erosion.

Biological Constraints

Heavy equipment may be restricted in sensitive habitats (e.g., wetlands, soft substrate) or areas containing endangered species. Will need special permission to use in areas with known cultural resources. Dredging in seagrass beds or coral reef habitats may be prohibited. The noise generated by the mechanical equipment may also be a constraint.

Environmental Effects

The equipment is heavy, with many support personnel required. May be detrimental if excessive sediments are removed without replacement. All organisms in the sediments will be affected, although the need to remove the oil may make this response method the best overall alternative. Resuspension of exposed oil and fine-grained oily sediments can affect adjacent bodies of water.

Waste Generation

Can generate significant quantities of contaminated sediment that must be cleaned or landfilled. The amount of waste generated by this cleanup option should be given careful consideration by response planners when reviewing potential environmental impacts of the oily wastes, debris, and residues.

Sorbents

Objective

To remove surface oil by absorption onto oleophilic (oil-attracting) material placed in water or at the waterline.

Description

Sorbent material is placed *on the floating oil or water surface* to allow it to sorb oil, or alternatively, the material can be used to wipe or dab stranded oil. Forms include sausage boom, pads, rolls, sweeps, snares, and loose granules or particles. These products can be either synthetic or natural substances. Efficacy depends on the capacity of the particular sorbent, energy available for lifting oil off the substrate, and stickiness of the oil. Recovery of all sorbent material is mandatory. Loose particulate sorbents must be contained in a mesh or other material.

Applicable Habitat Types

Can be used on any habitat or environment type.

When to Use

When oil is free-floating close to shore or stranded on shore. The oil must be able to be released from the substrate and absorbed by the sorbent. Often used as a secondary treatment method after gross oil removal and in sensitive areas where access is restricted. Selection of sorbent varies by oil type; heavy oils only coat surfaces, requiring a high surface area to be effective, whereas lighter oils can penetrate sorbent material.

Biological Constraints

Access for deploying and retrieving sorbents should not be through soft or sensitive habitats or affect wildlife. Sorbent use should be monitored to prevent overuse and generation of large volumes of waste. Sorbents should not be used in a fashion that would endager or trap wildlife. Sorbents left in place too long can break apart and present an ingestion hazard to wildlife.

Environmental Effects

Physical disturbance of habitat during deployment and retrieval. Improperly deployed or tended sorbent material can crush or smother sensitive substrates.

Waste Generation

Sorbents must eventually be collected for proper disposal so care should be taken to select and use sorbents properly, and prevent generation of large amounts of lightly-oiled sorbents. Recycling should be emphasized rather than disposal.

Vacuum

Objective

To remove oil pooled on a shoreline substrate or subtidal sediments.

Description

A vacuum unit is attached via a flexible hose to a suction head that recovers free oil. The equipment can range from small, portable units that fill individual 55-gallon drums to large supersuckers that are truck- or vessel-mounted and can generate enough suction to lift large rocks. Removal rates from substrates can be extremely slow.

Applicable Habitat Types

Any accessible habitat type. May be mounted on barges for water-based operations, on trucks driven to the recovery area, or hand-carried to remote sites.

When to Use

When oil is stranded on the substrate, concentrated in trenches or trapped in vegetation. Usually requires shoreline access points.

Biological Constraints

Special restrictions should be established for areas where foot traffic and equipment operation may be damaging, such as soft substrates. Operations in wetlands need to be very closely monitored, with a site-specific list of restrictions developed to prevent damage to vegetation.

Environmental Effects

Minimal, if foot and vehicular traffic is controlled and minimal substrate is damaged or removed.

Waste Generation

Collected oil and or oil/water mix will need to be stored temporarily prior to recycling or disposal. Oil may be recyclable; if not, it will require proper disposal. Large amounts of water are often recovered, requiring separation and treatment.

Debris Removal

Objective	To remove contaminated debris from the shoreline or water surface.
Description	Manual or mechanical removal of debris from the shore or water surface. Can include cutting and removal of oiled logs.
Applicable Habitat Types	Can be used on any habitat or environment type where access is safe.
When to Use	When driftwood and debris are heavily contaminated and provide a potential source of chronic oil release. When it may create aesthetic problems, be a source of contamination for other resources in the area, cause clogging problems in the skimmer, or create safety problems for responders. Used in areas of debris accumulation on beaches prior to oiling to minimize the amount of oiled debris to be handled.
Biological Constraints	Foot traffic over sensitive areas (wetlands, spawning grounds) needs to be restricted. May be periods when access should be restricted (spawning periods, influx of large numbers of migratory waterbirds).
Environmental Effects	Physical disruption of substrate, especially when mechanized equipment must be deployed to recover a large quantity of debris.
Waste Generation	Will generate contaminated debris (volume depends on what, and how much, is collected, e.g., logs, brush). Unless there is an approved hazardous waste incinerator that will take oily debris, burning will seldom be allowed, especially on-site burning. However, this option should still be explored, especially for remote locations, with the appropriate state or federal agencies who must give approvals for burning.

Sediment Reworking/Tilling

Objective

To enhance the rate of degradation, by breaking up oily sediments and surface oil deposits, increasing the surface area, and mixing deep subsurface oil layers to the surface.

Description

The oiled sediments are roto-tilled, disked, or otherwise mixed using mechanical equipment or manual tools. Along beaches, oiled sediments may also be pushed to the water's edge (surf washing) to enhance natural cleanup by wave activity. The process may be aided with high-volume flushing of gravel.

Applicable Habitat Types

On any sedimentary substrate that can support mechanical equipment or foot traffic.

When to Use

On sand to gravel beaches with subsurface oil, where sediment removal is not feasible (due to erosion or disposal problems). On sand beaches where the sediment is stained or lightly oiled. Appropriate where oil is stranded above normal high waterline.

Biological Constraints

Avoid use on shores near sensitive wildlife habitat, such as fish-spawning areas or bird-nesting or concentration areas because of the potential for release of oil and oiled sediments into adjacent bodies of water. Should not be used in shellfish beds.

Environmental Effects

Due to the mixing of oil into sediments, this method could further expose organisms that live below the original layer of oil. Repeated mixing over time could delay reestablishing organisms. Refloated oil from treated sites could contaminate adjacent areas.

Waste Generation

None.

Vegetation Cutting/Removal

Objective	To remove portions of oiled vegetation or oil trapped in vegetation to prevent oiling of wildlife or secondary oil releases.
Description	Oiled vegetation is cut with weed wackers, blades, etc., and picked or raked up and bagged for disposal.
Applicable Habitat Types	Habitats composed of vegetation such as wetlands, seagrass beds, and kelp beds.
When to Use	When the risk of oiled vegetation contaminating wildlife is greater than the value of the vegetation that is to be cut, and there is no less-destructive method that removes or reduces the risk to acceptable levels.
Biological Constraints	Operations must be strictly monitored to minimize the degree of root destruction and mixing of oil deeper into the sediments. Access in bird-nesting areas should be restricted during nesting seasons. Cutting only the oiled portions of the plants and leaving roots and as much of the stem as possible minimizes impact to plants.
Environmental Effects	Vegetation removal will destroy habitat for many animals. Cut areas will have reduced plant growth, and in some instances, plants may be killed. Cutting at the base of the plant stem may allow oil to penetrate into the substrate, causing subsurface contamination. Along exposed sections of shoreline, the vegetation may not recover, resulting in erosion and habitat loss. Trampled areas will recover much more slowly.
Waste Generation	Cut portions of oiled plants must be collected and disposed.

Flooding

Objective	To wash oil stranded on the land surface to the water's edge for collection.
Description	A perforated header pipe or hose is placed above the oiled shore or bank. Ambient-temperature water is pumped through the header pipe at low pressures and flows downslope to the water. On porous sediments, water flows through the substrate, pushing loose oil ahead of it, or floating oil to the water's surface and transporting the oil down the slope for pickup. On saturated, fine-grained sediments, the technique becomes more of a flushing of the surface.
Applicable Habitat Types	All shoreline types where the equipment can be effectively deployed. Not effective in steep intertidal areas.
When to Use	In heavily oiled areas when the oil is still fluid and adheres loosely to the substrate, and where oil has penetrated into gravel sediments. This method is frequently used with other washing techniques (low- or high-pressure, cold-to-hot-water flushing).
Biological Constraints	Special care should be taken to recover oil where nearshore habitats contain rich biological communities. Not appropriate for muddy substrates.
Environmental Effects	Habitat may be physically disturbed by foot traffic during operations and smothered by sediments washed down the slope. Oiled sediment may be transported to shallow nearshore areas, contaminating them and burying benthic organisms.
Waste Generation	Depends on the effectiveness of the collection method.

Low-Pressure, Ambient-Water Flushing

Objective	To remove fluid oil that has adhered to the substrate or man-made structures, pooled on the surface, or become trapped in vegetation.
Description	Ambient-temperature water is sprayed at low pressures (<10 psi), usually from hand-held hoses, to lift oil from the substrate and direct it to the water's edge for recovery by skimmers, vacuum, or sorbents. Can be used with a flooding system to prevent released oil from re-adhering to the substrate downstream of the treatment area.
Applicable Habitat Types	On substrates, riprap, and solid man-made structures, where the oil is still fluid. In wetlands and along vegetated banks where oil is trapped in vegetation.
When to Use	Where fluid oil is stranded onshore or floating on shallow intertidal areas.
Biological Constraints	May need to restrict use so that the oil/water effluent does not drain across sensitive intertidal habitats and mobilized sediments do not affect rich subtidal communities. Use from boats will reduce the need for foot traffic in soft substrates and vegetation. Flushed oil must be recovered to prevent further oiling of adjacent areas.
Environmental Effects	If containment methods are not sufficient, oil and oiled sediments may be flushed into offshore areas. Some trampling of substrate and attached biota will occur.
Waste Generation	Depends on the effectiveness of the collection method.

High-Pressure, Ambient-Water Flushing

Objective	To remove oil that has adhered to hard substrates of man-made structures.
Description	Similar to low-pressure flushing except that water pressure is 100-1,000 psi. High-pressure spray will more effectively remove sticky or viscous oils. If low-water volumes are used, sorbents are placed directly below the treatment area to recover oil.
Applicable Habitat Types	On bedrock, man-made structures, and gravel substrates.
When to Use	When low-pressure flushing is not effective at removing adhered oil that must be removed to prevent continued oil release or for aesthetic reasons. When a directed water jet can remove oil from hard-to-reach sites.
Biological Constraints	May have to restrict flushing so that the oil does not drain across sensitive habitats. Flushed oil must be recovered to prevent further oiling of adjacent areas.
Environmental Effects	Attached animals and plants in the direct spray zone will be removed. May drive oil deeper into the substrate or erode shorelines of fine sediments if water jet is improperly applied. If containment methods are not sufficient, oil and oiled sediments may be flushed into offshore areas. Some trampling of substrate and attached biota will occur.
Waste Generation	Depends on the effectiveness of the collection method.

Low-Pressure, Hot-Water Flushing

Objective	To remove non-fluid oil that has adhered to the substrate or man-made structures, or pooled on the surface.
Description	Hot water (90°F up to 170°F) is sprayed with hoses at low pressures (<10 psi) to liquefy and lift oil from the substrate and direct it to the water's edge for recovery by skimmers, vacuums, or sorbents. Used with flooding to prevent released oil from re-adhering to the substrate.
Applicable Habitat Types	On bedrock, sand to gravel substrates, and man-made structures.
When to Use	Where heavy, but relatively fresh oil is stranded onshore. The oil must be heated above its pour point, so it will flow. Less effective on sticky oils.
Biological Constraints	Avoid wetlands or rich intertidal communities so that hot oil/water effluent does not contact sensitive habitats. Operations from boats will help reduce foot traffic in soft substrates and vegetation. Flushed oil must be recovered to prevent further oiling of adjacent areas.
Environmental Effects	Hot-water contact can kill all attached animals and plants. If containment methods are not sufficient, oil may be flushed into downstream areas. Some trampling of substrate and biota will occur.
Waste Generation	Depends on the effectiveness of the collection method.

High-Pressure, Hot-Water Flushing

Objective

To mobilize weathered and viscous oil strongly adhered to surfaces.

Description

Hot water (90°F [32°C] up to 171°F [77°C]) is sprayed with hand-held wands at pressures greater than 100 psi (720 kpa). If used without water flooding, this procedure requires immediate use of vacuum or sorbents to recover the oil/water runoff. When used with a flooding system, the oil is flushed to the water surface for collection by skimmers, vacuum, or sorbents.

Applicable Habitat Types

Gravel substrates, bedrock, and man-made structures.

When to Use

When oil has weathered to the point that warm water at low pressure no longer effectively removes oil. To remove viscous oil from man-made structures for aesthetic reasons.

Biological Constraints

Use should be restricted so that the oil/water effluent does not drain across sensitive habitats (damage can result from exposure to oil, oiled sediments, and hot water). Should not be used directly on attached algae nor rich, intertidal areas. Released oil must be recovered to prevent further oiling of adjacent areas.

Environmental Effects

All attached animals and plants in the direct spray zone will be removed or killed, even when used properly. Oiled sediment may be transported to shallow nearshore areas, contaminating them and burying benthic organisms.

Waste Generation

Depends on the effectiveness of the collection method.

Steam Cleaning

Objective	To remove heavy residual oil from solid substrates or man-made structures.
Description	Steam or very hot water (171°F [77°C] to 212°F [100°C]) is sprayed with hand-held wands at high pressure (2000+ psi [14,400 kpa]). Water volumes are very low compared to flushing methods.
Applicable Habitat Types	Man-made structures such as seawalls and riprap.
When to Use	When heavy oil residue must be removed for aesthetic reasons, and when hot-water flushing is not effective and no living resources are present.
Biological Constraints	Not to be used in areas of soft substrates, vegetation, or high biological abundance directly on, or below, the structure.
Environmental Effects	Complete destruction of all organisms in the spray zone. Difficult to recover all released oil.
Waste Generation	Depends on the effectiveness of the collection method. Usually sorbents are used, generating significant waste volumes.

Sand Blasting

Objective	To remove heavy residual oil from solid substrates or man-made structures.
Description	Use of sandblasting equipment to remove oil from the substrate. May include recovery of used (oiled) sand in some cases.
Applicable Habitat Types	On heavily oiled bedrock, artificial structures such as seawalls and riprap.
When to Use	When heavy oil residue must be cleaned for aesthetic reasons, and even steam-cleaning is not effective.
Biological Constraints	Not to be used in areas of soft substrate, vegetation, or high biological abundance directly below, or adjacent to, the structures.
Environmental Effects	Complete destruction of all organisms in the blast zone. Possible smothering of downstream organisms. Unrecovered, used sand will introduce oiled sediments into the adjacent habitat.
Waste Generation	Will need to recover and dispose of oiled sand used in blasting.

Dispersants

Objective	To reduce impact to sensitive shoreline habitats and animals that use the water surface by chemically dispersing oil into the water column.
Description	Dispersants reduce the oil/water interfacial tension, thereby decreasing the energy needed for the slick to break into small particles and mix into the water column. Specially-formulated products containing surface-active agents are sprayed (at concentrations of 1-5 percent by volume of the oil) from aircraft or boats onto the slicks. Products can be applied undiluted or mixed with water. Some agitation is needed to achieve dispersion.
Applicable Habitat Types	Water bodies with sufficient depth and volume for mixing and dilution.
When to Use	When the impact of the floating oil has been determined to be greater than the impact of dispersed oil on the water-column community.
Biological Constraints	Use in shallow water could affect benthic resources. Consideration should be made to avoid directly spraying any wildlife, especially birds or fur-bearing marine mammals.
Environmental Effects	Until sufficiently diluted, the dispersed oil may adversely impact organisms in the upper 30 feet (10 meters) of the water column. Because dispersion will only be partially effective, some water-surface and shoreline impacts could occur.
Waste Generation	None.

Emulsion-Treating Agents

Objective

To break or destabilize emulsified oil into separate oil and water phases. Can be used to prevent emulsion formation, increasing oil recovery rates, extending the window for dispersant application, or making burning possible.

Description

Emulsion-treating agents are surfactants that are applied to emulsified oil at low concentrations (0.1-2 percent). They can be injected into skimmer reservoirs to break the emulsion as it is skimmed from the water. They can be sprayed (similar to dispersants) directly onto slicks to break or prevent emulsions, although this type of application has not been used operationally.

Applicable Habitat Types

On all water environments where emulsified oil is present.

When to Use

Where storage capacities are very limited, to separate the recovered, emulsified oil and water so that the water can be treated and discharged. On floating slicks, where emulsified oil can reduce skimmer efficiency.

Biological Constraints

There is insufficient information to evaluate biological constraints.

Environmental Effects

Because this is a new method, there are few data available to evaluate environmental effects. Effective dosages are one to two orders of magnitude lower than dispersants. Environmental concerns include the potential for increased oil content of separated water; whether the oil will be more readily dispersed; and how the treated oil will behave upon contact with skimming equipment, birds, mammals, and shorelines.

Waste Generation

May enable recycling of oil/water mixtures by breaking down emulsions.

Elasticity Modifiers

Objective	To impart visco-elastic properties to floating oil, thereby increasing skimming rates.
Description	The product is applied as a liquid, slurry, or solid onto the oil. Some mixing is required and is usually provided by the water spray during application. Treated oil is rendered visco-elastic (gelatinous, or semi-solid), but still fluid; there is no chemical change in the oil. The primary purpose is to increase skimmer efficiency removal rates while minimizing water recovery amounts. Increases the efficiency of some skimmers, but may clog other skimmers and pumps.
Applicable Habitat Types	On all water environments where oil can be contained for skimming. Not for use near wetlands nor debris because of increased adhesive properties of the treated oil.
When to Use	When skimmer efficiency is low. Must be used with booming or other physical containment. Not for use on heavy oils, which are already highly viscous.
Biological Constraints	Not suitable for vegetated shores or where there is extensive debris mixed in the oil. Should be avoided when birds or other wildlife cannot be kept away from the treated oil.
Environmental Effects	May increase the smothering effect of oil on organisms; therefore, the treatment should be considered only where recovery of the treated oil is likely.
Waste Generation	If skimming efficiency is increased, will reduce the volume of water in oil/water collections. Effects on recycling of oil treated with elasticity modifiers is unknown.

Herding Agents

Objective	To collect or herd oil into a smaller area and thicker slick in order to increase recovery. Can be used to herd oil away from sensitive areas or to help keep oil contained when it is necessary to move a boom.
Description	These agents, which are insoluble surfactants and have a high spreading pressure, are applied in small quantities (1-2 gallons per lineal mile) to the clean water surrounding the edge of a fresh oil slick. They contain the oil, prevent spreading, but do not hold the spill in place. Hand-held or vessel-mounted systems can be used. Must be applied early in spill, when oil is still fluid.
Applicable Habitat Types	On all still water environments.
When to Use	Potential use for collection and protection. For collection, used to push slicks out from under docks and piers where it has become trapped, or in harbors where the equipment is readily accessible for use early in the spill. For protection in low-current areas, use to push slicks away from sensitive resources such as wetlands. Not effective in fast currents, rough seas, or rainfall.
Biological Constraints	Not suitable for use in very shallow water or fish-spawning areas.
Environmental Effects	Direct acute toxicity to surface-layer organisms possible, though available products vary greatly in their aquatic toxicity.
Waste Generation	Same as for manual oil recovery.

Solidifiers

Objective	To change the physical state of spilled oil from a liquid to a solid.
Description	Chemical agents (polymers) are applied to oil at rates of 10-45 percent or more, solidifying the oil in minutes to hours. Various broadcast systems, such as leaf blowers, water cannons, or fire suppression systems, can be modified to apply the product over large areas. Can be applied to both floating and stranded oil. Can be placed in booms, pillows, sausages, etc. and used like sorbents, although this type of solidifier application has not been used operationally.
Applicable Habitat Types	All water environments, bedrock, sediments, and artificial structures.
When to Use	When immobilization of the oil is desired, to prevent refloating from a shoreline, penetration into the substrate, or further spreading. However, the oil may not fully solidify unless the product is well mixed with the oil, and may result in a mix of solid and untreated oil. Generally not used on heavy oil spills which are already viscous.
Biological Constraints	Must be able to recover all treated material.
Environmental Effects	Available products are insoluble and have very low aquatic toxicity. Unrecovered solidified oil may have longer impact because of slow weathering rates. Physical disturbance of habitat is likely during application and recovery.
Waste Generation	If skimming efficiency is increased, solidifiers may reduce the volume of water collected during oil recovery. Effects on recycling oil treated with solidifiers is unknown. Most solidifier producers state that treated oil can pass leachate tests, allowing disposal in landfills.

Shoreline Cleaning Agents (Surface Washing Agents)

Objective

To increase the efficiency of oil removal from contaminated substrates.

Description

Special formulations are applied to the substrate, as a presoak and/or flushing solution, to soften or lift weathered or heavy oils from the substrate to enhance flushing methods. The intent is to lower the water temperature and pressure required to mobilize the oil from the substrate during flushing. Some agents will disperse the oil as its washed off the beach, others will not.

Applicable Habitat Types

On any habitat where water flooding and flushing procedures are applicable.

When to Use

When the oil has weathered to the point where it cannot be removed using ambient water temperatures and low pressures. This approach may be most applicable where flushing effectiveness decreases as the oil weathers.

Biological Constraints

When the product does not disperse the oil into the water column, the released oil must be recovered from the water surface. Use may be restricted where suspended sediment concentrations are high, near wetlands, and near sensitive nearshore resources.

Environmental Effects

The toxicity and effects on dispersability of treated oil vary widely among products. Selection of a product should consider the toxicity of the product.

Waste Generation

Because treated oil must be recovered, waste generation is a function of recovery method, which often includes sorbents.

Nutrient Enrichment (Biostimulation)

Objective

To accelerate the rate of oil hydrocarbon degradation due to natural microbial processes using a form of bioremediation that adds nutrients (generally nitrogen and phosphorus) that stimulate microbial growth.

Description

If nutrients are a limiting factor (as measured using the interstitial pore water) in an area where shoreline oiling has occurred, water-soluble nutrients can be applied by a spray irrigation system. Nutrients should be applied daily if the impacted area gets completely submerged by tides and waves and if maximum biostimulation is desired. If the impacted area gets submerged only during spring tides, the frequency of nutrient addition will be determined by the intertidal zone water coverage. Using slow-release granular or encapsulated nutrients or oleophilic fertilizer (which adheres to the oil residue on the surface) should require less frequent addition, but time-series monitoring of interstitial pore water nutrient levels is needed to ensure target levels are being maintained, especially throughout the depth of the impacted intertidal zone.

Applicable Habitat Types

Any shoreline habitat type where access is allowed and nutrients are deficient

When to Use

On 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; and where nutrients limit natural attenuation. Most effective on light to medium crude oils and fuel oils (asphaltenes tend to inhibit rapid biodegradation). Less effective where oil residues are thick. Not considered for gasoline spills, which evaporate rapidly.

Biological Constraints Avoid using ammonia-based fertilizers at highly elevated concentrations because un-ionized ammonia is toxic to aquatic life. Nitrate is an equally good nitrogen source, minus the toxicity. Sodium tripolyphosphate is a better phosphorus source than orthophosphates because it is more soluble in seawater. If nutrients are applied properly with adequate monitoring, eutrophication should not be a problem. Only nutrient additives proven to be nontoxic and effective in either the laboratory or the field should be used in the environment. Contact toxicity of oleophilic nutrients may restrict their use as other chemicals in the product could be more toxic to aquatic organisms in the presence of oil.

Environmental Effects Detrimental effects to shoreline from foot or vehicle traffic caused by workers applying nutrients (unless nutrients are sprayed from a vessel or aircraft).

Waste Generation None.

Natural Microbe Seeding (Bioaugmentation)

Objective

To accelerate natural microbial degradation of oil by using a form of bioremediation that adds high numbers of oil-degrading microorganisms.

Description

Formulations containing specific hydrocarbon-degrading microbes are added to the oiled area because indigenous hydrocarbon degraders are low in number, or, those that are present cannot degrade the oil effectively. Since microbes require nitrogen and phosphorus to convert hydrocarbons to biomass, formulations containing these oil degraders must also contain adequate nutrients.

Research studies conducted with bioengineered organisms or organisms enriched from different environments, grown in the laboratory to high numbers, and applied to an oiled beach to stimulate rapid biodegradation, have failed to prove conclusively that seeding is effective.

Bioaugmentation appears less effective than biostimulation because: 1) hydrocarbon degraders are ubiquitous in nature and, when an oil spill occurs at a given site, the influx of oil will cause an immediate increased response in the hydrocarbon degrading populations; but, 2) if nutrients are in limited supply, the rate of oil biodegradation will be less than optimal; thus, 3) supplying nutrients will enhance the process initiated by the spill, but adding microorganisms will not, because they still lack the necessary nitrogen and phosphorus to support growth.

Applicable Habitat Types

There is insufficient information on impact or effectiveness of this method to make a judgment on applicable habitat.

When to Use

There is insufficient information on impact or effectiveness of this method to make a judgment on when to use it.

Biological Constraints Avoid using products containing ammonia-based fertilizers at elevated concentrations because un-ionized ammonia is toxic to aquatic life. Nitrate is an equally good a nitrogen source, minus the toxicity. If the product containing nutrients is applied properly with adequate monitoring, eutrophication should not be a problem; but, toxicity tests should be evaluated carefully, as other chemicals in the product could be toxic to aquatic organisms.

Environmental Effects Detrimental physical effects to shoreline from foot or vehicle traffic caused by workers applying bioaugmentation products (unless nutrients are sprayed from a vessel or aircraft).

Waste Generation None.

In-situ Burning

Objective

To remove oil from the water surface or habitat by burning it in place.

Description

Oil floating on the water surface is collected into slicks at least 2-3 mm thick and ignited. The oil can be contained in fire-resistant booms, or by natural barriers such as ice or the shore. On land, oil can be burned when it is on a combustible substrate such as vegetation, logs, and other debris. Oil can be burned from non-flammable substrates using a burn promoter. On sedimentary substrates, it may be necessary to dig trenches for oil to accumulate in pools to a thickness that will sustain burning. Heavy oils are hard to ignite but can sustain a burn. Emulsified oils may not ignite nor sustain a burn when the water content is greater than 30 to 50 percent.

Applicable Habitat Types

On most habitats except dry muddy substrates where heat may impact the biological productivity of the habitat. May increase oil penetration into permeable substrates. Use in marshes should be undertaken using special precautions. Not suitable for woody vegetation such as mangroves and hardwood swamps.

When to Use

On land, where there is heavy oil in sites neither amenable nor accessible to physical removal and it is important to remove the stranded oil quickly. In wetlands and mud habitats, a water layer will minimize impacts to sediments and roots. Many potential applications for spills in ice. There are many operational and public health limitations.

Biological Constraints

The possible effect of smoke on wildlife and populated areas should be evaluated.

Environmental Effects

Temperature and air quality effects are likely to be localized and short-lived. Toxicological impact from burn residues have not been evaluated. On-water, burn residues are likely to sink. On land, removal of residues is often necessary for crude and heavy oils. Limited data on burning oiled wetlands indicate recovery of wetland vegetation will depend on season of burn, type of vegetation, and water level in the marsh at time of burn.

Waste Generation

Any residues remaining after burning will need to be collected and landfilled, but with an efficient burn will be a small fraction of the original oil volume.

Appendix C: Shoreline Descriptors, including Oil Behavior and Response Considerations

EXPOSED ROCKY CLIFFS — ESI = 1A

DESCRIPTION

- The intertidal zone is steep (greater than 30° slope), with very little width.
- Sediment accumulations are uncommon and usually ephemeral, because waves remove the debris that has slumped from the eroding cliffs.
- There is strong vertical zonation of intertidal biological communities.
- Species density and diversity vary greatly, but barnacles, snails, mussels, seastars, limpets, sea anemones, shore crabs, polychaetes, and macroalgae are often very abundant.

PREDICTED OIL BEHAVIOR

- Oil is held offshore by wave reflecting off the steep cliffs.
- Any oil that is deposited is rapidly removed from exposed faces.
- The most resistant oil would remain as a patchy band at or above the high-tide line.
- Impacts to intertidal communities are expected to be short-term in duration. An exception would be where heavy concentrations of a light refined product came ashore very quickly.

RESPONSE CONSIDERATIONS

- Cleanup is usually not required.
- Access can be difficult and dangerous.

EXPOSED, SOLID MAN-MADE STRUCTURES — ESI = 1B

DESCRIPTION

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

PREDICTED OIL BEHAVIOR

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

RESPONSE CONSIDERATIONS

- Cleanup is usually not required.
- High-pressure water spraying may be conducted to: remove persistent oil in crevices; improve aesthetics; or reduce leaching of oil.

EXPOSED WAVE-CUT PLATFORMS — ESI = 2

DESCRIPTION

- The intertidal zone consists of a flat rock bench of highly variable width.
- The shoreline may be backed by a steep scarp or low bluff.
- There may be a beach of sand- to boulder-sized sediments at the base of the scarp.
- The platform surface is irregular and tidal pools are common.
- Small amounts of gravel can be found in the tidal pools and crevices in the platform.
- These habitats can support large populations of encrusting animals and plants, with rich tidal pool communities.

PREDICTED OIL BEHAVIOR

- Oil will not adhere to the rock platform, but rather be transported across the platform and accumulate along the high-tide line.
- Oil can penetrate in beach sediments, if present.
- Persistence of oiled sediments is usually short-term, except in wave shadows or where the oil has penetrated sediments at the high-tide line.

RESPONSE CONSIDERATIONS

- Cleanup is usually not required.
- Where the high-tide area is accessible, it may be feasible to remove heavy oil accumulations and oiled debris.

FINE-GRAINED SAND BEACHES — ESI = 3A

DESCRIPTION

- These beaches are generally flat and hard-packed.
- Though they are predominately fine sand, there is often a small amount of shell hash.
- There can be heavy accumulations of wrack present.
- They are utilized by birds and turtles for nesting and feeding.
- Upper beach fauna are generally sparse, although amphipods can be abundant; lower beach fauna can be moderately abundant, but highly variable.

PREDICTED OIL BEHAVIOR

- Light oil accumulations will be deposited as oily bands along the upper intertidal zone.
- Heavy oil accumulations will cover the entire beach surface; oil will be lifted off the lower beach with the rising tide.
- Maximum penetration of oil into fine-grained sand is about 10 cm.
- Burial of oiled layers by clean sand within the first week after a spill typically will be less than 30 cm along the upper beach face.
- Organisms living in the beach sediment may be killed by smothering or lethal oil concentrations in the interstitial water.
- There may be declines in infauna, which can affect important shorebird foraging areas.

RESPONSE CONSIDERATIONS

- These beaches are among the easiest shoreline types to clean.
- Cleanup should concentrate on removing oil and oily debris from the upper swash zone once oil has come ashore.
- Activity through oiled and dune areas should be limited, to prevent oiling of clean areas.
- Manual cleanup, rather than road graders and front-end loaders, is usually advised to minimize the volume of sand removed from the shore and requiring disposal.

- All efforts should focus on preventing the mixture of oil deeper into the sediments by vehicular and foot traffic.
- Mechanical reworking of lightly oiled sediments from the high-tide line to the upper intertidal zone can be effective along outer beaches.

SCARPS AND STEEP SLOPES IN SAND — ESI = 3B

DESCRIPTION

- This shoreline type occurs where sandy bluffs are undercut by waves or currents and slump.
- They normally form along embankments of sandy dredge material and at cutbanks in rivers; they also form where tidal creeks intercept old sandy beach ridge deposits.
- Some scarps are fronted by narrow beaches, if the erosion rates are moderate and episodic.
- Trees growing at the top of these slopes are eventually undercut and the debris can accumulate at the base of the scarp.
- Biological utilization by birds and infauna is low.

PREDICTED OIL BEHAVIOR

- Any stranded oil will concentrate at the high-water line and may penetrate sandy sediments.
- Oil will adhere to the dry surfaces of any woody debris accumulated at the base of the scarp.
- There is little potential for burial except when a major slumping of the bluff occurs.
- Active erosion of the scarp will remove the oil.

RESPONSE CONSIDERATIONS

- In most cases, cleanup is not necessary because of the short residence time of the oil
- The need for removal of oiled sediments and debris should be carefully evaluated because of the potential for increased erosion.
- Closely supervised manual labor should be used so that the minimal amount of material is removed during cleanup.

MEDIUM- TO COARSE-GRAINED SAND BEACHES — ESI = 4

DESCRIPTION

- These beaches have relatively steep beach faces and soft substrates.
- Coarse-sand beaches can undergo rapid erosion/deposition cycles, even within one tidal cycle.
- The amount of wrack varies considerably.
- They are utilized by birds and turtles for nesting and feeding.

PREDICTED OIL BEHAVIOR

- Light oil accumulations will be deposited as oily bands along the upper intertidal zone.
- Heavy oil accumulations will cover the entire beach surface; oil will be lifted off the lower beach with the rising tide.
- Maximum oil penetration is about 20 cm.
- Burial of oiled layers by clean sand within the first week after a spill can be up to 50 cm.
- Organisms living in the beach sediments may be killed by smothering or lethal oil concentrations in the interstitial water.
- There may be declines in infauna, which can affect important shorebird foraging areas.

RESPONSE CONSIDERATIONS

- Coarse sand sediments are less traffikable, increasing the risk of mixing oil into the substrate by foot and vehicular traffic.
- Cleanup should concentrate on removing oil and oily debris from the upper swash zone once oil has come ashore.
- Traffic through oiled and dune areas should be limited, to prevent oiling of clean areas.

- Manual cleanup, rather than road graders and front-end loaders, is advised to minimize the volume of sand removed from the shore and requiring disposal.
- All efforts should focus on preventing the mixture of oil deeper into the sediments by vehicular and foot traffic.
- Mechanical reworking of lightly oiled sediments from the high-tide zone to the upper intertidal zone can be effective along outer beaches.

MIXED SAND AND GRAVEL BEACHES — ESI = 5

DESCRIPTION

- These beaches are moderately sloping and composed of a mixture of sand and gravel.
- Because of the mixed sediment sizes, there may be zones of pure sand, pebbles, or cobbles.
- There can be large-scale changes in the sediment distribution patterns depending upon season, because of the transport of the sand fraction offshore during storms.
- Because of sediment desiccation and mobility on exposed beaches, there are low densities of attached animals and plants.
- The presence of attached algae and animals indicates beaches that are relatively sheltered, with the more stable substrate supporting a richer biota.

PREDICTED OIL BEHAVIOR

- During small spills, oil will be deposited along and above the high-tide swash.
- Large spills will spread across the entire intertidal area.
- Oil penetration into the beach sediments may be up to 50 cm; however, the sand fraction can be quite mobile, and oil behavior is much like on a sand beach if the sand exceeds 40 percent.
- Burial of oil may be deep at and above the high-tide line, where oil tends to persist, particularly where beaches are only intermittently exposed to waves.
- In sheltered pockets on the beach, pavements of asphalted sediments can form if there is no removal of heavy oil accumulations, because most of the oil remains on the surface.
- Once formed, these asphalt pavements can persist for many years.
- Oil can be stranded in the coarse sediments on the lower part of the beach, particularly if the oil is weathered or emulsified.

RESPONSE CONSIDERATIONS

- Remove heavy accumulations of pooled oil from the upper beachface.
- All oiled debris should be removed.
- Sediment removal should be limited as much as possible.
- Low-pressure flushing can be used to float oil away from the sediments for recovery by skimmers or sorbents. High-pressure spraying should be avoided because of potential for transporting contaminated finer sediments (sand) to the lower intertidal or subtidal zones.
- Relocation of oiled sediments from the high-tide zone to the upper intertidal zone can be effective in areas regularly exposed to wave activity (as evidenced by storm berms). However, oiled sediments should not be relocated below the mid-tide zone.
- Tilling may be used to reach deeply buried oil layers in the middle zone on exposed beaches.

GRAVEL BEACHES — ESI = 6A

DESCRIPTION

- Gravel beaches are composed of sediments ranging in size from pebbles to boulders. The gravel-sized sediments can be made up of shell fragments.
- They can be very steep, with multiple wave-built berms forming the upper beach.
- Attached animals and plants are usually restricted to the lowest parts of the beach, where the sediments are less mobile.

- The presence of attached algae, mussels, and barnacles indicates beaches that are relatively sheltered, with the more stable substrate supporting a richer biota.

PREDICTED OIL BEHAVIOR

- Deep penetration and rapid burial of stranded oil is likely on exposed beaches.
- On exposed beaches, oil can be pushed over the high-tide and storm berms, pooling and persisting above the normal zone of wave wash.
- Long-term persistence will be controlled by the depth of penetration versus the depth of routine reworking by storm waves.
- On the more sheltered portions of beaches, formation of asphalt pavements is likely where accumulations are heavy.

RESPONSE CONSIDERATIONS

- Heavy accumulations of pooled oil should be removed quickly from the upper beach.
- All oiled debris should be removed.
- Sediment removal should be limited as much as possible.
- Low- to high-pressure flushing can be used to float oil away from the sediments for recovery by skimmers or sorbents.
- Relocation of oiled sediments from the high-tide zone to the upper intertidal zone can be effective in areas regularly exposed to wave activity (as evidenced by storm berms). However, oiled sediments should not be relocated below the mid-tide zone.
- Tilling may be used to reach deeply buried oil layers in the upper to-mid-tide zone on exposed beaches.

RIPRAP — ESI = 6B

DESCRIPTION

- Riprap is composed of cobble- to boulder-sized blocks of granite, limestone, or concrete.
- Riprap structures are used for shoreline protection and channel stabilization (jetties)
- Attached biota are sparse.

PREDICTED OIL BEHAVIOR

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

RESPONSE CONSIDERATIONS

- When the oil is fresh and liquid, high pressure flushing and/or water flooding may be effective, making sure to recover all liberated oil.
- Heavy and weathered oils are more difficult to remove, requiring scrapping and/or hot-water flushing.
- In extreme cases, it may be necessary to remove heavily oiled blocks and replace them.

EXPOSED TIDAL FLATS — ESI = 7

DESCRIPTION

- Exposed tidal flats are broad intertidal areas composed primarily of sand and minor amounts of shell and mud.
- The dominance of sand indicates that currents and waves are strong enough to mobilize the sediments.
- They are usually associated with another shoreline type on the landward side of the flat, though they can occur as separate shoals; they are commonly associated with tidal inlets.

- Biological utilization can be very high, with large numbers of infauna, heavy use by birds for roosting and foraging, and use by foraging fish.

PREDICTED OIL BEHAVIOR

- Oil does not usually adhere to the surface of exposed tidal flats, but rather moves across the flat and accumulates at the high-tide line.
- Deposition of oil on the flat may occur on a falling tide if concentrations are heavy.
- Oil does not penetrate water-saturated sediments.
- Biological damage may be severe, primarily to infauna, thereby reducing food sources for birds and other predators.

RESPONSE CONSIDERATIONS

- Currents and waves can be very effective in natural removal of the oil.
- Cleanup is very difficult (and possible only during low tides).
- The use of heavy machinery should be restricted to prevent mixing of oil into the sediments.

SHELTERED ROCKY SHORES — ESI = 8A

DESCRIPTION

- These are bedrock shores of variable slope (from vertical cliffs to wide, rocky ledges) that are sheltered from exposure to most wave and tidal energy.
- Wide shores may have some surface sediments, but bedrock is the dominant substrate type
- Species density and diversity vary greatly, but biota are often very abundant.

PREDICTED OIL BEHAVIOR

- Oil will adhere readily to the rough rocky surface, particularly along the high-tide line, forming a distinct oil band.
- Even on wide ledges, the lower intertidal zone usually stays wet (particularly when algae covered), preventing oil from adhering to the rock surface.
- Heavy and weathered oils can cover the upper zone with little impacts to the rich biological communities of the lower zone.
- Where surface sediments are abundant, oil will penetrate into the crevices formed by the surface rubble, forming persistent pavements.
- Where the rubble is loosely packed, oil will penetrate deeply, causing long-term contamination of the subsurface sediments.

RESPONSE CONSIDERATIONS

- Low-pressure flushing at ambient temperatures is most effective when the oil is fresh.
- Extreme care must be taken not to spray in the biologically rich lower intertidal zone or when the tidal level reaches that zone.
- Cutting of oiled, attached algae is not recommended; tidal action will eventually float this oil off, so sorbent booms should be deployed.

SHELTERED, SOLID MAN-MADE STRUCTURES — ESI = 8B

DESCRIPTION

- These structures are solid man-made structures such as seawalls, groins, revetments, piers, and port facilities.
- Most structures are constructed of concrete, wood, or metal, and their composition, design, and condition are highly variable.
- Often there is no exposed beach at low tide, but a wide variety habitats may be present.
- Attached animal and plant life can be moderate to high.

PREDICTED OIL BEHAVIOR

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

RESPONSE CONSIDERATIONS

- Cleanup of seawalls is usually conducted for aesthetic reasons or to prevent leaching of oil.
- Low- to high-pressure flushing at ambient water temperatures is most effective when the oil is fresh. Hot water is needed for heavy or weathered oils.

SHELTERED TIDAL FLATS — ESI = 9A

DESCRIPTION

- Sheltered tidal flats are composed primarily of mud with minor amounts of sand and shell.
- They are present in calm-water habitats, sheltered from major wave activity, and are frequently backed by marshes.
- The sediments are very soft and cannot support even light foot traffic in many areas.
- They can be sparsely to heavily covered with algae and/or seagrasses.
- They can have very heavy wrack accumulations along the high-tide line.
- There can be large concentrations of shellfish, worms, and snails on and in the sediments.
- They are heavily utilized by birds and fish for feeding.

PREDICTED OIL BEHAVIOR

- Oil does not usually adhere to the surface of sheltered tidal flats, but rather moves across the flat and accumulates at the high-tide line.
- Deposition of oil on the flat may occur on a falling tide if concentrations are heavy.
- Oil will not penetrate the water-saturated sediments, but could penetrate burrows and root cavities.
- Biological damage may be severe.

RESPONSE CONSIDERATIONS

- These are high-priority areas for protection since cleanup options are very limited.
- Cleanup is very difficult because of the soft substrate; many methods may be restricted.
- Deluge flooding and deployment of sorbents from shallow-draft boats may be helpful.

VEGETATED LOW RIVERINE BANKS — ESI = 9B

DESCRIPTION

- This shoreline type consists of either low banks with grasses or low eroding banks with trees and tree roots exposed to the water.
- The banks are flooded occasionally by high water.
- These shorelines are generally found in fresh or brackish water localities.

PREDICTED OIL BEHAVIOR

- During low water stages there could be little impact, with the oil coating a narrow band of sediment at the water level.
- During high water, the oil will cover and coat the grasses and base of the trees.
- May cause loss of the grasses, but the trees should survive unless oil penetrates and persists in

RESPONSE CONSIDERATIONS

- Low-pressure flushing of oiled areas is effective in removing moderate to heavy accumulations of oil from along the banks.
- Sorbent and containment boom should be placed on the water side of the cleanup operations to contain and collect oil outflow.
- Low- to high-pressure flushing can be used to remove oil from tree roots and trunks, if deemed necessary in high-use areas.

SALT- AND BRACKISH-WATER MARSHES — ESI = 10A

DESCRIPTION

- These marshes contain vegetation which tolerates water salinity down to about 5 ppt.
- Width of the marsh can vary widely, from a narrow fringe to extensive areas.
- Sediments are composed of organic-rich muds except on the margins of barrier islands where sand is abundant.
- Exposed areas are located along waterbodies with wide fetches and along busy waterways.
- Sheltered areas are not exposed to significant wave or boat wake activity.
- Resident flora and fauna are abundant with numerous species with high utilization by birds, fish, and shellfish.

PREDICTED OIL BEHAVIOR

- Oil adheres readily to intertidal 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 tidal cycles and coat the entire stem from the high-tide 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 tidal influence.
- Medium to heavy oils do not readily adhere to or penetrate the fine sediments, but can pool on the surface or in burrows and root cavities.
- Light oils can penetrate the top few centimeters of sediment and deeply into burrows and mud cracks (up to one meter).

RESPONSE CONSIDERATIONS

- Under light oiling, the best practice is to let the area recover naturally.
- Natural removal processes and rates should be evaluated prior to conducting cleanup.
- 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 present are at great risk from leaving the oiled vegetation in place.

Appendix D

Copies of Shoreline Assessment Forms, Form Explanations or Codes, Sketch Map Form, and Field Estimators

SHORELINE ASSESSMENT FORM for _____ **Spill** **Page** ___ **of** ___

1. GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h standard/daylight)	Tide Height
Segment ID:			L/M/H
Segment Name:		hrs to hrs	H/M/L
Survey By: Foot / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy	

2. SURVEY TEAM No. ___	Name	Organization	Phone Number

3. SEGMENT	Total Length _____m/yd	Length Surveyed _____m/yd	Differential GPS Yes/No
Start GPS:	LAT _____ deg. _____ min	LONG _____ deg. _____ min	
End GPS:	LAT _____ deg. _____ min	LONG _____ deg. _____ min	

4. SHORELINE TYPE	Select only ONE Primary (P) and ANY Secondary (S) types present		
	Rocky Cliffs		Riprap
	Exposed Man-made Structures		Exposed Tidal Flats
	Wave-cut Platforms		Sheltered Rocky Shores
	Fine-Medium grained Sand Beaches		Sheltered Man-made Structures
	Coarse-grained Sand Beaches		Sheltered Tidal Flats
	Mixed Sand and Gravel Beaches		Wetlands
	Gravel Beaches		Other _____

5. OPERATIONAL FEATURES	Oiled Debris? Yes / No	Type_____	Amount_____bags

Direct backshore access? Yes / No Access restrictions _____

Alongshore access from next segment? Yes / No Suitable backshore staging? Yes / No

6. SURFACE OILING CONDITIONS | Begin with "A" in the lowest tidal zone

Zone ID	Tidal Zone				Oil Cover			Oil Thickness					Oil Character						
	LI	MI	UI	SU	Length m/ft	Width m/ft	Distr. %	PO	CV	CT	ST	FL	FR	MS	TB	TC	SR	AP	No

7. SUBSURFACE OILING CONDITIONS | Use letter of Zone location plus Number of trench, e.g., "A1"

Trench No.	Tidal Zone				Trench Depth	Oiled Interval	Subsurface Oil Character						Water Table	Sheen Color	Clean Below?
	LI	MI	UI	SU	cm / in	cm-cm/in-in	OP	PP	OR	OF	TR	No	cm / in	B,R,S,N	Yes/No

8. COMMENTS | **Cleanup Recommendations; Ecological/Recreational/Cultural Issues/Wildlife Obs.**

Sketch: Yes / No Photos: Yes / No (Roll#____Frames____) Video Tape: Yes / No (Tape#_____)

SHORELINE ASSESSMENT FORM EXPLANATIONS *August 2000*

Calibration IS VERY IMPORTANT! Do a calibration exercise to make sure that all teams are consistently using the same terminology and estimations.

Units: Use either metric (m, cm) or English (yd, ft, in). Circle the units used.

Tide Height: Circle the two letters indicating the progression of the tidal stage during the survey.

Segment/Survey Length: Always record both lengths on the first survey, especially where the SCAT team creates the segments in the field. On repeat surveys, always enter in the Survey Length, especially if only part of the segment is surveyed.

Start/End GPS: Use of decimal degrees is preferred, but be consistent among teams.

SURFACE OILING CONDITIONS

Zone ID: Use a different ID for each different oil occurrence, e.g., two distinct bands of oil at mid-tide and high-tide levels, or alongshore where the oil distribution changes from 10 % to 50%. Describe each different occurrence on a separate line.

Tidal Zone: Use the codes to indicate the location of the oil being described, as in the lower (LI), mid (MI), or upper (UI) intertidal zone, or in the supra (SU) tidal zone (above the normal high tide level).

Distribution: Enter the estimated percent of oil on the surface, or codes for the following intervals:

C	Continuous	91-100% cover
B	Broken	51-90%
P	Patchy	11-50%
S	Sporadic	<1-10%
T	Trace	<1%

Surface Oiling Descriptors - Thickness: Use the following codes:

PO	Pooled Oil (fresh oil or mousse > 1 cm thick)
CV	Cover (oil or mousse from >0.1 cm to <1 cm on any surface)
CT	Coat (visible oil <0.1 cm, which can be scraped off with fingernail)
ST	Stain (visible oil, which cannot be scraped off with fingernail)
FL	Film (transparent or iridescent sheen or oily film)

Surface Oiling Descriptors - Type

FR	Fresh Oil (unweathered, liquid oil)
MS	Mousse (emulsified oil occurring over broad areas)
TB	Tarballs (discrete accumulations of oil <10 cm in diameter)
TC	Tar (highly weathered oil, of tarry, nearly solid consistency)
SR	Surface Oil Residue (non-cohesive, oiled surface sediments)
AP	Asphalt Pavements (cohesive, heavily oiled surface sediments)
No	No oil (no evidence of any type of oil)

SUBSURFACE OILING CONDITIONS

Oiled Interval: Measure the depths from the sediment surface to top/bottom of subsurface oiled layer. Enter multiple oil layers on separate lines.

Subsurface Oiling Descriptors: Use the following codes:

OP	Oil-Filled Pores (pore spaces are completely filled with oil)
PP	Partially Filled Pores (the oil does not flow out of the sediments when disturbed)
OR	Oil Residue (sediments are visibly oiled with black/brown coat or cover on the clasts, but little or no accumulation of oil within the pore spaces)
OF	Oil Film (sediments are lightly oiled with an oil film, or stain on the clasts)
TR	Trace (discontinuous film or spots of oil, or an odor or tackiness)

Sheen Color: Describe sheen on the water table as brown (B), rainbow (R), silver (S), or none (N).

SHORT SHORELINE ASSESSMENT FORM for _____ Spill Page __ of __

1. GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h standard/daylight)	Tide Height
Segment ID:			L/M/H
Segment Name:		hrs to hrs	H/M/L
Survey By: Foot / Boat / Helicopter / Overlook /_____		Sun / Clouds / Fog / Rain / Snow / Windy	

2. SURVEY TEAM No. ___	Name	Organization	Phone Number

3. SEGMENT	Total Length _____m/yd	Length Surveyed _____m/yd	Differential GPS Yes/No
Start GPS:	LAT _____ deg. _____ min	LONG _____ deg. _____ min	
End GPS:	LAT _____ deg. _____ min	LONG _____ deg. _____ min	

4. SHORELINE TYPE	Select only ONE Primary (P) and ANY Secondary (S) types present		
	Rocky Cliffs		Riprap
	Exposed Man-made Structures		Exposed Tidal Flats
	Wave-cut Platforms		Sheltered Rocky Shores
	Fine-Medium grained Sand Beaches		Sheltered Man-made Structures
	Coarse-grained Sand Beaches		Sheltered Tidal Flats
	Mixed Sand and Gravel Beaches		Wetlands
	Gravel Beaches		Other _____

5. OPERATIONAL FEATURES | Oiled Debris? Yes / No Type_____ Amount_____ bags

Direct backshore access? Yes / No Access restrictions _____

Alongshore access from next segment? Yes / No Suitable backshore staging? Yes / No

Zone ID_____ Description of oil in: Supra / Upper / Mid / Lower Tidal Zone (circle oil location)

Oil Band Dimensions	Surface Oil Distribution	Surface Oil Thickness	Surface Oil Type	Subsurface Oil Penetration	Subsurface Oil Burial
	<1%	Film	Fresh Oil	<1 cm / in	Clean Layer
Width:_____m/ft	1-10%	Stain	Mousse/Tar	1-5 cm / in	____cm / in
	11-50%	Coat	Tarballs/Patties	5-10 cm / in	
Length: _____m/ft	51-90%	Cover	Surface Oil Residue	>10 cm / in	Oiled Layer
	91-100%	Pooled	Asphalt Pavement	___ cm / in	____ cm / in
	_____%	____cm / in	Other_____		

Zone ID_____ Description of oil in: Supra / Upper / Mid / Lower Tidal Zone (circle oil location)

Oil Band Dimensions	Surface Oil Distribution	Surface Oil Thickness	Surface Oil Type	Subsurface Oil Penetration	Subsurface Oil Burial
	<1%	Film	Fresh Oil	<1 cm / in	Clean Layer
Width:_____m/ft	1-10%	Stain	Mousse/Tar	1-5 cm / in	____cm / in
	11-50%	Coat	Tarballs/Patties	5-10 cm / in	
Length: _____m/ft	51-90%	Cover	Surface Oil Residue	>10 cm / in	Oiled Layer
	91-100%	Pooled	Asphalt Pavement	___ cm / in	____ cm / in
	_____%	____cm / in	Other_____		

8. COMMENTS | **Cleanup Recommendations; Ecological/Recreational/Cultural Issues; Wildlife Obs.**

Sketch: Yes / No Photos: Yes / No (Roll#____Frames____) Video Tape: Yes / No (Tape#_____)

SHORT SHORELINE ASSESSMENT FORM EXPLANATIONS *August 2000*

Calibration IS VERY IMPORTANT! Do a calibration exercise to make sure that all teams are consistently using the same terminology and estimations.

Units: Use either metric (m, cm) or English (yd, ft, in). Circle the units used.

Tide Height: Circle the two letters indicating the progression of the tidal stage during the survey.

Segment/Survey Length: Always record both lengths on the first survey, especially where the SCAT team creates the segments in the field. On repeat surveys, always enter in the Survey Length, especially if only part of the segment is surveyed.

Start/End GPS: Use of decimal degrees is preferred, but be consistent among teams.

Shoreline Type: Use a "P" to indicate the primary shoreline type for the entire segment or sub-segment being surveyed. Use an "S" to indicate the presence of other, secondary shoreline types. Provide more explanation in the Comments section, where necessary.

Zone ID: Use a different Zone ID for each different oil occurrence, e.g., two distinct bands of oil at mid-tide and high-tide levels, or alongshore where the oil distribution changes from 10% to 50%. Describe each different occurrence in a separate block. Use as many blocks (and sheets) as needed for each segment.

Tidal Zone: Circle the location of the oil being described in the block, as being in the lower, mid, or upper intertidal zone, or in the supra-tidal zone (above the normal high tide level).

Surface Oil Distribution: Enter the estimated percent of oil on the surface, or circle the intervals.

Surface Oiling Thickness: Use the following terms:

Film (transparent or iridescent sheen or oily film)
Stain (visible oil, which cannot be scraped off with fingernail)
Coat (visible oil <0.1 cm, which can be scraped off with fingernail)
Cover (oil or mousse from >0.1 cm to <1 cm on any surface)
Pooled Oil (fresh oil or mousse > 1 cm thick)

Surface Oiling Type: Use the following terms:

Fresh Oil (unweathered, liquid oil)
Mousse (emulsified oil occurring over broad areas)
Tar (highly weathered oil, of tarry, nearly solid consistency)
Tarballs (discrete accumulations of oil <10 cm in diameter)
Patties (discrete accumulations of oil >10 cm in diameter)
Surface Oil Residue (non-cohesive, oiled surface sediments)
Asphalt Pavements (cohesive, heavily oiled surface sediments)
No Oil (no evidence of any type of oil)

Subsurface Oil Penetration: Circle the average depth of oil penetration from the surface, in either cm or inches, as measured in trenches dug into the sediment throughout the zone being described.

Subsurface Oil Burial: Use this column when there is a clean layer of sediment overlying an oiled layer.

Subsurface Oiling Descriptors: *In the Comments Section, use the following terminology to describe the* degree of oiling of subsurface sediments:

Oil-Filled Pores (pore spaces are completely filled with oil)
Partially Filled Pores (the oil does not flow out of the sediments when disturbed)
Oil Residue (sediments are visibly oiled with black/brown coat or cover on the clasts, but little or no accumulation of oil within the pore spaces)
Oil Film (sediments are lightly oiled with an oil film, or stain on the clasts)
Trace (discontinuous film or spots of oil, or an odor or tackiness)

TARBALL SHORELINE ASSESSMENT FORM for _____ Spill Page __ of __

1. GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h standard/daylight)	Tide Height
Segment ID:			L/M/H
Segment Name:		hrs to hrs	H/M/L
Survey By: Foot / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy	

2. SURVEY TEAM No. ___	Name	Organization	Phone Number

3. SEGMENT	Description of Shoreline Surveyed:

Total Length: m/yd Length Surveyed: m/yd Differential GPS? Yes / No
Start GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min
End GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

4. SHORELINE TYPE	Select only ONE Primary (P) and ANY Secondary (S) types present		
	Rocky Cliffs		Riprap
	Exposed Man-made Structures		Exposed Tidal Flats
	Wave-cut Platforms		Sheltered Rocky Shores
	Fine-Medium grained Sand Beaches		Sheltered Man-made Structures
	Coarse-grained Sand Beaches		Sheltered Tidal Flats
	Mixed Sand and Gravel Beaches		Wetlands
	Gravel Beaches		Other_____

5. TAR BALL DESCRIPTION	AREA 1	AREA 2	AREA 3
Tar Balls Observed?	Yes / No	Yes / No	Yes/No
Oiled Debris Observed? (Describe below)	Yes / No	Yes / No	Yes/No
Tidal Zone Where the area of tarballs is located	LI / MI / UI / SU	LI / MI / UI / SU	LI / MI / UI / SU
Length Approximate alongshore length of shore in which tarballs/oiled debris are observed	m/yd	m/yd	m/yd
Width Across-shore width of the band on the shore in which tarballs/oiled debris are observed	m/yd	m/yd	m/yd
Average Number of Tar Balls within Area (e.g., 2/yd^2 within band; 3 per 100 yds along-shore; 6 total within area, etc.) Be specific.			
Average Size of Tar Balls	cm/in	cm/in	cm/in
Size of Largest Tar Ball	cm/in	cm/in	cm/in
Type of Tar Balls	Weathered/Fresh Sticky? Yes/No	Weathered/Fresh Sticky? Yes/No	Weathered/Fresh Sticky? Yes/No
Tar Balls Collected?	Yes / No	Yes / No	Yes / No

6. COMMENTS	**Cleanup Recommendations; Ecological/Recreational/Cultural Issues; Wildlife Obs.**

Sketch: Yes / No Photos: Yes / No (Roll#____Frames_____) Video Tape: Yes / No (Tape#_____)

August 2000

TARBALL SHORELINE ASSESSMENT FORM EXPLANATIONS *August 2000*

Calibration IS VERY IMPORTANT! Do a calibration exercise to make sure that all teams are consistently using the same terminology and estimations.

Tide Height: Circle the two letters indicating the progression of the tidal stage during the survey.

Description of Shoreline Surveyed: Fill in this field when only part of a segment is surveyed. Be as specific as possible (e.g., from Berry Creek to 1 mile north).

Total/Surveyed Length: Always record both lengths on the first survey, especially where the SCAT team creates the segments in the field. On repeat surveys, always enter in the Length Surveyed, especially if only part of the segment is surveyed.

Start/End GPS: Use of decimal degrees is preferred, but be consistent among teams.

Shoreline Type: Use a "P" to indicate the primary shoreline type for the entire segment or sub-segment being surveyed. Use an "S" to indicate the presence of other, secondary shoreline types. Provide more explanation in the Comments section, where necessary.

TAR BALL DESCRIPTION
This section is divided into "Areas". Use a different Area to describe changes in: presence/absence, size, or concentration of tar balls.

Tar Balls Observed? It is important to indicate if no tar balls are observed.

Oiled Debris Observed? *If yes, describe type, location, and degree oiling for oiled debris under* Comments. Use the following descriptors for type:

wrack	unattached vegetation that can be important feeding areas for shorebirds
logs	large pieces of wood that can not be readily removed by hand
trash	man-made materials (e.g., plastic, glass, paper) that can be removed by hand
sorbents	sorbent pads, rolls, boom, etc. used during the spill response
peat	degraded organic material that has been eroded; includes coffee grounds

Tidal Zone: Check off the location of the area of tarballs being described, as in the lower (LI), mid (MI), upper (UI), or supra (SU) tidal zone.

Length and Width: Enter the dimensions where tar balls of uniform average size and density are observed. If no tar balls are observed, enter the dimensions of the area surveyed. Also, indicate the location of the tar balls as being in the lower (LITZ), mid (MITZ), or upper (UITZ) intertidal zone, or in the supra-tidal (SUPRA) zone (above the normal high tide level).

Average Number of Tar Balls within Area: Enter the estimate of the number of tar balls in the surveyed area. Options include:

Total number - use where so few tar balls are present that they can be readily counted
Concentration - enter as an average, range, or max per unit area (e.g., 1-2/yd^2, 3-5 max)

Average Size of Tar Balls: Visually estimate the most common or frequent size of tar balls in the surveyed area. Enter a range if tar ball sizes are not uniform. Indicate units by circling.

Tar Balls Collected? Provide details in the Comments Section. Indicate of all or only part of the observed tar balls were collected. Indicate units by circling.

WETLAND ASSESSMENT FORM for _____ **Spill** Page __ of __

1. GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h standard/daylight)	Tide Height
Segment ID:			L/M/H
Segment Name:		hrs to hrs	H/M/L
Survey By: Foot / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy	

2. SURVEY TEAM No.___	Name	Organization	Phone Number

3. SEGMENT Total Length _____m/yd Length Surveyed _____m/yd Differential GPS Yes/No

Start GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

End GPS: LAT _____ deg. _____ min LONG _____ deg. _____ min

4. WETLAND CHARACTER Physical Setting:

Wetland Type: Salt Marsh / Fresh Marsh / Mangrove / Hardwood Bottomland / Other_____

Dominant Vegetation Type/Species:

5. OPERATIONAL FEATURES Oiled Debris? Yes / No Type_____Amount_____bags

Direct backshore access? Yes / No Alongshore access from next segment? Yes / No Access only via boat? Yes / No

Suitable back- or alongshore staging? Yes / No Can substrate support foot traffic? Yes / No

Access restrictions:_____

6. SURFACE OILING CONDITIONS Enter oil on substrate vs vegetation on different lines, using S or V after the Zone ID (e.g., AS for sediment, AV for vegetation). Indicate each on the cross-section below.

Zone	Tidal Zone				Oil Cover			Oil Thickness					Oil Character							Oil on Plants
					Length	Width	Distri.													(e.g. all, trunks,
ID	LI	MI	UI	SU	m/ft	m/ft	%	PO	CV	CT	ST	FL	FR	MS	TB	TC	SR	AP	No	stems, leaves)

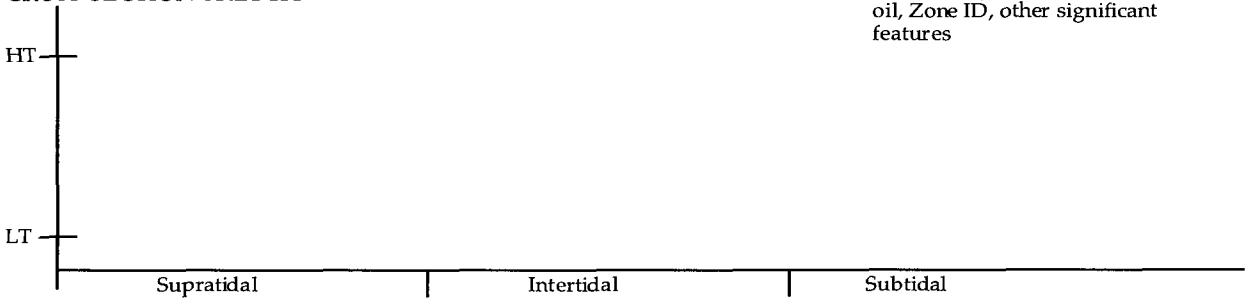
7. SUBSURFACE OILING CONDITIONS Describe in Comments Section and indicate on the cross-section below.

8. COMMENTS **Cleanup Recommendations; Ecological/Recreational/Cultural Issues; Wildlife Observations.**

Sketch: Yes / No Photos: Yes / No (Roll#_____Frames_____) Video Tape: Yes / No (Tape#_____)

CROSS-SECTION SKETCH

SHOW: high tide, low tide, buried oil, Zone ID, other significant features



August 2000

Calibration IS VERY IMPORTANT! *Do a calibration exercise to make sure that all teams are* consistently using the same terminology and estimations.

Units: Use either metric (m, cm) or English (yd, ft, in). Circle the units used.

Tide Height: Circle the two letters indicating the progression of the tidal stage during the survey.

Segment/Survey Length: Always record both lengths on the first survey, esp. where the SCAT team creates the segments in the field. On repeat surveys, always enter in the Survey Length, esp. if only part of the segment is surveyed. Make a sketch when dealing with irregular wetland shapes.

Start/End GPS: Use of decimal degrees is preferred, but be consistent among teams.

SURFACE OILING CONDITIONS

Zone ID: Use a different ID for each different oil occurrence and differentiate between oil on the substrate (S) and vegetation (V). Describe each different occurrence on a separate line.

Tidal Zone: Use the codes to indicate the location of the oil being described, as in the lower (LI), mid (MI), or upper (UI) intertidal zone, or in the supra (SU) tidal zone (above the normal high tide level).

Distribution: Enter the estimated percent of oil on the surface, or codes for the following intervals:

C	Continuous	91-100% cover
B	Broken	51-90%
P	Patchy	11-50%
S	Sporadic	<1-10%
T	Trace	<1%

Surface Oiling Descriptors - Thickness: Use the following codes:

PO	Pooled Oil (fresh oil or mousse > 1 cm thick)
CV	Cover (oil or mousse from >0.1 cm to <1 cm on any surface)
CT	Coat (visible oil <0.1 cm, which can be scrapped off with fingernail)
ST	Stain (visible oil, which cannot be scrapped off with fingernail)
FL	Film (transparent or iridescent sheen or oily film)

Surface Oiling Descriptors - Type

FR	Fresh Oil (unweathered, liquid oil)
MS	Mousse (emulsified oil occurring over broad areas)
TB	Tarballs (discrete accumulations of oil <10 cm in diameter)
TC	Tar (highly weathered oil, of tarry, nearly solid consistency)
SR	Surface Oil Residue (non-cohesive, oiled surface sediments)
AP	Asphalt Pavements (cohesive, heavily oiled surface sediments)
No	No oil present in Zone ID

Oil on Plants: Describe what part of the vegetation is oiled. Terms will vary depending on vegetation type (e.g., stems for marshes, trunks for trees).

Subsurface Oil Conditions

Describe in Comments Section 8, using the following terminology and codes:

OP	Oil-Filled Pores (pore spaces are completely filled with oil)
PP	Partially Filled Pores (the oil does not flow out of the sediments when disturbed)
OR	Oil Residue (sediments are visibly oiled with black/brown coat or cover on the clasts, but little or no accumulation of oil within the pore spaces)
OF	Oil Film (sediments are lightly oiled with an oil film, or stain on the clasts)
TR	Trace (discontinuous film or spots of oil, or an odor or tackiness)

Cross-Section Sketch: Draw entire intertidal and supra-tidal zone, showing the oil relative to normal high tide (important to determine re-mobilization and potential for natural removal).

SKETCH MAP

Site Name _____

Site No. _____

Date _____

Time _____

Names _____

_____

Checklist

___ North Arrow
___ Scale
___ Oil Distribution
___ High Tide Line
___ Low Tide Line
___ Substrate Types
___ Trench Locations

Legend

1Δ
Trench Number.
No Subsurface Oil

2▲
Trench Number.
Subsurface Oil

#●→
#●
Photographs

Appendix E

A Primer on Drawing Field Sketches

A Primer on Drawing Field Sketches

The field sketch is an important component of the shoreline assessment process for two principal reasons: (1) it provides a focused picture of the oil distribution within the entire segment, or subsegment, on a single piece of paper (or image); and (2) it adds discipline to the field observation process, because it forces the person doing the sketch to make detailed mental notes of all the relevant features.

Step 1 Once you arrive at the segment, imagine yourself held aloft 200 feet by a balloon as you quickly walk around the entire segment. This will give you a mental overview of the spatial distribution of all the relevant features in the segment that should be included in the sketch.

Step 2 Determine the dimensions of the segment and dig trenches to look for subsurface oil. Divide the duties among team members (e.g., one to sketch, one or two to pace or tape distances). Pace (or tape) the length and width of the intertidal zone and the size of some of the more conspicuous features, such as groins or seawall segments. Using a pencil, lightly sketch these measurements on the field sheet in Figure E-1 below. Orient the longest dimension along the long axis of the paper. Add scale and north arrow (use English or metric units, as dictated by the situation).

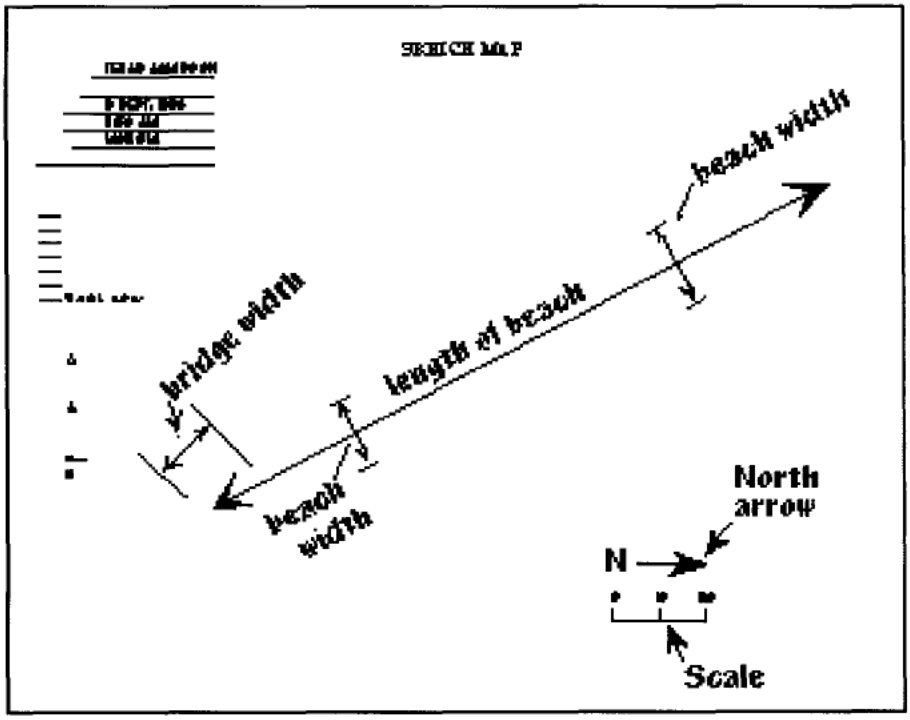


Figure E-1. Example of field sketch map dimensions and scale.

Step 3 Lightly sketch in the outline of the intertidal zone or habitat being surveyed. Show in final form (i.e., heavy pencil marks) the areal distribution of the oil, using a hatched pattern. The oil distribution should be the most conspicuous feature on the sketch, as shown in Figure E-2 below.

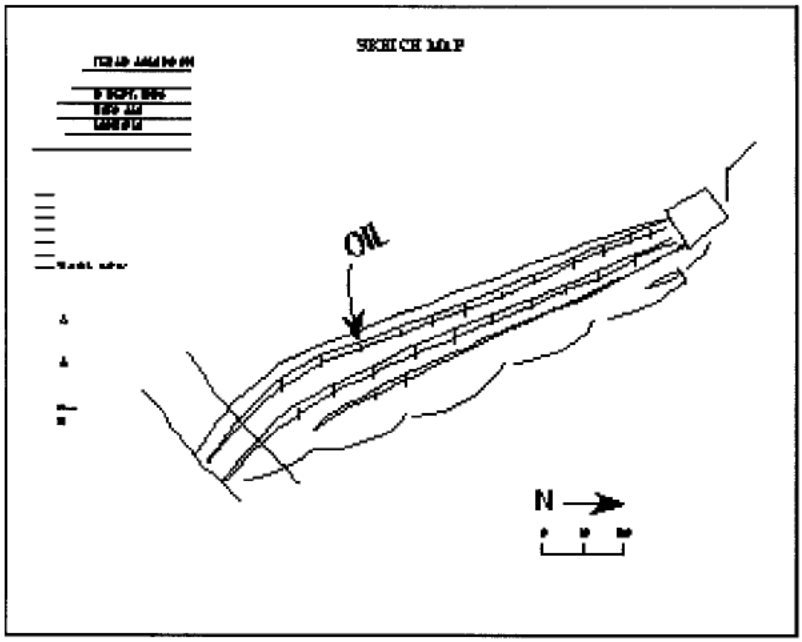
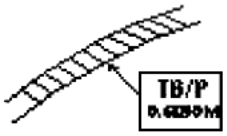


Figure E-2. Example of a field sketch map with outline of surveyed area.

Step 4 Identify critical elements of the sketch, using the following symbology:



— This oiled zone has tarballs in a patchy distribution. It averages 0.6m in width and is 80 m long. All oiled zones should be labeled in this fashion, using the standard codes and terminology.

△ — Trench with no subsurface oil

▲ — Trench with subsurface oil

— Location of photographs taken. Arrow points in direction photographer was looking. No associated arrow means a ground photograph (sediment surface or

Step 5 Fill in the rest of the details of the sketch, showing highlights of the morphology (e.g., beach berms, tidal channels); conspicuous features, such as fences, large logs, and seawalls that would help identify the site; zones of vegetation; and access points, such as roads and parking areas.

Step 6 (Optional) Where appropriate, draw a topographic cross-chapter of the intertidal zone, showing significant topographic breaks (e.g., beach berm crests) and oiled zones.

Step 7 Make sure that the form is completely filled in with site location, date and time of survey, and names of survey team members. Review the checklist on the left side of form.

Figure E-3 is an example of a completed beach sketch. Figure E-4 is an example of a field sketch map for a detailed survey of subsurface oil at the *Exxon Valdez* spill site. The exact location of the subsurface oil was surveyed in and identified with permanent markers (i.e., stakes just above high-tide line), because of the expense of removing the overburden.

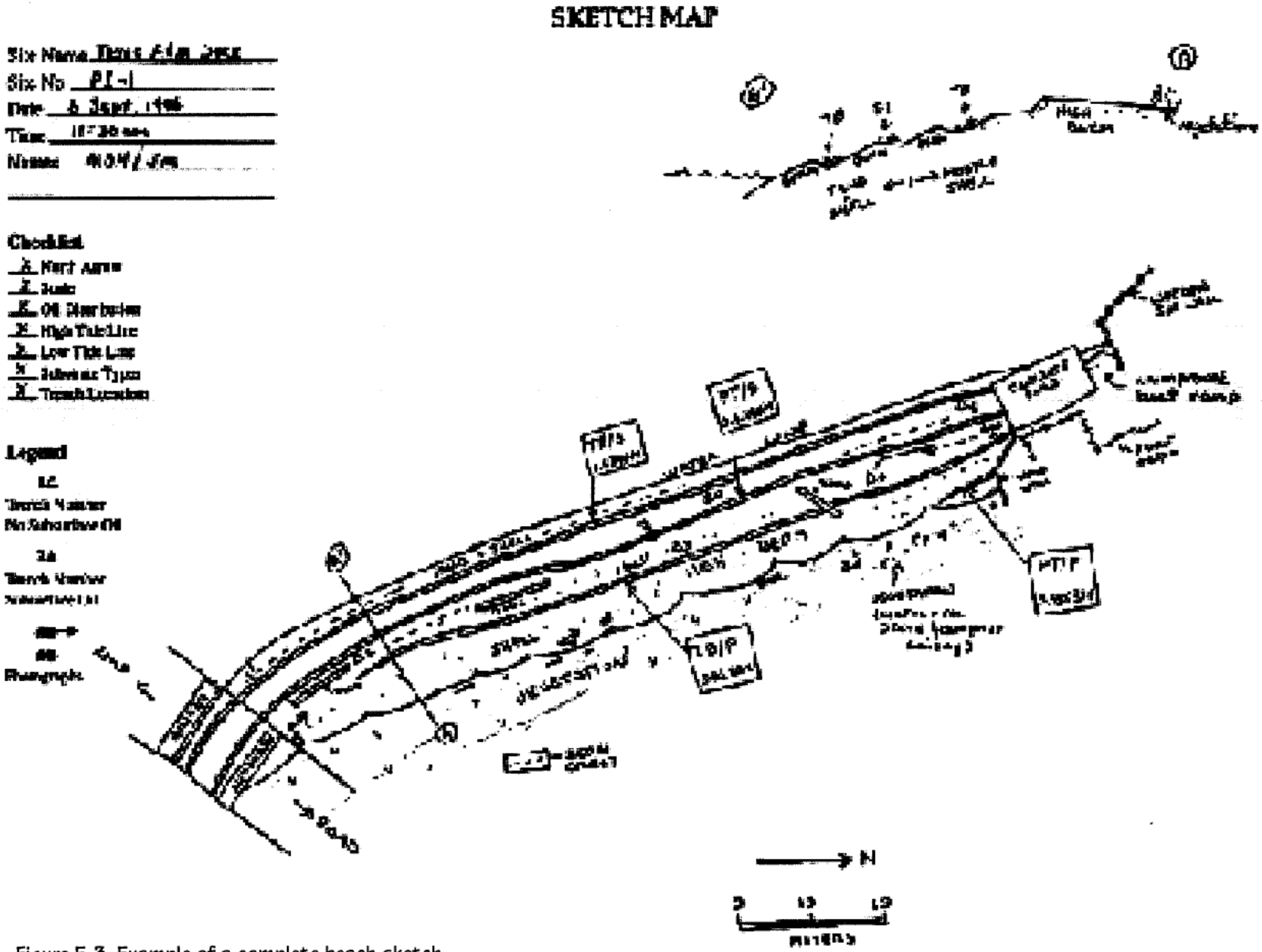


Figure E-3. Example of a complete beach sketch.

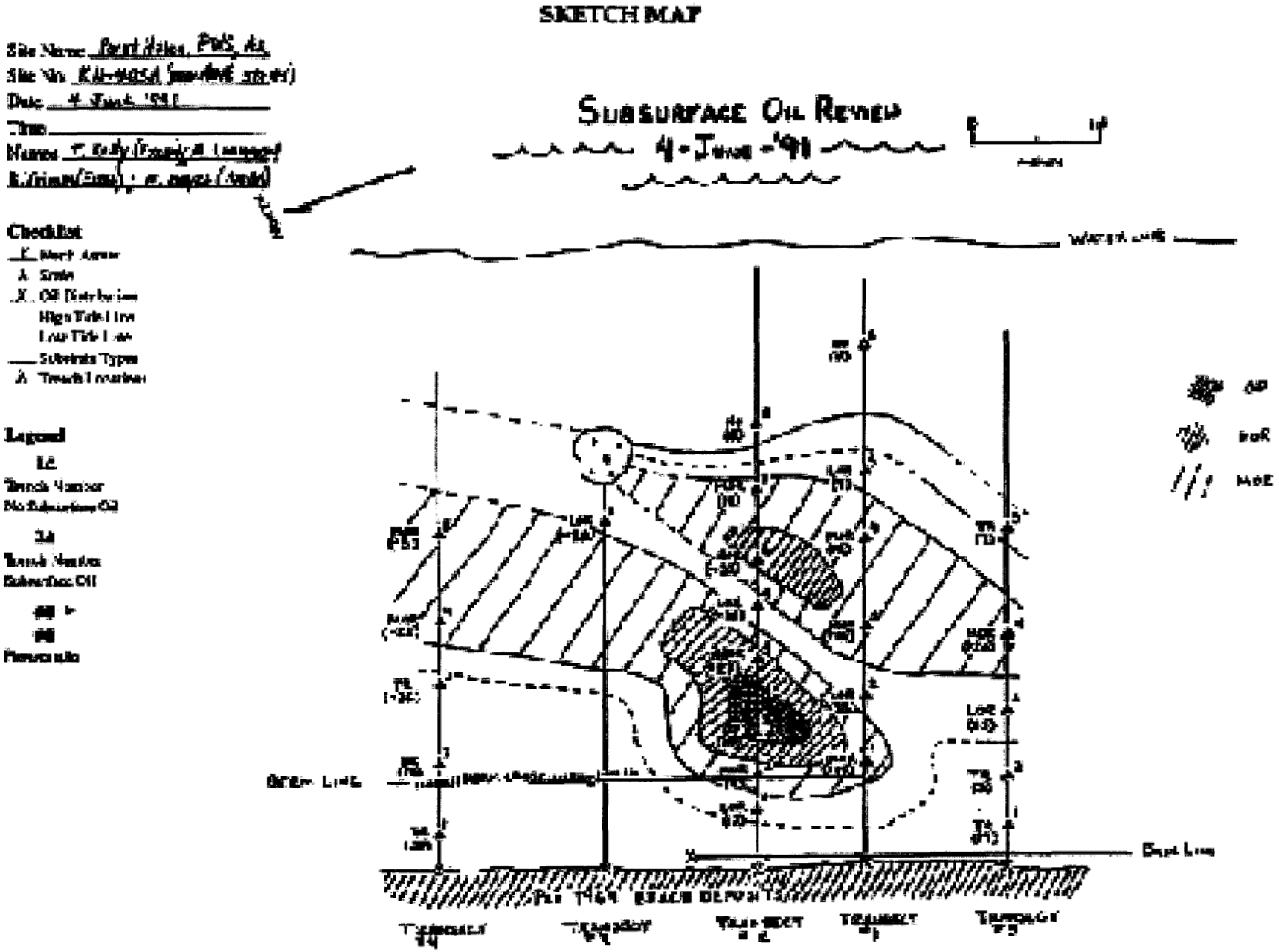


Figure E-4. Example of a field sketch map for subsurface oil survey at *Exxon Valdez*.

MARATHON PETROLEUM COMPANY LLC
MARATHON PIPE LINE LLC
STANDARDS

Standard Number	Title	Standard Category	Standard Type	Resp. Org.	Revision Number	Effective Date
MPLDOT017	DOT Pipeline Accident & Incident Reporting	DOT	Practice	ES&R	4	06/21/2013

Organization	Approver	Title	Signature	Subject Matter Expert
MPL	D.A. Breitigam	MPL Manager ES&R	Signature on File	J. E. Rader R. A. Abraham
TT&M				
M&TE				
T&L				

Records Retention: Policy, Standard, Procedure or Guideline – (ACT+10)	**Original Date of Issue: 11/8/2010**
Review & Update Requirements Max: 1 Year	
Attention: Printed copies should be used with caution. The user of this document must ensure the current approved version of the document is being used. This copy was printed on 12/9/2014 at 09:05.	

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1.0 STANDARD STATEMENT

1.1 Policy: This standard establishes how the above named organization will meet a corporate directive, a legal requirement, or a regulatory requirement. Deviations to this standard can only be granted by the MPL ES&R Manager, or designee.

2.0 PURPOSE

2.1 This policy establishes the reporting processes for failures in a pipeline system or events that meet Department of Transportation (DOT) reporting requirements for hazardous liquids or gas pipelines. For MPL owned or operated gas pipelines subject to 49 CFR Parts 191 and 192, such events are termed *incidents*. For MPL owned or operated hazardous liquid pipelines subject to 49 CFR Part 195, such failures are termed *accidents*.

3.0 SCOPE

3.1 This practice applies to all *Regulated* pipeline facilities operated by MPL or another operator with which MPL has a signed agreement. Example [most current versions]: the MPC/MPL DOT Pipeline Compliance Management Agreement.

4.0 MAINTENANCE OF STANDARD

4.1 The Environmental, Safety, & Regulatory (ES&R) DOT Gas and Liquid Compliance Coordinators, or designees, are responsible for the maintenance of this Standard.

5.0 REGULATIONS

5.1 **49 CFR** §§191.3 (Definitions.); 191.5 (Immediate notice of certain incidents.); 191.9 (Distribution system: Incident report.); and 191.15 (Transmission and gathering systems: Incident report.).

5.2 **49 CFR** §§195.2 (Definitions.); 195.50 (Reporting accidents.); 195.52 (Immediate notice of certain accidents.); and 195.54 (Accident reports.).

5.3 DOT/Pipeline and Hazardous Materials Safety Administration (PHMSA) Advisory Bulletin (ADB-2010-01) Accident/Incident Reporting Revisions.

6.0 REFERENCES

6.1 MPL-HES-00419-PRS Incident Reporting and Investigation

6.2 Marathon Pipe Line LLC Emergency Response Plan

6.3 Marathon Pipe Line LLC Gas Emergency Response Plan

7.0 DEFINITIONS

7.1 ***Final Report*:** A "final" report is a 7000-1, 7100.1 or 7100.2 report where no significant changes are expected requiring a supplemental report.

7.2 **Gas:** Gas is defined in Part 191 as natural gas, flammable gas, or gas which is toxic or corrosive.

7.3 ***Hazardous Liquid:*** A hazardous liquid is defined in part 195.2 as petroleum, petroleum products, or anhydrous ammonia.

7.4 ***Initial Report:*** An initial report is a 7000-1, 7100.1, or 7100.2 report submitted to PHMSA within 30 days following the accident. All the information required to make this report final may not yet be available, but the report is submitted with the best information possible within the 30-day regulatory reporting timeframe.

7.5 ***Maintenance Activity*:** The term "maintenance activity" is not formally defined in 49 CFR Part 195. Its preamble, however, suggests the following as examples of maintenance activities:

- **7.5.1** Rigging up and rigging down
- **7.5.2** Draining up
- **7.5.3** Frac tank use
- **7.5.4** Opening and closing pipelines and equipment
- **7.5.5** Launching and receiving pigs
- **7.5.6** Pressure testing
- **7.5.7** Excavating the line
- **7.5.8** Cutting piping
- **7.5.9** Connecting piping and fittings
- **7.5.10** Maintenance activities would not include pipeline system or pipeline system component failures that result in the unintended release of hazardous liquids from a pipeline system; for example, line pipe failure due to overpressure, or line or equipment failure due to defective material or workmanship.

7.6 ***NRC*:** National Response Center.

7.7 ***Promptly*:** The term "promptly" is not defined in 49 CFR Parts 191, 192, or 195. Liquid pipeline releases that are cleaned up within 24 hours are considered to have been cleaned up promptly.

7.8 ***Regulated*:** Assets that are subject to DOT regulations, with reporting requirements contained within 49 CFR Parts 191 or 195.

7.9 ***Significant Changes for Accident/Incident Reports*:** They include the following:

- **7.9.1** Property damage estimate change of 20% or $20,000, whichever is greater.
- **7.9.2** A release volume estimate change of 50% or greater.
- **7.9.3** Correction to location information.
- **7.9.4** Changes to information regarding accident causation.

7.10 ***Significant New Information for Immediate Notification to the NRC***

- **7.10.1** An increase or decrease in the number of previously reported injuries or fatalities;
- **7.10.2** A revised estimate of the product release amount that is at least 10 times greater than the amount reported;
- **7.10.3** A revised estimate of the property damage that is at least 10 times greater than the reported property damage estimate.
- **7.10.4** In January 2013, PHMSA issued Advisory Bulletin 2013-01 which encouraged operators to make NRC updates within 48 hours of the accident/incident, to the extent practicable. When possible, MPL will make every effort to meet the update window of within 48 hours after discovery.

7.11 ***Supplemental Report:*** A supplemental report is a 7000-1, 7100.1 or 7100.2 report submitted to PHMSA within 30 days following the discovery of new significant information.

8.0 STANDARD CONTENT

8.1 Introduction

8.1.1 Detailed reporting criteria for gas and hazardous liquid pipeline incidents and accidents are found in this standard.

8.1.2 This standard only covers DOT reporting. All other agency notifications (e.g., Environmental Protection Agency) requirements can be found in the Marathon Pipe Line LLC Emergency Response Plan (the "Liquid ERP").

8.1.3 Company Standard MPL-HES-00419-PRS "MPL Incident Reporting and Investigation" should be consulted for non-regulated pipeline event procedures, such as motor vehicle accidents, near misses, personal injuries, and other events resulting in property damage.

8.2 Reporting criteria for gas pipeline incidents

8.2.1 Events that meet the following criteria must be reported to DOT as prescribed in 49 CFR Part 191.

8.2.1.1 A release of gas or liquefied natural gas (LNG) from a pipeline, or gas from an LNG facility and any of the following:

a) A death, or personal injury requiring in-patient hospitalization;
b) Estimated property damage of $50,000 or more, including loss to MPL or others, or both, but excluding cost of gas lost;
c) Unintentional estimated gas loss of three million cubic feet or more;

8.2.1.2 An event that results in an emergency shutdown of an LNG facility.

8.2.1.3 An event that is significant (e.g., news media on scene), in the judgment of MPL, even though it did not meet other reporting criteria.

8.3 Reporting criteria for hazardous liquid pipeline accidents

8.3.1 Events meeting the following criteria must be reported to DOT as prescribed in 49 CFR Part 195.

8.3.2 A release of a hazardous liquid or carbon dioxide [including vapors] transported in a DOT-regulated pipeline resulting in any of the following:

8.3.2.1 An explosion or fire not intentionally set by MPL or its agent.

8.3.2.2 A release of 5 gallons or more of a hazardous liquid or carbon dioxide, except that no report is required for a release less than 5 barrels (210 gallons) resulting from pipeline maintenance activity if the release is:

a) Not otherwise reportable under 49 CFR Part 195;

b) Does not result in pollution of any stream, river, lake, reservoir, or other similar body of water, cause discoloration on water surfaces or shorelines, deposit sludge or emulsion beneath water surfaces or on shorelines;

c) Confined to company property or pipeline right-of-way; and

d) Cleaned up promptly

e) See 8.3.2.7 for information on when product accumulations may reach the 5 gallon reporting threshold.

8.3.2.3 Death of any person

8.3.2.4 Personal injury requiring hospitalization

8.3.2.5 Estimated property damage, including cost of clean-up and recovery, value of lost product, and damage to the property of the MPL or others, or both, exceeding $50,000.

a) DOT interpretations 195.50-2 and 195.52-1 (April 2, 1974) state that property damage estimates are to "include the cost of material, labor, and equipment to repair or replace the damaged property..." This has been interpreted to mean emergency response costs, labor, equipment, and materials needed to make repairs, including costs to mobilize to remote locations, and environmental remediation costs.

b) Property Damage estimates should not include litigation and legal expenses, or repairs unrelated to the accident that are done solely for convenience.

8.3.2.6 An event that is significant (e.g., news media on scene), in the judgment of MPL, even though it did not meet other reporting criteria. [NOTE: DOT does not include this criterion for having to submit an accident report under 49 CFR Part 195, but MPL has added it.]

8.3.2.7 De Minimis release volumes need not be tracked or reported to PHMSA, but must be reported internally via an incident report. A release of one gallon or more must be documented as a release on the MPL Release Metric. A release that meets any of the other reporting criteria in Section 8.3 must be reported to DOT. In summary:

a) All releases must be repaired and an incident report submitted.

b) Any release from a piece of equipment (Example; valve, tubing, meter casing, etc.), no matter how minor the release, should have a repair work order generated to ensure action is taken and documented to correct the release.

c) A release rate of less than four ounces per day is considered De Minimis and need not be tracked for product accumulations.

d) If a release rate exceeds four ounces per day, the total volume must be tracked and documented on the monitoring plan paperwork. A repair should be attempted as soon as practical prior to a total accumulation of five gallons.

e) Notification must be made to ES&R whenever total accumulated volume from releases that exceed four ounces reaches one gallon and again when it reaches five gallons.

f) If a repair is attempted and no further volume is released again under operating conditions within 24 hours, the release is considered stopped. Any subsequent release will be considered a new release.

g) The definition of De Minimis volume for this purpose is a release rate from a piece of equipment that has or will result in a release of less than five gallons. For example, if the volume from a discharge can easily be absorbed with one rag, approximately 4 ounces or less, during a daily or weekly station check and no hazardous liquid is allowed to contact water, the ground or secondary containment, the volume is De Minimis because less than five gallons is expected to leak between semiannual DOT valve inspections.

Note: Refer to Variance at the end of this document for more information.

8.3.2.8 The following activities are considered valve repairs:

a) Cycling valve open and close multiple times,

b) Readjusting valve open/close position so packing contacts stem at different location, and/or

c) Injecting packing material thru injector port/push old packing out through vent, replace packing or replace valve.

8.4 Immediate notice of certain pipeline accidents and incidents

8.4.1 Currently, 49 CFR 195.52 states that at the earliest practicable moment (typically within 1-2 hours) after discovery of either a hazardous liquids or gas pipeline release that meets any of the reporting criteria under Sections 8.2 or 8.3 of this standard, a notice must be made to the National Response Center (NRC) either by telephone or electronically if the failure resulted in any of the elements itemized in 8.4.2.1and 8.4.2.2

8.4.2 In January 2013, PHMSA issued Advisory Bulletin 2013-0015 which acknowledged the current regulation as noted in 8.4.1, but it encouraged operators to abide by the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 which requires PHMSA to issue regulations requiring operators to notify at the earliest practicable moment but not later than one hour after confirmed discovery. When possible, MPL will make every effort to meet a notification window of not later than one hour after confirmed discovery.

8.4.3 For Gas:

8.4.3.1 Any reportable release under this standard's "Reporting criteria…." Sections must be reported to the NRC.

8.4.4 For Hazardous Liquid or Carbon Dioxide:

8.4.4.1 Caused a death or personal injury requiring hospitalization;

a) Resulted in either a fire or explosion not intentionally set by the operator;

b) Caused estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000;

c) Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, cause a discoloration of the surface of the water or adjoining shoreline, or

deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or

d) In the judgment of the operator was significant even though it did not meet the criteria of any other paragraph of Subpart B of Part 195.

e)

8.4.1 NRC Notification

8.4.5.1 The NRC can be notified in one of two fashions:

a) By telephone: The NRC phone number is 800-424-8802.

b) Electronic notifications can be made at the following address: http://www.nrc.uscg.mil.

8.4.5.2 Information to provide to the NRC:

a) The following information must be provided to the NRC:

- **i.** Name and address of the reporting party (MPL)
- **ii.** Name and address of the responsible part (if known)
- **iii.** Name and telephone number of the person making the call to the NRC
- **iv.** The location of the accident/incident – to include address and/or GPS Coordinates.
- **v.** The local time of the accident/incident.
- **vi.** The number of fatalities and personal injuries, if any.
- **vii.** (*For hazardous liquids and carbon dioxide* only) Initial estimate of amount of product released in accordance with 195.52(c) T*ype of product released (crude oil, gasol*ine, diesel, etc.)
- **viii.** Affected medium (soil, water, air)
- **ix.** Incident description
- **x.** All other significant facts known by MPL relevant to the cause of the accident/incident or extent of the damages.

b) If available in the appropriate time frame, the following information should also be provided to the NRC. Waiting on this information should not hold up reporting:

- **i.** Weather information
- **ii.** Incident/Accident cause
- **iii.** Pipeline DOT regulated status
- **iv.** Location of pipeline (below ground, above ground; exposed or underwater)
- **v.** Any evacuations as a result of the release
- **vi.** Any road closures as a result of the release
- **vii.** Is the release secured?
- **viii.** Name of any other agencies notified of the incident.

8.4.2 Calculation: *Hazardous Liquid Only.*

8.4.6.1 The purpose of this regulation is to improve the accuracy of the initial estimates by "allowing decisions concerning how estimates are to be calculated to be made through deliberative pre-planning rather than in haste after a major event" (Federal Register Vol. 75, No. 227, Page 72892).

a) As pointed out above, the calculation is geared more towards large releases and alerting PHMSA to "how large is large?"

b) Due to this being a preliminary calculation, the number provided to the NRC should be **no more than two significant digits**. For example, if release is calculated to be 15.6 barrels, report 16 barrels (two significant digits) or 20 barrels (one significant digit); if release is calculated to be 1564 barrels, report as 1600 barrels.

c) Once a release is confirmed (see DDM Tools – Data Quality Ladder), MPL Area personnel determine if leak is one of the following based on operator experience: Small (<1 gallon – <10 bbls), Medium (10 bbls – 100 bbls) or Large (>100 bbls).

i. If "Small," the local area personnel (e.g., Operations Technicians, Mechanical Technicians, Operations Supervisors, whoever is present) can make the decision, as appropriate, to either estimate the amount based on experience or supply the Environmental Professional the information needed to utilize the spill calculator.

ii. If "Medium," the path forward may depend on release containment.

a) If release is contained, then the spill calculator may be appropriate. Local area personnel (e.g., Operations Technicians, Mechanical Technicians, Operations Supervisors, whoever is present) will supply the Environmental Professional the information needed to utilize the spill calculator.

b) If release is not contained, an estimate based on operator experience may be appropriate as the primary concern for public and environmental safety at that point in time is containment.

c) Regardless of whether the release is contained or uncontained, if hydraulic, metering or Computerized Pipeline Monitoring (CPM) information is available from the Operations and Logistics (O&L) department, the estimate may come from this source.

d) If hydraulic, metering or CPM information is available, the O&L department can be contacted for the estimate. The Operations Center (OC) Supervisor will work in conjunction with the O&L Technical Services Manager to obtain the O&L provided number. The Operations Center Supervisor, or designee, will be responsible for getting this number to the Environmental Professional. The amount

calculated with this method may be compared with the spill calculator estimate at a later time, if appropriate if time allows.

iii. If "Large," the path forward may depend on if hydraulic, metering or CPM information is available from the O&L department.

a) If hydraulic, metering or CPM information is available, the O&L department can be contacted for the estimate. The Operations Center (OC) Supervisor will work in conjunction with the O&L Technical Services Manager to obtain the O&L provided number. The Operations Center Supervisor, or designee, will be responsible for getting this number to the Environmental Professional. The amount calculated with this amount may be compared with the spill calculator estimate, if appropriate and if time allows.

b) If hydraulic, metering or CPM information is not available (leak below detection threshold), the spill calculator may be utilized.

d) Utilizing the Spill Calculator

i. The Environmental Professional, or designee, will input the information into the spill calculator.

ii. The spill amount generated by the spill calculator will be evaluated for its appropriateness (does the number generated make sense based on what we are seeing in the field? If not, this might be an indication that a number was not inputted correctly.) The number will then be adjusted to the appropriate number of significant digits (see 8.4.6.1).

e) If using the spill calculator, it is understood that soil types and water content are assumed, and that the spill volume calculated may be revised at a later time when more information is known.

f) Reporting to the National Response Center

i. After an initial release volume is generated, the number will be provided to the Environmental Professional, or designee, in a timely manner. The Environmental Professional, or designee, will then notify the National Response Center per Section 8.4.5.1.

g) New information: An operator must provide an additional report to the NRC if significant new information becomes available during the emergency response phase of a reported event at the earliest practicable moment after such additional information becomes known.

i. PHMSA defines "significant change" in ADB-02-04.

a) An increase or decrease in the number of previously reported injuries or fatalities;

b) A revised estimate of the product release amount that is at least 10 times greater than the amount reported;

c) A revised estimate of the property damage that is at least 10 times greater than the reported property damage estimate.

ii. Once the emergency response phase is complete, PHMSA does not expect an operator to continue to update the NRC throughout long-term recovery or remedial action activities.

h) When providing an additional report, give the NRC representative the report(s) number of any previous NRC report associated with the same event.

8.4.6.2 Documentation: NRC report numbers are recording on the applicable 7000-1, 7100.1 or 7200.1. Also, the NRC report itself is retrievable off of the NRC's website. Therefore, MPL will not maintain an official copy.

8.5 Initial submission of accident/incident reports

8.5.1 Within 30 days after the discovery of an accident/incident meeting the reporting criteria, MPL must submit an accident/incident report electronically.

8.5.1.1 Electronic submissions are made through the "Online Data Entry" link at http://www.phmsa.dot.gov/pipeline by the ES&R DOT Compliance Coordinator or designee.

8.5.1.2 The regulation does allow for alternate reporting methods, such as mailing a hard copy, if electronic reporting is deemed to pose an undue burden and hardship. MPL has internet access readily available, so electronic submissions should be made. If a hardcopy submission is necessary for some reason, then MPL must submit a written request for an alternative reporting method to:

a) Information Resources Manager
Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration
PHP-20
1200 New Jersey Avenue, SE
Washington, DC 20590

b) The request must describe the undue burden and hardship. PHMSA will respond is writing whether the request for an alternative reporting method has been approved, and will include the period of time for which this approval is granted.

8.5.2 DOT PHMSA Form F 7100.1 (Rev. 01-2010) – Incident Report – Gas Distribution System

8.5.2.1 This form was introduced in 2010 via DOT/PHMSA Advisory Bulletin (ADB-2010-01) for use with gas pipeline incidents occurring on or after

January 1, 2010. It, along with its instructions, is available at http://www.phmsa.dot.gov/pipeline/library/forms and in Section 12.2 of this policy.

8.5.3 DOT PHMSA Form F 7100.2 (Rev. 01-2010) Incident Report – Gas Transmission and Gathering Pipeline Systems.

8.5.3.1 These forms were introduced in 2010 via DOT/PHMSA Advisory Bulletin (ADB-2010-01) for use with gas pipeline incidents occurring on or after January 1, 2010. They, along with their instructions, are available at: http://www.phmsa.dot.gov/pipeline/library/forms and in Section 12.3 of this policy.

8.5.4 DOT PHMSA Form F 7000-1 (Rev. 01-2010) Accident Report – Hazardous Liquid Pipeline Systems.

8.5.4.1 This form was introduced in 2010 via DOT/PHMSA Advisory Bulletin (ADB-2010-01) for use with hazardous liquid pipeline accidents occurring on or after January 1, 2010. It, along with its instructions, is available at: www.phmsa.dot.gov/pipeline/library/forms and in Section 12.1 of this policy

8.6 Supplemental Reports

8.6.1 Supplemental reports must be submitted within 30 days of receipt of newly learned information or corrections to previously submitted information. Such information should be submitted in the same manner as the original report submittal.

8.6.2 Though alternate submission methods may be requested from PHMSA (See Section 8.5.1.2), electronic submissions are strongly encouraged by PHMSA and MPL.

8.7 Final Reports

8.7.1 Final reports must be submitted when no significant changes are expected requiring an additional supplemental report. Such information should be submitted in the same manner as the original report submittal.

8.7.2 Though alternate submission methods may be requested from PHMSA (See Section 8.5.1.2), electronic submissions are strongly encouraged by PHMSA and MPL.

8.8 Reporting Process for Hazardous Liquid or Carbon Dioxide Pipelines

8.8.1 When a release event occurs, Operations will determine if the event meets any of the following criteria:

- Fire
- Explosion
- Death
- Injury
- If there is a possibility of property damage greater than $50,000
- If there is ANY volume to water

- Release volume ≥ 1 gallon, or
- The event threatens public in the opinion of the on-scene representative

8.8.2 If any of the criteria in 8.8.1 are met, Operations must notify both the ES&R DOT Compliance Professional AND the ES&R Regional Environmental Professional.

8.8.3 The ES&R DOT Compliance Professional and Regional Environmental Professional will gather information about the event and determine if the event meets the criteria for National Response Center notification.

8.8.3.1 If the event is NRC reportable based on Environmental criteria, the ES&R Regional Environmental Professional, or designee, will make the NRC notification.

8.8.3.2 If the event is NRC reportable based on DOT criteria, the ES&R DOT Compliance Professional, or designee, will make the NRC notification.

8.8.4 If the release is reportable under 49 CFR §195.50, the ES&R DOT Compliance Professional, or designee, prepares a draft 7000-1 accident report. The report is prepared after acquiring information from the associated processes. The ES&R DOT Compliance Professional submits the draft 7000-1 accident report to PHMSA or the appropriate state agency (see Section 8.11.1 "Intrastate Agency Report Submittal Table") within 30 days after the discovery of the accident.

8.8.5 The ES&R DOT Compliance Professional monitors post -accident activities (e.g., repairs, investigations, remediation and related costs). Supplemental 7000-1 accident reports are submitted to PHMSA or the appropriate state agency by the ES&R DOT Compliance Professional within 30 days after receiving word that information reported on the original or previous supplemental 7000-1 accident report has significantly changed or if there has been any addition to the information previously submitted. A review of the status of the accident report that has not yet been finalized will be performed on a quarterly basis, at a minimum.

8.8.5.1 To comply with this regulation, the ES&R DOT Compliance Professional will either request updated information from those that have information to provide on the accident report approximately every 30 days, or will set up a recurring meeting on the individuals' calendars requesting that any new information, and the date that the new information was available, be provided to the ES&R DOT Compliance Professional.

8.8.6 The ES&R DOT Compliance Professional will save a copy of the most current version of the 7000-1 accident report on the intra-company website or network folder.

8.8.7 When no further significant changes are anticipated, the ES&R DOT Compliance Professional will submit final draft 7000-1 to Stakeholders/Process Owners to review.

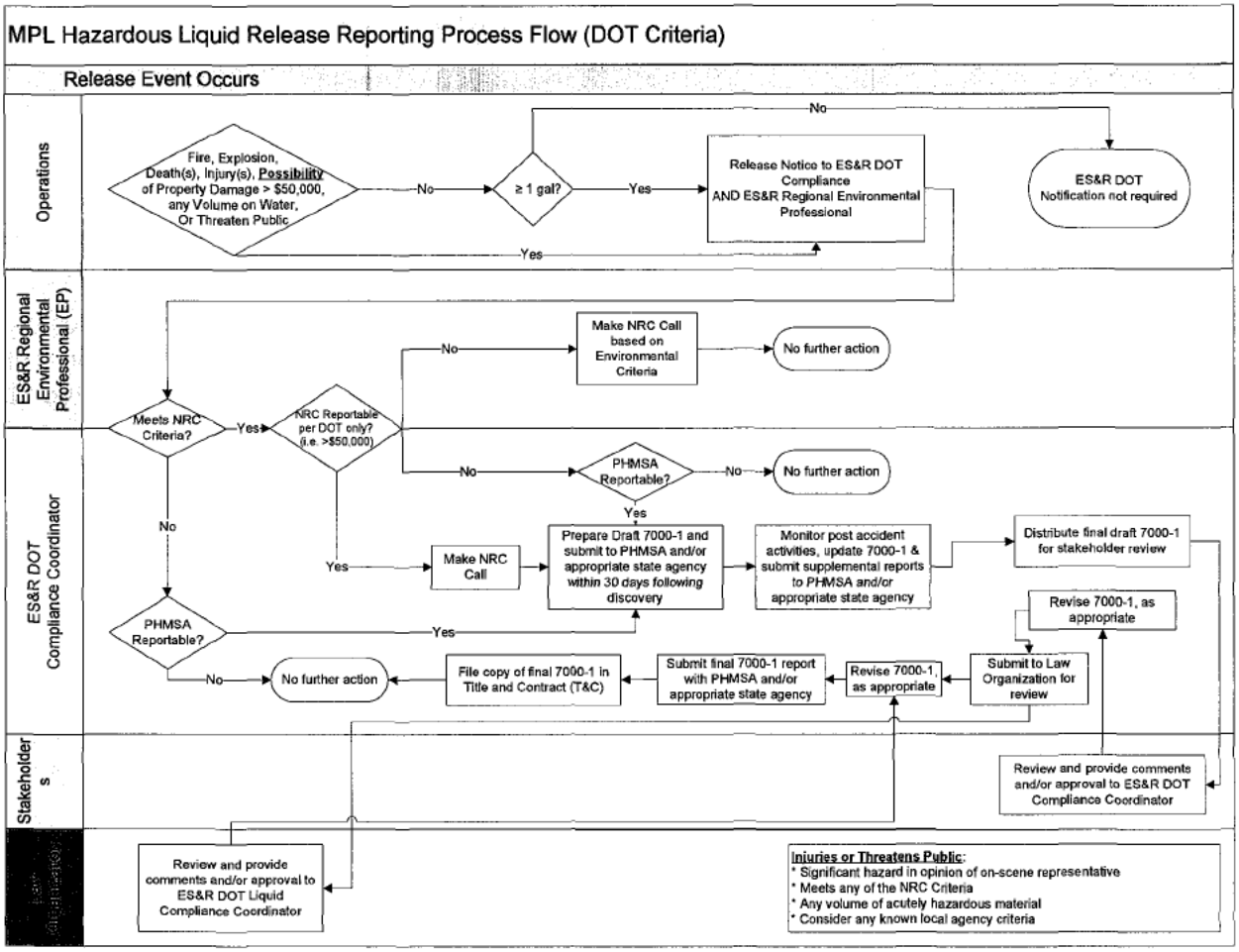
8.8.8 Upon concurrence from Stakeholders/Process Owners, the ES&R DOT Compliance Professional will submit the final draft 7000-1 to the Law Organization for review.

8.8.9 Upon concurrence from the Law Organization, the final 7000-1 accident report will be filed with the appropriate federal or appropriate state agency by the ES&R DOT Compliance Professional.

A copy of the final 7000-1 accident report will be filed, including supporting documentation, with Title and Contract (T&C).

8.8.10 In most cases, Final Reports should be filed with PHMSA within one calendar year of the accident date. However, if significant remediation is still ongoing or a lawsuit is pending that requires a final accident report not be submitted, then the Final Report will be submitted when either the Law Department concurs that the report can be submitted or MPL feels comfortable with the estimated costs to complete the remediation activities.

8.9 Hazardous Liquids Pipeline Systems – Part 195 7000-1 Reporting Determination Flowchart



8.10 Reporting process for gas pipeline incidents

8.10.1 By definition, a gas pipeline incident is an emergency, and the Company's Gas Emergency Plan will have been implemented. Included in that Plan is a process for notifying the MPL ES&R DOT Gas Compliance Coordinator among others.

8.10.2 The ES&R DOT Gas Compliance Coordinator, when notified of the release, will determine if the event is a reportable incident based on input from the following:

8.10.2.1 Reported Information from the scene.
8.10.2.2 This Standard.
8.10.2.3 Consultation with others as necessary.

8.10.3 The ES&R DOT Gas Compliance Coordinator will gather critical information and make required agency notifications, including the NRC call.

8.10.4 The ES&R DOT Gas Compliance Coordinator advises Stakeholders and Process Owners whether the event is reportable under 49 CFR §191.3, including §§191.9 (7100.1) and 191.15 (7100.2).

8.10.5 If the release is reportable under 49 CFR §191.3, including §§191.9 (7100.1) and 191.15 (7100.2), the ES&R DOT Gas Compliance Coordinator, or designee, prepares a draft 7100.1 or 7100.2 incident report. The report is prepared after acquiring information from the associated processes. The ES&R DOT Gas Compliance Coordinator submits the draft 7100.1 or 7100.2 incident report to PHMSA or the appropriate state agency (see 8.9.1 "Intrastate Agency Report Submittal Table") within 30 days after the discovery of the incident.

8.10.6 The ES&R DOT Gas Compliance Coordinator monitors post -incident activities (e.g., repairs, investigations, remediation and related costs). Supplemental 7100.1 or 7100.2 incident reports are submitted to PHMSA or the appropriate state agency by the ES&R DOT Gas Compliance Coordinator within 30 days after receiving word that information reported on the original or previous supplemental 7100.1 or 7100.2 incident report has significantly changed or if there has been any addition to the information previously submitted. A review of the status of the incident report that has not yet been finalized will be performed on a quarterly basis, at a minimum.

8.10.7 The ES&R DOT Gas Compliance Coordinator will save a copy of the most current version of the 7100.1 or 7100.2 incident report on the intra-company website or network folder.

8.10.8 When no further significant changes are anticipated, the ES&R DOT Gas Compliance Coordinator will submit final draft 7100.1 or 7100.2 to Stakeholders/Process Owners to review.

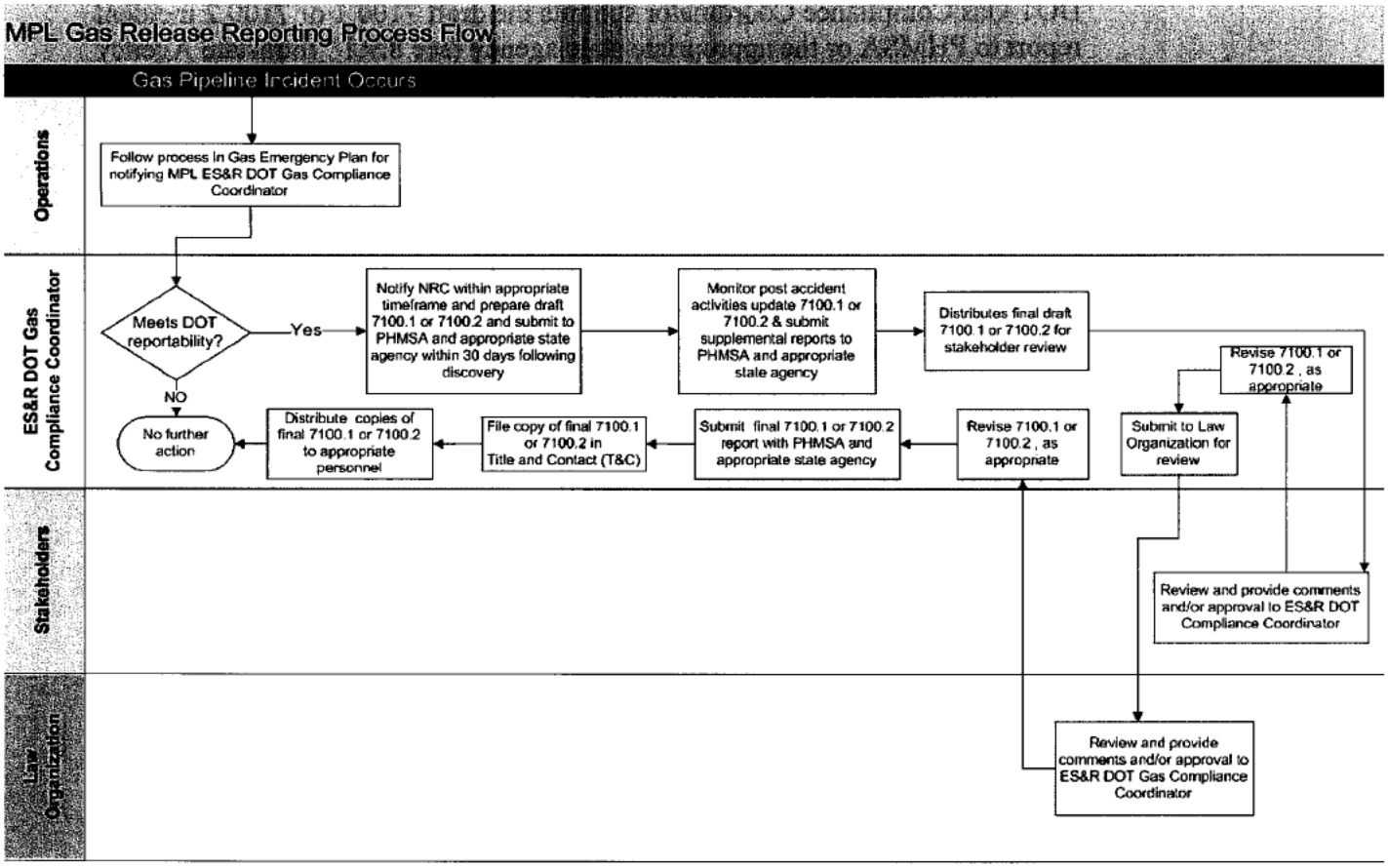
8.10.9 Upon concurrence from Stakeholders/Process Owners, the ES&R DOT Gas Compliance Coordinator will submit the final draft 7100.1 or 7100.2 to the Law Organization for review.

8.10.10 Upon concurrence from the Law Organization, the final 7100.1 or 7100.2 incident report will be filed with the appropriate federal or appropriate state agency.

8.10.11 A copy of the final 7100.1 or 7100.2 Incident Report will be filed with supporting documentation to T&C.

8.10.12 A copy of the final 7100.1 or 7100.2 Incident Report as filed with T&C will be provided to the Stakeholders/Process Owners, Incident Investigation Coordinator, Law Organization and Regional Manager. A copy will also be saved on the intra-company website or network folder.

8.11 Gas Transmission or Distribution Pipeline Systems – Part 191 7100.1 or 7100.2 Reporting Determination Flowchart



8.11.1 Intrastate Agency Report Submittal Table

State	Agency Contact Information	Notes	Existing Intrastate Gas Pipeline (s)?	Existing Intrastate Liquid Pipeline (s)?
Illinois	Telephonic notice of an incident as soon as possible (217-782-5050). Submit copies of DOT reports within 30 days. Illinois Commerce Commission Pipeline Safety – 4th Floor 527 E. Capitol Avenue Springfield, IL 62701	MPL operates a gas distribution line (technically a fuel line) at the Wood River Barge Dock. It is intrastate by default.	Yes	No
Kentucky	Telephonic notice at the earliest possible moment following the discovery of any of the following events related to a Kentucky intrastate hazardous liquid pipeline: • Death or personal injury • Unintentional fire • Damage to Property exceeding $24,999 • Other significant occurrence During normal business hours, call 502-564-3940; after business hours contact Larry Amburgey at 859-885-6465, Jeff Schroeder at 502-412-0886, Earl Alderman at 606-784-3013 pr 606-780-0529, Dave Kinman at 859-824-4245 or 859-824-6155, or Eddie Smith at 859-277-4234. Kentucky Public Service Commission (Kentucky PSC) P.O. Box 615 211 Sower Boulevard Frankfort, KY 40602-0615	MPL operates the following intrastate lines in Kentucky: • Louisville to Lexington 8" Products System • Campbell Branch to Vina 6" Crude system	Yes – but only a "courtesy" notification since our having non-regulated lines is a matter of definitions—a technicality.	Yes – but PHMSA oversees Intrastate Hazardous Liquid Lines in Kentucky.

	Phone: 502-564-3940 Fax: 502-564-3460			
Texas	Telephonic notice within 2 hours following discovery of incident/accident (512-463-6788). Note: Forward electronic copy of gas or liquid federal written report to safety@rrc.state.tx.us within 30 days. Liquid accidents require completion and submittal of RRC Form H-8. Railroad Commission of Texas Oil and Gas Division 1701 N. Congress Austin, TX 78711	Gas Note: The Texas City to Sterling Chemical Off-Gas Pipeline is an intrastate transmission line. Liquid Note: The following are Intrastate lines in Texas requiring concurrent notification to the Railroad Commission of Texas: • The Texas City Refinery - Texas City Sterling Chemical 8" Off Gas pipeline; • Galveston Bay Refinery - Baytown 8" Butane pipeline; • Mont Belvieu - Galveston Bay Refinery 8" Butane pipeline; • Galveston Bay Refinery - Chocolate Bayou 8" LPG pipeline; • Texas City Refinery - Chocolate Bayou 3" Propylene pipeline; • Texas City West Tank Farm - Texas City Dow 4" Propane pipeline. NOTE: The Texas City to Pasadena system and all connections to other carriers at Pasadena were determined to be an interstate system in 2003. In addition, the Relief Lines and 4 DOT Relief Tanks	Yes	Yes

		(1020, 1025, 1045 and 1047) at the Galveston Bay Refinery are also interstate.		

RESPONSIBILITIES

9.1 Operations

9.1.1 The first MPL person or representative who discovers or is notified of an emergency will be responsible for initiating notification procedures per this standard.

9.1.2 Operations, once notified/aware of the release, will be responsible for notifying ES&R per Section 8.8 of this standard.

9.2 Regional Environmental Professional

9.2.1 When notified of a liquid release, will work with the ES&R DOT Regulatory Compliance Professional to determine necessary agency and intra-company notification by:

- **i.** Using the information from the release.
- **ii.** Using this standard.
- **iii.** Utilizing the appropriate reporting determination flowcharts.

9.2.2 The Regional Environmental Professional will make appropriate agency notifications that fall outside of DOT reporting requirements.

9.3 ES&R DOT Regulatory Compliance Professional

9.3.1 The ES&R DOT Compliance Professional prepares and submits draft accident/incident reports (7000-1, 7100.1 or 7100.2, whichever is appropriate) to PHMSA or the appropriate state agency (see 8.11.1 "Intrastate Agency Report Submittal Table") as soon as practicable, but not later than 30 days, after discovery of the accident/incident.

9.3.2 Prepares and submits supplemental accident/incident reports within 30 days after receiving word that the information reported on the original or previous supplemental accident/incident report has significantly changed or if there has been any addition to the information previously submitted.

9.3.3 Reviews the status of the accident/incident reports that have not yet been finalized on a quarterly basis, at a minimum.

9.3.4 Seeks Process Owner(s) review prior to finalizing 7000-1/7100.1 reports with DOT.

9.3.5 Seeks Law Organization review prior to filing final 7000-1/7100.1 reports with DOT.

9.3.6 Files the final 7000-1/7100.1 accident/incident report with PHMSA or the appropriate state agency.

9.3.7 Provides a copy of the final applicable accident/incident report and supporting documentation to Title & Contract (T&C).

9.3.8 Provides a copy of the final applicable accident/incident report as filed with T&C to the Process Owner(s), Incident Investigation Coordinator, Law Organization, and Regional Manager.

9.3.9 Assures that the current version of the accident/incident report is maintained on the intra-company website or network folder.

9.3.10 On a quarterly basis, reviews the status of accident/incident reports that are not "final."

9.4 Process Owner(s) and Stakeholders

9.4.1 Review 7000-1/7100.1/7100.2 for accuracy of information pertaining to the information provided by either themselves or their process.

9.5 Law Organization

9.5.1 Law organization will review the 7000-1/7100.1/7100.2 prior to the appropriate ES&R DOT Compliance Coordinator submitting the final document with PHMSA

10 RECORDS MANAGEMENT

10.1 Original and Supplemental Reports

10.1.1 The appropriate ES&R DOT Compliance Coordinator will maintain the most current version of the report on the company network or website file storage location.

10.2 Final Reports

10.2.1 The appropriate ES&R DOT Compliance Coordinator will file a copy of the final report on the company network or website file storage location following its submission to DOT.

10.2.2 The appropriate ES&R DOT Compliance Coordinator will file a copy of the final report and any supporting documentation in the Incident or Accident report file. This file shall be retained in the T&C Central File Room with the retention of Incident Investigation – Environment (ACT+10).

11 TRAINING

11.1 Purpose:

11.1.2 The training will cover the material presented in MPLDOT017 – PHMSA Pipeline Accident & Incident Reporting. This training course involves the completion of a PowerPoint and Test through MaraLearn.

11.2 Required training:

11.2.1 ES&R – Environmental Professional
11.2.2 ES&R – Compliance Professional – DOT
11.2.3 ES&R Field Safety Professional
11.2.4 ES&R Field Safety Supervisor

11.2.5 ES&R IMP Program Leader
11.2.6 ES&R – Security and Emergency Preparedness Coordinator
11.2.7 ES&R – Regulatory Compliance Supervisor
11.2.8 ES&R Safety Supervisor
11.2.9 ES&R – Staff Professional Senior Engineer
11.2.10 Field – Core Tech – All
11.2.11 Field Project Engineer – System Integrity Leader
11.2.12 Field – Operations Supervisor
11.2.13 Field – Region Area Managers – All
11.2.14 HRT&D – Consultant-Recruiter
11.2.15 O&L – Controls and Communication Supervisor
11.2.16 O&L Engineer (CPM)
11.2.17 O&L Engineer (Hydraulics)
11.2.18 O&L Engineer (Power/Hydraulics)
11.2.19 O&L Engineer (SCADA)
11.2.20 O&L Hydraulic Control and Communication Manager
11.2.21 O&L OC Specialist
11.2.22 O&L – OC Supervisor
11.2.23 O&L System Hydraulics Supervisor
11.2.24 Field – Operations Specialist – All
11.2.25 Field – Operations Superintendent – All
11.2.26 M&TE – Project Leader
11.2.27 MPC Law – Environment, Safety, & Security Counsel

11.3 Learning Objectives:

11.3.1 At the conclusion of this training, the employee will understand the contents of Standard MPLDOT017, PHMSA Pipeline Accident and Incident Reporting and know their roles and responsibilities.

11.4 Related Training:

11.4.1 None

11.5 Delivery method:

11.5.1 MaraLearn PowerPoint and Test

11.6 Delivery Time:

11.6.1 30 minutes

11.7 Refresher Training:

11.7.1 Refresher training will be conducted every 12 months or sooner if significant modifications are made to the standard.

11.8 New Employee Training:

11.8.1 New employees who fall within the applicable training category will be assigned this training through MaraLearn.

12 ATTACHMENTS

11.1 7000-1 Form and DOT Instructions
11.2 7100.1 Form and DOT Instructions
11.3 7100.2 Form and DOT Instructions
11.4 Spill Calculator

Summary of Changes

9/26/2013- Added variance to section 8.3.2.7 (description at end of the document), and updated numbering throughout document.

6/06/2013

- Eliminated reference to Alaska assets in "Intrastate Agency Report Submittal Table" (8.1.11) and under "Release Observer" heading (9.1.1).
- Updated name of Approver (Ellingsworth to Breitigam) on first page.
- Changed the Liquid Release Reporting flowchart and associated information.

5/25/2012 – Updated inconsistency in numbering.

February 29, 2012
Updated Section 8.3.2.7 to reflect changes to the De Minimis Release Policy following discussions with M&R and Region Operations Superintendents.

12/19/2011
Updated the following:

- Changed from Policy to Practice as this standard is a practice.
  - Updated to include information from the updated regulation:
  - Changed Telephonic notices of certain incidents/accidents to Immediate notices of certain incidents/accidents;
  - Removed the cost of gas lost from the criteria for gas reporting and replaced it with unintentional estimated gas loss of three million cubic feet or more;
  - Included that electronic notifications to the NRC are acceptable;
  - Included a procedure to calculate the initial estimate of releases reported to the NRC from hazardous liquid releases;
  - Added conditions that require a subsequent report be filed with the NRC;
  - Removed the ability to report accidents/incidents to PHMSA via fax;
- Updated Intrastate Agency Report Submittal Table
  - Eliminated Minnesota
  - Identified that intrastate hazardous liquid lines in Kentucky are now under the oversight of PHMSA and not the Kentucky Public Service Commission
  - Added Texas City hazardous liquid lines
- Changed training from a "View and Credit" to a "PowerPoint and Test" taking 30 minutes rather than 15 minutes.
- Revised 11.2 Required Training.
- Added the Spill Calculator as an attachment.
- Included some additional definitions for clarity (7.5, 7.10, 7.11, 7.12)

8/13/2010
Updated the following:

- Replaces Standard MPLHES010
- Revised document in it's entirety to reflect changes made to PHMSA forms 7000-1, 7100-1 & 7100-2 effective January 1, 2010.
  - Updated the reporting & data gathering process
- Updated Records Management Section
- Updated section 8.8.1 to remove Louisiana as it is not applicable to this table
- Updated the Training Section
- Updated attachments with latest versions and updated records retention
- Revised flowcharts to reflect changes to forms and roles
- Place standard in latest template

MPLHES010 – Revision History (just reference) MPLHES010 to be archived with the role out of MPLDOT017

10/8/07
The Standard was revised to include 49 CFR 192 Gas regulatory language. The revision is associated with the Marathon Pipe Line LLC development of the 192 Gas Operations & Maintenance Manual effective September 1, 2007.

11/21/06
PHMSA has requested that state agencies be updated in MPL's Safety-Related Condition report and the accident reporting procedures. It was noted that the state agencies were not called out in the accident reporting standard MPLHES010. Therefore, the following was added to MPLHES010:

- 2.7.5 "Files the 7000-1 accident report with the appropriate state agency (if the affected asset is intrastate) as soon as practicable, but not later than 30 days after discovery of the accident. (see section 7.0)"
- 5.7.5 "Files the 7100.1 or 7100.2 report with the appropriate state agency (if the affected asset is intrastate) as soon as practicable, but not later than 30 days after discovery of the accident. (see section 7.0)"
- Section 7.0 to denote the state agencies that MPL could possibility report to

Variance Tracking	
Document Number & Title	**MPLDOT017 Pipeline Accident & Incident Reporting**
Reason/Description of Variance	**Date Approved**
MPL's commencement as DOT operator of the Capline System brings to MPL a number of valves with modifications designed to collect packing leaks via their having tapped valve yokes with attached metal tubing that extends to sealed metal containers. On "Day 1", MPL will not know: which of the modifications were installed to collect active releases, whether the valves with active releases were scheduled or intended for repair, or whether the modifications were installed preventatively in case a release develops.	9/20/2013

For valve installations identified as releasing product, accumulation rates are necessary to know, in light of the PHMSA accident reporting release thresholds appearing in this standard under heading 8.3, "Reporting Criteria for Hazardous Liquid Pipeline Accidents". Under that heading, 8.3.2.7 addresses "de minimis" releases of product and internal reporting requirements. Given that MPL will not have sufficient knowledge of the scope and condition of these installations, extra time is justified. The liquid release rate for any "Tapped and Plumbed" Capline System valve (TPV) will not be known until release accumulation rates, if any, are identified. This Capline Variance should allow sufficient time to determine those rates for the purpose of complying with this standard. • Within 6 months of MPL becoming the DOT Operator of the Capline System, all TPVs will have been assess for the purposes of identifying those which are releasing liquids and those which are not. o Valve releases that are determined to meet or exceed PHMSA's reporting threshold, shall be repaired immediately and the release reported to PHMSA. o Valve releases that are below reportable thresholds shall be scheduled for repair. o Valves with no detectable releases warrant no further action. o Repaired valves with no detectable release indications after 24 hours warrant no further action. **Note**: All other reporting requirements referenced in this standard remain in force and are not subject to this variance.	

	hazardous based on sample results. • Coordinates with the Area to schedule waste for pick-up upon approval. • Verifies that the final signed copy of the hazardous waste manifest is received from the disposal facility within the proper time frame and maintained per records management. o 60 days for a SQG, and o 45 days for a LQG. • Verifies that the following information is entered properly into OIS: o Waste container information, and o Waste manifest information. • Verifies that wastes are shipped off-site in accordance with regulatory requirements and Waste Storage Guidelines.
Waste Coordinator	• Maintains this document and updates as necessary. • Verifies that adequate training is available for affected employees. • Maintains MPL information within OIS which includes adding MPL sites, MPL wastes, and MPL users of OIS. • Develops waste guidance material as necessary. • Works with the Field EPs and Areas to identify waste minimization and pollution prevention efforts. • Coordinates with the MPC waste Subject Matter Expert (SME) for submittal of periodic waste summaries generated from OIS. • Reviews waste container aging reports from OIS and discusses with Field EPs as needed. • Develops and maintains generic waste profiles with Waste Management. • Provides guidance to Field EPs on any waste-related issues.

18.0 Management of the Process

18.1 Management of the Process

The following describe what measures are taken to manage the Waste Management Plan process.

- The Waste Management Coordinator reviews applicable waste regulations and verifies the accuracy and effectiveness of this process according to the Review Cycle and as prompted.

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19.0 Training and Competencies

19.1 Training & Competencies

For training requirements related to this document, refer to the Waste Management Training Plan.

20.0 Definitions

Aerosol Can

A non-bulk container of chemical typically purchased in household quantity using a propellant under pressure to spray the chemical.

Conditionally Exempt Small Quantity Generator (CESQG)

A facility that generates ≤ 100 KG (220 lbs) per month on non-acute hazardous waste, ≤ 1 kg (2.2 lbs) per month of acute hazardous waste and never exceeds 1000 kg of hazardous waste in storage at any time. Regulation 40 CFR 61.5 lists hazardous waste that is not required to be included in the volume stored on site such as satellite containers.

Concentration Based Treatment Standard

Treatment of a waste using one or more treatment methods which reduces or immobilizes the concentration levels of hazardous waste constituents in waste below certain specified concentration levels.

Hazardous Waste

Includes solid waste that exhibits any of four hazardous characteristics, such as, ignitability, corrosivity, reactivity, and toxicity or is a listed hazardous waste. See EPA Listed Hazardous Wastes (F,P,U) for listed wastes.

Large Quantity Generator (LQG)

A facility that generates ≥ 1,000 kg (2,200 lbs) of hazardous waste in any one calendar month.

Municipal Waste

Wastes generated by homeowners and office type waste such as paper, cardboard, and drink cans which is not regulated under RCRA. These types of waste generally would not require notification or reporting to an agency or testing to characterize the waste. Municipal waste is commonly called "trash" or "general trash".

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Non-Hazardous Waste	A solid waste that does not meet the definition of a Hazardous Waste.
Non-Wastewater	Defined as waste containing ≥ 1% "total organic carbon" (TOC) or ≥ 1% total suspended solids, such as total filterable solids.
Pollution Prevention	Any practice that reduces the amount of hazardous substances released to the environment via air, land and/or water discharge and emissions.
RCRA Empty	A container that has been "emptied by normal means" (removed using practices commonly employed industry-wide such as pouring, pumping, aspirating and draining) **AND** contains no more than one inch of material, or no more than 3% by weight of the total capacity of the container, if the container is 119 gallons or less, **or** 0.3% if the container is greater than 119 gallons. For pressurized containers, such as aerosol cans, it is considered RCRA empty when the pressure in the container approaches atmospheric pressure (the product is not released when the pressure is applied to the nozzle) and meets the residual limit mentioned above.
Satellite Accumulation Container	A container used for waste accumulation at or near the point of generation, and, while being used for satellite accumulation, it is not required to meet the full container management requirements under RCRA. The container cannot exceed 55 gallons, and must be located at/near the point of generation. Once full or no longer needed, it must be moved to the designated hazardous waste storage area within 3 days.
Small Quantity Generator (SQG)	A facility that generates greater than 100kg (220 lbs) but less than 1000 kg (2,200 lbs) of hazardous waste in a calendar month.
Solid Waste	Any material (solid, liquid or gas) that is discarded, abandoned, inherently waste-like, or used in a manner constituting disposal. Solid waste does not include scrap metal being recycled, wastewater discharged, domestic sewage, or secondary materials reclaimed and returned to the original process.
Sorbents/Wipes	Any non-biodegradable poly-type absorbent or adsorbent pads or cloth wipes used for cleaning up drips and spills, wiping excess material off equipment

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	and tools, or applying various products, such as solvent, grease, and gasket sealant to parts and equipment.
Technology Based Treatment Standard	Treatment of a waste using an EPA mandated treatment method such as: ▪ Incineration, ▪ Stabilization, and/or ▪ Land treatment.
Universal Waste	A general descriptive term to identify specific widely generated hazardous wastes.
Used Oil	Any oil that has been refined from crude oil or any synthetic oil that has been used and is contaminated by physical or chemical impurities. It includes crankcase oil, transmission fluid, brake fluid, power steering fluid, compressor/turbine/pump bearing oil, hydraulic oil/fluid, electrical insulating oil, metalworking oil/oil emulsions, cable oil, grease, and oil-like heat transfer fluids.
Waste Minimization	Any action that reduces the volume and/or the toxicity of a waste stream, or an action that recycles or reclaims a material into a useful product.
Wastewater	Waste containing less than 1% "total organic carbon" (TOC) and less than 1% total suspended solids, such as total filterable solids.

21.0 Associated Information

Forms & Attachments

The following forms and/or attachments are related to this document.

ID	Title
PLGENKNLFORM	Generator Knowledge Documentation
PLWASTEPROFILESUMM	Waste Profile Summary Template
Attachment	Waste Storage Guidelines
Attachment	Waste Management Generic Profiles for MPL
Attachment	Waste Management Training Plan
Attachment	Waste Minimization Plan
Attachment	EPA Listed Hazardous Wastes (F,P,U)

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Attachment	Toxicity Characteristics Leaching Procedure (TCLP) Limits
Attachment	Waste Related Labels and Forms
Attachment	Typical Waste/DOT Labels
Attachment	Example of Drum Marking and Labeling
Attachment	Waste Management Sampling Plan
Attachment	Sample Log Procedures
PLSPLLOGFORM	Sample Log Form
PLSPLLOGSUMM	Sample Log Summary Form
Attachment	Random Generation Example
Attachment	Proper Sample Containers Table
PLBLANKSKMAP	Blank Sketch Map
PLDRUMSPLWS	Drum Sampling Worksheet
PLROLLOFFSPLWS	Roll-Off Box Worksheet
PLSOILPILESPLWS	Soil Pile Sampling Worksheet
PLEXCCUCSPLWS	Excavation Clean-Up Confirmation Worksheet
PLWATERSPLWS	Sketch Example of Water Sampling

Regulatory Citation

The following regulations apply to this document.

Citation	Title
40 CFR 260-265,273,279	EPA RCRA Hazardous Waste Regulations
40 CFR part 279	Used Oil Regulations

References

The following references are associated with this document.

Citation	Title
ENV-3009-DN	Pollution Prevention and Waste Minimization Standard
HES Standard 206	Waste Management Vendor Approval Program (WMVAP) Standard
GEN-1019	Business Partner Pre-Qualification Review Standard
N/A	Mercury Release Guidance
N/A	EPA Hazardous Waste Manifest
N/A	Drum Labeling and Management Poster
N/A	Waste Sampling PowerPoint Program

Related Documents

The following documents are related to this document.

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Document Number	Title
MPL-HES-00459-PRS	Shipping Hazardous Materials

22.0 Administrative Information

Document Development

The following table represents the current list of people involved with development of the document.

Name	Organization	Role
E. F. Dauterive	ES&R MPL	Document Owner/SME Lead
D. A. Breitigam	ES&R MPL	Document Approver
R. S. Cole	ES&R MPL	SME
M. C. Tuttle	ES&R MPL	SME
M. R. Baumgart	ES&R MPL	SME
T. A. Bennett	M&TE	Writer
M. Kemper	M&TE	Editor
S. N. Shurelds	MPL Operations	User
T. M. Unverferth	MPL Operations	User
T. N. Russeau	HRTD MPL	Trainer
T. L. Thomas	MPC LAW	Records Administrator

Owner Initials

By initialing this section, the Owner verifies that the Team followed the Governing Documents process when developing this document and the superseded document(s) can be archived with the implementation of this document.
Note: Owner initials are not required if the Document Owner is also the Approver.

Document Owner	Organization & Title	Initial
E. F. Dauterive	ES&R HES Professional	On File

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Approver Signature

By signing this section, the Approver verifies that the document is ready for implementation and the superseded document(s) can be archived.

Document Approver	Organization & Title	Signature
D. A. Breitigam	ES&R Compliance Manager	On File

23.0 Document Management

Variances

Variances to this document can be granted by the ES&R Compliance Manager.

These variances have been granted:

Description of Variance	Date Approved	Expiration Date
None		

Publishing Information

The following Organization(s) will receive notice that this document was published.

User ORG Code(s)	Date Published
10002439 (D. A. Breitigam)	9/5/2013
10002467 (G. B. Amburgey)	9/5/2013
10004045 (R. R. Stansberry)	9/5/2013
10002471 (C. S. Willis)	9/5/2013

Records Management

The record retention for this document is Policy, Standard, Procedure or Guideline (ACT+6), after Revised, Superseded or Obsolete.

- The Field EPs maintain all waste records with retention of Monitoring and Inspection – Hazardous or Solid Waste – Generator (Originating) Facility (ACT+5) for four years plus current and sends to theMPL Records Administrator for processing to be sent to the Document Service Center (DSC) for the remaining retention.
- These records include:
  - oWeekly Waste Inspections,
  - o The original and final signed manifests,
  - o Land Ban Certifications,

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- Sample analyses,
- Profiles (except generic profiles which are maintained by the Waste Coordinator in conjunction with the Waste Management Single Point of Contact),
- All Bills of Lading for hazardous material shipments of "off-spec product" being reclaimed as a non-waste is retained by the Field EP with the records retention of Hazardous Material Transport – Ground (7) as with all other DOT shipping papers,
  - The Area will be custodian (2 years plus current) for Bills of Lading – Product and Crude Oil
  - Field EPs will be custodian (4years plus current) for Bills of Lading – Off-spec Product.

  Note: In both cases, the records will be sent to Findlay for the remainder of retention (84 months).

Review Cycle

The following is needed for Document Control purposes.

Review Cycle	Next Review Date	Custodial Organization
36 months	9/18/2016	MPL

The Document Owner has the authority to require a shorter review cycle. If a shorter review cycle is specified, include the reasoning for that decision.

The ES&R HES Professional maintains this document at the specified frequency.

24.0 Summary of Document Changes

This table lists the summary of the latest changes to this document.

Date	Section	Description
8/28/2013	All	Standard converted into the new Governing Document process.

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Wildlife and Domestic Animals Management Plan

_____ INCIDENT

(Name of)

Date Valid until _____

1) **DEAD ANIMALS**- Dead animals should be reported to_____. Cleanup crews will be dispatched to handle the animal carcasses. State Department of Conservations (DOC) personnel must be notified and participate in all animal collection activities. All animal carcasses will be collected and transported to the staging areas at _____. The carcasses will be bagged and analyzed for cause of death by _____Department of Conservation. The _____ Department of Conservation will report daily to the Environmental Unit Leader, amount and species of dead animals collected.

2) **LIVE OILED WILDLIFE** - Live oiled wildlife may be picked up, containerized, and brought to the Rehabilitation Center at _____, which is being operated by _____, if it is safe to do so. However, the survival rate of oiled wildlife is very poor and the U.S. Fish and Wildlife Service representative has advised that live, oiled wildlife may be left in place if MAP chooses to do so. Under no circumstances should anyone attempt to handle wildlife which may bite or cause other injury. Do not handle any wildlife with bare hands. Report all oiled wildlife sighting to the Operations Section Chief, who will report it to the Environmental Unit leader; or report directly to the Environmental Unit Leader. The Rehab Center will provide all necessary safety equipment to Agencies and volunteers in wildlife collection efforts. Volunteers will work under the direction of the Rehab Center in coordination with the Department of Conservation. **Absolutely no volunteer wildlife collection should be done without direction from the Rehab Center or DOC**.

3) **LIVE UNOILED WILDLIFE**- Unoiled wildlife in the spill area should generally be left undisturbed. An attempt may be made to move wildlife to a safer area or to haze to a safer area, if it is safe to do so.

4) **LIVE OILED AFFECTED DOMESTIC ANIMALS** - Any persons who have a domestic animal which is oiled or otherwise believed to be affected, should take it to the veterinarian located at _____ for evaluation and treatment if necessary. Claims for the evaluation and treatment should be made to the Claims Center at _____. Domestic animals that are unaffected by the oiled material should be removed from the area if the presence of oil has been detected.

5) **DEAD FISH** - All dead fish should be left in place and reported to the Environmental Unit. The Environmental Unit will report dead fish to the Department of Conservation who will investigate. The Safety Unit will coordinate permission to access the river.

6) Rehabbing Oiled Birds Tri – State Bird & Rescue

_____
Marathon

_____
State Agency

_____
Federal Agency

WILDLIFE PLAN.DOC
WATERPOL/72
2/25/02

APPENDIX I

CROSS REFERENCES

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CROSS REFERENCE INDEX
DEPARTMENT OF TRANSPORTATION PLAN REQUIREMENTS
INTERIM FINAL RULE
49 CFR 194

ITEM			LOCATION
194.107a	Planning for resources for responding to worst case discharge		Section 8.0 and Appendix A
194.107b	Requirement for plan to be written in English and any other language necessary to enable response by personnel		Section 1.1
194.107c	Certification by operator that the NCP and applicable ACP have been reviewed and that response plan is consistent with NCP and ACP		Section 1.8
194.107d1	i	Information summary as required in 194.113	Appendix A
	ii	Immediate notification procedures	Sections 2.1, 2.2, 2.3, and 2.4
	iii	Spill detection and mitigation procedures	Section 10.0
	iv	Full style of oil spill removal organization	Section 8.0 and Appendix A
	v	Response activities and resources	Sections 3.0, 5.0, and 8.0
	vi	Notification procedures for relevant federal, state and local agencies	Sections 2.1, 2.2., 2.3, and 2.4/Appendix A
	vii	Training procedures	Section 9.3
	viii	Equipment testing	Section 8.2 and Contractors' Plans
	ix	Drill types, schedules and procedures	Section 9.4
	x	Plan review and update procedures	Section 1.4
194.107d2	Response zone specific appendix		Appendices A and F
194.113a	The core plan must include:		
	1.	Name and address of operator	Appendix A
	2.	For each response zone meeting the criteria in 194.103, a listing and description of the response zones including parish(s) and state(s)	Appendix A

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49 CFR 194 (Continued)

ITEM		LOCATION
194.113b include:	The response zone appendix must	Appendix A
	1. The information in 194.113a	
	2. Identification of, and contacts for the qualified individual	Sections 2.1, 2.2, 2.3, and Appendix A
	3. Description of the response zone including county(s) and state(s)	Appendix A
	4. Listing of line sections for each pipeline in the response zone	Appendix A
	5. Basis for the operator's determination of significant and substantial harm	Appendix A
	6. Type and volume of oil of the worst case discharge	Appendix A
194.115a	Identification (by contract of other approved means) of resources necessary to remove, mitigate, or prevent a worst case discharge	Section 8.0 and Appendix A
194.115b	Identification of the response resources available to respond to a worst case discharge within time limits specified	Section 8.0 and Appendix A
194.117a	Training procedures for:	
	1. All personnel	Section 9.3
	2. Reporting personnel	Section 9.3
	3. Personnel engaged in response activities	Section 9.3
194.117b	Training records and locations	Section 9.3.7
194.117c	Requirement to meet 29 CFR 1910.20 and 40 CFR 311	Sections 8.5 and 9.0

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U.S. COAST GUARD PLAN REQUIREMENTS - FINAL RULE

33 CFR § 154.1026 QI and Alternate QI

ITEM		LOCATION
(a)	QI identity and need to be available on 24 hour basis	Appendix A/ERAP/Noted
(b)	QI requirements	Noted
(c)	QI letter	Noted
(d)	Organization serving as QI	N/A
(e)	Items QI is not responsible for	Noted

33 CFR § 154.1035 - Specific requirements for facilities that could reasonably be expected to cause harm to the environment.

ITEM		LOCATION
a.	Introduction and Plan Content	
a.1	Facility's full style	Appendix A
a.2	Facility's location	Appendix A
a.3	24 hour contact	Section 2.0
a.4	Table of contents	page ii
a.5	Cross reference	Appendix I
a.6	Record of changes	page x
b.	*Emergency Response Action Plan*	
b.1i	Notification procedures, prioritized list A. Facility response personnel B. Federal/State/Local Agencies	Section 2.0 and ERAP
b.1ii	Notification Form	Figure 2.14 and ERAP
b.2i	Volumes involved for: A. Average most probable discharge B. Maximum most probable discharge C. Worst case discharge from MTR facility D. Worst case discharge from non-transportation-related facility.	Appendix A

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U.S. COAST GUARD PLAN REQUIREMENTS - FINAL RULE (Continued)

33 CFR § 154.1035 (Continued)

ITEM		LOCATION
b.2ii	Mitigation and prevention procedures for:	
	A. Failure of transfer apparatus	Section 3.1
	B. Tank overfill	Section 3.1
	C. Tank failure	Section 3.1
	D. Piping rupture	Section 3.1
	E. Piping leak	Section 3.1
	F. Explosion/fire	Section 3.1
	G. Equipment failure	Section 3.1
b.2iii	Listing of equipment	Section 8.0 and Appendix A
b.3i	Personnel's responsibilities	Section 5.0 and Appendix K
b.3ii	Qualified individual's responsibilities per 33 CFR § 54.1026	Appendix K
b.3iii	Organizational structure for:	Section 5.0
	A. Command and control	
	B. Public information	
	C. Safety	
	D. Liaison with government agencies	
	E. Spill operations	
	F. Planning	
	G. Logistics support	
	H. Finance	
b.3iv	Oil spill removal organization	Section 8.0 and Appendix A
b.3v	OSRO and SMT for Mobile Facility	Not Applicable
	A. OSLO equipment and trainer personnel	
	B. Job descriptions for SMT	
b.4i	Listing of areas of economic and environmental sensitivity	*Area Contingency Plan*, Appendices A and F
b.4ii	For WCD from facility	
	A. Sensitive Environment in ACP	*Area Contingency Plan* and Appendix F
	B. Response actions to protect same	Section 3.0 and Appendix H
	C. Map or chart showing areas of economical and environmental sensitivity	*Area Contingency Plan* and Appendix F
b.4iii	Identification of personnel and equipment to protect sensitive areas	
	A. Identify appropriate equipment	Section 8.0
	B. Calculate distances of potential oil impact	Appendix A
b.5	Disposal plan	Section 3.6 and Appendix C

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U.S. COAST GUARD PLAN REQUIREMENTS - FINAL RULE (Continued)

33 CFR § 154.1035 (Continued)

ITEM		LOCATION
c.	*Training and exercises*	
c.1	Training procedures per 33 CFR § 154.1050	Section 9.3
c.2	Exercise procedures per 33 CFR § 154.1055	Section 9-4
d.	Plan review and update procedures per 33 CFR §154.1065	Section 1.4
e.	Appendices	
e.1i	Description of facility	Appendix A
e.1ii	Vessel information - e.g., size, type, and number	Appendix A
e.1iii	Description of valve separating transportation portion of facility from non-transportation portion.	Appendices A and F
e.1iv	MSDS	Located in dock office
e.1v	Other information	---
e.2i	Means to contact primary and alternate qualified individuals for the facility	Sections 2.1, 2.2, 2.3, and 7.0
e.2ii	Means to contact team(s)	Sections 2.1, 2.2, 2.3, and 7.0
e.2iii	Contacts for government agencies	Sections 2.1, 2.2, and 2.3 and Appendix A
e.3i	List of facility equipment and personnel	Appendix A
e.3ii	If applicable, identification of major equipment belonging to oil spill removal organization.	Appendix A
e.3iii	OSRO Classification (if given, e.3ii is not applicable)	Appendix A
e.4	Communications plan	Section 7.0 and Appendix E
e.5	Site specific safety and health plan	Appendix D
e.6	List of acronyms and definitions	Appendix B

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U.S. COAST GUARD PLAN REQUIREMENTS - FINAL RULE (Continued)

33 CFR §154.1045 Response Plan Developments and evaluation criteria for facilities that handle, store, or transport Group I thru Group IV oils

	ITEM	LOCATION
a.	Evaluation of response resources for the specified operating environment	Noted
b.	Criteria for response equipment	Noted
c.	Identification of response resources to respond to an average most probable discharge	Section 8.0 and Appendix A
d.	Identification of response resources to respond to a maximum most probable discharge	Section 8.0 and Appendix A
e.	Identification of response resources to respond to a worst case discharge	Section 8.0 and Appendix A
f.	Resource arrival times/resource tiers requirement	Noted
g.	Notification procedures Tier 1 equipment mobilization and requirements	Sections 2.1, 2.2, and 2.3
h.	Tier 2 and 3 mobilization requirements	Section 8.0
i.	If facility is in pre-approved dispersant area, identification of dispersant supplier	N/A
j.	Identification of resources with fire fighting capability	Section 8.0 and Appendix A
k.	Identification of resources to protect sensitive areas	Section 8.0 and Appendix A
l.	Identification of resources available for shoreline clean-up operations	Section 8.0 and Appendix A
m.	Identification of supplies of response equipment that exceeds caps listed in Appendix C	Section 8.0 and Appendix A

33 CFR §154.1050 Training

	ITEM	LOCATION
a.	Identification of training to be provided to each individual	Section 9.3
b.	Identification of record keeping procedures	Section 9.3
c.	Record keeping requirements for spill removal organization	Section 9.3
d.	Requirement to meet 29 CFR 1910.120	Section 9.3

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U.S. COAST GUARD PLAN REQUIREMENTS - FINAL RULE (Continued)

33 CFR §154.1055 Exercises

	ITEM	LOCATION
a.	Details on the type and frequency of exercises	Section 9.4
b.	Exercise requirements for facility owner/operator - unannounced exercises	Section 9.4
c.	Exercise requirements for facility owner/operator - area exercise	Section 9.4
d.	Requirement for record keeping	Section 9.4
e.	Requirement for oil spill removal organization keeping records	Section 9.4
f.	Means to satisfy PREP Guidelines satisfy exercise requirements	Section 9.4

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MINERALS MANAGEMENT SERVICE PLAN REQUIREMENTS - FINAL RULE

This Plan (the MPL LLC *Emergency Response Plan*) does not meet 30 CFR Part 254.21 to 254.29.

The Marathon Oil Company *Emergency Response Plan* is to be utilized when responding to emergencies and oil spills involving MPL LLC's operations within the Louisiana Offshore Operations Area. Said Plan is maintained and submitted to governmental agencies by Marathon Oil Company. A copy of the MOC OPA 90 Plan, with information pertaining to the MPL Offshore Operations Area, is maintained at the MOC Houston, Texas and Lafayette, Louisiana offices. Given below are their addresses.

- Marathon Oil Company
  200 Corporate Blvd.
  Lafayette, Louisiana 70508

- Marathon Oil Company
  5555 San Felipe Road
  Houston, Texas 70705

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Marathon Petroleum Company LLC		
Aerial Right-of-Way Inspection		
Owning Organization: IDP&R	**Document No.:** MPL-MNT-00482-KNO	
Document Owner: K. A. Sabol, IDP&R Project Engineer III		**Effective Date:** 8/23/2013
Superseded: MPLMNT016 Aerial Right-of-Way Inspection		

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3.1 Key Process Personnel 6
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Conflict Level	Number to Call for Reporting
Emergency (Level 1)	1-800-537-6644 or Approved Area Contact
Immediate (Level 2)	1-866-875-3067
Routine (Level 3)	

1.0 Overview

1.1 Purpose

This document captures information associated with Aerial Right-of-Way Inspection Process.

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1.2 Scope

This document applies to the following:

- Onshore and offshore pipeline assets and facilities under 49 CFR Part 195 or Part 192 DOT jurisdictions, operated and/or maintained by Marathon Pipe Line (MPL),
- Company employees or Company-authorized contractors involved in the execution, support, administration, or management of the Process, and
  - 1
    - Active- Normal Operations- Perform patrol surveillance.
    - Parts 192 and 195 Regulations apply.
  - 3
    - Purged- ROW maintained as active.
  - 4
    - Retired- Modified Retired ROW Maintenance w/Pipeline- Maintain patrol surveillance to monitor encroachments.
    - Strategic, not regulatory required; Integrity, Damage Prevention, & Risk (IDP&R) has option to alter frequency.
  - 5
    - Retired- Modified Retired ROW Maintenance without Pipeline- Maintain patrol surveillance to monitor encroachments.
    - Strategic, not regulatory required; Integrity, Damage Prevention, & Risk (IDP&R) has option to alter frequency.
- Contract Aerial Patrol Providers,
- Field Technicians,
- AP Process Leaders,
- One Call Specialists,
- DP Supervisor, and
- Field Supervisor.

This process does not apply to the following asset stages:

- 2 (Sold),
- 6 (Retired- No Line Pipe Maintenance),
- 7 (Retired- Removed),
- 8 (Abandoned- Released to Owner), and
- 9 (Abandoned- Removed or Never Existed).

2.0 Aerial Right-of-Way Inspection

2.1 Threats and Surface Conditions

The following potential threats and surface conditions are to be recognized via inspection and reported in case they have or may cause pipeline damage. Examples include but are not limited to:

- Leak Detection:

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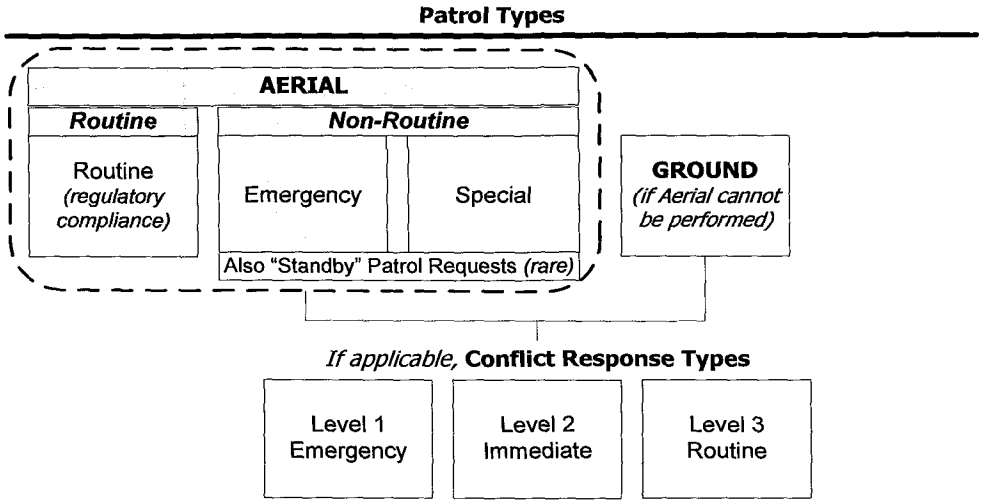
- Stains or other indications of leaks,
- Unusual discolored or dead vegetation,
- Film or sheen on surface of waters adjacent to pipelines,
- Down livestock on right-of-way that is possibly dead or mired, or
- Oil or petroleum on tank roofs.

- Potential Threat of 3rd Party Damage:
  - Excavation activities on or near MPL rights-of-way including but not limited to:
    - Clearing of land,
    - Building of terraces,
    - Ponds,
    - Ditching for new construction of pipelines,
    - Drain tile installation,
    - Grading for construction of new roads or improvements to existing roads,
    - Construction of irrigation ditches or canals,
    - Excavation for foreign utility/line crossing, and
    - Any other condition which may indicate hazards to the pipeline needing further attention or investigation by MPL.
  - New encroachments such as fences, buildings, or other structures being constructed or already constructed within MPL ROWs,
  - Fresh excavation scars on or near MPL rights-of-way not previously reported,
  - Fires of any nature on or adjacent to pipelines, or
  - Evidence of vandalism to pipeline or above ground facilities.
- Other excavation activities:
  - Excavation activity where the MPL aerial ground mat is displayed, or
  - Previously reported excavation activities.
- Identification of Natural Force Threats:
  - Washouts,
  - Conditions on river banks (indication of erosion),
  - Trees and debris collected on creek and river pipeline crossings,
  - Exposed pipelines at riverbank or creek crossings,
  - Landslides, or
  - Deposits of debris on ROW.
- Operational Concerns:
  - Excessive canopy growth impeding inspection activities,
  - Exposed and/or spanning pipe, or
  - Missing aerial markers.

2.2 Patrol Types

The following section describes the various types of patrol used for ROW inspection.

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Type	Sub-type	Comment
Aerial	Routine	Primary method used by MPL to comply with DOT regulations and conform to Pipeline ROW Disposition.
	Emergency	A non-routine patrol type wherein an aerial patrol pilot is called out to immediately investigate and report on a suspected release or other potential emergency situation. • Pilot is to arrive within 2 hours of receiving request from MPL.
	Special	A non-routine, non-emergency patrol type performed upon special request and which can be typically planned for in advance. Examples include but are not limited to: • Vegetation patrol, • Hydrostatic testing, • After significant weather events (flooding, hurricanes, earthquakes, etc), or • Ride-alongs.
	Standby Request (rarely used)	Used when a Pilot is requested by the Area to be on "standby", meaning they are ready and available to perform an Emergency or Special patrol until notified otherwise. • Rare, but available option when justified. o In case of potential emergency/urgent situation. **Note:** Extra fees apply.
Ground	Alternative to Aerial	Alternative method if flying is not feasible (or not preferred for a specific asset) within the regulatory timetable, or as needed for

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		emergency or special patrol requests. **Note:** Not to be used if conditions are unsafe. • Contact the MPL Aerial Patrol Process Leader for consult.

2.3 Patrol Frequencies

Aerial Patrol Contractors are to furnish ample resource to accommodate conformance with the following MPL-Established Patrol Frequencies.

Type	Asset Stage	Frequency
Liquid or Gas	1 and 3	Weekly
	4 and 5	Weekly or as modified by MPL Damage Prevention

- Frequency for Routine Patrols can be increased with:
  - Approval from MPL Aerial Patrol Process Leader, in collaboration with available Pilot services, or
    - Short-term increased patrol frequencies may be requested by the Operations Supervisor
  - A MOCR for permanent or long term requests is required.

- Minimum time between patrols conducted by the same Aerial Patrol Provider:
  - Four calendar days are to elapse between any two patrols of a particular ROW to make sure inspections are consistent, and
  - Two Routine inspections cannot occur in the same work week.

If...	Then...
There is a desire to request an allowance to deviate from the above requirements,	Contact the MPL Aerial Patrol Process Leader.

Note: Adherence to the MPL Established Patrol Frequencies is recommended but not mandated as there may be circumstances prohibiting flight. Examples include but are not limited to:

- Weather conditions,
- Plane maintenance, and
- FAA/national security air flight restrictions.

2.4 Normal Patrol Schedules

The following describes normal patrol schedules:

- Flights are typically scheduled during weekdays Monday-Friday during pipeline Area Office operating hours, 7:00 a.m. to 4:00 p.m., in order to make sure MPL resources are available to respond to reported conflicts, and
- The MPL AP Process Leader and Aerial Patrol Contractor/Pilot are to

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collaborate and reach consensus regarding routine patrol schedules.

3.0 Key Process Personnel

3.1 Key Process Personnel

Key personnel involved in the Aerial ROW Inspection include but may not be limited to the following parties:

- Aerial Patrol Contractors
  - Supervisor,
  - Pilot in Command (PIC), and
  - Observer.
- MPL Aerial Patrol Process Leader,
- Area Operations Management,
- Findlay One Call Specialists, and
- Findlay Operations Center Analysts.

ROW Patrol Inspectors	Qualifications (OQ)
Parties performing the inspection of the ROW must be OQ'd in: • MPL OQ 102- Conduct right-of-way inspection. o NCCER equivalent=15.0 Inspect surface conditions of ROW o If a key party performing the inspection is not OQ'd, another individual possessing the OQ must be in the plane with the pilot or in the car maintaining a 1:1 ratio. **Note**: These Operator Qualifications apply to Ground Patrol as weel as Aerial Patrol	
Pilot in Command (PIC)	• Airman Certificate & Ratings: o Commercial Pilot Certificate, o Instrument Rating or an Airline Transport Pilot Certificate, o Appropriate Category Rating, o Appropriate Class Rating, and o Valid Second Class Medical Certificate. • Flight Time: o 1500 Hours Total Flight Time, o 500 Hours Cross Country Flight Time, o 25 Hours in Make and Model, and o 50 Hours Aerial Patrol Experience. • Programs: o Operator Qualified- Conduct ROW inspection, ▪ To verify OQ, refer to ISNETWORLD or as directed by the Company, ▪ Enrolled in and in good standing with MPL approved Drug & Alcohol Program.

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	• Training: o Annual Recurrent Flight Training (1), o Annual Recurrent Ground Training and Testing, o IIMC/Emergency Training, o Annual Maintenance Training, o Annual Flight/ Line Check (1), and o Annual Simulator/ IFR Training (Retain IFR Currency)- six months between Recurrent Flight Training and Flight/Line Check. • Miscellaneous: o Successful completion of a pipeline route check for the route to be flown (unless for a newly established route), o Basic instrument experience, o 50 hours in command patrol survey time in the previous six months, o 10 hours on the contract aircraft type conducting aerial patrol operations within the preceding 90 days, or successful completion of a pipeline line check within the preceding 90 days. o Execute the designated role requirements as outlined within this document and other Company Governing Documents as dictated by the Company, o Participate in the annual review activities (MPL and Contractor), required and discretionary flight rides-along with the Operations Supervisor, and so on. o Meets Company requirements and must be approved per the Company Contract Management Process, and o Comprehensive knowledge of assigned pipeline route(s) ▪ Landmark identification, and ▪ Understanding of alignment sheets, etc.
Observer	• Meets same minimum requirements as stated for the PIC, and • Successfully completes contractor provided aerial patrol observer training program.

Note: Any requests to deviate from the competencies must be presented to the MPL Aerial Patrol Process Leader for allowance or rejection. The Aerial Process Leader is to consult with MPC Aviation and obtain final approval from the Damage Prevention Supervisor.

Note: MPL will perform annual audits to verify qualifications are being maintained.

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4.0 Conflict Response

4.1 Response Level Types and Reporting

Upon identification of a conflict, the pilot is to appropriately categorize it based on the following guidance.

Conflict Level and Number to Call for Reporting	Description
Emergency (Level 1) Approved Area Contact or 1-800-537-6644	• Direct phone line to Findlay MPL Operations Center (24/7) or Area Designee. o STOP-HELP-START Process initiated. The MPL Operations Center completes Aerial Patrol Pilot Conflict Call-In Notification Form (PLAERIALCALLIN) form. ▪ Completed form immediately faxed to the Findlay One Call Specialist and affected Area is contacted.
Immediate (Level 2) or Routine (Level 3) 1-866-875-3067	• Direct phone line to Findlay One Call Specialists, with back-up provided by the Findlay MPL Operations Center (24/7). • Findlay One Call Specialist creates a ticket for each conflict identified and contacts the affected Area.

Note: If in Cody, Wyoming, call Area Administrative Assistant for Level 1, 2 and 3.

4.2 One Call Mobile Tickets

Aerial Patrol Conflict One Call Mobile tickets are to be created for all reported conflicts. Tickets are to be assigned by the Findlay One Call Specialist or Area personnel with a specific "type" as follows.

Reported Conflict Priority Level	IRTHNET Ticket Type to be Assigned	Information to Include
Level 1 Emergency	Emergency	• GPS coordinates, • Nearest ROW marker, • Equipment used, • Conflict description, • Aerial conflict priority, • Work Type, • Any additional comments, and • If MPL-approved aerial ground mats or decals
Level 2 Immediate	Emergency	
Level 3 Routine	Regular	

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		were observed or if the pilot designates the conflict as a previous report.

Note: Do not use the "Near Miss" ticket type for aerial conflict documentation.

The "AP" (Aerial Patrol) designated responses are to be used by field responders to close all aerial patrol related tickets in One Call Mobile.

- The use of these responses will allow for the collection of statistics aiding in Process monitoring and assessment.
  - Comments explaining MPL's involvement with or knowledge of a reported site are to be included in the response to every Aerial Patrol related One Call Mobile ticket.

The following provides One Call Mobile ticket response examples and guidance:

Response	Scenario for Use
AP- Known Threat within 50' of Pipe	A known activity within 50' of pipe is identified by the Pilot and MPL is already aware. **Examples**: • Monitored site, • Sites where a One Call has been received, or • Previously reported sites.
AP- Known Threat greater than 50' of Pipe	A known activity greater than 50' from pipe is identified and MPL is already aware. **Examples**: • Monitored site, • Sites where a One Call has been received, or • Previously reported sites.
AP- New threat due to scope change of known excavation	The pilot identifies a known activity closer to the pipe than what the original scope indicated.
AP- New threat within 50' of pipe	New activity was identified within 50' of pipe. • MPL had no previous knowledge of site.
AP-New threat greater than 50' from pipe	New activity was identified greater than 50' from pipe. • MPL had no previous knowledge of site.
AP-Work for MPL	Pilot identifies MPL project activities. **Examples**: • Excavation, • Maintenance, or • Clearing. o Includes identification of MPL Company vehicles and/or the aerial ground mat.
AP- Conflict Not Found	The activity reported by the Pilot was not found and no indication of excavation is found. **Example**: • Excavation equipment that was in transit.

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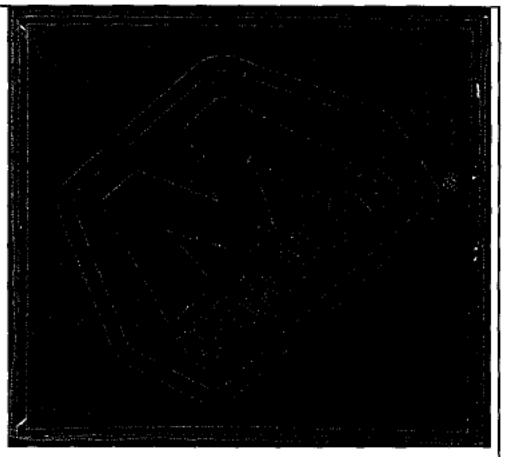
AP- Natural Force Threat	Pilot identifies a natural force threat such as: • Erosion, • Sink holes, • Slips, • Washouts, or • Spans.
AP- Activity Found- no threat to pipe	Pilot identifies new or existing conflict: • That after field evaluation is determined not to ever pose any potential threat to the pipe. Examples: o Parked car(s) found on ROW, o Permanently parked excavation equipment with no potential to be used on MPL ROW, or o Adjacent activities where a natural boundary or fence separate it from the ROW. **Note:** When using this response, add comments to One Call Mobile explaining why this activity does not pose any potential threat to the pipe.
AP- Leak Detection	Pilot identifies characteristics of a leak on or near the ROW.
AP- Field Audit	Pilot identifies a staged conflict per the Aerial Patrol Field Audit process.

Note: As a continuous improvement metric for the AP process, Damage Prevention is tracking the use of the One Call Mobile response, AP-Conflict Found-No Threat to Pipe.

- During the analysis of the metrics, the AP Process Leader will identify conflicts that pose no threat to MPL based on comments:
  - o Recorded by the Area Technicians, and
  - o Approved by Area Management.
  - o AP Process Leader will confirm "AP-Conflict Found – No Threat to Pipe" locations with Area Management. Once approved, AP Process Leader will send list to Areas and Pilots.
  - o The records will be printed by the Area and kept in the Area office.

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4.3 Conflict Observations and Responses

Aerial Ground Mats	
• MPL-approved aerial ground mats indicating to the pilot that a MPL representative is present at the excavation activity. • Pilots are to report sites having the mats as Level 3- Routine Conflicts. o Information will be placed within the One Call Mobile ticket in order to assist the Area in response evaluation. **Note**: Refer to Aerial Ground Mats for more information.	

If...	Then...
• Observed conflict has an aerial ground mat, or • Observed conflict is already known AND the conditions are the same as previously reported,	Pilot reports the conflict as Level 3 Routine. • Aerial Patrol Conflict One Call Mobile ticket is generated, and • No MPL field dispatch is needed. o Close the Aerial Conflict Ticket in One Call Mobile by selecting the appropriate AP Code, and o Adding pertinent comments explaining MPL involvement with or knowledge of the site.
Site conditions have changed or there is uncertainty of the changes,	Pilot reports the conflict under the appropriate level (1, 2, or 3). • Aerial Conflict One Call Mobile Ticket is generated, and • MPL field dispatch and investigation is needed: o Assigned technician performs site response/-investigation, o Generates or updates LPMR noting the conflict report and response, and o Closes the Aerial Conflict One Call Mobile Ticket with the appropriate AP Code.

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- A Land & Pipe Management Report (PLLPMR) is to be completed for events requiring an on-site response or communications with a third-party relating to a reported Aerial Patrol conflict.
  - Not required for aerial conflicts where an Approved Aerial Ground Mat is reported or for conflicts that do not necessitate a site visit or additional communication with a third party.
  - Upon completion, attach the following documents:
    - Copy of completed applicable RWIRMPL associated with PLLPMR, and
    - Copy of the Aerial Patrol Conflict One Call Mobile (IRTHNET) ticket.

5.0 Process Management

5.1 Risk Management

Primary identified risks and associated preventative measures to manage those risks are noted in the following table.

Significant Risks	Preventative Measures
Failure to Inspect ROW within 21-day Compliance Window	This document, along with supporting flowcharts, training, monitoring, and communication.
Failure to Recognize or Report Potential Conflicts	Support flowcharts and training to reinforce the message that Company representatives are to be vigilant in recognizing potential conflicts and are authorized to immediately report and respond.
Failure to patrol correct MPL Rights of Way	• The MPL Aerial Patrol Process Leader is to provide updated GPS centerline data and/or alignment sheets to the contractor for all applicable lines. o Contractor uses the data for ROW inspection services. ▪ Notifies MPL of any mapping discrepancies upon identification. • Annual Ride-Alongs are also used to aid in the assurance that the pilots are inspecting the correct ROW position. • Aerial Patrol Contractors are to, at the periodic request of MPL; provide GPS data for flight paths along MPL Rights of Way. o MPL Aerial Patrol Process Leader will review flight path data relative to centerline data and identify discrepancies, as appropriate. ▪ Discrepancies may be discussed with the affected operating area, GIS Process Leader,

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	Pilot, and Aerial Patrol Contract Supervisor to reach resolution.
Failure to Communicate	This document, along with supporting flowcharts, training, monitoring, and communication. • Process emphasizes constant communication among identified key process parties, and • Asset Information Manager (AIM) is monitored to ensure the inspection occurs and will prompt communication among key process parties if there is a threat of non-compliance.

5.2 Internal Controls

Internal controls are procedures put in place to make sure the Process actions are consistent, to:

- Manage risk,
- Meet objectives, and
- Provide for successful Process execution.

Internal Control Sub-Elements	Internal Control
Tasks & Procedures Management	Refer to Key Process Personnel
Data & Information Management	• One Call Mobile (IRTHNET), • Asset Information Manager (AIM), • ALIRTS, and • Monthly IDP&R Pilot reports (Conformance, Conflict Notification).
Financial Management	• F&A IDP&R Support Accountant Month Report and Budge Documents, and • Approval Authority Schedules (MPL F&A).
Management of Change	• Management of Change Request (MOCR), • Knowledge Management System (KMS), • ALIRTS, and • Also see Monitoring and Assessment Section.
Document Control	• Right-of-Way Inspection Report (RWIRMPL), and • Land and Pipe Management Report (PLLMPR) form.
Records Management	Refer to section 11.3 Records Management.

6.0 Monitoring and Assessment

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6.1 Monitoring and Assessment

The MPL Aerial Patrol Process Leader is responsible for Process monitoring and assessment.

- Monitoring observations are compiled and assessed to ascertain if possible Process Improvements are in order.
  - o Recommendations are to be presented to the IDP&R Damage Prevention Supervisor for IDP&R Change Plan consideration.

ID	Monitoring Type	Participants	Frequency
A	Monitoring of AIM and AIM Reports	• Area, and • IDP&R One Call Specialist. • AP Process Leader	• Weekly to make sure inspections are being completed within expected timetables, or • Daily to investigate and resolve inspection delays of 14+ days.
B	IDP&R Damage Prevention Pilot Conformance and Pilot Notification ("conflict") statistics	• IDP&R One Call Specialist, and • Aerial Patrol Process Leader.	Monthly
C	F&A IDP&R Support Accountant Monthly Report and Budget Documents	• MPL F&A to IDP&R Damage Prevention Supervisor, and • Aerial Patrol Process leader.	Monthly
D	Review of reported incidents, deviations, Lessons learned, and so on, using ALIRTS.	• IDP&R Damage Prevention Supervisor, and • Aerial Patrol Process Leader.	Monthly
E	Annual Review and Feedback of MPL Performance for the process procedures	Required: • Pilot, • MPL Operations Supervisor, o Use the Annual Review AIM work order for recommended review and discussion topics. ▪ Use inspection form attached to the	Annually • Preferred by March 31st of each year.

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		AIM work order to document results. • Observer (if applicable), and • MPL Patrol Process Leader. Optional: • Aerial Patrol Contract Supervisor, • MPL Operations Superintendant, and • Backup Pilot.	
F	Aerial Patrol Contractor Review	• Aerial Patrol Contract Supervisor, • Pilot(s), and • Observers (if applicable). o Generated affirmation document sent to MPL Aerial Patrol Process leader.	Annually
G	New Pilot Training Ride-Along	• Pilot o Documents ride-along on the applicable Right-of-Way Inspection Report (RWIRMPL). • Operations Supervisor/designee. o Documents the ride-along by completing the AIM work order. ▪ New Pilot Training.	Within 90 days of completed Pilot indoctrination (by the Contract Pilot Supervisor/designee) or solo flying of the route. **Note:** This can count as the Annual-required Ride-Along (below).
	Annual Ride Along		Annually • Minimum of 6 months are to elapse between Ride-Alongs.
	Aerial Vegetation Patrol Ride Along	• Operations Supervisor/designee o Assess, document, and report vegetation conditions to FSP per Attachment 12.13 Annual	Annually • Can be conducted with any other ride along performed during the year.

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		Aerial Vegetation Patrol Guidance.	
H	MPL performed periodic on-site auditing of aerial patrol contractors	• MPL Aerial Patrol Process Leader, and • MPL Aviation.	Periodically • Not exceeding 5 years per Contract Company. • To assess conformance with safety expectations. o Detailed in contract and procedure/ process expectations set forth within this document. • If new company is hired, and on-site audit will need to be performed prior to task performance.
I	Aerial Patrol Field Audit • Measures effectiveness for identifying conflicts. • Consists of a staged conflict on the ROW. o Any discrepancies identified will be documented in ALIRTS and addressed with participants.	• Aerial Patrol Process Leader, and • Operation Supervisor.	Annually, for each crew

7.0 Training and Competencies

Training and Competencies

For training and competencies related to this document, refer to Training Plan- MPL-MNT-00481-PRS Aerial Right-of-Way Inspection Process.

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8.0 Definitions

Aerial Patrol Contractor	An authorized, qualified contractor providing aerial patrol services.
AP-"Area" (Aerial Patrol-"Area"	A designated area folder established within One Call Mobile for which aerial patrol conflicts, documented within IRTHNET are automatically assigned for response and closure by field one call responders. Each Area has one AP-"Area" folder (**Examples**: AP-Owensboro, AP-Lima, AP-Heath, and so on.).
Company	Marathon Pipe Line LLC or its subsidiaries.
Conflicts	An activity in or near MPL right-of-way or facility that may jeopardize the integrity and safety of the pipeline. The degree in the response to any identified conflict, which poses potential danger to the pipeline are categorized by Conflict Response Levels. Conflicts require one of three responses: Level 1- Emergency; Level 2- Immediate; Level 3- Routine.
Discovery	An observation of a conflict during a patrol inspection. Discoveries require a response to the conflict observation.
Emergency Conflict	An immediate condition that threatens the integrity of the pipeline or requires immediate shutdown of the pipeline, including but not limited to: • Signs of a release, • Unknown construction or excavation activity over the pipe, or • Naturally occurring conditions that threaten the integrity of the pipe.
Emergency Patrol	A Non-Routine patrol type initiated due to a suspected release or other potential emergency wherein an aerial patrol pilot is called out to immediately investigate and report on the situation.
Ground Patrol	An alternative patrol method if the primary patrol method (aerial) is not feasible or not preferred for a specific asset.
Immediate	A condition that has the potential to cause damage to the pipe that is located

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Conflict	between 50' and 660' from the pipe, including but not limited to: • Unknown construction or excavation activity, • Naturally occurring conditions that are changing and could potentially damage the pipe in the near future, or • Newly exposed pipe.
Land & Pipe Management Report (PLLPMR)	Mechanism for documenting right-of-way activities, including Aerial Patrol conflict response activities.
Non-Routine Patrols	Aerial patrol inspections that do not meet the definition of Routine patrols, and which are typically requested and facilitated by the Operations Supervisor (Three types: Emergency, Special, and Standby Requests).
Observer	An Aerial Patrol Contractor provided qualified individual who rides with the Pilot in Command (PIC) while performing ROW inspection. The observer is used to aid the pilot in ROW inspection duties, communication with MPL as well as to improve the safety of the flight. The requirement for the use of an observer is contractually based with each aerial patrol contractor.
One Call Mobile Ticket for Aerial Patrol Conflicts	Using, the IRTHNET application system, One Call Mobile tickets generated as a result of reported conflicts which require Area investigation/response. See Section 8.4.4 Aerial Patrol Conflict One Call Mobile Tickets regarding guidance relating to closing the tickets with the appropriate ("AP" – aerial patrol) response code.
Operations Supervisor	For this standard, this title refers to a MPL Operations Supervisor, MPL Area Manager, or authorized designee.
Patrol	Visual inspection of MPL rights-of-way to examine surface conditions on or adjacent to the pipeline right-of-way within specified DOT-regulated intervals and frequencies, and includes reporting and documentation. Methods include flying, driving, walking, or other appropriate means. MPL utilizes aerial patrol as the primary method, with ground patrol as an alternative method if flying is not feasible (or is not preferred for a specific asset) within the regulatory timetable.
Patrol Frequency	MPL's intent to patrol and inspect pipelines according to a recommended flight schedule in order to ensure compliance with *49 CFR §195 and §192*

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requirements and conformance with Company Standard Pipeline and ROW Disposition.

Pilot or Pilot in Command (PIC)

A contracted, qualified individual who serves as the primary pilot flying an aircraft to perform aerial patrol in accordance with Company Standards, reporting suspected pipeline conflicts. Additionally, for this Standard the term "Pilot" is synonymous with the term "Right-of-Way Patrol Inspector."

Right-of-Way (ROW)

A physical area on a property provided by an easement for grantee (Company) to enjoy its granted rights. For a pipeline, it can be generally defined as a strip of land typically centered over the pipeline asset in which the Company has acquired certain legal rights to operate and maintain the asset.

Routine Conflict

A condition that has the potential to cause damage to the pipe that is located between 660' and 1320' from the pipe, including but not limited to:

- Unknown construction or excavation activity,
- Naturally occurring conditions that are changing and could potentially damage the pipe at a later point, or
- Known excavation with the Marathon Aerial Mat visible or previously reported.

9.0 Associated Information

Forms

The following forms are related to this document.

ID	Title
PLAERIALCALLIN	Pilot Conflict Call-In Notification Form
PLLPMR	Land & Pipe Management Report
RWIRMPL	Right-of-Way Inspection Report

Attachments

The following attachments are related to this document.

ID	Title
Attachment	Conflict Response Levels: Overview, Examples
Attachment	Routine Patrol Flowchart
Attachment	Non-Routine Patrol Flowchart
Attachment	Training Plan- MPL-MNT-00481-PRS Aerial Right-of-Way Inspection Process

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Regulatory Citation

The following regulations apply to this document.

Citation	Title
195.412	Inspection of Rights-of-Way
192.705	Transmission Lines: Patrolling
192.721	Distribution Systems: Patrolling.

References

The following references are associated with this document.

Citation	Title
MPL-MNT-00481-PRS	Aerial Right-of-Way Inspection Process
MPLDOT002	Pipeline and ROW Disposition
MPL-MNT-00484-SPE	Aerial Ground Mats
	ALIRTS
	AIM
	Aerial Patrol Contact List
	Right-of-Way Inspection Contractor Details

Related Documents

The following documents are related to this document.

Document Number	Title
MPL-MNT-00481-PRS	Aerial Right-of-Way Inspection Process
MPL-MNT-00484-SPE	Aerial Ground Mats
MPL-MNT-00486-PRS	Annual Aerial Vegetation Patrol Guidance
MPL-MNT-00485-PRS	Aerial Patrol Field Audit

10.0 Administrative Information

Document Development

The following table represents the current list of people involved with development of the document. Refer to the document history for previous lists of document development teams.

Name	Organization	Role
K. A. Sabol	MPL – IDP&R	Document Owner
J. M. Bible	MPL – IDP&R	Lead SME
L. L. Daniels	M&TE	Writer
M. S. Kemper	M&TE	Editor
T. N. Kalb	HRT&D	Trainer
T. L. Thomas	MPC Law	Records Administrator

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D. Wilkins	MPL	Additional Stakeholder/Validator
J. Walls	MPL	Additional Stakeholder/Validator
B. Sarver	MPL	Additional Stakeholder/Validator
T. M. Unverferth	MPL	Additional Stakeholder/Validator
D. C. Goetz	MPL	Additional Stakeholder/Validator

Owner Initials

By initialing this section, the Owner verifies that the Team followed the Governing Documents process when developing this document and the superseded document(s) can be archived with the implementation of this document.

Document Owner	Organization & Title	Initial
K. A. Sabol	MPL IDP&R Project Engineer III	On File

Approver Signature

By signing this section, the Approver verifies that the document is ready for implementation and the superseded document(s) can be archived.

Document Approver	Organization & Title	Signature
P. H. DePriest	MPL Integrity, Damage Prevention & Risk Manager	On File

11.0 Document Management

Variances

Variances to this document can only be granted by the Integrity, Damage Prevention & Risk Manager.

These variances have been granted:

Description of Variance	Date Approved	Expiration Date
None		

Publishing Information

The following Organization(s) will receive notice that this document was published.

ORG Code(s)	Date Published
10002456	8/23/2013

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Records Management

The record retention for this document is Policy, Standard, Procedure or Guideline (ACT+6), after Revised, Superseded or Obsolete.

LPMRs (including LPMR attachments) completed by Area personnel or completed as a result of M&TE projects are to be filed in the local operating Area Office for two years plus the current year with retention of Record, Maintenance and Repair (ACT+5), and then sent to the appropriate Records Coordinator for indexing and preparation for offsite storage. The Records Coordinator will then send the documents to the Findlay MPL Records Administrator for review prior to being sent to the Findlay Document Service Company (DSC) Records Center. Electronic LPMRs (including electronic attachments) shall be printed off and filed along with paper-originated LPMRs for standardized records retention.
The record retention for PLAERIALCALLIN is Administrative Support (3).

The record retention for RWIRMPL is Record, Maintenance and Repair (ACT+5). This record is maintained in the Area Office 2 years plus current then sent to the Document Service Company (DSC), Findlay, Ohio.

Review Cycle

The following is needed for Document Control purposes.

Review Cycle	Next Review Date	Custodial Organization
12 Months	8/23/2014	IDP&R

The Document Owner has the authority to require a shorter review cycle. If a shorter review cycle is specified, include the reasoning for that decision.

The Damage Prevention Supervisor maintains this document at the specified frequency specified.

Note: This Document is related to the MPL Procedural Manual (§192 & §195) and therefore needs to be reviewed on an annual basis.
During that review, the SME and/or the Document Owner answers the following questions:

1. Is regulatory code citation accurate? (Example: Current paragraph is correct.) ____Yes ____No
2. Are referenced publications (Example: Current version of; API, ANSI, ASME, etc.,) incorporated by reference in the regulatory code accurate? ____Yes ____No
3. Are the numbers for referenced company standards accurate? (Example: Has the standard been replaced by a new standard or archived?) ____Yes ____No
4. To the best of your knowledge, are procedures sufficient to achieve

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and maintain compliance with the regulatory code? ____Yes ____No

Document Owner or SME	MPL Department & Title	Initials & Date
K. A. Sabol	MPL IDP&R Project Engineer III	

12.0 Summary of Document Changes

This table lists the summary of the latest changes to this document.

Date	Section	Description
10/23/2013	References	Added hyperlinks for Aerial Patrol Contact List and ROW Inspection Contractor Details
6/5/2013	All	New Document Conversion

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MARATHON PETROLEUM COMPANY LLC
MARATHON PIPE LINE LLC
STANDARDS

Standard Number	Title	Standard Category	Standard Type	Resp. Org.	Revision Number	Effective Date
MPLDOT005	Baseline Assessment Schedule Process	DOT	Policy	IDP&R	7	4/29/13

Organization	Approver	Title	Signature	Developer
MPL	P.H. DePriest	Integrity, Damage Prevention & Risk Manager	On File	J. C. Jones
TT&M	N/A			
M&TE	N/A			
T&L	N/A			

Records Retention: Policy, Standard, Procedure or Guideline (ACT+10)	**Original Date of Issue:** 8/21/06
Review & Update Requirements Max: 1 Year	
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1.0 STANDARD POLICY STATEMENT

1.1. This standard sets forth details relevant to materials and/or equipment, and/or establishes criteria for performance. Deviations to this standard can be granted by the Marathon Pipe Line (MPL) Integrity, Damage Prevention & Risk (IDP&R) Manager or their designee by using the management of change system per TNL-HES-00068-PRS T&L Management of Change and Pre-Startup Safety Process prior to a deviation.

1.2. Verbal approval can be granted at the discretion of the MPL IDP&R Manager in time sensitive situations, with the expectation that the verbal approval is followed up immediately with a management of change request.

1.3. If deviations to this standard occur before approval of a management of change request (MOCR), then an MPL Incident Report shall be submitted per standard MPLHES025 MPL Incident Reporting and Investigation to document the non-conformance to this standard. A MOCR per Section 1.1 shall be initiated in addition to the MPL Incident Report if the result of the deviation is intended to be left as permanent.

2.0 PURPOSE

2.1. This standard establishes procedures relative to line pipe data collection, integrity threat analyses, assessment methodology selection, risk factor identification and analysis, and baseline assessment schedule in order to ensure compliance with requirements of § 49 CFR Part 195.452 Pipeline Integrity Management in High Consequence Areas (Hazardous Liquids Pipelines).

3.0 SCOPE

3.1. This standard applies to MPL and Marathon Petroleum Company (MPC) operated DOT-regulated mainline pipe segments transporting hazardous liquids that Could-Affect a High Consequence Area (CHCA) as defined per MPLDOT003 Integrity Management Program Process.

4.0 MAINTENANCE OF STANDARD

4.1. The Integrity, Damage Prevention & Risk Manager, or designee, shall be responsible for the maintenance of this standard.

5.0 REGULATIONS

5.1. This standard provides uniform procedures regarding line pipe data collection, integrity threat analyses, assessment methodology selection, risk factor identification and analysis, and baseline assessment schedule for compliance with United States Department of Transportation (DOT) Code of Federal Regulations (CFR) 195.452 Pipeline Integrity Management in High Consequence Areas.

6.0 REFERENCES

6.1. Internal

6.1.1. MPLCON021 Hydrostatic Test Execution.
6.1.2. MPLDGN003 Designing Pressure Tests For Gas & Liquid Pipelines.
6.1.3. MPLDOT003 Integrity Management Program Process.
6.1.4. MPLDOT004 HCA Identification Process.
6.1.5. MPLDOT006 Integrity Management Risk Management Process.
6.1.6. MPLDOT007 Reassessment Schedule Process.
6.1.7. MPLMNT042 Rehabilitation Project Leader.

6.1.8. MPLMNT069 Managing In-Line Inspection Data.
6.1.9. MPLMNT071 In-Line Inspection Project Leader.
6.1.10. MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines.

6.2. External

6.2.1. U.S. Department of Transportation *(DOT) § 49 CFR Part 195.452* Pipeline Integrity Management in High Consequence Areas (Hazardous Liquids Pipelines).
6.2.2. *DOT § 49 CFR Part 195.452 c, d, e and f (2).*
6.2.3. *DOT § 49 CFR Part 195.452 (h).*
6.2.4. *DOT § 49 CFR Part 195.452 (j).*

7.0 DEFINITIONS

7.1. Reference standard MPLDOT003 Integrity Management Program Process.

8.0 POLICY

8.1. DOT/Pipeline Hazardous Material Safety Administration (PHMSA) Requirements

8.1.1. See External References (Section 6.2).

8.2. General

8.2.1. See standard MPLDOT004 HCA Identification Process for the process to identify line pipe segments that could-affect high consequence areas.

8.2.2. This standard describes the polices and process required for development, implementation, documentation, and change management of the Baseline Assessment Schedule to meet the requirements of *§195.452 (2), (3)*:

8.2.2.1. All assessment methods and tools documented in the Baseline Assessment Schedule shall comply with the acceptable methods specified in *§195.452 (c) (1) (i).*

8.2.2.2. At a minimum, defined integrity baseline assessment(s) shall be conducted for all Could-Affect a High Consequence Area (CHCA) portions of the assessment segment.

8.2.2.3. A baseline assessment shall be completed, as required by *§195.452 (d) (3),* within five (5) years for a:

8.2.2.3.1. Newly identified DOT-regulated line pipe segment (that was incorporated into the Baseline Assessment Plan that Could-Affect a High Consequence Area).

8.2.2.3.2. Newly identified CHCA identified on an existing DOT-regulated assessment segment.

8.2.2.4. Previous operator assessments shall comply with criteria described in this standard to be acceptable.

8.2.2.5. The Baseline Assessment Schedule shall utilize industry information when evaluating previously unidentified risk factors when such industry information is adopted by MPL.

8.2.2.6. A baseline assessment shall be conducted for previously unidentified risk factors that can be detected by an approved assessment technology.

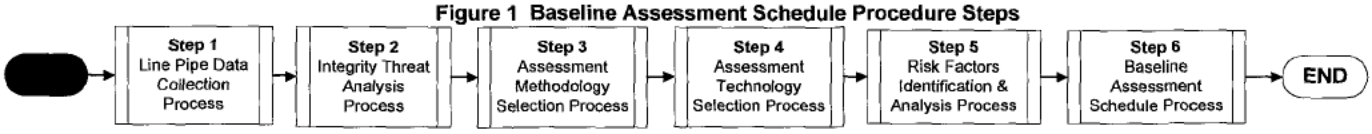
8.2.2.7. The Baseline Assessment Schedule shall be revised as appropriate to reflect the insights gained from completed assessments, as well as other information that might impact the priority or assessment method of future integrity assessments.

8.2.2.8. MPL uses a 6-step process in the Baseline Assessment Schedule Procedure. Figure 1 Baseline Assessment Schedule Procedure Steps illustrates the detailed process flow diagram of the Baseline Assessment Schedule Procedure. To provide consistency, Figure 1 has been included at the beginning of each subsection describing the six (6) steps. The applicable step is highlighted for ease of identification.

8.2.3. Reference standard MPLDOT006 Integrity Management Risk Management Process for the process to conduct data integration, information analysis, risk analysis, and Preventative & Mitigative Measures (P&MM) implementation after a baseline assessment.

8.2.4. Reference standard MPLDOT007 Reassessment Schedule Process for the process to conduct a reassessment after the completion of the baseline assessment.

Figure 1 Baseline Assessment Schedule Procedure Steps



8.3. Baseline Assessment Schedule Procedure

8.3.1. Introduction

8.3.1.1. Attachment 12.1 Baseline Assessment Schedule Procedure Flowchart illustrates the procedure for introduction and evaluation of an assessment segment into the Baseline Assessment Schedule, and includes the following processes:

8.3.1.1.1. Line Pipe Data Collection.
8.3.1.1.2. Integrity Threat Analyses.
8.3.1.1.3. Assessment Methodology Selection.
8.3.1.1.4. Assessment Technology Selection.
8.3.1.1.5. Risk Factors Identification and Analysis.
8.3.1.1.6. Baseline Assessment Schedule.

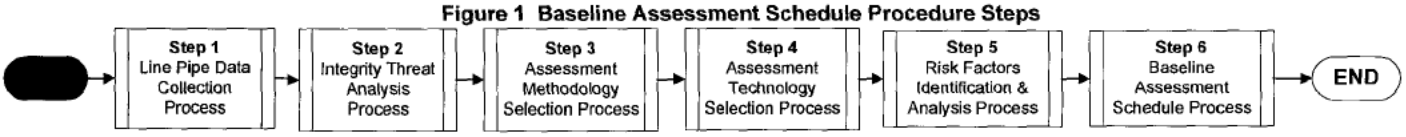
8.3.1.2. The Mechanical Integrity Process Leader (MIPL) shall manage assessment segments for a baseline assessment in accordance with Attachment 12.2 Baseline Assessment Schedule Procedure.

8.3.1.3. The MIPL shall document process adherence on Attachment 12.3 Baseline Assessment Schedule Procedure Checklist for each assessment segment by checking the step and documenting all decisions, including those process steps that were not performed or required, for each step of the Baseline Assessment Schedule Procedure.

8.3.1.4. A copy of Attachment 12.3 Baseline Assessment Schedule Procedure Checklist, and all supporting analysis, assessment methodology selection, and risk ranking documentation, shall be maintained and located in Title & Contracts (T&C) as an assessment segment-specific file.

8.3.1.5. The MIPL shall document and maintain all analyses, data, and information described in this standard for each assessment segment on specific tabulated sections in Attachment 12.4 Assessment Segment Analysis Summary.

Figure 1 Baseline Assessment Schedule Procedure Steps



8.4. Line Pipe Data Collection Process

8.4.1. The purpose of the Line Pipe Data Collection process (reference Attachment 12.2 Baseline Assessment Schedule Procedure), is to obtain and document the following assessment segment data and information in preparation for conducting the Integrity Threat Analyses:

8.4.1.1. Line Pipe Segment Data.
8.4.1.2. Historical Assessment Data and Information.
8.4.1.3. CHCA Data and Information.
8.4.1.4. Incident and Release Data.

8.4.2. The Line Pipe Data Collection Process includes:

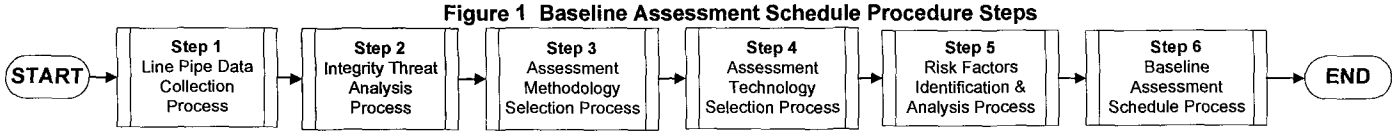
8.4.2.1. Segment Identification Number Assignment.

8.4.2.2. Line Pipe Data Collection (reference Attachment 12.6 Line Pipe Data Collection Matrix).

8.4.3. The MIPL shall assign an identification number to the assessment segment for tracking on the Baseline Assessment Schedule and complete all information fields on the Assessment Segment Analysis Summary – Cover Sheet tab on Attachment 12.4 Assessment Segment Analysis Summary.

8.4.4. The MIPL shall identify, obtain, and document all data and information on the Line Pipe Data Collection tab on Attachment 12.4 Assessment Segment Analysis Summary.

Figure 1 Baseline Assessment Schedule Procedure Steps



8.5. Integrity Threat Analysis Process

8.5.1. General

8.5.1.1. The purpose of the Integrity Threat Analysis is to evaluate the assessment segment relative to observed and potential threat mechanisms identified through historical and contemporary analyses (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.5.1.2. The Integrity Threat Analysis Process utilizes data obtained and documented on the Line Pipe Data Collection tab on Attachment 12.4 Assessment Segment Analysis Summary for conducting the following analyses:

8.5.1.2.1. Historical Threat Analysis.
8.5.1.2.2. Contemporary Susceptibility Analyses

a) Environmental Susceptibility Analysis.
b) Existing or Projected Activities Susceptibility Analysis.
c) Geotechnical Hazard Susceptibility Analysis.
d) Long-Seam Susceptibility Analysis.
e) Physical Support and Exposure Susceptibility Analysis.
f) Stress Corrosion Cracking (SCC) Susceptibility Analysis.

8.5.1.2.3. Historical Threat and Contemporary Susceptibility Analysis Summary.
8.5.1.2.4. Threat Accessibility Analysis.

8.5.1.3. The MIPL shall perform and document each of the Integrity Threat Analyses in the Integrity Threat Analyses tab on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.2. Historical Threat Analysis

8.5.2.1. The purpose of the Historical Threat Analysis is to evaluate the assessment segment relative to observed threat mechanism(s), identified through the historical record, and their disposition (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.5.2.2. The MIPL shall identify and document historical observed integrity threat mechanism(s) (see definition) identified on the assessment segment by referencing: a) historical records, and b) Subject Matter Experts (SME).

8.5.2.2.1. Historical records shall include, but are not limited to:

a) Line Pipe Segment History (e.g., construction files, failure investigations, etc.).
b) Operating history.
c) In-Line Inspection Assessments and Rehabilitation.
d) Hydrotest Assessments, Failures, and Repairs.
e) Close Interval Surveys (CIS), annual Cathodic Protection (CP) survey, and internal corrosion monitoring.
f) Incident Reports (e.g., Auditing, Lessons Learned, Incident, and Recommendation Tracking System).

8.5.2.2.2. The MIPL shall use information from SME and IDP&R Process Leaders, in conjunction with historical records, to identify and evaluate historical observed threat mechanisms. Potential IDP&R Process Leaders and SME shall include, as required:

a) IDP&R Corrosion Control Supervisor.
b) IDP&R Corrosion Specialists.
c) Environmental, Safety & Regulatory (ES&R).
d) IDP&R One-Call Activity Monitoring Manager.
e) IDP&R Risk Management Supervisor.
f) IDP&R Risk Management Professional.
g) IDP&R System Integrity Leaders.

8.5.2.3. The MIPL shall make the determination, when capable, specific to:

8.5.2.3.1. Historical threat mechanism(s).
8.5.2.3.2. CHCA/non-CHCA location(s).
8.5.2.3.3. CHCA types, when applicable.

8.5.2.4. The MIPL shall document the historical observed threat mechanism(s) on the Integrity Threat Analyses tab, Historical Threat Analysis Summary section on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3. Contemporary Susceptibility Analyses

8.5.3.1. The purpose of the Contemporary Susceptibility Analyses is to identify potential contemporary threat mechanisms on the assessment segment for:

8.5.3.1.1. Environmental Impacts (may be provided by Risk Management).
8.5.3.1.2. Existing or Projected Activities.
8.5.3.1.3. Geotechnical Hazards (may be provided by Risk Management).
8.5.3.1.4. Long-Seam Manufacturing Defects.
8.5.3.1.5. Physical Support and Exposure.
8.5.3.1.6. Stress Corrosion Cracking.

8.5.3.2. The MIPL shall perform and document each of the following analyses on the Integrity Threat Analyses tab, Contemporary Susceptibility Analyses Summary section on Attachment 12.4 Assessment Segment Analysis Summary:

8.5.3.2.1. Environmental Susceptibility Analysis (e.g., corrosivity of soil, subsidence, climatic).
8.5.3.2.2. Existing or Projected Activities Susceptibility Analysis (e.g., urban, suburban, rural).
8.5.3.2.3. Geotechnical Hazards Susceptibility Analysis (e.g., earthquakes, landslides).
8.5.3.2.4. Long-Seam Susceptibility Analysis.
8.5.3.2.5. Physical Support and Exposure Susceptibility Analysis (e.g., spans, supported, etc.).
8.5.3.2.6. Stress Corrosion Cracking Susceptibility Analysis.

8.5.3.3. Environmental Susceptibility Analysis

8.5.3.3.1. The MIPL or Risk Management shall perform an Environmental Susceptibility Analysis (reference Attachment 12.2 Baseline Assessment Schedule Procedure), to identify the measure of susceptibility of the assessment segment to one (1) or more of the following:

a) Climatic (may be completed by Risk Management).
b) Corrosivity of soil.
c) Subsidence (may be completed by Risk Management).

8.5.3.3.2. The MIPL shall perform a Climatic Susceptibility Analysis and make a determination that the assessment segment, relative to climatic threat mechanisms, is:

a) Not Susceptible.
b) Susceptible.

8.5.3.3.3. The MIPL shall document this analysis and determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.3.4. The MIPL shall perform a Soil Corrosivity Susceptibility Analysis and make a determination that the assessment segment, relative to corrosivity threat mechanisms, is:

a) Not Susceptible.
b) Susceptible.

8.5.3.3.5. The MIPL shall document this analysis and determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.3.6. The MIPL shall perform a Subsidence Susceptibility Analysis and make a determination that the assessment segment, relative to subsidence threat mechanisms, is:

a) Not Susceptible.
b) Susceptible.

8.5.3.3.7. The MIPL shall document this analysis and determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.4. Existing or Projected Activities Susceptibility Analysis

8.5.3.4.1. The MIPL shall perform an Existing or Projected Activities Susceptibility Analysis to identify the measure of third party activity on the assessment segment (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.5.3.4.2. The MIPL shall make a worst case determination that the assessment segment is susceptible relative to third party activity threat mechanisms:

a) Urban.
b) Suburban.
c) Rural.

8.5.3.4.3. The MIPL shall document this analysis and determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.5. Geotechnical Hazard Susceptibility Analysis

8.5.3.5.1. The MIPL shall perform a Geotechnical Hazard Susceptibility Analysis (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.5.3.5.2. The MIPL or Risk Management shall perform an Earthquake Susceptibility Analysis and make a determination that the assessment segment, relative to earthquake threat mechanisms, is:

a) Not Susceptible.
b) Susceptible.

8.5.3.5.3. The MIPL shall document this analysis on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.5.4. The MIPL or Risk Management shall perform a Landslide Susceptibility Analysis and make a determination that the assessment segment, relative to landslide threat mechanisms, is:

a) Not Susceptible.
b) Susceptible.

8.5.3.5.5. The MIPL shall document this analysis on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.6. Long-Seam Susceptibility Analysis

8.5.3.6.1. The MIPL shall perform a Long-Seam Susceptibility Analysis (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.5.3.6.2. The MIPL or designee shall evaluate the susceptibility to long-seam threat mechanisms for

each type of pipe in the system. Differences that prompt separate evaluations include pipe type (DSAW, seamless, etc), vintage, and pipe data (diameter, wall thickness, and grade). Reference:

a) Attachment 12.5 Overview of Long Seam/Fatigue Assessment Methodology.
b) Attachment 12.7 Long-Seam Susceptibility Criteria Resource Sheet.
c) Attachment 12.8 Long-Seam Susceptibility Algorithm Flowchart.

8.5.3.6.3. The MIPL shall perform a Long-Seam Susceptibility Analysis and make a determination that the assessment segment, relative to long-seam threat mechanisms, is:

a) Observed,
b) Susceptible,
c) Monitor, or
d) Not Susceptible.
e) The MIPL shall document this analysis and determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.7. Physical Support and Exposure Susceptibility Analysis

8.5.3.7.1. The MIPL shall perform a Physical Support and Exposure Susceptibility Analysis (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.5.3.7.2. The MIPL shall perform a Physical Support Mechanism Analysis and make a determination that the assessment segment, relative to physical support threat mechanisms (e.g., cable suspension bridges), is:

a) Not Susceptible.
b) Susceptible.

8.5.3.7.3. The MIPL shall document this analysis and determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.7.4. The MIPL shall perform an Exposure Mechanisms Susceptibility Analysis and make a determination that the assessment segment, relative to exposure threat mechanisms (e.g., spans), is:

a) Not Susceptible.
b) Susceptible.

8.5.3.7.5. The MIPL shall document this analysis and determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.3.8. Stress Corrosion Cracking Susceptibility Analysis

8.5.3.8.1. The Corrosion Control Supervisor, or designee, shall perform a Stress Corrosion Cracking (SCC) Susceptibility Analysis (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.5.3.8.2. The Corrosion Control Supervisor, or designee, shall identify the measure of susceptibility of the assessment segment for Stress Corrosion Cracking (SCC). Reference:

a) Attachment 12.9 Stress Corrosion Cracking Susceptibility Resource Sheet.
b) Attachment 12.10 Stress Corrosion Cracking Susceptibility Flowchart.
c) Attachment 12.19 Criteria for Determining Stress Corrosion Cracking Susceptibility.

8.5.3.8.3. The Corrosion Control Supervisor, or designee, shall perform a Stress Corrosion Cracking (SCC) Susceptibility Analysis and make a determination that the assessment segment, relative to SCC threat mechanisms, is:

a) Not Susceptible.
b) Monitored.
c) Susceptible.
d) Observed.

8.5.3.8.4. The Corrosion Control Supervisor, or designee, shall document this analysis and determination on:

a) Attachment 12.9 Stress Corrosion Cracking Susceptibility Resource Sheet.
b) Attachment 12.10 Stress Corrosion Cracking Susceptibility Flowchart.

8.5.3.8.5. The MIPL shall document the Stress Corrosion Cracking (SCC) Susceptibility determination on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.4. Contemporary Susceptibility Analyses Summary

8.5.4.1. The MIPL shall identify and document potential threats, when capable, by:

8.5.4.1.1. Contemporary susceptible threat mechanisms.
8.5.4.1.2. CHCA/non-CHCA Locations.
8.5.4.1.3. CHCA Types, when applicable.

8.5.4.2. The MIPL shall prepare a Contemporary Susceptibility Analyses Summary on the Integrity Threat Analyses tab, Contemporary Susceptibility Analyses Summary section on Attachment 12.4 Assessment Segment Analysis Summary.

8.5.5. Historical Threat and Contemporary Susceptibility Analysis Summary

8.5.5.1. The Historical Threat and Contemporary Susceptibility Analysis Summary procedure is shown in Attachment 12.2 Baseline Assessment Schedule Procedure.

8.5.5.2. The MIPL shall perform the Historical Threat and Contemporary Susceptibility Analysis by:

8.5.5.2.1. Integrating historical threats and contemporary susceptibility analyses findings.
8.5.5.2.2. Evaluating aggregate historical threats.
8.5.5.2.3. Evaluating aggregate contemporary threats.

8.5.5.3. The MIPL shall perform a Historical Threat and Contemporary Susceptibility Analysis, and make a determination relative to the assessment segment that historical and contemporary threat mechanisms are:

8.5.5.3.1. Systemic threat mechanisms.
8.5.5.3.2. Susceptible threat mechanisms.
8.5.5.3.3. Non-systemic threat mechanisms.

8.5.5.4. The MIPL shall document these analyses and determinations on the Integrity Threat Analyses tab, Historical Threat and Contemporary Susceptibility Analysis Summary section on Attachment 12.4 Assessment Segment Analysis Summary:

8.5.5.4.1. Systemic threat mechanisms.
8.5.5.4.2. Susceptible threat mechanisms.
8.5.5.4.3. Non-systemic threat mechanisms.
8.5.5.4.4. Threat Assessibility Analysis.

8.5.5.5. The purpose of the Threat Assessibility Analysis is to determine the capability for assessing systemic and susceptible threats identified and documented in the Systemic Integrity

Threats Summary and Susceptible Integrity Threats Summary (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

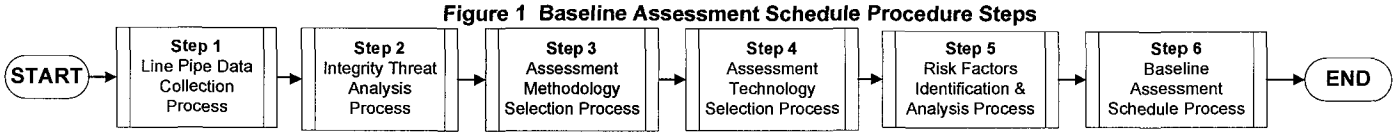
8.5.5.6. The MIPL shall make a determination that systemic and susceptible threats identified in the Systemic Integrity Threats Summary and Susceptible Integrity Threats Summary are:

8.5.5.6.1. Assessable.
8.5.5.6.2. Not assessable.
8.5.5.6.3. Managed by others.

8.5.5.7. The MIPL shall document these analyses and determinations on the Integrity Threat Analyses tab, Threat Accessibility Analyses section, on Attachment 12.4 Assessment Segment Analysis Summary, in the following subsections:

8.5.5.7.1. Assessable Threat Summary.
8.5.5.7.2. Not Assessable Summary (no technology available).
8.5.5.7.3. Threat Managed by Others through P&MM Summary.

Figure 1 Baseline Assessment Schedule Procedure Steps



8.6. Assessment Methodology Selection Process

8.6.1. The purpose of the Assessment Methodology Selection shall be to select an approved assessment method appropriate for evaluating an assessment segment for integrity threat mechanisms identified from the Integrity Threat Analysis (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.6.2. The Assessment Methodology Selection Process includes:

8.6.2.1. Corrosion Control Adequacy Test (CCAT) Analysis.

8.6.2.2. Assessment Methodology Selection.

8.6.3. Corrosion Control Adequacy Test Analysis

8.6.3.1. The purpose of the Corrosion Control Adequacy Test Analysis is to determine whether an assessment segment has an effective corrosion control program (reference Attachment 12.2 Baseline Assessment Schedule Procedure) for use of hydrotest as an assessment methodology.

8.6.3.2. The Corrosion Control Supervisor, or designee, shall reference Attachment 12.12 Criteria for Corrosion Control Adequacy Test (CCAT).

8.6.3.3. The Corrosion Control Supervisor, or designee, shall perform a Corrosion Control Adequacy Test Analysis and make a determination whether a corrosion control program is effective for systems where hydrotest is being considered for the assessment methodology:

8.6.3.3.1. Pass.
8.6.3.3.2. Fail.
8.6.3.3.3. Not Applicable (if hydrotest is not being considered as an assessment method).

8.6.3.4. The Corrosion Control Supervisor, or designee, shall document determination on the following if hydrotest is an applicable assessment methodology:

8.6.3.4.1. Attachment 12.13 Corrosion Control Adequacy Test Resource Sheet
8.6.3.4.2. Attachment 12.14 Corrosion Control Adequacy Test Flowchart

8.6.3.5. The MIPL shall document the Corrosion Control Adequacy Test Analysis and determination on the Assessment Methodology Selection tab, Corrosion Control Adequacy Analysis section on Attachment 12.4 Assessment Segment Analysis Summary.

8.6.4. Assessment Method Selection

8.6.4.1. The purpose of the Assessment Method Selection shall be to evaluate and select a specific assessment method/methods appropriate for fully evaluating the following:

8.6.4.1.1. Systemic Threat Mechanisms.
8.6.4.1.2. Susceptible Threat Mechanisms.

8.6.4.2. The MIPL shall make a determination for the appropriate methods for assessing Corrosion and Damage by Outside Force

threats (reference Attachment 12.15 Assessment Methodology Selection Flowchart).

8.6.4.3. The Corrosion Control Supervisor, or designee, shall perform an Assessment of ECDA Feasibility and make a feasibility determination if ECDA is considered the assessment method:

8.6.4.3.1. Yes.
8.6.4.3.2. No.
8.6.4.3.3. The Corrosion Control Supervisor, or designee, shall document the Assessment of ECDA Feasibility and determination.

8.6.4.4. The MIPL shall document the Assessment of ECDA Feasibility determination on the Assessment Method Selection tab, Assessment of ECDA Feasibility section on Attachment 12.4 Assessment Segment Analysis Summary.

8.6.4.5. The MIPL shall make a determination of which of the defects on Attachment 12.16 Assessment Technology Selection Matrix is the cause of the pipe segment being classified as susceptible, or potentially susceptible, to long-seam threats. Document this determination on the matrix.

8.6.4.6. The MIPL shall make a determination for the appropriate methods for assessing Stress Corrosion Cracking (SCC) threats, when applicable (reference Attachment 12.11 Stress Corrosion Cracking Assessment Methodology Flowchart):

8.6.4.6.1. Pressure test method.
8.6.4.6.2. In-line inspection (ILI) method.

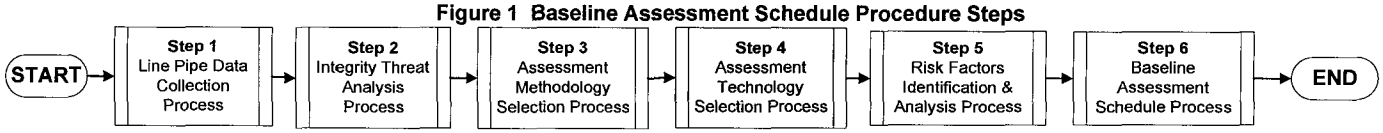
a) SCC evaluation in non-fusion bonded epoxy (FBE) locations is done when coating is removed during field investigations for the in-line inspection (ILI) method.
b) The MIPL shall document the selected assessment methods on:

1) Attachment 12.11 Stress Corrosion Cracking Assessment Methodology Flowchart.
2) Attachment 12.15 Assessment Methodology Selection Flowchart.
3) Attachment 12.16 Assessment Technology Selection Matrix.

c) The resulting assessment selection will be recorded on the Assessment Method Selection

tab on Attachment 12.4 Assessment Segment Analysis Summary.

Figure 1 Baseline Assessment Schedule Procedure Steps



8.7. Assessment Technology Selection Process

8.7.1. The purpose of Assessment Technology Selection is to select approved assessment technologies from the methods identified and documented in the Assessment Methodology Section, using the following as a reference:

8.7.1.1. Attachment 12.2 Baseline Assessment Schedule Procedure.

8.7.1.2. Attachment 12.16 Assessment Technology Selection Matrix.

8.7.2. Assessment Technology Selection shall:

8.7.2.1. At a minimum, detect outside force and metal loss.

8.7.2.2. Include assessment of systemic threat mechanisms and susceptible threat mechanisms identified in the Integrity Threat Analyses.

8.7.2.3. Note: Reference Standard MPLDOT003 Integrity Management Program Process for protocols and 90-day notification to PHMSA if technology not approved by MPL is planned for use.

8.7.3. The MIPL shall make a determination for the technologies appropriate for completing a baseline assessment:

8.7.3.1. Pressure testing techniques.

8.7.3.2. In-line inspection tools (ILI).

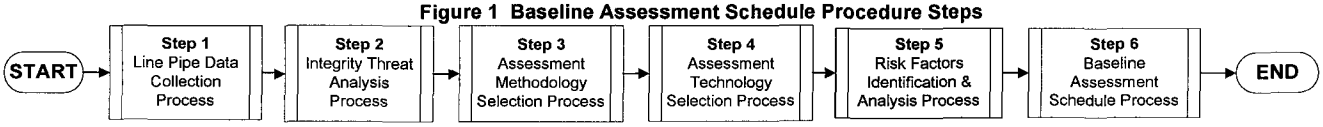
8.7.3.3. Direct assessment tools (DA).

8.7.4. The MIPL shall document the assessment technology selection on:

8.7.4.1. Attachment 12.16 Assessment Technology Selection Matrix, and

8.7.4.2. Assessment Technology Selection tab on Attachment 12.4 Assessment Segment Analysis Summary.

Figure 1 Baseline Assessment Schedule Procedure Steps



8.8. Risk Factors Identification & Analysis Process

8.8.1. The purpose of the Risk Factors Identification & Analysis Process is to collect and document prescriptive risk factors applicable to an assessment segment that Could-Affect a High Consequence Area (CHCA) for further evaluation and consideration in prioritizing the Baseline Assessment Schedule. Reference:

8.8.1.1. Attachment 12.2 Baseline Assessment Schedule Procedure.

8.8.1.2. Attachment 12.17 Criteria for Application of Integrity Management Program Risk Factors.

8.8.2. The Risk Factors Identification & Analysis Process includes the following tasks for establishing an Overall Risk Ranking Score for the affected assessment segment:

8.8.2.1. Risk factor identification.

8.8.2.2. Risk factor variables.

8.8.2.3. Risk factor data entry.

8.8.3. PHMSA Prescriptive Risk Factors

8.8.3.1. The MIPL shall establish a composite risk score for each assessment segment considering the minimum nine (9) prescriptive risk factors (reference §195.452 (e)).

8.8.4. Risk Factor Identification

8.8.4.1. Prescriptive PHMSA risk factors have been evaluated and justified in Attachment 12.17 Criteria for Application of Integrity Management Program Risk Factors. The applicable risk factors that shall be used are:

8.8.4.1.1. Product transported.
8.8.4.1.2. Operating stress level.
8.8.4.1.3. Results of a previous assessment.
8.8.4.1.4. Long-seam susceptibility.

8.8.5. Risk Factor Variables

8.8.5.1. Variables – For each risk factor and HCA, variables (type, level, susceptibility, etc.) are identified (reference tables in Attachment 12.17 Criteria for Application of Integrity Management Program Risk Factors).

8.8.5.2. Multipliers – For each variable, a multiplier (number value) is assigned (reference tables in Attachment 12.17 Criteria for Application of Integrity Management Program Risk Factors).

8.8.5.3. The MIPL shall document the applicable multiplier for each prescriptive risk factor, and applicable variable, using drop-down menus in the Risk Factors Identification & Analysis tab on Attachment 12.4 Assessment Segment Analysis Summary.

8.8.6. Risk Factor Data Entry

8.8.6.1. The MIPL shall review instructions for data entry and functionality of the Overall Risk Score algorithm in the Instructions tab on Attachment 12.18 Risk Factors Analysis Spreadsheet.

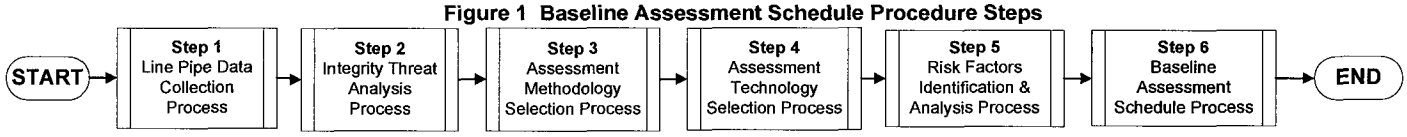
8.8.6.2. The MIPL shall enter the applicable multiplier for each risk factor in the Data Entry tab on Attachment 12.18 Risk Factors Analysis Spreadsheet, as described in the Instructions Tab.

8.8.6.3. The MIPL shall review the Overall Risk Ranking Score assigned to the assessment segment in the Risk Scores tab on Attachment 12.18 Risk Factors Analysis Spreadsheet.

8.8.6.4. The MIPL shall document the Overall Risk Ranking Score for the affected assessment segment in Attachment 12.4 Assessment Segment Analysis Summary.

8.8.6.5. The MIPL shall describe the HCA data that was imported into Attachment 12.18 Risk Factors Analysis Spreadsheet on Attachment 12.4 Assessment Segment Analysis Summary.

Figure 1 Baseline Assessment Schedule Procedure Steps



8.9. Baseline Assessment Schedule Process

8.9.1. Introduction

8.9.1.1. The purpose of the Baseline Assessment Schedule is to establish a master plan that integrates and prioritizes the scheduling of pipeline segments for a baseline assessment (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.9.1.1.1. The Baseline Assessment Schedule shall use the calculated Overall Risk Ranking Score obtained from the Risk Factors Identification & Analysis Process to schedule a pipeline segment for a baseline assessment.

8.9.1.1.2. The Baseline Assessment Schedule is used to consider prior integrity assessments for use as a baseline assessment that meet MPL requirements.

8.9.1.2. The Baseline Assessment Schedule Process is used to manage an assessment segment through:

8.9.1.2.1. Prior Assessment Acceptance Analysis.
8.9.1.2.2. Assessment Scheduling.
8.9.1.2.3. Assessment Notification.
8.9.1.2.4. Assessment Implementation.
8.9.1.2.5. Assessment Completion.
8.9.1.2.6. Assessment Findings & Response.
8.9.1.2.7. Assessment & Remediation Data Transaction.
8.9.1.2.8. Segment Transition to Reassessment Schedule.

8.9.2. Prior Assessment Acceptance Analysis

8.9.2.1. The purpose of this analysis is to determine the eligibility of prior integrity assessments on the affected assessment segment for consideration as a baseline (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.9.2.2. The MIPL shall perform a Prior Assessment Acceptance Analysis and make a determination whether prior integrity assessments are:

8.9.2.2.1. Qualified, or
8.9.2.2.2. Not Qualified, as a Baseline Assessment.

8.9.2.3. The MIPL shall make a determination whether prior integrity assessments are:

8.9.2.3.1. Accepted.
8.9.2.3.2. Not Accepted, as a Baseline Assessment.

8.9.2.4. The MIPL shall document this analysis and determinations on:

8.9.2.4.1. The Prior Assessment Acceptance Analysis tab on Attachment 12.4 Assessment Segment Analysis Summary.

8.9.2.4.2. Prior integrity assessments accepted as a baseline assessment in Plan-IMPS.

8.9.2.5. The MIPL shall submit the Attachment 12.4 Assessment Segment Analysis Summary to the Risk Management Professional (RMP) for additional risk assessment.

8.9.3. Assessment Scheduling

8.9.3.1. The purpose of assessment scheduling shall be to:

8.9.3.1.1. Ensure each assessment segment is prioritized on the baseline schedule based on risk.

8.9.3.1.2. Ensure the highest risk segment that can affect an HCA is assigned the highest scheduling priority.

8.9.3.1.3. Establish a scheduling sequence for all segments for a baseline assessment that is reasonable and achievable.

8.9.3.1.4. Ensure that IMP regulatory baseline assessment completion deadlines are met.

8.9.3.2. The MIPL shall add the assessment segment into Plan-IMPS and schedule the segment for a baseline assessment, when required (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.9.3.3. The MIPL shall submit a copy of the Plan-IMPS schedule to the Risk Management Professional (RMP) after the assessment segment has been scheduled for a baseline.

8.9.4. Managing Segment Changes (When Required)

8.9.4.1. The purpose of managing segment changes is to reclassify changes in regulated assessment segment or use (idle, reactivation, sold, or abandoned).

8.9.4.2. The MIPL shall manage changes to the assessment segment into Plan-IMPS, when required (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.9.5. Assessment Notification

8.9.5.1. The MIPL shall prepare written notification utilizing a Project Idea Form (PIF) and submit to the business unit (BU) assigned

to implement a baseline assessment for the affected segment (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.9.6. Assessment Implementation

8.9.6.1. The MIPL shall ensure that the baseline assessment for the affected segment is implemented as required in the Baseline Assessment Schedule, and as requested in the written PIF (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.9.6.2. Specific assessment implementation specifications, procedures, and documentation requirements are described in:

8.9.6.2.1. Standard MPLDGN003 Designing Pressure Tests For Gas & Liquid Pipelines.
8.9.6.2.2. Standard MPLMNT069 Managing In-Line Inspection Data.
8.9.6.2.3. Standard MPLMNT071 In-Line Inspection Project Leader.
8.9.6.2.4. Standard MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines.

8.9.6.3. The MIPL shall document the baseline assessment implementation in Plan-IMPS.

8.9.7. Assessment Completion

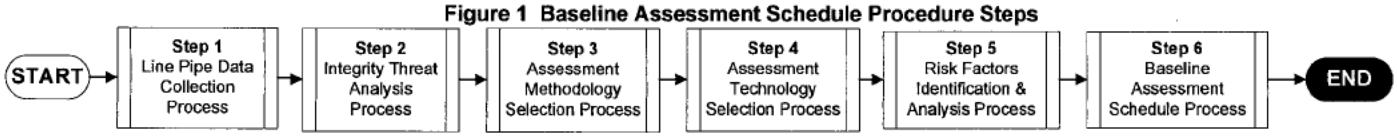
8.9.7.1. The MIPL shall monitor monthly progress and document completion of a scheduled baseline assessment in Plan-IMPS (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

8.9.8. Segment Transition to Reassessment Schedule

8.9.8.1. Reference standard MPLDOT007 Reassessment Schedule Process for the process of determining reassessment interval and conducting a reassessment after the completion of a baseline assessment.

8.9.8.2. The MIPL shall manage the transition of an affected segment from the Baseline Assessment Schedule to the Reassessment Schedule in Plan-IMPS for subsequent assessments (reference Attachment 12.2 Baseline Assessment Schedule Procedure).

Figure 1 Baseline Assessment Schedule Procedure Steps



9.0 RESPONSIBILITIES

9.1. Integrity, Damage Prevention & Risk (IDP&R)

9.1.1. Integrity, Damage Prevention & Risk Manager

9.1.1.1. No additional responsibilities other than those defined in this standard.

9.1.2. Corrosion Control Supervisor

9.1.2.1. Responsible for the performance and documentation for:

9.1.2.1.1. External Corrosion Direct Assessment.
9.1.2.1.2. Stress Corrosion Cracking (SCC) Susceptibility Analysis.
9.1.2.1.3. Corrosion Control Adequacy Analysis.
9.1.2.1.4. Assessment of ECDA Feasibility.

9.1.2.2. No additional responsibilities other than those defined in this standard.

9.1.3. Mechanical Integrity Process Leaders (MIPL)

9.1.3.1. Responsible for preparation, maintenance, and continuous improvement of this standard and Baseline Assessment Schedule Process described herein, including all attachments and procedures.

9.1.3.2. No additional responsibilities other than those defined in this standard.

9.1.4. Integrity Threat Subject Matter Experts (SME)

9.1.4.1. No additional responsibilities other than those defined in this standard.

9.2. Environmental, Safety & Regulatory (ES&R)

9.2.1. No additional responsibilities other than those defined in this standard.

9.3. Field Services & Planning (FSP)

9.3.1. No additional responsibilities other than those defined in this standard.

9.4. Operations & Logistics (O&L)

9.4.1. No additional responsibilities other than those defined in this standard.

10.0 RECORDS MANAGEMENT

10.1. The Pipeline Hazardous Materials Safety Administration (PHMSA) has recordkeeping requirements for pipeline owners or operators to measure their Integrity Management Program (IMP) effectiveness (reference MPLDOT003 Integrity Management Program Process).

10.2. Originals of all Baseline Assessment Schedule documentation created in this standard shall be filed on TeamView as line pipe segment-specific files.

10.3. Originator

10.3.1. Mechanical Integrity Process Leader (MIPL).

10.4. Record Custodian

10.4.1. Records Administrator in Title & Contracts (T&C).

10.5. Record Retention

10.5.1. Project File, Engineering and Construction – Final (ACT+15).

10.6. Record Retention Location

10.6.1. Integrity Management Program Process Files in T&C.

10.7. Record Revision Date

10.7.1. January 29, 2007.

11.0 TRAINING

11.1. Training for this standard shall be in accordance with the following outline.

11.2. Purpose

11.2.1. Provide training on this standard for administration of the Integrity Management Program in accordance with CFR §195.452(f) (2) and (3).

11.3. Audience

11.3.1. All personnel who oversee or execute this Integrity Management Program process and identified on their organization's training plan for this standard.

11.3.2. Level I Audience – IDP&R Manager.

11.3.3. Level II Audience – MIPLs.

11.4. Learning Objectives

11.4.1. Level I Training – Know this standard and provide oversight to individuals who are assigned maintenance responsibilities of this standard.

11.4.2. Level II Training – Know this schedule and perform procedures for addressing elements described in *CFR §195.452(f) (2) and (3).*

11.5. Primary Delivery Methods

11.5.1. Level I Training – View Standard and PowerPoint on MaraLearn.

11.5.2. Level II Training – View Standard and PowerPoint on MaraLearn.

11.6. Delivery Time

11.6.1. Level I – Approximately 120 minutes.

11.6.2. Level II – Approximately 120 minutes.

11.7. Refresher Training

11.7.1. If a revision is made to the standard that involves a change in methods/ procedures, refresher training must be completed.

11.8. Related Training

11.8.1. None.

12.0 ATTACHMENTS

12.1. Baseline Assessment Schedule Procedure Flowchart.
12.2. Baseline Assessment Schedule Procedure.
12.3. Baseline Assessment Schedule Procedure Checklist.
12.4. Assessment Segment Analysis Summary.
12.5. Overview of Long-Seam/Fatigue Assessment Methodology.
12.6. Line Pipe Data Collection Matrix.
12.7. Long-Seam Susceptibility Criteria Resource Sheet.
12.8. Long-Seam Susceptibility Algorithm Flowchart.
12.9. Stress Corrosion Cracking Susceptibility Resource Sheet.
12.10. Stress Corrosion Cracking Susceptibility Flowchart.
12.11. Stress Corrosion Cracking Assessment Methodology Flowchart.
12.12. Criteria for Corrosion Control Adequacy Test (CCAT).
12.13. Corrosion Control Adequacy Test Resource Sheet.
12.14. Corrosion Control Adequacy Test Flowchart.
12.15. Baseline Assessment Methodology Selection Flowchart.
12.16. Assessment Technology Selection Matrix.
12.17. Criteria for Application of Integrity Management Program Risk Factors.
12.18. Risk Factors Analysis Spreadsheet.

12.19. Criteria for Determining Stress Corrosion Cracking Susceptibility.
12.20. ~~Assessment Scheduling Tool Summary Instructions.~~ Archived
12.21. Environmental and Geotechnical Susceptibility Analyses.

13.0 SUMMARY OF CHANGES

4/25/2013
1. Changed Developer from T. A. Jones to J.C Jones

Note: This Document is related to the MPL Procedural Manual (§192 & §195) and therefore needs to be reviewed on an annual basis.

During that review, the SME and/or the Document Owner answers the following questions:

Annual Ops Manual Review
1. Is regulatory code citation accurate? (Example: Current paragraph is correct.) __x__Yes ____No
2. Are referenced publications (Example: Current version of; API, ANSI, ASME, etc.,) incorporated by reference in the regulatory code accurate? __x__Yes ____No
3. Are referenced company standards accurate? (Example: Is there changes in the existing standard number, has a new standard been developed, thus causing an existing standard to be archived, etc.?) __x__Yes ____No
4. Are procedures sufficient to achieve and maintain compliance with the regulatory code? __x__Yes ____No

Document Owner or SME	MPL Department & Title	Initials & Date
J.C. Jones	Integrity Mgmt Services	On File

05/04/2012
1. Deleted the term "Threat of Concern". Now there are four (4) levels of long-seam susceptibility: Observed, Susceptible, Monitor, and Non-Susceptible. Revised Long-Seam Susceptibility chart accordingly. Added a definitions page to this chart. Updated the document header, including date on footer. Attachments were reviewed and updated.

Annual Ops Manual Review
1. Is regulatory code citation accurate? (Example: Current paragraph is correct.) __x__Yes ____No
2. Are referenced publications (Example: Current version of; API, ANSI, ASME, etc.,) incorporated by reference in the regulatory code accurate? __x__Yes ____No
3. Are referenced company standards accurate? (Example: Is there changes in the existing standard number, has a new standard been developed, thus causing an existing standard to be archived, etc.?) __x__Yes ____No
4. Are procedures sufficient to achieve and maintain compliance with the regulatory code? __x__Yes ____No

08/31/2011

1. Add logic to consider segments that are subjected to only light or moderate pressure cycling. Deleted Material Seam Susceptibility Algorithm and Guideline for Determining whether ERW Pipe is Low (LF) or High (HF) Frequency attachments. Updated the document header, including date on footer. Attachments were reviewed and updated.
2. Annual Ops Manual Review
   a. Is regulatory code citation accurate? (Example: Current paragraph is correct.) __x__Yes ____No
   b. Are referenced publications (Example: Current version of; API, ANSI, ASME, etc.,) incorporated by reference in the regulatory code accurate? __x__Yes ____No
   c. Are referenced company standards accurate? (Example: Is there changes in the existing standard number, has a new standard been developed, thus causing an existing standard to be archived, etc.?) __x__Yes ____No
   d. Are procedures sufficient to achieve and maintain compliance with the regulatory code? __x__Yes ____No

05/04/2010

1. Revised attachment 12.2 Baseline Assessment Schedule Procedure to include note about determining whether ERW pipe is LF or HF.
2. Also added attachment 12.23 Guideline for Determining Whether ERW Pipe is Low (LF) or High (HF) Frequency, which is referenced in 2.2.4.3 b.

05/27/2009

1. Added Documentation Control Language and Corrected Records Retention Codes.

08/18/2008 (Minor Changes)

1. Scheduled review – changed Approver name to P. H. DePriest, minor formatting corrections, minor revision to training section.

MARATHON PETROLEUM COMPANY LLC
MARATHON PIPE LINE LLC
STANDARDS

Standard Number	Title	Standard Category	Standard Type	Resp. Org.	Revision Number	Effective Date
MPLDOT004	HCA Identification Process	DOT	Policy	FSP	4	05/15/2012

Organization	Approver	Title	Signature	Developer
MPL	R. Roy	Field Services & Planning, Manager	On File	J.J. Beard
TT&M	N/A			
M&TE	N/A			
T&L	N/A			

Records Retention: Policy, Standard, Procedure or Guideline (ACT+10)	**Original Date of Issue:** 08/01/06
Review & Update Requirements (Max): 1 Years	

Attention: Printed copies should be used with caution. The user of this document must ensure the current approved version of the document is being used. This copy was printed on 12/9/2014 at 09:08.

INDEX:

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10.0 RECORDS MANAGEMENT
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1.0 STANDARD POLICY STATEMENT

1.1 This standard establishes how the above named organization will meet a corporate directive, a legal requirement, or a regulatory requirement. Deviation to this standard can only be granted by the Marathon Pipe Line (MPL) Vice President, Operations or the MPL Field Services & Planning Manager (FSP Manager).

2.0 PURPOSE

2.1 To support MPL's Integrity Management Program (MPLDOT003 Integrity Management Program (IMP)) and align with *§ 49 CFR Part 195.452, "Pipeline Integrity Management in High Consequence Areas"* (Hazardous Liquids Pipelines) and appropriate state requirements.

2.2 To establish a consistent and repeatable process for MPL to use in meeting the HCA segment identification requirements as directed by MPLDOT003 Integrity Management Program (IMP), in order to ensure compliance with the associated requirements of *§195.452 (f)(1)*.

3.0 SCOPE

3.1 This Standard applies to MPL and MPC operated, stage 1-Active, PHMSA-regulated or may become PHMSA regulated based on the information collected by this standard, mainline trunk pipe segments and facility assets transporting Hazardous Liquids that Could Affect High Consequence Areas (CHCAs) as defined per MPLDOT003 Integrity Management Program.

4.0 MAINTENANCE OF STANDARD

4.1 The Field Services & Planning GIS Process Leader maintains this Standard Policy.

5.0 REGULATIONS

5.1 This Standard documents MPL's compliance with the *United States Department of Transportation Code of Federal Regulations Part §195.452 Pipeline Integrity Management in High Consequence Areas, §195.11, "What is a regulated rural gathering line and what requirements apply?" (a)(2) & (c) "New unusually sensitive areas" and §195.12, "What requirements apply to low stress pipelines in rural areas?" (a)(2) & (d) "New unusually sensitive areas".*

5.2 Some states have programs that supplement or supersede the federal requirements. This Standard is intended to address those additional requirements, if applicable. For a list of these states reference MPLDOT003 Integrity Management Program.

6.0 REFERENCES

6.1 Internal

6.1.1 Auditing, Lessons Learned, Incident, & Recommendations Tracking System (ALIRTS)
6.1.2 Equipment Database
6.1.3 Freeman GIS, Inc., HCA ECO Analysis for Assets in Beaver County, PA" with "HCA ECO Analysis for Assets in Beaver County, PA, Freeman GIS, Inc., October 26, 2006
6.1.4 HCA ECO Analysis for Assets in Beaver County, PA, Freeman GIS, Inc., October 31, 2011
6.1.5 GeoFields HCA Analysis Implementation Specification
6.1.6 Interface Tool for HCA Analysis
6.1.7 MaraLearn
6.1.8 Management of Change Request (MOCR)
6.1.9 Material Safety Data Sheet (MSDS)
6.1.10 MPL ES&R Information Center – Agency Correspondence
6.1.11 MPL Naming Standards
6.1.12 MPLDOT002 Pipeline and ROW Disposition
6.1.13 MPLDOT003 Integrity Management Program
6.1.14 MPLDOT009 Determining DOT Jurisdiction 49 CFR Part 195
6.1.15 MPLOPR014 Integrity Management Program – March 31, 2002)
6.1.16 MPLOPR020 High Consequence Area Monitoring
6.1.17 Pipe Line Asset Center
6.1.18 TNLHES001 Management of Change

6.2 External

6.2.1 U.S. Department of Transportation (DOT) *§ 49 CFR Part 195.452, "Pipeline Integrity Management in High Consequence Areas"* (Hazardous Liquids Pipelines)

6.2.2 Risk Management Program Guidance for Offsite Consequence Analysis - EPA Document 550-B-99-009 - April 1999

6.2.3 GeoFields-2 (GEO-2): High Consequence Area Analysis (HCAA) from GeoFields

6.2.4 TTO Number 1 Consequences of HVL Releases submitted by Michael Baker Jr., Inc. December 31, 2002

6.2.5 Standard Practice API 1160

6.2.6 Integrity Management Rule Frequently Asked Questions (FAQs)

6.2.7 National Pipeline Mapping System (NPMS)

7.0 DEFINITIONS

7.1 See MPLDOT003 Integrity Management Program for IMP Program Definitions.

8.0 POLICY

8.1 DOT/PHMSA Requirement

8.1.1 *§195.452(f)(1) - An operator must include, at a minimum, each of the following elements in its integrity management program: A process for identifying which pipeline segments could affect a high consequence area.*

8.2 Process Overview

8.2.1 This Standard identifies and explains the processes used by MPL to meet the HCA segment identification requirements of *§195.452 (f)(1)*.

8.2.2 MPL utilizes two methodologies for HCA identification (reference Section 8.5, Methodology for Identifying HCAs):

8.2.2.1 Overland flow modeling for non-Highly Volatile Liquids (HVLs) line pipe and tanks,

8.2.2.2 Explosion buffer modeling for Highly Volatile Liquids (HVLs).

8.2.3 MPL chose a conservative modeling methodology that utilizes a worst-case pipeline release scenario involving an instantaneous rupture of the pipeline asset. This scenario provides the largest volume of product released in the shortest amount of time. The effects are immediate and the consequences may involve fire, evacuations, toxic exposures, etc. While other release scenarios could model similar product release volumes over time, those impacts to humans and the environment can normally be more readily controlled and mitigated. Small releases over time typically do not require the magnitude of emergency response efforts as are normally utilized during a rupture event.

8.2.4 Pipeline segment locations and facilities having the potential to release a volume of product that could affect HCAs (CHCA) are identified through the HCA Identification Process. Segments and facilities identified include those where MPL manages assets passing directly through, or in close proximity of an HCA, such that the HCA could be affected in the event of a release.

8.2.5 Segments and facilities are managed for each of the following HCA types, based upon a population receptor priority basis:

8.2.5.1 High Population Areas (HPA)
8.2.5.2 Other Populated Areas (OPA)
8.2.5.3 Commercially Navigable Waterways (CNW)
8.2.5.4 Drinking Water Unusually Sensitive Areas (DKW)
8.2.5.5 Ecological Unusually Sensitive Areas (ECO)

8.2.6 The National Pipeline Mapping System (NPMS) and MPL-derived HCAs are integrated into MPL's Geographic Information System (GIS) to determine the could-affect segments and/or facilities. It should be noted that the NPMS does not currently provide DKW data for New York or ECO data for Pennsylvania. Therefore, MPL contracted with Freeman GIS, Inc. in 2006 & 2011, to identify relevant areas of ECO data surrounding MPL pipe line assets in Pennsylvania. This analysis identified no ECO areas in areas that could be impacted by MPL operated assets." MPL does not currently operate pipelines in New York.

8.2.7 The current HCA Identification Process relies on GIS technology. GIS technology uses dynamic mapping to show the location of the pipeline and facilities, the boundaries of nearby NPMS and MPL derived HCAs, and the location of other geospatial features. It can also spatially analyze relationships between these features. There is no distinction made between the attributes of individual HCA's of the same type.

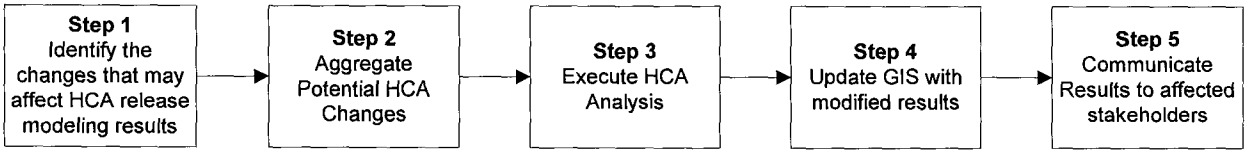
8.3 HCA Identification Process

8.3.1 The HCA Identification Process used by MPL focuses on managing current knowledge of how company assets relate to HCAs. Any changes to MPL assets or HCA boundaries that could require an update to the existing HCA Release Model are managed by the GIS Process Leader and communicated through the company-wide Management of Change (MOC) Process (reference Standard TNLHES001 Management of Change). Breakdowns in the HCA Identification process are to be recorded in the Auditing, Lessons Learned, Incident, & Recommendations Tracking System (ALIRTS). Breakdown would include, but not be limited to:

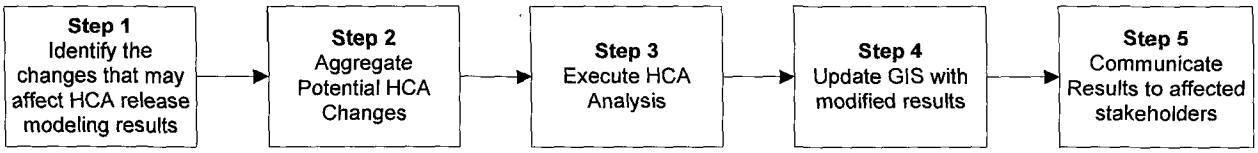
8.3.1.1 Pipeline changes with HCA Identification impact where control data was not identified prior to a Management of Change Request (MOCR) closure,
8.3.1.2 Failure to document HCA Identification process per this standard, and
8.3.1.3 IMP segments with CHCA's failing to show up in HCA reporting.

8.3.2 MPL uses a five-step process to identify changes that could result in the update of the HCA Release Model. The 12.1 HCA Identification Process Steps provides a detailed process flow diagram of the HCA Identification Process, as summarized in Figure 1. To provide consistency this figure has been included at the beginning of each sub-section describing the five steps. The applicable step is highlighted for ease of identification.

Figure 1: HCA Identification Process – Overview



8.3.3 Step 1: *Identify the Changes that may Affect HCA Release Modeling Results*



8.3.3.1 Updates to the current list of assets that could affect an HCA may be required if any changes listed in **Table 1: Activities That May Affect HCA Release Modeling Results** occur. This corresponds with "Start (b)" on 12.1 HCA Identification Process Steps.

Table 1: Activities That May Affect HCA Release Modeling Results	
1	PHMSA-regulated mainline trunk pipelines or facilities are added to the list of assets.
2	Existing PHMSA-regulated pipelines or facilities are sold (MPL Stage 2 assets as defined in MPLDOT002 Pipeline and ROW Disposition)
3	PHMSA-regulated reclassification of existing mainline trunk pipelines or facilities changes per MPLDOT009 Determining DOT Jurisdiction *49 CFR Part 195*
4	Operating status/stage changes of existing PHMSA-regulated pipelines or facilities (identified from a Recommissioning/Decommissioning MOCR). Operating status is defined in MPLDOT002 Pipeline and ROW Disposition.
5	HCA boundaries are redefined by the NPMS or by using MPL Standard MPLOPR020 High Consequence Area Monitoring.
6	*§195.452* is revised in a manner that affects this process
7	The maximum rated capacity of a PHMSA-regulated segment increases beyond the documented capacities in 12.2 Pipe Miles with Flow Rates and Response Times
8	Capacity of a PHMSA-regulated tank increases
9	Remote Control Valves (RCVs) that can be closed from the Operations Center without field verification of a release, or check valves that are added or removed from line pipe (excludes station valves)
10	Segments of PHMSA-regulated pipelines are rerouted, facilities are relocated, or the GIS centerline changes for a PHMSA-regulated segment (by 100' or greater for any scenario) *, **
11	New HCA-related modeling methods are incorporated
12	A change in product type handled through a PHMSA-regulated segment or facility occurs (HVL only)
13	A PHMSA-regulated mainline trunk pipe replacement occurs in which the diameter of the replacement pipe is different than the original pipe diameter (line fill change of 35.9 barrels or more)**
* If the positional accuracy of the centerline changes by more than 100' a new modeling run may be necessary. The Digital Elevation Model (DEM) used by the spill modeling contractor is constructed of a 30m' by 30m grid. If the pipeline is relocated by more than 100', the modeling is now assured of beginning from a different cell.	
** If the line fill volume from a line addition/removal or diameter modification changes by more than 35.9 barrels, a remodel is necessary. The DEM used by the spill modeling contractor is constructed of a 30m by 30m grid, which when filled to model thickness of ¼" is just over 35.9 barrels. The modeling is now assured of impacting a different cell.	

8.3.3.2 The MOC Process is the primary method used to initiate and communicate change of the HCA impact data. The MOC Process is designed to ensure that activities planned or performed by one group within the company with potential impact on critical operating procedures or documentation are clearly communicated to all other areas of the company that might be impacted. A detailed description of the MOC Process is available in Standard TNLHES001 Management of Change. However, if a MOCR is submitted for review of potential HCA impacts, and the change is identified as "Temporary" (90 days or less), then no review of potential HCA impacts will take place. An HCA review cannot be completed (including potential spill remodeling), within 90 days, and the temporary change will have been rescinded. If the change becomes permanent, then the HCA Identification Process documented within this Standard will be executed.

8.3.3.3 A secondary notification method of change will take place annually on April 1st. The T&C system will automatically send a reminder to the GIS IT System Leader and the GIS Process Leader to ensure that the NPMS is checked for any HCA changes that may have occurred in the past year. Refer to "Start (a)" on 12.1 HCA Identification Process Steps.

8.3.3.4 HCA changes communicated by the NPMS will be analyzed and integrated as appropriate into the IMP within one year of identification. Newly constructed assets (e.g., pipe and tanks) that are subject to IMP will have HCA identification analyzed within 6 months of the operation of the asset. Routine pipe and tank maintenance, identified via the MOC Process, with the potential of impacting HCA identification will be analyzed and submitted quarterly for spill modeling impact, as appropriate. A newly activated tank in a facility currently classified as having an HCA impact, will be treated as routine tank maintenance with respect to the timing of could-affect HCA analysis.

8.3.3.5 HCA changes communicated by the NPMS will be analyzed for assets being newly classified as PHMSA-regulated per:

a) Non-PHMSA regulated rural gathering lines within ¼ mile of new USAs are to be analyzed for inclusion as PHMSA regulated with requirements implemented within 6 months of identification per *§195.11, "What is a regulated rural gathering line and what requirements apply?" (a)(2) & (c) "New unusually sensitive areas"*.

b) PHMSA regulated rural low stress lines within ½ mile of new USAs are to be integrated into *§195.452* IMP program within 12 months per *§195.12, "What requirements apply to low stress pipelines in rural areas?" (a)(2) & (d) "New unusually sensitive areas"*.

8.3.3.6 Changes that could affect the HCA Identification Process are communicated to the GIS Process Leader through MOCRs sent by the MOC Coordinator. To avoid continuous modeling updates MPL will aggregate all required modeling efforts on a quarterly basis. However, on newly constructed assets, modeling will be executed prior to the operation of the asset.

8.3.4 HCA Identification within the MOC Process: The following description of the five steps of the MOC Process includes how changes affecting the HCA Identification Process are communicated through the MOC Process:

8.3.4.1 **Step 1:** A MPL employee or contractor recognizes that an activity is planned or has occurred which could impact a critical process or documentation. The employee/contractor is required to complete a MOCR. This form includes space for the employee/contractor to provide a description of the activity and to select from a list of critical data categories (control data) that might be impacted.

8.3.4.2 **Step 2:** The originator of the MOCR identified in Step 1 sends the form to the MOC Coordinator. The MOC Coordinator is responsible for administering the MOC Process.

8.3.4.3 **Step 3:** The MOC Coordinator reviews the submission by the originator and executes a technical review process, where individuals review the proposed changes, ask questions, and adjust control data selections accordingly.

8.3.4.4 **Step 4:** The MOC Originator, Technical Reviewers, and MOC Coordinator review the proposed change. If the change described on the MOCR includes any of the activities listed in **Table 1: Activities That May Affect HCA Release Modeling Results**, then one or more of the "IMP Spill Modeling-Could Affect High Consequence Areas (CHCA)" control data items are checked indicating potential IMP impact.

8.3.4.5 **Step 5:** As part of the MOCR Technical or Control data review The GIS Process Leader determines if the proposed change identified by IMP Spill Modeling Could Affect High Consequence Areas (CHCA) control data could change the HCA Spill Model variable data as outlined in **Table 1: Activities That May Affect HCA Release Modeling Results**. After this review, one of two options forward will take place:

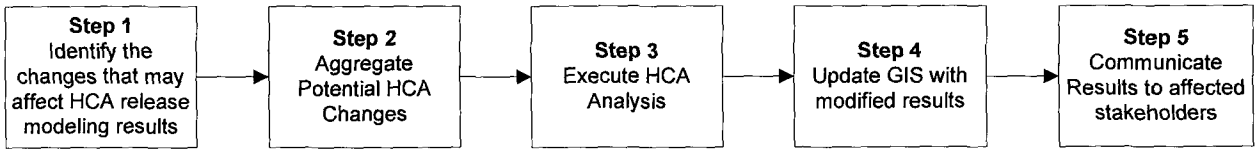
a) The proposed change is determined to have no impact on the HCA Spill Model, as none of the variables outlined on **Table 1: Activities That May Affect HCA Release Modeling Results** change, or do not change sufficiently, to impact HCA release modeling results. In either case, the GIS Process Leader will respond to the Management of Change Request (MOCR) by:

1) Ensuring control data for "IMP Spill Modeling-Could Affect High Consequence Areas (CHCA)" is unchecked
2) When necessary for clarity, include a brief explanation of why the change does not impact IMP

b) If the proposed change impacts the HCA Spill Model, then the GIS Process Leader will respond to the MOCR by:

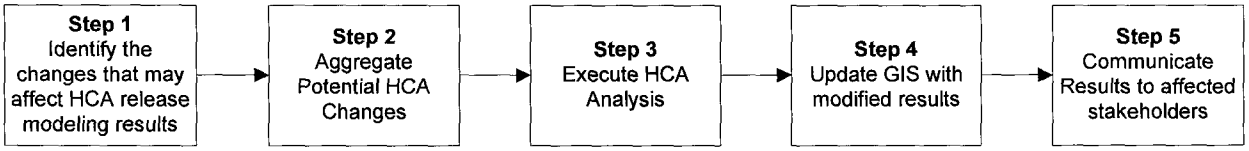
1) Ensuring control data for "IMP Spill Modeling-Could Affect High Consequence Areas (CHCA)" is checked
2) When necessary for clarity, include a brief explanation of why the change impacts IMP.
3) For changes requiring spill modeling the GIS Process Leader will then initiate Step 2: Aggregate Potential HCA Changes. Changes such as an asset inactivation or an active reroute within 100' of the original route do not require new spill modeling with MPL GIS changes managed by the MOCR process.

8.3.5 Step 2: Aggregate Potential HCA Changes



8.3.5.1 Information for potential HCA identification impacting changes is analyzed, with data collected to support execution of CHCA modeling. Aggregation of potential changes avoids continuous modeling and allows for modeling to take place quarterly or as needed.

8.3.6 Step 3: Execute HCA Analysis



8.3.6.1 The GIS Process Leader:

a) Coordinates the activities of MPL personnel and/or vendors in executing the HCA analysis.

b) Ensures that the results of these activities are received back to the GIS Process Leader.

c) Certifies that the results are appropriately entered into the GIS database.

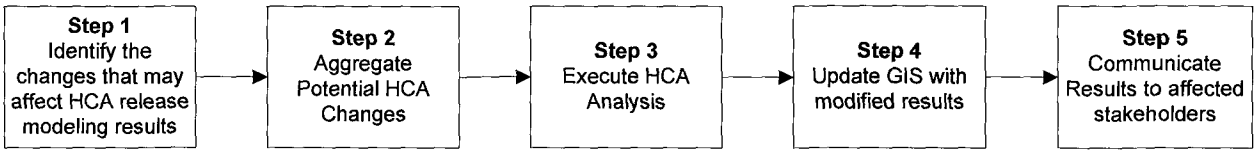
8.3.6.2 The GIS Process Leader performs a Quality Assurance Review of the results using the 12.3 Spill Modeling QA/QC Checklists (SPILLCHECK). This review confirms that the guidelines listed in **Table 2: Guidelines for Determining Could Affect (CHCA) Segments and Facilities** established by MPL for determining could affect pipelines, tanks, and facilities have been followed by MPL personnel and/or vendors. The GIS Process Leader sends the completed 12.3 Spill Modeling QA/QC Checklist (SPILLCHECK) to T&C according to the guidelines found in the Records Management section (Section 10.0) and Standard MPLDOT003 Integrity Management Program.

8.3.6.3 The identification of pipeline segments or facilities that could affect an HCA is accomplished using spatial analysis tools within the GIS. The GIS software identifies the locations where a pipeline segment or spill plume intersects with an HCA boundary. MPL and its modeling contractors use the guidelines in **Table 2: Guidelines for Determining Could Affect (CHCA) Segments and Facilities** to program the GIS software to identify pipeline segments or facilities that could affect an HCA.

Table 2: Guidelines for Determining Could Affect (CHCA) Segments and Facilities
For line pipe that transports liquids (crude oil, feedstock, or refined products), the following criteria is applied:
Any mainline trunk segment that passes through an HCA is considered a could-affect segment. At this time, MPL does not have a methodology to determine if a segment that passes through an HCA could not affect the HCA, and therefore takes no exception to any direct-intersection impacts. If MPL chooses to conduct this analysis, a process will be developed prior to implementation.
Any mainline trunk segment that results in a spill plume that intersects an HCA boundary is considered a could-affect segment. MPL maintains all beginning/end stationing points.
For line pipe that transports HVLs, the following criteria is applied:
Any mainline trunk segment that passes through an HPA, OPA, CNW, or ECO is considered a could-affect segment.
Any mainline trunk segment of the pipe closer to the boundary of an HPA, OPA, CNW, or ECO than the explosion-based buffer is considered a could-affect segment. The explosion-based buffer is based on information found in the "Risk Management Program Guidance for Offsite Consequence Analysis" - EPA Document 550-B-99-009 - April 1999. See 12.4 HVL Modeling Results for the resulting buffers.
For storage tanks, the following criteria is applied:
Any tank located in an HCA is considered a could-affect tank.

Table 2: Guidelines for Determining Could Affect (CHCA) Segments and Facilities
Any tank that results in a spill plume that intersects an HCA boundary is considered a could-affect tank.
PHMSA-regulated tanks are modeled using a percentage of the shell capacity volume as determined by *§194.105 Worst case discharge that* escapes the tank diked area. See 12.5 Modeling Assumptions for further details.
For facilities without storage tanks (no release modeling occurred), the following was assumed:
Since no additional storage at the facility exists, the maximum release volume would not be larger than the release volume of the adjacent line pipe mainline trunk segment(s). It would be assumed that the facility impacted the same HCAs as the adjacent line pipe mainline trunk segment(s).
A facility with no mainline trunk pipe or storage tanks (spill modeling was not conducted) was considered a could-affect facility if the facility was located in an HCA.

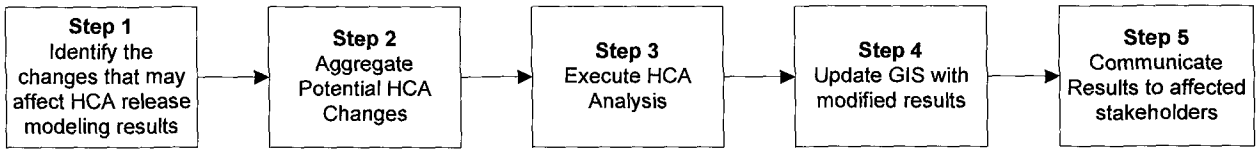
8.3.7 Step 4: Update GIS with Modified Results



8.3.7.1 Upon successful review of the modeled data from the spill modeling contractor, the GIS Process Leader completes the following steps to ensure the new modeling is integrated correctly.

a) Updates GIS with modified results.
b) Final validation that data from prior quality assurance process appears as expected in GIS production environment visible to HCA stakeholders.

8.3.8 Step 5: Communicate Results to Affected Stakeholders



8.3.8.1 The GIS Process Leader records the implementation of could-affect IMP control data changes on the MOCR, which is visible to all MOC users. Additionally, if new could-affect mileage is added as a result of the modeling, the GIS Process Leader shall originate a new MOCR communicating that fact to stakeholders.

8.4 Methodology for Identifying HCA(s)

8.4.1 MPL uses several modeling techniques to identify the segments and facilities that could affect an HCA including overland flow modeling for line pipe and tanks, and explosion buffer modeling for HVLs. The HCA Analysis Implementation Specification document is used by MPL personnel to inform the vendor of the variables incorporated in the methodologies. This section provides a brief description of the methods used during the HCA Identification Process. Detailed discussions of each modeling technique are found in identified reference documents.

8.4.2 MPL uses the following modeling methods to complete the identification of segments and facilities that could affect an HCA.

8.4.3 Additional information concerning the modeling assumptions is located in 12.5 Modeling Assumptions.

8.4.4 GeoFields-2

8.4.4.1 The GeoFields-2 (GEO-2) is an overland flow and surface water transport modeling technique that uses a DEM and National Hydrological Dataset (NHD) supplied by the United States Geographical Survey (U.S.G.S.). The GEO-2 modeling technique, which provides the capability of adding release points to all water crossings, is applied to all MPL and MPC PHMSA-regulated mainline trunk, stage 1-acive pipe. Identification of the modeling assumptions used by MPL can be found in the HCA Analysis Implementation Specification and in 12.5 Modeling Assumptions.

8.4.4.2 For the GEO-2 technique, MPL identifies release points at all water crossings and uses a spill point spacing of 500' for the following reasons:

- **a)** A spacing of 1,000' created spill plumes far enough apart so that the average plume did not intersect adjacent plume.
- **b)** A spacing of 500' allowed the average plume to intersect adjacent plumes, providing complete coverage along the segment.
- **c)** A spacing of 250' provided dense plumes and unnecessary overlap of those plumes.

8.4.4.3 MPL used a conservative product depth of ¼" based on subject matter expert (SME) judgment founded on actual emergency response experiences. Solicitation regarding the thickness of product retained on the surface after a release was conducted by MPL's spill modeling contractor. General consensus was that on a flat surface with no vegetation and no soil absorption a petroleum product of average viscosity would retain a thickness of about ½". In reality, however, vegetation and soil would almost always cause this figure to be much higher. In order to be conservative, MPL elects to use a retained product depth of only ¼".

8.4.4.4 The M&TE GIS Specialist uses the GIS software to identify the CHCA segments by determining the direct (DHCA) and indirect (CHCA) intersection of the modeling results with HPA, OPA, DKW, ECO, or CNW HCAs.

8.4.4.5 MPL assumes that releases from offshore facilities/pipelines could not affect HCAs that consist of CNWs in the Gulf of Mexico. In the event of a release, shipping would be rerouted.

8.4.4.6 A detailed description of the GEO-2 modeling process, prepared by GeoFields, and the assumptions identified by MPL in the HCA Analysis Implementation Specification document are located in T&C.

8.4.4.7 Spill volumes include 10 minutes of maximum pump capacity after instantaneous rupture of the asset. Pump volume supplied by O&L Hydraulics, Controls and Communication. See 12.5 Modeling Assumptions and 12.2 Pipe Miles with Flow Rates and Response Times.

8.4.4.8 Emergency responder hydrological response times specific to each segment group are used in determining the extent of a spill plume in a waterway. See 12.5 Modeling Assumptions and 12.2 Pipe Miles with Flow Rates and Response Times.

8.4.5 HVL-2

8.4.5.1 The HVL-2 modeling technique is applied to all line pipe identified through the HCA Identification Process that could transport HVLs.

8.4.5.2 The HVL-2 method was developed by the MPL Corporate E&S Department and executed by the M&TE GIS Specialist. HVL-2 is based on an explosion buffer

modeling process. This process is described in the EPA guidance document "Risk Management Program Guidance for Offsite Consequence Analysis" - EPA Document 550-B-99-009 - April 1999. The HVL-2 method follows the 6-step process listed below:

a) **Step 1:** The GIS Process Leader schedules the execution of the HVL-2 method with the MPL Corporate E&S Department.

b) **Step 2:** The GIS Process Leader supplies the pipeline data required for the HVL-2 method calculations to the MPL Corporate E&S Department:

1) The name of the HVL(s) being transported as listed on the Material Safety Data Sheet (MSDS).
2) The name of the line pipe segment as it is listed in the MPL Naming Standards.
3) The maximum rated pump capacity of the line pipe segment for each HVL transported (this may be obtained by contacting the O&L Hydraulics, Controls and Communication).
4) The length and diameter of the line pipe segment to be modeled which can be obtained from the Pipe Line Asset Center.

c) **Step 3:** Using the formulas and tables from the EPA Guidance Document 550-B-99-009, the MPL Corporate E&S Department estimates the worst-case release volume for the mainline trunk segment. The worst-case release volume for HVLs is the entire volume in the mainline trunk segment, plus 10 minutes of flow at maximum rated capacity.

d) **Step 4:** Using the formulas and tables from the EPA Document 550-B-99-009, the MPL Corporate E&S Department estimates the maximum distance that a 1 psi shockwave will travel from the release site. The results are supplied to the GIS Process Leader. 12.4 HVL Modeling Results is provided as an example set of results.

e) **Step 5:** The GIS Process Leader informs the M&TE GIS Specialist of the buffer distance to be used in the GIS.

f) **Step 6:** The M&TE GIS Specialist uses the GIS software to identify the CHCA segments by determining the intersection of the HVL buffer with HPA, OPA, CNW, or ECO HCAs that intersect the pipeline buffer. Due to the very low solubility of the two HVL products (propane and butane) MPL transports, MPL has determined that drinking water resources will be excluded from the HCA could-affect analysis (PHMSA FAQ - 3.25).

8.4.6 Tanks-2

8.4.6.1 The Tanks-2 modeling technique is used by MPL to identify stations with storage tanks that could affect an HCA. Using the GEO-2 method in Section 8.5.4, a spill point is modeled at the location of each storage tank in the facility. The results are loaded into GIS.

8.4.6.2 The Tanks-2 modeling technique follows the 3-step process described below:

a) **Step 1:** GIS Process Leader identifies MPL-operated stations with PHMSA-regulated tanks. Information is both gathered from and input into the Equipment Database for individual maximum tank storage volume, latitude and longitude, worst case discharge percentage and hydrological response time.

b) **Step 2:** The GIS Process Leader supplies the tank data to the spill modeling contractor and directs the spill modeling contractor to create a spill plume for each identified tank. A worst case discharge based percentage of tank volume is modeled and spill dispersion techniques are applied using the GEO-2 method in Section 8.5.4.

c) **Step 3:** The GIS Process Leader receives the spill plumes from the spill modeling contractor and loads the results into GIS.

8.4.7 Reviewing Web-Based Reports and Maps

8.4.7.1 The Interface Tool for HCA Analysis is located on the Pipe Line Asset Center. This site enables users to create reports and maps from the data generated by the HCA Identification Process.

8.4.7.2 The Report section allows the user to create spreadsheets that summarize the results of the HCA Identification Process. The reports provide the following information:

a) Beginning/end stationing points of each could-affect or direct-affect segment
b) Summary of the lengths of each could-affect or direct-affect segment
c) Details of what type of HCA could be impacted

8.4.7.3 Mapping of the assets covered by this standard including HCA impacts is available from three sources:

a) Alignment sheets that contain a linear band identifying if the section of pipeline has direct affect (DHCA), could-affect (CHCA) or no HCA impact
b) GIS Mobile Software capable of mapping pipelines, spill points, spill plumes, HVL buffers, waterways and HCAs, along with direct-affect (DHCA), could-affect (CHCA) or no HCA impact
c) ArcMap software capable of mapping pipelines, spill points, spill plumes, HVL buffers, waterways and HCAs, along with direct-affect (DHCA), could-affect (CHCA) or no HCA impact

8.4.7.4 The user may create a report and/or map for all MPL-operated pipeline systems that are covered by this IMP.

8.4.8 Model Validation

8.4.8.1 The GIS Process Leader shall review significant event release volume and flow/plume on MPL operated pipelines and tanks covered under IMP. This information will be reviewed against the IMP spill model to determine if adjustments to spill modeling are warranted.

9.0 RESPONSIBILITIES

Title	Action
ES&R HES Professional	**a)** Determine hydrological response times for use in spill modeling
ES&R IMP Process Leader	**a)** Provides PHMSA-regulated status of line segments **b)** Notifies other stakeholders of IMP changes

Title	Action
GIS IT System Leader (IT Services)	**a)** Maintains and provides technical assistance for the GIS system **b)** Creates reports and/or maps that cannot otherwise be created by GIS Process Leader
GIS Process Leader (FSP)	**a)** Manages all changes to the HCA Identification Process **b)** Aggregates potential HCA impacting MOCRs for periodic review **c)** Coordinates the activities of MPL personnel and/or vendors **d)** Ensures that modeling results are properly distributed **e)** Performs a Quality Assurance Review of the results and forwards it to T&C **f)** Collects the information necessary for input to execute the modeling methods **g)** Continuous Improvement **h)** Originates Management of Change Request (MOCR) to communicate new Could Affect (CHCA) mileage.
GIS Specialist (M&TE)	**a)** Utilizes GIS tools to determine direct (DHCA) and could-affect (CHCA) HCA impacts. **b)** Executes the HVL-2 modeling method
MOC Coordinator	**c)** Manages the MOC Process
MOCR Originator	**a)** Originates Management of Change Request (MOCR)
MOCR Technical Reviewer	**a)** Reviews Management of Change Request (MOCR) control data
MPL Corporate E&S Department/Environmental Support Manager	**a)** Determines HVL buffer zones
MPL Records Administrator	**a)** Receives requests for and grants access to IMP documentation
O&L Hydraulics, Controls and Communication	**a)** Provides the maximum rated pump capacity of the line pipe segment
Responsible Person (executer or user of HCA Identification data)	**a)** Submit process auditing, lessons learned, process incidents and/or recommendations to an audit tracking system (e.g., ALIRTS)
Spill Modeling Contractor (currently GeoFields)	**a)** Performs spill modeling analysis as third-party contractor
Title & Contract Department	**a)** Custodian of copies of all documentation associated with the HCA Identification Process

10.0 RECORDS MANAGEMENT

10.1 Documentation and Communication of Results

10.1.1 *The U.S. DOT, Pipeline and Hazardous Materials Safety Administration (PHMSA) has the following recordkeeping requirements for pipeline owners or operators, as listed in 49 CFR 195.452(l):*

10.1.2 *(1) An operator must maintain for review during an inspection:*

10.1.3 *i) A written integrity management program in accordance with paragraph (b) of this section,*

10.1.4 *ii) Documents to support the decisions and analyses, including any modifications, justifications, variances, deviations and determinations made, and actions taken, to implement and evaluate each element of the integrity management program listed in paragraph (f) of this section.*

10.1.5 *(2) See Appendix C of this part for examples of records an operator would be required to keep.*

10.1.6 HCA Identification Process Documentation

10.1.6.1 The HCA Identification Process described in this Standard incorporates multiple processes to maintain documentation of evaluations and decisions. The MOC Process is the primary method of document retention and communication used during the HCA Identification Process. The MOC Process is designed to ensure that activities planned or performed with potential impact on critical operating procedures or documentation are clearly documented and communicated to the appropriate areas of the company.

10.1.6.2 Steps 1 through 3 of the current HCA Identification Process (Section 8.4) further describes the resources used by MPL personnel to support, document, and communicate the evaluations and decisions regarding the implementation of this Standard, including the 12.3 Spill Modeling QA/QC Checklist (SPILLCHECK). For more information on the documentation requirements used by MPL to satisfy the Rule, reference Standard MPLDOT003 Integrity Management Program.

11.0 TRAINING

11.1 Training for this Standard shall be in accordance with the following outline.

11.2 Purpose

11.2.1 **Awareness Level Training:** The goal of the awareness level of training is to introduce the prevalent concepts to the employee with an explanation of the process and procedure requirement as referenced in the standard, which have an impact on traditional job responsibilities. Inclusive to this training will be questions relating to the MOC process. Special attention will be placed on identifying HCAs through the GIS interface tool for HCA analysis.

11.2.2 **Execution Level Training:** The goal of the execution level of training is the accurate identification of pipeline segments and facilities that could affect an HCA. Training will provide the employee with access to the standard concluding with a competency based test. Test questions will reflect understanding and comprehension of the learning objectives identified for the standard. Inclusive to this training will be questions relating to the MOC process.

11.3 **Audience Impacted:** All personnel who have a role in the standard and have been identified on their organizations Training Plan for this standard.

11.4 **Learning Objectives:** Training delivered on MPLDOT004 shall accomplish the following objective.

11.4.1 **Awareness Level:** At the conclusion of this training, the employee will understand how he MOC process interrelates to HCA identification. The employee will be able to accurately identify HCA with use of the GIS interface tool for HCA analysis as specified in standard MPLDOT004.

11.4.2 **Execution Level:** At the conclusion of this training, the employee will be able to facilitate their role in the standard and be able to refer to related standards, procedure and references.

11.5 Related Training: None.

11.6 Primary Delivery Method

11.6.1 **Awareness Level:** View and test through MaraLearn.
11.6.2 **Execution Level:** View and test through MaraLearn. New GIS Process Leaders will also require face to face discussions with SME's interacting with the modeling process.

11.7 Delivery Time

11.7.1 **Awareness Level:** Approximately 30 minutes .
11.7.2 **Execution Level:** Approximately 1 hour.

11.8 Refresher Training: Refresher training will occur every year.

12.0 ATTACHMENTS

12.1 HCA Identification Process Steps
12.2 Pipe Miles with Flow Rates and Response Times
12.3 Spill Modeling QA/QC Checklist (SPILLCHECK)
12.4 HVL Modeling Results
12.5 Modeling Assumptions

13.0 SUMMARY OF CHANGES

05/15/12 – Updated the document header, including review cycle and date in footer. Attachments were reviewed and updated. Updated links to MOC to point to KMS. Updated Internal references to Freeman GIS ECO Analysis. Tweaked language for handling Regulated Rural Low Stress assets. Added step for GIS Process Leader to originate MOCR communicating new additions to CHCA mileage.

1. Is Code citation accurate? Yes
2. Referenced publications (i.e., API, ANSI, ASME, etc.,) that's been incorporated by reference are in the Code are accurate? Yes
3. Referenced company standards are accurate? Yes
4. Procedure accurately addresses code requirements? Yes
5. Procedure is adequate and effective? Yes

05/15/11 – Updated the document header, including review cycle and date in footer. Attachments were reviewed and updated. Replaced references to ArcIMS mapping to GIS Mobile and ArcMap. Added Equipment DB as tank data source. Removed references to old IMP standard. Eliminated PIF as requirement for spill modeling. Clarified handling of new tank at existing facility with HCA impacting tanks. Realigned roles for integration of spill modeling with migration from IT Services to GIS Process Leader and M&TE GIS Specialist. Modified training questions.

6. Is Code citation accurate? Yes
7. Referenced publications (i.e., API, ANSI, ASME, etc.,) that's been incorporated by reference are in the Code are accurate? Yes
8. Referenced company standards are accurate? Yes
9. Procedure accurately addresses code requirements? Yes
10. Procedure is adequate and effective? Yes

02/17/09 - Adjust for 195.11 rural gathering & 195.12 low stress regulatory changes.

Per comments from Spring 2007 PHMSA IMP audit, changed tank modeling to use 194.105 worst case discharge volumes for tanks. This included addition of a sheet/table of worst case discharge credit % and

hydrological response times for all sites with PHMSA jurisdictional tanks. From same audit comments also added content to review significant release event results against modeling.

Applied organization name changes due to MPL reorganization and GIS Process Leader role name change to align with other IMP standards.
Removed requirement to file PIFs in Title & Contact, not that they are retained in electronic PIF system.
Added document control content to all attachments.

05/01/07 -

1) Reformatted to new MPL standard.
2) Changed standard to Policy, with Records & Retention of ENG/CNST/120B and Update & Review Requirements of 3 years.
3) MPLDOT003 contains the following Sections, therefore they were removed from MPLDOT004 text and a reference to MPLDOT003 was added:
    a. Definitions
    b. Section 1.0 HAZARDOUS LIQUIDS OVERVIEW
    c. Section 2.0 PROCESS IMPROVEMENTS
    d. Section 3.0 INTEGRITY MANAGEMENT OVERALL PROCESS
4) 8.2.3 Process Overview was modified to incorporate justification of instantaneous rupture as the only release scenario MPL incorporates in the spill modeling process.
5) 12.1 Attachment HCA Identification Process Steps was created to visually display process flow and incorporated into Section 8.4 Current Process.
6) 8.4.5 Step 2: Develop & Submit a project Idea Form (PIF) and 8.4.6 Step 3: Execute the Project Identified by the PIF updated to incorporate the PIF process rather than creating an HCA Update Plan.
7) 8.4.3.1 items 8, 12, and 13 were added to Table 1: Activities That May Affect HCA Release Modeling Results.
8) 8.4.8 Step 5: Communicate Results to Affected Stakeholders updated to reflect control data completion to ES&R and MOCR originator.
9) Standard was updated to incorporate the new Management of Changes system (ELMOCR).
10) 8.2.6 content was added to explain how ECO areas are handled for PA and clarification that MPL does not own or operate line segments in NY for DKW evaluation.
11) 8.2.7 noted is that purchased institutional data (hospital, school, ...) is used in emergency response prioritization, but not factored into the IMP risk model.
12) 8.4.1 breakdowns in the HCA Identification process are to be recorded in ALIRTS
13) 8.4.3.1 line additions, removals, or replacements resulting in less than 35.9 barrels of line fill change are not modeled
14) 10.0 Records Management was added to include a brief description of records management and communication, with a reference to a more thorough description in MPLDOT003.
15) Modeling Assumptions attachment, 2.1 technical justification added for 10 minute response time for closing of select motor operated valves and pump stopping.
16) Modeling Assumptions attachment, 2.3 technical justification added for hydrological response time.
17) 8.4.6.3 Table 2 added language for treatment of MPL sites without MPL tanks or MPL mainline pipe.
18) 8.8.5.2(f) inclusion of ECO impact in HVL analysis and justification of DKW exclusion.

MARATHON PETROLEUM COMPANY LLC
MARATHON PIPE LINE LLC
STANDARDS

Standard Number	Title	Standard Category	Standard Type	Resp. Org.	Revision Number	Effective Date
MPLMNT003	Inspecting & Evaluating Line Pipe Metal Loss	MNT	Practice	IDP&R	5	5/7/2013

Organization	Approver	Title	Signature	Subject Matter Expert
MPL	P. H. DePriest	Integrity, Damage Prevention & Risk Manager	On File	T. G. Hrncir
TT&M	N/A			
M&TE	N/A			
T&L	N/A			

Records Retention: Policy, Standard. Procedure or Guideline (ACT+10)	**Original Date of Issue: 1/1/00**
Review & Update Requirements Max: 1 Year	
Attention: Printed copies should be used with caution. The user of this document must ensure the current approved version of the document is being used. This copy was printed on 12/9/2014 at 09:16.	

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1.0 STANDARD STATEMENT

1.1 This standard sets forth details relevant to materials and/or equipment and/or establishes criteria for performance. Deviations to this standard can be granted by the Marathon Pipe Line (MPL) Integrity, Damage Prevention & Risk (IDP&R) Manager or their designee by using the management of change system per TNL-HES-00068-PRS T&L Management of Change and Pre-Startup Safety Process prior to a deviation.

1.2 Verbal approval can be granted at the discretion of the MPL IDP&R Manager in time sensitive situations with the expectation that the verbal approval is followed-up immediately with a management of change request.

1.3 If deviations to this standard occur before approval of a management of change request (MOCR), then an MPL Incident Report shall be submitted per Standard MPLHES025 MPL Incident Reporting and Investigation to document the non-conformance to this standard. A MOCR per Section 1.1 shall be initiated in addition to the MPL Incident Report if the result of the deviation is intended to be left as permanent.

2.0 PURPOSE

2.1 To provide Rehabilitation Project Leaders and Rehabilitation Inspectors with a standardized process for investigation and evaluation of potential anomalies discovered following an In-line Inspection in accordance to the *Department of Transportation (DOT) Integrity Management Program (IMP) 49 CFR 195.452 (h) or 49 CFR 192.933 (d).*

3.0 SCOPE

3.1 Ensure standard criteria are applied to the investigation and evaluation of potential anomalies for all pipelines within the applicable American Society of Mechanical Engineers (ASME) B31 Code, "Pressure Piping" including B31.4 and B31.8.

4.0 MAINTENANCE OF STANDARD

4.1 The Integrity, Damage Prevention & Risk Manager is responsible for the maintenance of this Standard.

5.0 REGULATIONS

5.1 *49 CFR 195 "Transportation of Hazardous Liquids by Pipeline"*

5.2 *49 CFR 192 "Transportation of Natural and other Gas by Pipeline"*

6.0 REFERENCES

6.1 Shannon, R. W. E., "The Failure Behavior of the Line Pipe Defects," International Journal of Pressure Vessels and Piping, (2), 1974, Applied Science Publishers Ltd., U.K., 19974

6.2 Kiefner, J. F., "Fracture Initiation," 4th Symposium on Line Pipe Research, American Gas Association (catalogue no. L30075), November 18, 1969

6.3 Kiefner, J. F., Vieth, P. H., "A Modified Criterion for Evaluation the Remaining Strength of Corroded Pipe," Project PR 3-805 Pipeline Research

Committee, American Gas Association (catalogue no. L51609), December 22, 1989

6.4 Kiefner, J. F., Vieth, P. H., "New Method Corrects Criterion for Evaluation Corroded Pipe," Oil & Gas Journal, August 6, 1990

6.5 Kiefner, J. F., Vieth, P. H., "New Method Corrections Criterion for Evaluation Corroded Pipe," Oil & Gas Journal, August 20, 1990

6.6 Coulson, K. E. W., Worthingham, R. G., "Standard Damage-assessment Approach is overly Conservative," Oil & Gas Journal, April 9, 1990

6.7 Coulson, K. E. W., Worthingham, R. G., "New Guidelines Promise More Accurate Damage Assessment," Oil & Gas Journal, April 16, 1990

6.8 API Specification 5L "Specification for Line Pipe" (Current published version in *49CFR195* or *49CFR192* as applicable)

6.9 ASME B31.4 "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids" (Current published version in *49CFR195* or *49CFR192* as applicable)

6.10 ASME B31.8 "Gas Transmission and Distribution Piping Systems" (Current published version in *49CFR195* or *49CFR192* as applicable)

6.11 ASME B31G "Manual for Determining the Remaining Strength of Corroded Pipelines" (Current published version in *49CFR195* or *49CFR192* as applicable)

6.12 Kiefner, J. F., Vieth, P. H., Roytman, I., "Continued Validation of Rstreng," Line Pipe Research Supervisory Committee – Pipeline Research Committee, December 20, 1996.

6.13 MPLMNT001 Pipeline Repairs

6.14 MPLMNT042 Rehabilitation Project Leader

7.0 DEFINITIONS

7.1 ***100% SMYS (Specified Minimum Yield Strength)*** – Refer to MPLDGN004 or MPLDGN032

7.2 ***Active Corrosion*** – See Definitions Section in MPLMNT020.

7.3 ***Anomaly (Discontinuity)*** – An unexamined imperfection or defect which is a deviation from the norm in pipe material or welds indicated from a Mechanical Integrity Assessment Tool (MIAT) or Geometry Assessment Tool (GAT) inspection.

7.4 ***Calculated Allowable Operating Pressure (CAOP)*** – The maximum calculated operating pressure allowed based upon the calculated burst pressure of a pipe segment containing a metal-loss anomaly. CAOP may not exceed IDP.

7.5 ***Defect*** – A physically examined anomaly with dimensions or characteristics that exceed acceptable limits as to impair the integrity of the pipeline from the standpoint of its pressure-carrying capacity or its ability to resist other stresses imposed upon it.

7.6 ***Deformation*** - A permanent change in shape, such as a bend, buckle, dent, ovality, ripple, wrinkle, or any other change that affects the roundness of the pipe's cross-section or straightness.

7.7 ***Imperfection*** – A physically examined anomaly with dimensions or characteristics that do not exceed acceptable limits.

7.8 ***In-Active Corrosion*** – See Definitions Section in MPLMNT020.

7.9 Land and Pipe Management Report (PLLPMR) – MPL authorized form to be completed whenever any in-service pipeline is excavated.

7.10 ***Localized Corrosion Pitting*** – Localized or common pitting is normally confined to a small area or several interconnected small areas. Localized (or pitting corrosion) may be individual or multiple pits surrounded by pipe that is at or near full wall thickness. Localized corrosion is evaluated using depth and length measurements to determine the remaining strength of the steel. Localized pitting can be started by several factors such as bacteria, differential oxygen concentrations, or simply interaction between galvanic cells. Localized corrosion causes concern for the integrity of a pipeline since the area being attacked can be very small and the corrosion rate, in some situations, can be extremely high.

7.11 ***Internal Design Pressure (IDP)*** – Refer to MPLDGN004 or MPLDGN032

7.12 **Maximum Allowable Operating Pressure (MAOP)** – The maximum pressure at which a natural gas pipeline or segment of a pipeline may be operated in accordance with *49 CFR 192* as described in Standard MPLDGN032 Maximum Allowable Operating Pressure of Natural Gas Pipelines

7.13 ***Maximum Operating Pressure (MOP)*** – The maximum pressure that a pipeline may be operated except for surge pressures and other variations from normal operation. The MOP for a pipeline assembly, as described in Standard Practice MPLDGN004 Maximum Operating Pressure of Liquids Pipelines, may be at or below the Internal Design Pressure (IDP).

7.14 ***Mechanical Damage*** – A generic term used to describe combinations of dents, gouges, and/or cold work caused by the application of external forces. Mechanical damage can also include coating damage, movement of metal, and high residual stresses, any one of which can be detrimental.

7.15 ***Minimum Allowable Wall Thickness*** – The nominal wall thickness minus the under thickness tolerance permitted by the relevant specification.

7.16 ***Minimum Remaining Wall Thickness*** – The minimum wall thickness that exists at the bottom of an anomaly after any stress concentrator or metallurgical anomaly had been removed by grinding.

7.17 ***Minimum Sleeve Thickness*** – The minimum wall thickness required for a sleeve to conform to this standard.

7.18 ***Nominal Wall Thickness*** – The wall thickness specified for the manufacture of the pipe. Actual wall thickness will vary within a range permitted by the pipe manufacturing standard/specification and sometimes will vary outside that range if the manufacturing was not performed within the stated tolerance.

7.19 ***Permanent Repair*** – A repair that is expected to last for the life of the pipeline.

7.20 ***Predicted Burst Pressure*** – The pressure at which a blunt metal-loss anomaly is predicted to fail based upon the appropriate fitness for service criteria.

7.21 ***Preferential Seam Corrosion*** – See Selective ERW Seam Corrosion.

7.22 ***Rehabilitation Inspector (RI)*** — The Rehabilitation Inspector is an inspector who is MPL Operator Qualified in all facets of pipeline anomaly inspection and maintenance inspection.

7.23 ***Rehabilitation Project Leader (RPL)*** — Project leader primarily responsible for performing field evaluation and associated rehabilitation subject to the Section-h or Section-d List and Schedule.

7.24 ***Repair Pressure*** – The pressure levels at the location of the anomaly to be repaired at the time the repair is carried out.

7.25 ***RPR – Rupture Pressure Ratio*** - Typically, the ratio between the CAOP of the metal-loss and the IDP of the pipe OR the ratio of the predicted burst pressure to 100% SMYS for the pipe.

7.26 ***Selective Corrosion Pitting*** – Selective ERW Seam Corrosion, also called Preferential Seam Corrosion, is created when the pipe is experiencing corrosion caused metal loss, either internal or external, across or adjacent to an ERW seam. The corrosive action attacks the seam bond region at a higher rate than the surrounding metal. The result is often a V shaped crevice or groove within the bondline. In older ERW materials, this bond region exhibits low fracture toughness, typically due to improper seam annealing in the manufacturing process. The combination of crevice corrosion and low toughness creates a serious defect that is more likely to cause a rupture than coincident corrosion in the body of the pipe.

7.27 ***SMYS – Specified Minimum Yield Strength.***

- For steel pipe manufactured in accordance with a listed specification, the yield strength is specified as a minimum in that specification.
- For steel pipe manufactured in accordance with an unknown or unlisted specification, the yield strength is determined in accordance with *49 CFR Part 195.106(b)* for liquids or *49 CFR Part 192.107(b)* for gas.

7.28 ***Stress Concentrator*** – A crack, gouge, notch, or groove which creates an appreciable localized increase to the intensity of any stress applied to the pipe.

7.29 ***Section-h List & Schedule*** - Department of Transportation (DOT) Integrity Management Program (IMP) *49 CFR 195.452(h)*. The Section-h rule categorizes potential anomalies and enforcement of regulatory assessment, evaluation and remediation.

7.30 ***Section-d List & Schedule*** - Department of Transportation (DOT) Integrity Management Program (IMP) *49 CFR Subpart O. 49 CFR 192.933 (d)* categorizes potential anomalies and enforcement of regulatory assessment, evaluation and remediation.

7.31 ***Temporary Repair*** – A repair that is to be replaced or made permanent as soon as practical.

8.0 STANDARD CONTENT

8.1 INTRODUCTION

8.1.1 This practice provides standardized criteria for investigation and evaluation of potential anomalies discovered following an In-line Inspection (ILI).

8.1.1.1 "Inspecting and Evaluating Anomalies Process Map," provides an overview of the ILI process;

8.1.1.2 The Attachments Section lists required rehabilitation project documentation deliverables;

8.1.1.3 The Reference Section lists references to applicable MPL Standards.

8.2 ROLES & RESPONSIBILITIES

8.2.1 The ILI project team consists of one or more project leaders responsible for conducting an ILI project including running an ILI assessment tool, analysis of the ILI assessment data, and subsequent anomaly investigation and rehabilitation.

8.2.2 The ILI rehabilitation project team consists of a **Rehabilitation Project Leader (RPL)** responsible for the ILI rehabilitation project and a **Rehabilitation Inspector (RI)** responsible for the field investigation, evaluation, and rehabilitation of discovered anomalies.

8.2.3 The following list provides titles and brief role descriptions:

8.2.3.1 **Analysis Process Leader (APL).** Performs ILI data assessment/analysis and develops the Section-h or Section-d Schedule and List — **MPLMNT069** Managing In-line Inspection Data.

8.2.3.2 **In-Line Inspection Project Leader (IPL).** Performs In-line Inspection — **MPLMNT071** In-line Inspection Project Leader.

8.2.3.3 **Rehabilitation Inspector (RI).** Performs field investigation, evaluation and remediation of potential Section-h or Section-d anomalies — **MPLCON035** Pipeline Construction Inspection.

8.2.3.4 **Rehabilitation Project Leader (RPL).** Manages ILI Rehabilitation Project investigation and remediation of Section-h or Section-d potential anomalies — **MPLMNT042** Rehabilitation Project Leader.

8.2.3.5 **System Integrity Leader (SIL).** Provides project authorization and guidance — **MPLMNT110** Responding to Anomalies.

8.3 TRAINING AND QUALIFICATIONS

8.3.1 In accordance with the *IMP 49 CFR 195.452 and 49 CFR 192.933 (d)*, MPL has established qualifications and training prerequisite for the Rehabilitation Project Leader (RPL) and Rehabilitation Inspector (RI) in the performance of investigation, evaluation, and remediation of potential anomalies identified from an in-line inspection.

8.3.2 Training requirements are referenced in this Standard under, TRAINING, and outlined in MPLDOT003 Integrity Management Program and MPLCON035, Pipeline Construction Inspection.

8.3.3 Performance of all field evaluation and remediation "covered tasks" shall be in accordance with MPL Operator Qualification Plan.

8.4 DOCUMENTATION

8.4.1 Documenting the investigation, evaluation, and remediation of anomalies identified from an in-line inspection is of paramount importance to the success of the ILI program and to demonstrate IMP regulatory compliance.

8.4.2 Documentation specified in this Standard is mandatory.

8.4.3 The RPL and RI are responsible to ensure that all documentation specified in this standard is prepared, accurate and complete on a daily basis. Documentation and supporting checklists are provided in the Attachments Section.

8.4.4 One critical document that must be maintained throughout each ILI rehabilitation phase are the Project Decision Log (Form PLPDL) to assist in preparing and documenting critical field evaluation and remediation activities and regulatory milestones. The IMP rule requires that decision be documented and these documents fulfill this requirement.

8.5 Anomaly Response Planning

8.5.1 Introduction

8.5.1.1 This practice describes the procedure for investigating and evaluating anomalies in general; and analyzing corrosion-specific anomalies. The Rehabilitation Project Leader (RPL) and Rehabilitation Inspector (RI) must begin the field evaluation and remediation phase of an ILI project by thoroughly planning and preparing for the investigation and evaluation of potential anomalies.

8.5.1.2 This planning provides the RPL and RI standardized preparation for anticipating and performing a procedural investigation and evaluation of anomalies.

8.5.1.3 After each of the Geometry Assessment Tool (GAT) and Mechanical Integrity Assessment Tool (MIAT) in-line inspection (ILI) surveys have been performed and the ILI vendor reports analyzed, a Section-h or Section-d List and Schedule is prepared. The Section-h List and Schedule classifies anomalies into four remediation schedules, Immediate Conditions, 60-day, 180-day and Other Conditions. The Section-d List and Schedule classifies anomalies into three remediation schedules, Immediate Repair Condition, One-year Condition and Monitored Condition

8.5.1.4 The Section-h or Section-d List and Schedule are communicated to the Rehabilitation Project Leader (RPL) for field evaluation and remediation. The RPL assigns a Rehabilitation Inspector (RI) to direct the field anomaly evaluation and remediation activities.

8.5.1.5 The RPL and RI are responsible for a procedural investigation, evaluation, classification and documentation of anomalies discovered in the field in accordance with this Standard.

8.5.1.6 This section provides the RPL and RI planning considerations and sequential investigative / analytical steps to perform an investigation and evaluation of anomalies.

8.5.2 Anomaly Categories

8.5.2.1 Anomalies fall into four general categories: (1) Corrosion, (2) Construction / Third-Party Damage, (3) Cracks, and (4) Mill-Related Anomalies.

8.5.2.2 The four categories of anomalies, based on severity, may be represented in each of the Section-h classifications of Immediate Conditions, 60-day, 180-day, and Other Conditions or Section-d Classifications of Immediate Repair Condition, One-year Condition and Monitored Condition .

8.5.2.3 Appurtenances (including tees, stopples, taps, etc.), casings, close or touching metal objects are considered potential anomalous conditions and may also warrant investigation and evaluation as Other Conditions.

8.5.2.4 MPLMNT001 Pipeline Repairs provides a detailed description of each anomaly type and cause.

8.5.3 Corrosion

8.5.3.1 Corrosion is defined as the deterioration of a material, usually a metal, by reaction with its environment. The rate in which a metal will deteriorate (corrode) is primarily governed by the environment it has been placed in and also by the preventative measures that have been put in place to mitigate the reaction.

8.5.3.2 MPLMNT001 Pipeline Repairs "Metal-loss Assessment / Repair Flow Chart (Figure I)" identifies the general process that field personnel can use to assess metal-loss found in the field.

8.5.3.3 An exception to this reference is analysis and repair of preferential (selective) corrosion of the pipe long seam weld which shall be evaluated and responded to in the same manner as "cracks."

8.5.4 Deformations — Construction Damage / Third-Party Damage

8.5.4.1 Pipe defects can occur during new construction or routine maintenance. These defects vary in type – dents, gouges, undercut, lack of fusion, lack of penetration, or cracks.

8.5.4.2 Third-party and outside forces, such as earth movement and excavation equipment also cause pipe defects. These defects may include, but are not limited to, dents, gouges and scratches.

8.5.4.3 Reference MPLMNT001 Pipeline Repairs, Attachment "Plain Dents / Ovalities Assessment / Repair Flowchart" and Attachment, "Gouge Assessment / Repair Flowchart."

appropriate surface preparation and coating system for the specific repair method and for compatibility with the existing coating.

8.7.2.19 Document the **surface preparation** method on the ILI Analyst Database Event Log

8.7.2.20 Verify the **nominal wall thickness** and document on the, "Field Documentation Envelope," and Land & Pipe Management Report (Form PLLPMR).

8.7.2.21 **Photograph** a close-up of the anomaly preferably with all the appropriate information including sizing marked on the pipe with a paint pen and prepare Attachment Electronic Project Photographs Sheet Template (Form PLEPPST) or equivalent.

8.7.2.22 Perform an **etching** (external metal-loss and gouges only) and document on the "Field Documentation Envelope" and Land & Pipe Management Report (form LPMRMAPL).

8.7.2.23 For a **deformation anomaly (plain dent or ovality)**, including deformations with corrosion evaluate and remediate the anomaly following the Plain Dent / Ovality Assessment / Repair Flow Chart in MPLMNT001 Pipeline Repairs.

8.7.3 Gouge Anomaly.

8.7.3.1 For a gouge anomaly, including gouges with corrosion:

- Evaluate the anomaly following the Gouge Assessment / Repair Flow Chart in MPLMNT001 Pipeline Repairs.

8.7.4 Metal-loss Anomaly Evaluation and Remediation Procedures.

8.7.4.1 For a metal-loss – *internal or external*, evaluate the anomaly and perform the following steps for both external and internal metal-loss except as noted as follows:

a) Document if the corrosion is external or internal on the Land & Pipe Management Report (Form PLLPMR).

b) Determine the general **position of the metal-loss** on the pipe and document corrosion is external or internal, and o'clock location on the Land & Pipe Management Report (Form PLLPMR).

c) Measure the **length of area of metal-loss** following the interaction rules.

d) For internal metal-loss, develop the **metal-loss profile** using an approved Ultra-Sonic Test (UT) gauge and document on the "Field Documentation Envelope," and Land & Pipe Management Report (Form PLLPMR).

e) Determine the maximum **metal-loss depth**.

f) For external metal-loss, use an approved pit gauge.

g) For internal metal-loss, use an approved Ultra-Sonic Test (UT) gauge.

h) If the maximum measured pit depth is < 20% of nominal wall thickness:

1) Arrest the corrosion, re-coat with approved coating in accordance to MPLCON002 Pipeline Coatings and Corrosion Specialist guidance, and backfill the pipeline, and restore the site following MPLMNT001 Pipeline Repairs and in accordance with standard MPL practices.

8.7.5 If the maximum measured pit depth is > 70 % of nominal wall thickness:

8.7.5.1 Arrest the corrosion, **repair**, re-coat with approved coating in accordance to MPLCON002 Pipeline Coatings and Corrosion Specialist guidance, and backfill the pipeline, and restore the site following MPLMNT001 Pipeline Repairs in accordance with standard MPL practices.

8.7.5.2 Document the metal-loss depth and length on the "Field Documentation Envelope," and Land & Pipe Management Report (Form PLLPMR).

8.7.5.3 If the maximum measured pit depth is between 20% and 70% of nominal wall thickness, perform "L-Table" comparison." Report the results of the evaluation with supporting data to the RPL for verification and guidance for repair / no-repair decision.

8.7.5.4 If the overall length of the anomaly exceeds the allowable length:

- Develop a detailed metal-loss profile so that the KAPA calculation can be performed.
- For external metal-loss, use an approved pit gauge and follow the guidelines outlined for "Collecting RSTRENG Data."
- For internal metal-loss, consult with the SIL and Corrosion Specialist for appropriate need and application for a B-Scan or C-Scan and follow the guidelines outlined for "Collecting RSTRENG Data."

8.7.5.5 Document all evaluation and testing results including the date and time the results were sent and instructions received from the RPL on the KAPA.xls (PLKAPA) print out, "Field Documentation Envelope," Land & Pipe Management Report (Form PLLPMR), and ILI Analyst Database Event Log.

8.7.5.6 **Submit the profiling results** using the KAPA.xls (PLKAPA) spreadsheet to the RPL for evaluation and making the final repair / no-repair decision.

8.7.5.7 The RPL reviews the data gathered by the RI and performs an Effective Area RSTRENG calculation using the KAPA program. The RPL will then apply the Rehabilitation Strategy provided by the SIL.

8.7.5.8 Determine if the CAOP greater than the pipeline IDP.

- Arrest the corrosion, **re-coat** with approved coating in accordance to MPLCON002 Pipeline Coatings and Corrosion Specialist guidance, **and backfill** the pipeline, and restore the site following

MPLMNT001 Pipeline Repairs in accordance with standard MPL practices.

8.7.5.9 Determine if the CAOP less than the IDP.

- Arrest the corrosion, make **repair**, re-coat, with approved coating in accordance to MPLCON002 Pipeline Coatings and Corrosion Specialist guidance, and backfill the pipeline, and restore the site following MPLMNT001 Pipeline Repairs in accordance with standard MPL practices.

8.7.5.10 Document results from this evaluation including the date and time that the information was sent and instructions received on the ILI Analyst Database Event Log

8.7.5.11 **Photograph** a close-up of the repaired anomaly prior to coating preferably with appropriate information including AFE, date, direction of flow, repair material information, e.g., heat numbers, etc. marked on the pipe with a **paint pen**. Prepare Attachment Electronic Project Photographs Sheet Template (Form PLEPPST) or equivalent.

8.7.5.12 Perform **Global Positioning System (GPS)** (refer to MPLMEQ025) location data and document on the "Field Documentation Envelope" and Land & Pipe Management Report (Form PLLPMR).

8.7.5.13 Re-coat the pipeline with approved coating in accordance to MPLCON002 Pipeline Coatings and Corrosion Specialist guidance.

8.7.5.14 Photograph the exposed pipe (overall) after the investigated area has been repaired (if required) and coated and prepare Attachment Electronic Project Photographs Sheet Template (Form PLEPPST) or equivalent.

8.7.5.15 Perform backfill and restoration.

8.7.5.16 Photograph the excavation site after restoration and prepare Attachment Electronic Project Photographs Sheet Template (Form PLEPPST) or equivalent.

8.7.5.17 Submit a Daily report, minimum every evening, to the RPL.

8.7.5.18 Notify the Operations Supervisor and the Operations Center console operator, minimum every evening, that:

- The repair has been completed or the project's status
- The next scheduled work location and tentative work plan
- Document the agenda, date and time of the call on the ILI Analyst Database Event Log.

8.7.5.19 The RPL up-dates the ILI Analyst Database Event Log with each specific anomaly investigative information for submission to the Stakeholder (as part of the RPL Daily Report).

8.7.5.20 Complete the "Field Documentation Envelope" and Land & Pipe Management Report (Form PLLPMR) with all enclosed forms, and transmit the package to the RPL for QA / QC.

8.7.5.21 The "Field Documentation Envelope" must be transmitted to the RPL seven (7) business days or less from when the remediation of an anomaly was completed.

8.7.5.22 The date and time the "Field Documentation Envelope" is sent and received must be documented on the ILI Analyst Database Event Log.

9.0 RESPONSIBILITIES

Rehabilitation Inspector	• Preparing and maintaining all field documentation including the "Field Documentation Envelope" and "Land & Pipe Management Report (Form PLLPMR) etc • Ensuring that all investigative, analysis, remediation, and as-built documentation are properly prepared and complete in accordance with this and other MPL standards. • RI is responsible for completing the "Field Documentation Envelope" (PLFDET)
Rehabilitation Project Leader	• Responsible for the preparation, maintenance, and completion of all documentations specified • Preparing and maintaining all field documentation including the "Field Documentation Envelope" and "Land & Pipe Management Report (Form PLLPMR) etc • Ensuring that all investigative, analysis, remediation, and as-built documentation are properly prepared and complete in accordance with this and other MPL standards. • Conducting QA/QC of all field ILI Rehabilitation Project documentation • Compiling and submitting removal/installation 'as-built' drawings • Prepares and maintains the formal ILI Analyst Database Event Log

10.0 RECORDS MANAGEMENT

10.1 The RPL is responsible for the preparation, maintenance, and completion of all documentations specified for the ILI Rehabilitation Project in accordance to MPLMNT042 Rehabilitation Project Leader.

10.2 The RPL is tasked with distribution of all ILI Rehabilitation Project documentation.

10.3 The RPL is responsible for:

10.3.1 Final preparation, completeness and distribution of all formal ILI Rehabilitation Project documentation including ILI Analyst Database Event Log, Field Documentation Envelope and Land & Pipe Management Report (Form PLLPMR).

10.3.2 Conducting QA/QC of all field ILI Rehabilitation Project documentation prepared by the RI and submittal to the Analysis Process Leader (APL) for final QA/QC.

10.3.3 Submittal of all formal ILI Rehabilitation Project documentation prepared by the RPL and submittal to the Analysis Process Leader (APL) for final QA/QC.

10.3.4 After receiving formal QA/QC approval of all field and formal ILI Rehabilitation Project documentation from the Analysis Process Leader (APL), prepare and archive the ILI Rehabilitation Project Job Closing file in accordance with MPLADM002 Project Closure Procedures and Documentation (form JOBCLOS1).

10.4 ILI Analyst Database Event Log

10.4.1 Documenting an ILI project is of paramount importance to the success of the in-line inspection program and to demonstrate IMP regulatory compliance. One critical documents that must be maintained throughout each rehabilitation project is the ILI Analyst Database Event Log

10.4.1.1 ILI Analyst Database Event Log records everyday decisions including those who participated in the decision-making, and why the decision were made — including the adherence to published MPL standards.

10.4.1.2 Documenting and retaining the ILI Analyst Database Event are required to ensure compliance with the DOT Integrity Management Program *(IMP) 49 CFR 195.452 and 49 CFR 192 Subpart O.*

10.4.1.3 Record retention guidelines must be strictly adhered. ILI documentation must be retained subject to Document Retention Guidelines – Project File, Engineering and Construction – Final (ACT+15).

10.4.2 Land & Pipe Management Report (PLLPMR)

10.4.2.1 The MPLOPR010 Land & Pipe Management Report Attachment, Land & Pipe Management Report (PLLPMR) must be completed for every location that is and distributed according to the standard.

10.4.2.2 Once the excavation has been completed and the PLLPMR has been QA/QC by the RPL, the PLLPMR shall distributed according to the standard.

10.4.3 Field Documentation Envelope

10.4.3.1 The RPL is responsible for conducting QA/QC of all RI document preparation and submitting it to the appropriate Stakeholders according to the distribution list.

10.4.3.2 The "Field Documentation Envelope" (PLFDET) with all of the site-specific investigative, analysis, and remediation documentation should be placed in the Job Closing File.

10.4.3.3 Retention of "Field Documentation Envelope" (PLFDET) and its contents is as follows: Project File, Engineering and Construction – Final (ACT+15).

10.4.4 Field Excavation Summary Spreadsheet

10.4.4.1 The RPL is responsible for completing the ILI Analyst Database and documenting that all Section-h or Section-d anomalies have been properly investigated, evaluated, and, as required, remediated.

10.4.4.2 Retention is as follows: Project File, Engineering and Construction – Final (ACT+15).

11.0 TRAINING

11.1 PURPOSE

11.1.1.1 Provide target audience training at the appropriate level (oversight, or execution) for the process of inspecting and evaluating anomalies.

11.1.2 Audience

11.1.2.1 All personnel who have a role in the standard and have been identified on their organization's Training Plan for the standard.

11.1.3 Learning Objectives

11.1.3.1 Training given on Standard MPLMNT003 shall accomplish the following objectives as listed for each audience below.

11.1.3.2 MPL - Oversight Level

- Understand purpose and be able to provide a review of Standard MPLMNT003 requirements, and associated Company and contractor responsibilities, subject to the *49 CFR 195.452* Integrity Management Program (IMP) rule.
- Be able to complete required assigned responsibilities to their level of duty in Standard MPLMNT003.

11.1.3.3 MPL & M&TE - Execution Level

- Understand the content of Standard MPLMNT003 as it relates to their job function and *49 CFR 195.452* Integrity Management Program (IMP).

- Be trained and qualified to initiate and perform appropriate and authorized pipeline repairs.

11.1.4 Delivery Methods

11.1.4.1 Level 1 – Oversight Level Training

- Web based Computer Based training module located on MaraLearn. or
- Web based View and Test training module located on MaraLearn.

11.1.4.2 Level 2 - Execution Level Training

- Power Point training module delivered in one 40 minute block

11.1.5 Delivery Time

11.1.5.1 Oversight Level: Approximately 1 hour

11.1.5.2 Execution Level: Approximately 1.5 hours

11.1.6 6.0 Refresher Training

11.1.6.1 Oversight or Execution Level workers refresher training will be in conjunction with the updating and revision of the standard which shall be every 36 months or when major modification to the standard takes place, whichever comes first.

11.1.6.2 Training records will be kept on the computerized version of the employee training plan.

11.1.7 Related Training

11.1.7.1 MPLMNT001 Pipeline Repairs

11.1.7.2 MPLMNT002 Anomaly Types, Causes and Concerns

11.1.7.3 MPLMNT042 Rehabilitation Project Leader

11.1.7.4 MPLMNT069 Managing In-Line Inspection Data

11.1.7.5 MPLMNT071 In-Line Inspection Project Leader

12.0 ATTACHMENTS

12.1 **Inspecting and Evaluating Anomalies Process Map**

12.2 **Electronic Project Photographs Sheet Template (PLEPPST)**

12.3 **Metal Loss Tables (L Tables)**

12.4 **Minimum Wall Thickness Of Line Pipe as Specified by API 5L Tables**

12.5 **Axial Measurement Metal-Loss —Figure II**

12.6 **Etching Documentation Sticker (PLEDS)**

12.7 **Interaction of Adjacent Areas of Metal-Loss — Figure III**

12.8 **Profile of Metal-Loss — Uniform Spacing of Depth Measurement (Figure IV)**

12.9 **Profile of Metal-Loss — Irregular Spacing of Depth Measurement (Figure V)**

12.10 **KAPA.xls (PLKAPA)**

12.11 **Field Documentation Template (PLFDET)**

13.0 SUMMARY OF CHANGES

7/11/13 – Removed border and changed font

5/7/2013

1. Annual Review of Standard and Attachments

O&M Manual Review

Note: This Document is related to the MPL Procedural Manual (§192 & §195) and therefore needs to be reviewed on an annual basis.

During that review, the SME and/or the Document Owner answers the following questions:

1. Is regulatory code citation accurate? (Example: Current paragraph is correct.) _X_ Yes ___ No
2. Are referenced publications (Example: Current version of: API,ANSI, ASME,. etc.,) incorporated by reference in the regulatory code accurate? _Y_ ___ No
3. Are the numbers for referenced company standards accurate: (Example: Has the standard been replaced by a new standard or archived? _X_ ___ No
4. To the best of your knowledge, are procedures sufficient to achieve and maintain compliance with the regulatory code: _X_ ___ No

Document Owner or SME	MPL Department & Title	Initials & Date
T. G. Hrncir	Integrity Mgmt Services	On File

- 11/10/2011 – Reviewed for OPS manual
  - Update references in reference section to (Current published version in 49CFR195 or 49CFR192 as applicable)
  - Revised Standards in reference section to update names and numbers
  - Deleted definition of System Integrity leader
  - Deleted all links contained in the text of the documents leaving only those in the reference section and attachments section
  - Revised L-Tables so that parameters are industry standards.
  - Add the use of GPS coordinates to locate anomalies 8.6.1 & 8.6.2

    1. Is Code citation accurate? __x__ Yes ____ No
    2. Referenced publications (i.e., API, ANSI, ASME, etc.,) that's been incorporated by reference in the Code are accurate. _x__ Yes ___ No
    3. Referenced company standards are accurate. _x__ Yes ___ No
    4. Procedure accurately addresses code requirements. __x__ Yes ____ No
    5. Procedure is adequate and effective. _x___ Yes ____ No

- 11/18/2009
  - Revised to require the use of the ILI Analyst Database. Deleted the Attachment Project Action Log (PLPAL) & Project Decision Log (PLDL). Placed in the current format. Removed the attachment Excel Spreadsheet – RSTRENG85.xls.

- 06/02/09
  - Added Documentation Control Language and Corrected Records Retention Codes

- 04/21/08
  - The above noted standard has been modified in order to meet document control requirements. Balloting and resigning is not required under TNLGEN001 Standards Management section 8.7.2.
- 10/05/06
  - Revised References per the newly published 49 CFR 195 Transportation of Hazardous Liquids by Pipeline ASME B31G-1991 (Reaffirmed; 2004), Manual for Determining the Remaining Strength of Corroded Pipelines, ASME, New York.
  - API Specification 5L "Specification for Line Pipe" (43rd edition and errata, 2004)
  - ASME B31.4-2002 (October 2002) "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids"
  - ASME B31.8-2003 (February 2004) "Gas Transmission and Distribution Piping Systems"

MARATHON PETROLEUM COMPANY LLC
MARATHON PIPE LINE LLC
STANDARDS

Standard Number	Title	Standard Category	Standard Type	Resp. Org.	Revision Number	Effective Date
MPLDOT003	Integrity Management Program Process	DOT	Policy	ES&R	6	11/08/2013

Organization	Approver	Title	Signature	Subject Matter Expert
MPL	D.A. Breitigam	Environmental, Safety & Regulatory Manager	On File	R. A. Abraham
TT&M	N/A			
M&TE	N/A			
T&L	N/A			

Records Retention: Policy, Standard, Procedure or Guideline (ACT+6)	**Original Date of Issue:** 9/27/2006
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STANDARD STATEMENT

1.1 This standard establishes how Marathon Pipe Line LLC (MPL) will meet a corporate directive, a legal requirement, or a regulatory requirement. Deviations to this standard can only be granted by the Environment, Safety & Regulatory (ES&R) Manager.

PURPOSE

2.1 This "umbrella" Standard ensures all requirements of the U.S. Department of Transportation (DOT), Pipeline Hazardous Materials & Safety Administration (PHMSA) 49 CFR §195.452, "Pipeline Integrity Management in High Consequence Areas" (Hazardous Liquids Pipelines), and appropriate state requirements, are managed by ES&R and implemented uniformly by Operations to ensure regulatory compliance and uniform operational performance.

SCOPE

3.1 This Standard applies to MPL and Marathon Petroleum Company LLC (MPC) operated PHMSA-regulated facility and mainline pipe for the transportation of hazardous liquids that could affect a High Consequence Area (HCA).

MAINTENANCE OF STANDARD

4.1 The ES&R Manager, or designee, shall be responsible for the maintenance of this Standard, and the Integrity Management Program Process (IMPP) described herein.

REGULATIONS

5.1 Federal

This standard provides administration of regulatory elements and requirements prescribed in Department of Transportation (DOT) 49 CFR §195.452, "Pipeline Integrity Management in High Consequence Areas" within the MPL IMPP.

5.2 States

Some states have independent integrity regulations that may exceed requirements of the federal integrity management program. This standard provides administration of integrity management regulations for affected states:

Arkansas – ADC §178 00 001
Kentucky – § 807 KAR 5:022
Louisiana – LAC § 30452 Pipeline Integrity Management in High Consequence Areas
Mississippi – Code MISS R. 60 040 Pipeline Safety Regulation

8.5.5 Cracks

8.5.5.1 Cracks are stress-induced separation of the metal, which, without any other influence, are not large enough to cause the complete rupture of the material. Because of the potential for crack growth in liquid pipeline service through fatigue and inter-granular corrosion, cracks represent a major concern to pipeline operators.

8.5.5.2 Reference MPLMNT001 Pipeline Repairs "Longitudinal Cracks / Arc Burns Assessment / Repair Flowchart."

8.5.6 Mill-Related Anomalies

8.5.6.1 Pipe defects such as blisters, inclusions or laminations, ovality, burnt pipe, hook cracks, hard spots, and incomplete fusion may occur during the manufacturing process.

8.5.6.2 Reference MPLMNT001 Pipeline Repairs, Attachment "Miscellaneous Imperfections & Defects Assessment / Repair Flowchart" & Attachment "Hard Spot Assessment / Repair Flowchart."

8.6 INVESTIGATION & REMEDIATION PLANNING

8.6.1 Locate Anomalies

8.6.1.1 Prior to performing the field investigation the RPL will have the anomalies staked by a surveyor including a reference girth weld. Based on the tool odometer count, a surveyor will "chain" from the upstream Above Ground Marker (AGM) and "close" the survey of the location by chaining to the downstream AGM. An alternate method is to use the GPS coordinates for the anomaly. Optionally, the GPS coordinates can be used to determine the location of the anomalies.

8.6.1.2 Typically it will be necessary to excavate and locate the reference girth welds to determine the odometer or GPS accuracy. Once the girth weld is located the predicted anomaly is measured from the girth welds to the exact anomaly location and excavated.

8.6.1.3 It is critical to find and confirm the specific anomaly location called out on the ILI vendor report. It is not uncommon, upon exposing an anomaly location, to find no anomaly at all or an anomalous condition less severe than called by the ILI vendor report.

8.6.1.4 It is critical that the RI have a high confidence level of the correct anomaly location and must follow procedural steps in this Standard, when necessary, to validate the correct anomaly location.

8.6.1.5 The RPL and the RI, prior to initiating any excavation activities, should pre-plan specific confirmation steps to validate the correct anomaly location.

8.6.2 Excavation

8.6.2.1 Since several steps may involve further excavation, the Mechanical Contractor should consider this requirement in the "one call"

notification. Any or all of the following steps positively confirms the anomaly location.

8.6.2.2 Excavate additional girth welds in the area of the anomaly and confirm that the pipe joint lengths correspond to the tool report. First, for the pipe joint with the predicted anomaly, excavate the weld opposite of the reference weld and confirm the length. Next, it may be desired to excavate the girth welds for the pipe joints upstream and downstream and again confirm the lengths.

8.6.2.3 If a positive identification is not achievable (e.g., the joints are very close in length to each other), it may be necessary to identify a pipe joint in the tool report close to the anomaly location which is different (e.g. "short joint") and excavate to confirm the length. Then the RI can measure, based on the tool odometer or GPS coordinates, to the predicted anomaly location.

8.6.2.4 Some tools can identify the longitudinal weld seam. The seam orientation (o'clock position) for the pipe joint with the predicted anomaly along with the joints upstream and downstream can help confirm the location.

8.6.2.5 The RI may choose to re-measure from the AGM or check GPS coordinates to confirm no errors were made when placing the original stakes, or that the stakes were inadvertently moved by a third party.

8.6.2.6 It may be necessary to measure from another known location on the pipeline to the location and identified by the tool. This might include a casing, a valve, a PI, etc. It may be necessary to excavate the known item to confirm its location and then measure to the predicted anomaly location.

8.6.2.7 If any of these techniques are utilized, the RI should record and thoroughly document in the dig envelop documentation package (inspector notes). This is especially important when no anomaly can be located in the field.

8.6.3 Digital Photograph Records

8.6.3.1 Photographic documentation of the investigation, evaluation, and remediation is required. At a minimum, the following digital photographs must be included for each excavation.

8.6.3.2 Condition of the access route and excavation site prior to commencement of the work;

8.6.3.3 Close-up of the coating/exterior pipe surface prior to inspecting the anomaly;

8.6.3.4 Close-up of the prepared anomaly as evaluated preferably with all the appropriate information including sizing and direction of the flow marked on the pipe with a paint pen;

8.6.3.5 Close-up of the repaired anomaly prior to coating preferably with appropriate information including AFE, date, repair material

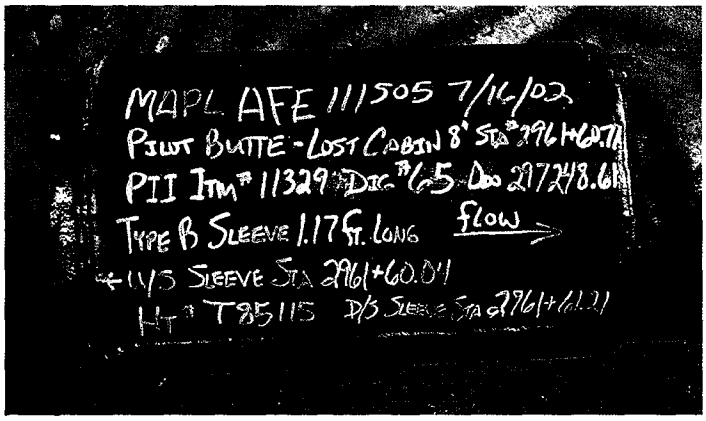
information, e.g., heat numbers, direction of the flow, etc. marked on the pipe with a paint pen;

8.6.3.6 The exposed pipe (overall) after the investigated area has been repaired (if required) and coated;

8.6.3.7 Condition of the access route and excavation site after the completion of the final cleanup.

8.6.3.8 An electronic photo documentation template Electronic Project Photographs Sheet Template (form PLEPPST) provides the RI a template for retaining photographs and documenting all required information. Other templates are acceptable.

8.6.3.9 Sample – Digital Photograph with required information:



8.6.4 Pipe-To-Soil Readings

8.6.4.1 Pipe-to-soil readings shall be taken at the 12, 3, 6, and 9 o'clock positions at the pipe-to-soil interface.

8.6.4.2 Remote pipe-to-soil reading shall be taken between the pipe and a point perpendicular to and twenty-five (25) feet away from the pipe. This is to move the reading outside of the area of original construction avoiding changes in pipe-to-soil potential due to comingling of soils from the construction.

8.6.4.3 The results of the pipe-to-soil readings must be documented on the MPLOPR010 Land and Pipe Management Report, Land & Pipe Management Report (form LPMRMAPL)

8.6.5 Active vs. In-Active Corrosion Analysis

8.6.5.1 Corrosion shall be investigated and must be determined as active or inactive. It is essential that this investigation is carried out prior to commencing any pipe surface preparation.

8.6.5.2 A corrosion investigation to determine active or inactive state of the corrosion must be conducted immediately after the pipeline or steel structure is exposed in order to accurately evaluate and determine the corrosion status.

8.6.5.3 Reference MPLMNT020 for active vs. in-active corrosion analysis.

8.6.6 Surface Preparation

8.6.6.1 Prior to evaluating an anomaly, the area to be examined shall be thoroughly cleaned of coating and oxidized metals using one of two methods:

- SSPC-SP2 "Hand-Cleaning" method;
- Sandblasting utilizing Dupont Starblast material or equivalent.

8.6.6.2 Particular attention must be given to removing all corrosive materials and previous coating from pits.

8.6.6.3 Care shall be taken in cleaning areas of a pressurized pipeline when the degree of metal loss is significant (i.e., very long and/or very deep).

8.6.7 Nominal Wall Thickness Verification

8.6.7.1 The nominal wall thickness of the pipe shall be verified prior to each assessment. This shall be done using an ultrasonic thickness gauge, or equivalent, with a tolerance of ±0.001."

8.6.7.2 Several readings shall be obtained around the perimeter of the area of metal-loss.

8.6.7.3 All wall thickness readings should be greater than the minimum allowable wall thickness based on the API specified tolerances listed below:

	Tolerance, Percentage	
Size (OD) and Process	**Grade A, B, A25**	**X42 through X65**
4" through 18" seamless & welded	-12.5%	-12.5%
20" and larger, **welded**	-10.0%	-8.0%
20" and larger, **seamless**	-12.5%	-10.0%

8.6.7.4 If any of the measurements for nominal wall thickness are less than that specified above and further identified in Attachment, "Minimum Wall Thickness of Line Pipe as Specified by API 5L Tables," the evaluation shall be based on the actual minimum wall thickness reading.

8.6.7.5 If the measurements show the pipe to be within API 5L tolerances, the nominal wall thickness shall be utilized in all calculations.

8.6.8 Metal-Loss (Corrosion) Anomalies — Evaluation Guidelines

8.6.8.1 The evaluation techniques discussed herein are intended for use within the following parameters and limitations.

8.6.9 Metal-loss Assessment Scope

8.6.9.1 Corrosion pitting in the body of the pipe with maximum depth >20% and < 80% of wall thickness;

8.6.9.2 Corrosion pitting <20% of wall thickness is considered an imperfection and not in need of repair.

8.6.9.3 Corrosion pitting >70% of wall thickness is considered a defect and requires repair without further evaluation.

8.6.9.4 Common corrosion pitting across or within a girth weld (circumferential) or longitudinal seam weld < 80% of wall thickness;

8.6.9.5 Anomalies having relatively smooth contours and cause low stress concentration (e.g. electrolytic or galvanic corrosion, loss of wall thickness due to erosion).

8.6.10 Metal-loss Assessment Restrictions

8.6.10.1 Common corrosion pitting, either in the body of the pipe or across or within a girth weld, with a maximum depth□≥ 80% shall not be assessed with the techniques described.

8.6.10.2 Anomalies caused by mechanical damage, such as gouges and grooves, and defects introduced during pipe or plate manufacture, such as seams, laps, rolled ends, scabs, or slivers should not be assessed with the techniques described if the anomaly cannot be repaired by grinding. Reference MPLMNT001 Pipeline Repairs for proper repair methods.

8.6.10.3 Preferential (selective) corrosion of weld seams is not part of this assessment scope and shall be evaluated in the same manner as cracks (reference MPLMNT001 Pipeline Repairs.)

8.6.10.4 If the metal-loss, in which secondary stresses due to bending may be present, has a significant circumferentially orientated component, the described assessment technique should not be utilized.

8.6.10.5 A metal-loss anomaly discovered in the field by the RI is normally first compared to a table of allowable lengths of metal-loss, known as the, "Metal Loss Tables (L Tables)". If the overall axial length of metal-loss is less than the allowable length of metal-loss defined in the "L Table" for the given pipe diameter, wall thickness, and grade, then no repair is required.

8.6.10.6 The KAPA method (utilizing Attachment RSTRENG85.xls (Form PLSTRENG85)) may be used by the RPL to help evaluate metal loss anomalies when specific pipe properties are not listed in the "L Tables" (e.g. certain specific nominal wall thickness).

8.6.10.7 If the overall axial length of metal-loss exceeds the allowable length of metal-loss defined in the "L Table," then more detailed measurements of the anomaly must be provided to the RPL to perform the Effective Area RSTRENG calculation.

8.6.10.8 The Effective Area RSTRENG method is the most accurate method with regard to the predicted failure pressure of the anomaly and shall be the method utilized as the basis of all repair or de-rates for non-IMP Immediate Conditions decisions.

8.6.10.9 Both the 0.85 dL and the Effective Area RSTRENG calculation determine the predicted burst pressure (Pburst), and are then multiplied by the applicable design factor, 0.72 for example, to produce Calculated Allowable Operating Pressure (CAOP) for the metal-loss anomaly under evaluation. Reference 49 CFR 195.106 for design factor criteria.

8.6.10.10 If the CAOP of an anomaly exceeds or is equal to the Internal Design Pressure (IDP) of the pipeline at that location, no repair is required. If the CAOP of an anomaly is less than the IDP of the pipeline at that location, it must normally be permanently repaired. CAOP cannot be greater than the IDP of the line.

8.6.10.11 The CAOP of line pipe with metal-loss is calculated based on (1) the amount and the geometric distribution (approximated to different levels of accuracy) of the metal-loss, and (2) the specifications of the line pipe (diameter, wall thickness, and pipe grade).

8.6.11 KAPA Data Collection

8.6.11.1 Measurement of Length for an Area of Metal-Loss

- The length of the corroded area is measured as shown in Attachment, "Axial Measurement Metal-Loss (Figure II)." This measurement is of the overall length of the area of metal-loss along the pipe's longitudinal axis.

8.6.12 Interaction of Adjacent Areas of Metal-Loss

8.6.12.1 Attachment, "Interaction of Adjacent Areas of Metal-Loss (Figure III)" illustrates two commonly seen types of corrosion interaction.

8.6.13 Type-1 interaction

8.6.13.1 Type-1 interaction is characterized by metal-loss areas which are separated circumferentially by an area of full nominal wall thickness, but which have individual profiles that overlap along the longitudinal axis of the pipe.

8.6.13.2 This type of interaction is to be considered as a single anomaly of length 'L1' if the circumferential separation of the regions at the shortest width (i.e., 'W1') is less than six (6) times the nominal wall thickness.

8.6.13.3 If, however, the separation is greater than six (6) times the wall thickness, then the regions may be treated as individual areas of metal-loss.

8.6.14 Type-2 interaction

8.6.14.1 Type-2 interaction, as illustrated in Attachment, "Interaction of Adjacent Areas of Metal Loss - Figure III", occurs when defect

areas are in line along the longitudinal axis, but are separated by an area of full nominal wall thickness.

8.6.14.2 If the length 'L3' is less than 1-inch, the areas of metal-loss are to be treated as one area of length equal to 'L1+L2+L3'.

- If, however, the length of 'L3' is greater than 1-inch, the areas of metal-loss may be treated as individual areas of metal-loss in the evaluation.

8.6.15 Measurement of Maximum Metal-Loss Depth

8.6.15.1 Metal-Loss depths shall be measured within a tolerance of ±0.001." Several readings should be taken to ensure that the maximum pit depth within the area is located and recorded.

8.6.15.2 Depth Micrometers, or equivalent, provide a high-degree of accuracy (+/- .001) and shall be used for all formal measurements and calculations associated with ILI investigations.

8.6.15.3 Thorpe Pit Gauges, or equivalent, with limited accuracy (+/- .010) shall be <u>not</u> be used for measurements and calculations associated with ILI investigations.

8.6.15.4 If the base of the pit gauge is shorter than the length of the area of metal-loss, a straightedge may be used to span the area of metal-loss. The base of the pit gauge shall be lined up with the bottom edge of the straightedge to assure proper metal-loss depth readings.

8.6.15.5 The remaining wall thickness at the maximum pit depth should be cross checked by a qualified UT technician and or the use of a pencil probe, when available.

8.6.15.6 Associated pictures should be taken and attached, using Attachment Electronic Project Photographs Sheet Template (Form PLEPPST) or equivalent with the above forms for archiving in the project files.

8.6.15.7 At this point (the total interacting length and maximum metal-loss depth known), sufficient data will have been collected for the RI to perform an "L Table" comparison, or the RPL to perform a KAPA assessment on the area of metal-loss.

8.6.16 Developing a Metal-Loss Depth Profile

8.6.16.1 The following procedure shall be used to obtain a detailed profile of the area of metal-loss. The objective is to obtain and record the depths of the deepest points within the area of metal-loss.

8.6.16.2 This will enable the RPL to perform an KAPA evaluation. The KAPA software only allows a maximum of 65 depth measurements to be collected. To achieve this, perform one of the following:

a) Uniform Spacing

1) The area of Metal-Loss should first be divided into equally spaced intervals, X_1-X_n, along the longitudinal axis of the pipe as shown in Attachment , "Profile Of Metal-Loss — Uniform Spacing Of Depth Measurement (Figure IV)."

2) The interval divisions are represented in Attachment, "Interaction of Adjacent Areas of Metal-Loss — Figure III" by uniformly spaced circumferential lines, L_1-L_n. A single metal-loss depth measurement will be recorded for each of these dividing lines.

3) It is not necessary for the recorded pit depth measurement to be taken exactly along one of the dividing lines.

4) In order to obtain measurements of the maximum metal-loss depths within the corroded area, the metal-loss depth measurements can stray from the circumferential dividing lines by up to 1/2 of the interval space.

b) Irregular Spacing

1) The beginning of the metal-loss should be identified. Then all of the deepest areas of metal-loss should be identified and measured along the longitudinal axis of the pipe from the beginning of the metal-loss to the end of the metal-loss as shown in Attachment, "Profile Of Metal-Loss — Irregular Spacing Of Depth Measurement (Figure V)."

8.6.17 Etching

8.6.17.1 Etching of the area of metal-loss shall be made. This is accomplished by rubbing a piece of charcoal on paper. An alternative method is rubbing carbon paper over fax paper. The etching must have specified information recorded.

8.6.17.2 Note: For each dig, one ILI sticker should be filled out and stuck on the etching and one ILI Sticker 2 should be filled out for EACH anomaly on the etching.

8.6.17.3 Attachment MPL Etching Stickers (form PLEDS) shall be used and the following information provided:

- AFE#
- Clock orientation
- Date
- Dig number
- Distance to upstream and downstream girth weld
- Distance to upstream and downstream aboveground reference
- Line segment
- Pipe minimum actual wall thickness
- Pipe nominal wall thickness
- Pipe O.D.
- Pipe SMYS
- Pipeline System
- RI's name
- Station #

- The metal-loss profile, including the spacing increments and the depth measurements.

8.6.17.4 The Attachment Etching Documentation Sticker (Form PLEDS) has been created to assist the RI in the standard recording all the required information. The etching must be appended to the Land & Pipe Management Report (Form PLLMPR).

8.6.18 Internal Metal-Loss Measurement

8.6.18.1 Generally, internal metal-loss associated with corrosion is located on the bottom of the pipe (below 4 & 8 o'clock orientations). The main exception to this is if the pipeline operates at very low flow rates. Therefore, clock orientation and pipeline operating conditions should be taken into account when determining need for and type of repair.

8.6.18.2 The System Integrity Leader and Corrosion Specialist should be consulted to determine the appropriate UT technology (B-Scan or C-Scan) for mapping out all internal anomalies, and repair method. An internal metal-loss anomaly on the bottom of the pipe should be treated as if it were corrosion.

8.6.18.3 UT technology, when used, should map out (in a grid pattern or C-Scan) the remaining wall thickness and identify the edges of the metal-loss, including any interacting adjacent metal-loss.

8.6.18.4 Depending on pipeline operating conditions, an internal metal-loss anomaly not located on the bottom of the pipe may be treated as a manufacturing defect.

8.6.18.5 The System Integrity Leader (SIL) should be consulted to establish the history of internal metal-loss for the particular pipeline system.

8.6.18.6 Additionally, an Ultrasonic B-Scan Wave Test or line pipe removal is recommended in those instances where the mechanism or type of anomaly is uncertain, or if internal corrosion is suspected, but not supported by additional data.

8.6.19 Metal-Loss Assessment

8.6.19.1 Either the "Allowable Length of Metal-Loss Tables" or the KAPA calculation may be used as a go/no-go check.

8.6.19.2 If the overall, interacting length of the anomaly exceeds the allowable length for the maximum depth of metal-loss, the KAPA calculation must be performed.

8.6.20 L-Tables

8.6.20.1 To utilize the Attachment , "Allowable Length of Metal-Loss Tables" or "L Tables" the following information is required for the line pipe under examination.

- Actual outside diameter (O.D.) (in inches),
- Axial Length of the Metal-Loss area (in inches),
- Maximum depth of metal-loss (pit depth) within the metal-loss area (in mils),

- Nominal wall thickness (in inches),
- Specified Minimum Yield Strength (SMYS), in

8.6.20.2 The Attachment , "L Tables" utilizes the 0.85 dL RSTRENG equation. They are arranged in ascending order by OD, and are grouped by SMYS for line pipe. In order to utilize the tables find the table corresponding to the SMYS and OD of the pipe, which is being evaluated.

8.6.20.3 The maximum metal-loss depths are listed in the far-left column of the table, and the various pipe wall thicknesses are listed across the top row of the table.

8.6.20.4 Once the maximum metal-loss depth is located on the table, move from the metal-loss depth column across the page to the right until the appropriate wall thickness column is reached.

8.6.20.5 At this intersection will be the maximum allowable length of the area of metal-loss.

Example 1:

IF:
SMYS = 35,000 psi (Grade B)
O.D. = 4.5 inches
Metal-Loss Depth = 70 mils
Nominal Wall Thickness = .125 inches
Actual Field Measured Wall Thickness = .135 inches
Observed Axial Length of Metal-Loss = .80 inches

THEN:
From the "L Table," the Maximum Allowable Length of the Metal-Loss Area = 1.01 inches. The observed length does not exceed the allowable length, so no repair is required. CAOP of the anomaly is equal to the IDP of the pipe.

8.6.20.6 For a wall thickness/pipe grade combination not covered in the "L Tables", the Excel Spreadsheet — KAPA, containing the 0.85dL calculation is included as Attachment KAPA.xls. (Form PLKAPA) The output of this program is the CAOP of the metal-loss anomaly and it arrives at the same conclusion as the "L Tables."

8.6.21 RSTRENG

8.6.21.1 To utilize the KAPA program the following information is needed in order to perform an KAPA calculation. Information about these factors can be referenced in *49 CFR 195.106.*

- Actual outside diameter (O.D. in inches),
- Design Factor (typically 0.72),

- Increment length,
- Internal Design Pressure
- Measurement Method (pit depth or remaining wall thickness),
- Metal-Loss-depth profile readings within the area of Metal-Loss,
- Nominal wall thickness (in inches),
- Spacing Increment (regular or irregular),
- Specified Minimum Yield Strength (SMYS).

8.6.22 KAPA (RSTRENG2) Computer Program

8.6.22.1 The Effective Area RSTRENG calculation shall be conducted by utilizing the KAPA computer program. Kiefner & Associates, Inc. Pipe Assessment (**KAPA**) provides two methods for calculating the failure pressure levels of longitudinally oriented part-through flaws of varying depths in pressurized pipe.

8.6.22.2 One method is applicable to **blunt defects** such as corrosion-caused metal loss.

8.6.22.3 The second method is applicable to **crack-like defects**. The equations used for the pipe assessment have been in the public domain for over 25 years.

8.6.22.4 For directions and examples on how to use the KAPA Program, please refer to the KAPA Documentation / User's Manual. The most current version of computer program should be maintained for calculating the allowable operating pressure of an area of metal-loss.

- Attachment KAPA (Form PLKAPA)

8.6.23 Field Repairs

8.6.23.1 All field remediation shall be performed in accordance to MPL standards. All authorized types of temporary and permanent repairs for defects are described in MPLMNT001 Pipeline Repairs.

8.6.23.2 Decision trees for dents, gouges, and corrosion (metal-loss), Longitudinal Cracks, Hard Spots, Wrinkle Bends, Stress Corrosion Cracking and Preferential Seam Corrosion anomalies are attached to MPLMNT001 Pipeline Repairs.

8.6.23.3 The specific repair methods and procedures are discussed in detail in the following standards.

- MPLMNT001 Pipeline Repairs.

8.6.24 Operator Qualifications

8.6.24.1 All tasks associated with the performance of field investigation and remediation of anomalies shall be in accordance the MPL Operator Qualification (OQ) Plan. MPL defined "covered tasks" required to perform investigation, evaluation and remediation of anomalies on the pipeline system are subject to the *DOT 49 CFR 192.801* and *49 CFR 195.501* Operator Qualification (OQ) rules.

8.6.24.2 All personnel tasked in the performance of investigating, evaluating and remediation of anomalies shall be in compliance with the MPL OQ Plan.

8.6.25 Equipment / Supplies

8.6.25.1 The RI should have the following list of items available prior to performing any anomaly evaluation:

- Carpenters tape (25 foot)
- Cell Phone
- Charcoal to make etching of anomaly
- Depth Micrometers, or equivalent
- Digital Camera or a Digital Photo CD purchased with film development
- Electronic Photographic Documentation Template
- Etching Documentation Sticker
- Field Audit Book
- Field Documentation Envelopes And Enclosing Forms
- Fiberglass or steel Tape on roll (100 foot)
- Half Cell (for pipe-to-soil readings): must be Copper / Copper Sulfate
- Hammer
- Isometric graph paper
- "L-Tables"
- Land & Pipe Management Reports
- Lap Top Computer
- Line locator
- Litmus (pH) paper
- MPL and Mechanical Integrity Team documentation forms
- MPL Standards Book
- Multi-meter: must be digital and have a minimum 10 Mohr input independence with positive & negative test leads
- **Optional** - Krautkramer Branson (or equivalent) Ultrasonic "Pencil" Probe
- Paint Pencil or Soapstone pencil
- Pins with flags for marking 100' increments
- Straight edge (3 foot)
- Stud Finder (weld finder)
- Sub-Meter GPS Unit And Associated Software
- Survey flagging
- Ultrasonic Thickness Meter

- Wooden stakes (12")

8.6.25.2 The RPL should have a copy of the Attachment, "L Tables" and the most current version of the Attachment KAPA.xls.

8.7 FIELD EVALUATION AND REMEDIATION

8.7.1 Introduction

8.7.1.1 The RPL provides the assigned Land Agent and M&TE Permit Coordinator with the Section-h or Section-d List and Schedule. The assigned Land Agent and M&TE Permit Coordinator secure, respectively, necessary access and permits. A surveyor performs the staking of the anomaly locations.

8.7.1.2 The field investigation is initiated when the RPL provides the RI with the Section-h or Section-d List and Schedule and supporting information such as alignment sheets, benchmark and AGM locations, access clearance, and contact information.

8.7.1.3 The RI assembles and prepares the "Field Documentation Envelope" and, "Land & Pipe Management Report." Refer to MPLOPR010 Land & Pipe Management Report for instructions.

8.7.1.4 The RI informs the mechanical contractor to perform the One-Call Notification covering the specific work location including contingency locations. This notification and assigned number must be noted on the Land & Pipe Management Report (Form PLLPMR).

8.7.2 General Investigation and Remediation Procedures

8.7.2.1 The RI contacts the Area Operations Supervisor (AOS) and the Findlay Operations Center (FOC) by telephone each morning with the Rehabilitation Project status and daily plan.

- These daily rehabilitation project status calls, conducted by the RPL, review the rehabilitation work planned each day and establish and maintain safe operating pipeline conditions during excavation, evaluation, and backfilling.
- Document daily rehabilitation project status calls, discussion items and decisions on the ILI Analyst Database Event Log

8.7.2.2 Photograph condition of the excavation site and access route prior to excavation and prepare Attachment Electronic Project Photographs Sheet Template (Form PLEPPST) or equivalent.

8.7.2.3 Mobilize mechanical contractor to perform the excavation and document on the ILI Analyst Database Event Log.

8.7.2.4 Excavate and locate the reference weld.

8.7.2.5 Measure from the reference weld to the predicted anomaly location and excavate the Section-h or Section-d anomaly.

8.7.2.6 Verify the anomaly location against the Section-h or Section-d List and Schedule.

8.7.2.7 If the anomaly location does not conform to the Section-h or Section-d List and Schedule, notify the RPL immediately and document the anomaly type.

8.7.2.8 Re-measure and locate 'called-out' anomaly to determine that the anomaly truly exists or is a 'false-positive.'

8.7.2.9 **Potential Safety Related Condition** – (Pipeline Not Shut Down During Rehabilitation.) If an anomaly, identified by an ILI for investigation, once excavated is determined by the RI to be of severity (Section-h or Section-d Immediate Condition) and or a safety related condition, and the pipeline has not been shut down during the rehabilitation operation refer to MPLMNT110 Responding to Anomalies.

a) The RI must *immediately* notify the RPL of the reportable safety related condition, as defined by *49 CFR 195.55*, in accordance to MPLMNT042 Rehabilitation Project Leader.

b) The RPL must *immediately* notify the Integrity Management Supervisor of the reportable safety related condition, as defined by 49 *CFR 195.55*, in accordance to MPLDOT012 Safety-Related Condition Report MPLMNT110 Responding to Anomalies.

8.7.2.10 **Photograph** close-up of the coating/exterior pipe surface prior to inspecting the anomaly and prepare Attachment Electronic Project Photographs Sheet Template (Form PLEPPST) or equivalent.

8.7.2.11 Perform **pipe-to-soil reading** during the excavation process and document on the attachment "Field Documentation Envelope" and "Land & Pipe Management Report."

8.7.2.12 **Remove pipe coating** – as required. Document on the "Field Documentation Envelope" and Land & Pipe Management Report (Form PLLPMR).

8.7.2.13 Verify and determine **anomaly** type against the Section-h or Section-d List and Schedule.

8.7.2.14 If the anomaly 'type' does not conform to the Section-h or Section-d List and Schedule, notify the RPL immediately and document the anomaly type.

8.7.2.15 Attempt to locate the 'called-out' anomaly to determine that the anomaly truly exists or is a 'false-positive.'

8.7.2.16 Document or ILI Analyst Database Event Log, "Field Documentation Envelope" and Land & Pipe Management Report (form LPMRMAPL).

8.7.2.17 Determine if **corrosion is active / not active** (external corrosion-induced metal-loss only).

8.7.2.18 Prepare the **pipe surface** for evaluation following SSPC-SP2 procedure as referenced in MPL Standard MPLCON002 Pipeline Coatings and MPLMNT001 Pipeline Repairs for guidelines on the

Texas – 16 TX ADC Chapters 7 & 8
West Virginia – Hazardous Liquid Pipeline Safety Act 1968, as amended

5.3 IMPP Regulatory Application Matrix

Attachment 12.1 IMPP Regulatory Application Matrix describes and references the specifics of the federal and state Integrity Management Program elements and protocols, and their specific application or location in MPL standards.

REFERENCES

6.1 MPL-HES-00419-PRS MPL Incident Reporting and Investigation

6.2 MPLDGN003 Pressure Test Design

6.3 MPLDOT004 HCA Identification Process

6.4 MPLDOT005 Baseline Assessment Schedule Process

6.5 MPLDOT006 Integrity Management Risk Management Process

6.6 MPLDOT007 Pipeline Mechanical Integrity Process

6.7 MPLDOT008 Integrity Management Process Performance Evaluation

6.8 MPLDOT009 Determining DOT Jurisdiction

6.9 MPLDOT011 Leak Detection Adequacy Risk Assessment Process

6.10 MPLMNT069 Managing In-Line Inspection Data

6.11 MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines

6.12 MPLMNT176 Stress Corrosion Cracking Direct Assessment (SCCDA)

6.13 MPLOPR020 High Consequence Area Monitoring

6.14 TNL-HES-00056-POL & TNL-HES-00068-PRS Management of Change

6.15 API 1160 Managing System Integrity for Hazardous Liquid Pipelines

6.16 Auditing, Lessons Learned, Incident, and Recommendation Tracking System (ALIRTS)

DEFINITIONS

7.1 Reference Attachment 12.2 IMPP Definitions for specific terms or phrases applicable to the Integrity Management Program Process, described herein, and all related standards.

STANDARD CONTENT

8.1 General

Introduction

This MPL "umbrella" Standard describes the Integrity Management Program Process (IMPP) for complying with 49 CFR §195.452;

This Standard, and the IMPP described herein, shall be developed and maintained by ES&R.

The Facility Integrity Management Process, Attachment 12.21, is an umbrella document that describes MPL's approach to managing facility integrity and complying with 49 CFR §195.452.

The Management of Change (MOC) process shall be the formal tool for communicating and maintaining IMPP timelines, intervals, deliverables and communication of completed tasks for an HCA potentially impacted by a facility or mainline pipe, reference Standard TNL-HES-00056-POL Management of Change;

ES&R shall determine the regulated jurisdiction for MPL and MPC assets, reference:

a) Standard MPLDOT009 Determining DOT Jurisdiction

This Standard, and the IMPP described herein, is copyrighted and shall not be used or reproduced without the prior written expressed consent of MPL;

IMPP consists of phases that are integrated but independently performed. Each IMPP phase has a developed independent standard that describes the applicable policies and procedures for addressing each regulatory element referenced in 49 CFR §195.452 (f) (1-8).

A Senior Manager shall be designated a Stakeholder (see definition) of each IMPP phase with responsibility for ownership and oversight, reference Section 9.0;

A Subject Matter Expert (SME) shall be designated a Process Leader (see definition) by the Stakeholder with responsibility for day-to-day execution of each IMPP phase, reference Section 9.0.

Regulated assets, subject to 49 CFR §195.452, shall be maintained in the Pipe Line Asset Center.

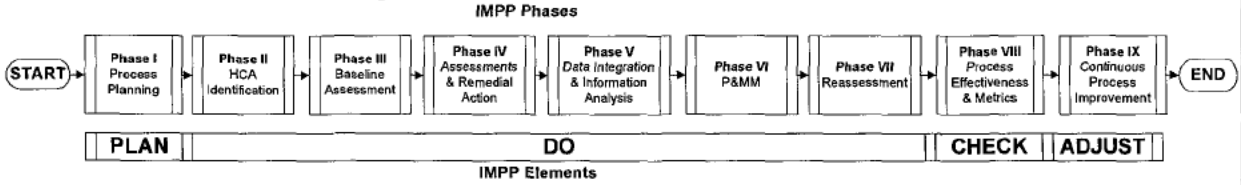
Process Elements

IMPP conforms to the MPL Management System framework for process development and the systematic approach for process management, reference:

IMPP uses the four Management System elements of Plan, Do, Check, and Adjust, hereafter referred to as PDCA. The four PDCA elements provide IMPP Stakeholders the necessary tools for effective execution of the process and ensure continuous process improvement;

Figure 1 – IMPP Elements & Phases illustrates the four PDCA elements. To provide consistency, Figure 1 has been included at the beginning of each section describing the four PDCA elements. The applicable PDCA element is highlighted for ease of identification;

Figure 1 IMPP Elements & Phases



Attachment 12.3 IMPP Elements, Phases, & Standards Map provides an illustration of the four PDCA elements with respect to individual IMPP phases and the supporting standards within each phase;

The IMPP Elements Reference Table illustrates the four PDCA elements relative to the IMPP Phases:

IMPP Elements Reference Table		
Process Element	**Phases**	**Reference**
PLAN	Phase I – Process planning	Section 8.2
DO	Phase II - High Consequence Area Identification	Section 8.3
	Phase III - Baseline Assessment	
	Phase IV - Assessments & Remedial Action	
	Phase V - Data Integration & Information Analysis	
	Phase VI - Preventive & Mitigative Measures	
	Phase VII - Reassessment	
CHECK	Phase VIII - Process Effectiveness & Metrics	Section 8.4
ADJUST	Phase IX - Continuous Process Improvement	Section 8.5

The IMPP Elements & Stakeholder Reference Table illustrates the four PDCA elements relative to the Senior Manager designated a Stakeholder (see definition) with responsibility for ownership and oversight:

IMPP Elements & Stakeholder Reference Table		
Process Element	**Designated Stakeholder**	**Reference**
PLAN	Environment, Safety & Regulatory (ES&R) Manager	Section 8.2
DO	Field Services & Planning (FSP) Manager	Section 8.3
	Integrity, Damage Prevention & Risk (IDP&R) Manager	
CHECK	Environment, Safety & Regulatory (ES&R) Manager	Section 8.4
ADJUST	Environment, Safety & Regulatory (ES&R) Manager	Section 8.5

The IMPP Elements & Process Leader Reference Table illustrates the four PDCA elements relative to the Subject Matter Expert (SME) designated a Process Leader (see definition) with responsibility for the day-to-day execution:

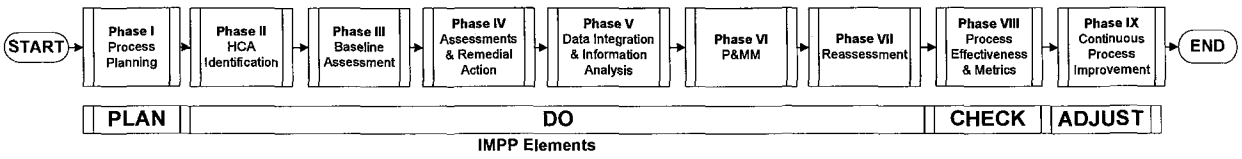
IMPP Elements & Process Leader Reference Table		
Process Element	**Designated Process Leader**	**Reference**
PLAN	ES&R IMPP Leader	Section 8.2
DO	FSP High Consequence Area Process Leader	Section 8.3
	IDP&R Mechanical Integrity Process Leader	
	IDP&R Risk Management Professional	
CHECK	ES&R IMPP Leader	Section 8.4
ADJUST	ES&R IMPP Leader	Section 8.5

Process Phases

Within the framework of the four PDCA elements, MPL uses nine phases to execute IMPP;

Figure 1 – IMPP Elements & Phases illustrates the flow of the process. To provide consistency, Figure 1 has been included at the beginning of each sub-section that describes each of the nine phases. The applicable phase is highlighted for ease of identification;

Figure 1 IMPP Elements & Phases



The IMPP Phases Reference Table illustrates the nine phases of IMPP relative to PDCA elements:

IMPP Phases Reference Table		
Process Element	**Phases**	**Reference**
PLAN	**Phase I** – Process planning	Section 8.2.2
DO	**Phase II** - High Consequence Area Identification	Section 8.3.2
	Phase III - Baseline Assessment	Section 8.3.3
	Phase IV - Assessments & Remedial Action	Section 8.3.4
	Phase V - Data Integration & Information Analysis	Section 8.3.5
	Phase VI - Preventive & Mitigative Measures	Section 8.3.6
	Phase VII - Reassessment	Section 8.3.7
CHECK	**Phase VIII** - Process Effectiveness & Metrics	Section 8.4.2
ADJUST	**Phase IX** - Continuous Process Improvement	Section 8.5.2

The IMPP Phases & Stakeholder Reference Table illustrates the nine IMPP Phases relative to the Senior Manager designated a Stakeholder (see definition) with responsibility for the ownership and oversight:

IMPP Phases & Stakeholder Reference Table	
IMPP Phases	**Designated Stakeholder**
Phase I – Process planning	Environment, Safety & Regulatory (ES&R) Manager
Phase II - High Consequence Area Identification	Field Services & Planning (FSP) Manager
Phase III - Baseline Assessment	Integrity, Damage Prevention & Risk (IDP&R) Manager
Phase IV - Assessments & Remedial Action	Integrity, Damage Prevention & Risk (IDP&R) Manager
Phase V - Data Integration & Information Analysis	Integrity, Damage Prevention & Risk (IDP&R) Manager
Phase VI - Preventive & Mitigative Measures	Integrity, Damage Prevention & Risk (IDP&R) Manager
Phase VII - Reassessment	Integrity, Damage Prevention & Risk (IDP&R) Manager

Phase VIII - Process Effectiveness & Metrics	Environment, Safety & Regulatory (ES&R) Manager
Phase IX - Continuous Process Improvement	Environment, Safety & Regulatory (ES&R) Manager

The IMPP Phases & Process Leader Reference Table illustrates the nine IMPP Phases relative to the Subject Matter Expert (SME) designated a Process Leader (see definition) with responsibility for the day-to-day execution:

IMPP Phases & Process Leader Reference Table	
IMPP Phases	**Designated Process Leader**
Phase I – Process planning	ES&R IMPP Leader
Phase II - High Consequence Area Identification	FSP High Consequence Area Process Leader
Phase III - Baseline Assessment	IDP&R Mechanical Integrity Process Leader **
Phase IV - Assessments & Remedial Action	IDP&R Mechanical Integrity Process Leader **
Phase V - Data Integration & Information Analysis	IDP&R Risk Management Professional
Phase VI - Preventive & Mitigative Measures	IDP&R Risk Management Professional
Phase VII - Reassessment	IDP&R Mechanical Integrity Process Leader **
Phase VIII - Process Effectiveness & Metrics	ES&R IMPP Leader
Phase IX - Continuous Process Improvement	ES&R IMPP Leader

a) **Note:** ** The Mechanical Integrity Process Leader designated herein shall be performed by a Mechanical Integrity Leader.

Attachment 12.3 IMPP Elements, Phases, & Standards Map provides an illustration of IMPP process phases and what standard MPL addresses each of the eight (8) elements of 49 CFR §195.452 (f);

Attachment 12.4 IMPP Phases & MPL Business Units Interaction Map provides an illustration of the IMPP-related standards, major IMPP elements, 49 CFR §195.452 (f) elements, inter-relationship of MPL business units, and identification of key supporting MPL tools (databases);

Attachment 12.5 IMPP Timeline & Intervals Map provides an illustration of the IMPP timeline, milestones, deliverables, standardized intervals and regulatory interval requirements;

Attachment 12.6 IMPP Steps & Interval Checklist (IMPPSICHK) provides a mandatory tool for all participants of the IMPP with sequential steps and intervals.

IMP Regulation Application

The IMPP Leader shall be responsible for periodic review and evaluation of federal and state Integrity Management Program regulations and applicable industry standards, and as appropriate, introduce changes to IMPP for effective knowledge transfer and improvements to the process using a Process Change Plan.

Changes to IMPP may include:

a) Deliverables
b) Procedures

c) Standards
d) Sub-Processes
e) Timelines

The IMPP Leader shall be responsible for IMPP regulatory compliance;

For a detailed description of 49 CFR §195.452, and applicable state regulations, with specific references within MPL standards, see REGULATIONS.

New Regulation Information

The IMPP Leader shall obtain new regulatory data and information from the following sources for evaluation, distribution and communication, as appropriate, to IMPP stakeholders for effective knowledge transfer and process improvement:

a) Federal Advisories, Bulletins and Alert Notices - PHMSA
b) Incident Reports - National Transportation Safety Board (NTSB)
c) State Advisories, Bulletins, and Alert Notices

The IMPP Leader shall document in ALIRTS Lessons Learned when appropriate or verbally report to stakeholders regulatory information and discoveries;

IMPP stakeholders shall be responsible for evaluation and/ or integration as appropriate, of new regulatory information into their respective standard, policies, processes, procedures and specifications described therein, for continuous process improvement.

New Industry Information

The IMPP Leader, and designees, shall obtain new industry data and information from the following sources for evaluation, distribution and communication, as appropriate, to IMPP stakeholders for effective knowledge transfer and continuous process improvement:

a) Pipeline Performance Tracking System (PPTS) Advisories and Comparison Reports - American Pipeline Institute (API);
b) Advisories and Reports - National Association of Corrosion Engineers (NACE);
c) Advisories and Reports - Pipeline Research Council International (PRCI);
d) Others.

The IMPP Leader, and designees, shall document in ALIRTS and/or report to stakeholders, when appropriate, new industry information and discoveries;

IMPP stakeholders shall be responsible for evaluation and integration, as appropriate, of new industry information into their respective standard, policies, processes, procedures and specifications described therein, for continuous process improvement.

PHMSA IMP Notifications

The IMPP Leader, or designee, shall prepare and submit electronic notifications to PHMSA for all IMP regulatory notifications prescribed in 49 CFR §195.452, reference Attachment 12.7 PHMSA IMP Notification Requirements;

A missed §195.452 prescriptive interval or requirement shall be reported immediately to the IMPP Leader, or designee, by the affected Business Unit;

Other MPL employees shall, as directed by ES&R, make electronic notifications to PHMSA on behalf of ES&R;

Electronic notification to PHMSA shall be submitted for the following situations:

a) To modify a regulatory IMP re-inspection interval, submit Attachment 12.8 IMP Re-Inspection Interval PHMSA Notification Form (REINSPNFORM);

b) To modify an IMP investigation and repair schedule, submit Attachment 12.9 IMP Repair Schedule PHMSA Notification Form (REPAIRSPNFORM);

c) To propose another IMP assessment technology, submit Attachment 12.10 IMP Other Technology PHMSA Notification Form (OTPNFORM). This form must be submitted every time Other Technology is utilized.

IMPP Role Qualifications

The IMPP Leader, in conjunction with respective IMPP Stakeholders, shall be responsible for the periodic evaluation and modification as appropriate, of the qualifications for personnel performing IMPP data integration and information analysis described herein, for continuous process improvement;

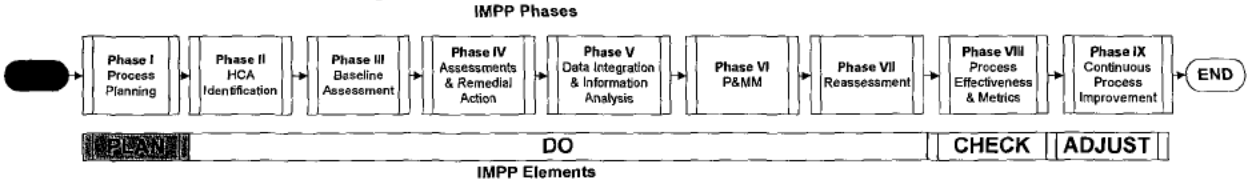
Personnel managing IMPP data integration and information analysis, to comply with 49 CFR §195.452 (f)(8), shall possess and maintain prerequisite qualifications, reference Attachment 12.11 IMPP Personnel Qualifications;

Note: The IMPP Leader qualifications shall not be subject to the requirements described in this section;

For IMPP described roles, specific personnel qualifications for both MPL and contractor personnel managing integrity data, performing data integration, and conducting information analysis, the following forms shall be prepared and maintained:

a) Attachment 12.12 IMPP Qualification Record for Analysis Process Leader
b) Attachment 12.13 IMPP Qualification Record for CCAT Process Leader - performed by the Corrosion Control Specialist
c) Attachment 12.14 IMPP Qualification Record for ECDA Process Leader - performed by the Corrosion Control Specialist
d) Attachment 12.15 IMPP Qualification Record for HCA Process Leader - performed by the Geographical Information System (GIS) Process Leader
e) Attachment 12.16 IMPP Qualification Record for Mechanical Integrity Process Leader - performed by the Mechanical Integrity Leader
f) Attachment 12.17 IMPP Qualification Record for O & L Process Leader - performed by the SCADA Systems Analyst
g) Attachment 12.18 IMPP Qualification Record for Risk Management Professional
h) Attachment 12.19 IMPP Qualification Record for SCC Process Leader - performed by the Corrosion Control Specialist

Figure 1 IMPP Elements & Phases



8.2 Plan

Introduction

The first PDCA element, PLAN, provides for formal periodic evaluation of the process, preparation of long term plans, and tactical scheduling of specific additions or changes to IMPP.

Environment, Safety & Regulatory (ES&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP element.

For conducting long term and tactical planning, reference the MPL Management System.

The PLAN element consists of the following phase:

a) Phase I – Process Planning

The PLAN element shall be initiated every three (3) years, or sooner if required, resulting from:

a) Identified changes to regulatory or industry standards
b) Break-downs in practices, procedures, processes or standards identified in the PDCA elements of CHECK and ADJUST
c) Feedback from IMPP Stakeholders

The ES&R IMPP Leader shall be responsible for the initiation and maintenance of the PLAN element.

Phase I – Process Planning

The first phase of IMPP consists of process planning which includes:

a) Long Term & Tactical Planning
b) Risk Management
c) Structure & Responsibility

Environment, Safety & Regulatory (ES&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

The ES&R IMPP Process Leader is responsible for the day-to-day activities relative to process planning including the preparation and maintenance of all procedures and forms described in this standard:

IMPP Stakeholder Steering Committee

MPL has established an IMPP Stakeholder Steering Committee consisting of:

a) ES&R IMPP Leader (Chair)
b) Vice President – Operations (Advisor)
c) ES&R Manager
d) Field Services & Planning Manager
e) Integrity, Damage Prevention & Risk Manager
f) ES&R Regulatory Compliance Supervisor (Advisor)

IMPP Stakeholder Steering Committee shall meet periodically to conduct strategic IMPP planning. Strategic planning decisions made by this committee will be embodied within this standard. The final decisions regarding IMPP planning and implementation reside with this committee.

IMPP Stakeholders shall be responsible for:

a) Participation in long term and tactical planning, and risk management with the IMPP Leader;

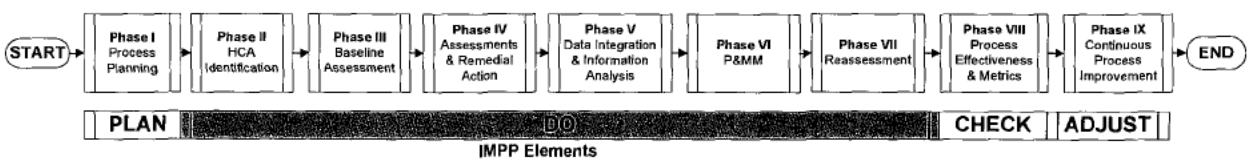
b) Preparation and submittal of written Continuous Process Improvement initiatives to ES&R through the MOCR process, for changes or additions to their respective IMPP policies, processes, procedures and standards;

c) Implementation of approved Continuous Process Improvement initiatives.

The ES&R IMPP Leader shall be responsible for monitoring and communicating Continuous Process Improvement initiative progress and completion to IMPP Stakeholders;

Note: It shall be noted that Process Planning (Phase I) is not required for all MPL facility and mainline pipe assets or HCA changes or additions.

Figure 1 IMPP Elements & Phases



8.3 Do

Introduction

The second PDCA element, DO, ensures the correct execution of IMPP by means of internal controls, training & competency and knowledge transfer.

As designated Stakeholders, the following shall be responsible for this IMPP element:

a) Environment, Safety & Regulatory Manager (Oversight)
b) Field Services & Planning Manager
c) Integrity, Damage Prevention & Risk Manager

For implementing internal controls, training & competency and knowledge transfer, reference Standard MPLGEN004 MPL Management System.

The DO element consists of the following phases:

a) Phase II - High Consequence Area (HCA) Identification
b) Phase III - Baseline Assessment
c) Phase IV - Assessments & Remedial Action
d) Phase V - Data Integration & Information Analysis
e) Phase VI - Preventive & Mitigative Measures (P&MM)
f) Phase VII – Reassessment

Review and/or updates to internal controls within the DO element shall be initiated every year, or sooner if required, resulting from:

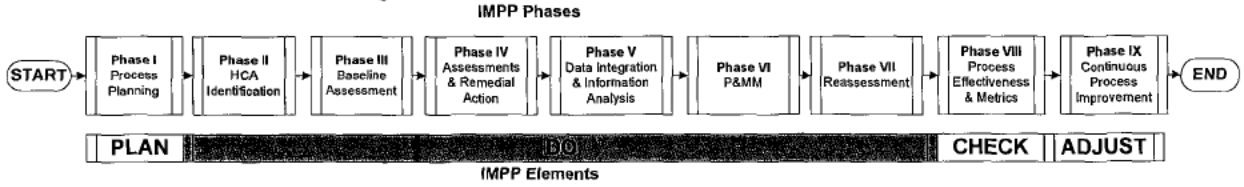
g) Changes to regulatory or industry standards
h) Break-downs in the process, practices, procedures and/ or standards, as identified in the PDCA elements CHECK and ADJUST
i) Feed-back from IMPP Stakeholders

Designated Process Leader(s) shall be responsible for this PDCA element, see IMPP Elements Reference Table.

Attachment 12.6 IMPP Steps & Interval Checklist (IMPPSICHK) provides a mandatory tool for all participants of IMPP with sequential steps and intervals;

Primary communication of new or changed HCA or asset data and information in IMPP shall be by a Management of Change Request (MOCR), reference Standard TNLHES001 Management of Change.

Figure 1 IMPP Elements & Phases



Phase II – HCA Identification

The second phase of IMPP consists of HCA identification and management.

Field Services & Planning (FSP) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

The FSP High Consequence Area Process Leader is responsible for the day-to-day activities relative to HCA identification including the preparation and maintenance of all procedures and forms described in the following standards:

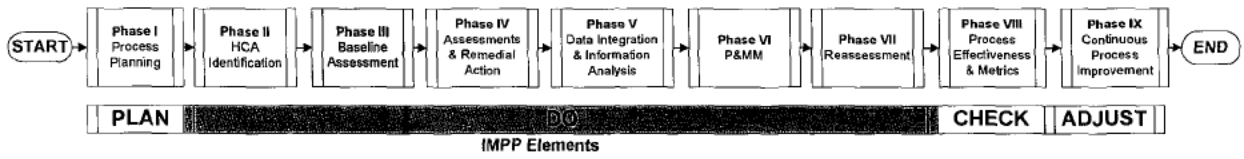
a) Standard MPLDOT004 HCA Identification Process provides the procedure to:

1) Identify and maintain data relative to HCA boundary changes and additions per 49 CFR §195.452 (d) (3) (i-ii);

2) Identify and maintain data relative to changes and additions to MPL & MPC facility and mainline pipe assets that Could-affect a High Consequence Area (CHCA) to meet the requirements of 49 CFR §195.452 (d) (3) (i-ii), (b) (1) and (b) (2).

b) Standard MPLOPR020 High Consequence Area Monitoring provides the procedure to monitor and track recognized changes to existing HCA population boundaries and unusually sensitive areas per 49 CFR §195.452 (d) (3) (i-ii).

Figure 1 IMPP Elements & Phases



Phase III – Baseline Assessment

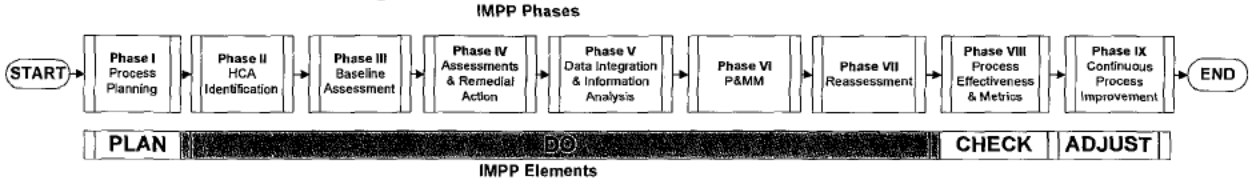
The third phase of IMPP consists of a baseline integrity evaluation of MPL mainline pipe assets that could affect an HCA.

Integrity, Damage Prevention & Risk (IDP&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

The IDP&R Mechanical Integrity Process Leader shall be responsible for the day-to-day activities relative to a baseline integrity evaluation including the preparation and maintenance of all procedures and forms described in the following standard:

a) Standard MPLDOT005 Baseline Assessment Schedule Process provides the process and procedures to manage regulated facility and mainline pipe that could affect an HCA within a prescribed Baseline Assessment Plan to meet the requirements of 49 CFR §195.452 (f) (2).

Figure 1 IMPP Elements & Phases



Phase IV – Assessments & Remedial Action

The fourth phase of IMPP consists of:

a) Performing integrity assessments on MPL mainline pipe assets that could affect an HCA using various methods and techniques for assessing anomalous conditions;

b) Performing investigation and remediation of anomalous conditions discovered in the integrity assessment.

Integrity, Damage Prevention & Risk (IDP&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

The IDP&R Mechanical Integrity Process Leader is responsible for the day-to-day activities relative to assessments and remedial action including the preparation and maintenance of all procedures and forms described in the following standards:

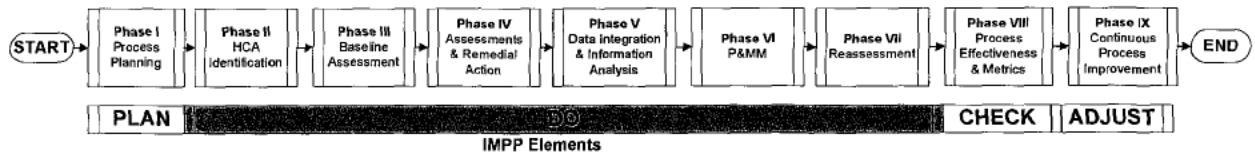
c) Standard MPLDGN003 Hydrostatic Test Design & Documentation provides the procedure for designing a pressure test for evaluating the integrity of a facility or mainline pipe to meet the requirements of 49 CFR §195.452 (f) (4);

d) Standard MPLMNT069 Managing In-Line Inspection Data provides the procedure to manage ILI data, anomalous condition response and investigation for evaluating the integrity of mainline pipe to meet the requirements of 49 CFR §195.452 (f) (4);

e) Standard MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines provides the procedure to manage ECDA analysis and investigation for evaluating the integrity of a facility or mainline pipe to meet the requirements of 49 CFR §195.452 (f) (4).

f) Standard MPLMNT135 Inspecting & Evaluating Line Pipe for Stress Corrosion Cracking (SCC) provides the procedure to inspecting and evaluating potential stress corrosion cracking type anomalous conditions on facility or mainline pipe to meet the requirements of 49 CFR §195.452 (f) (4).

Figure 1 IMPP Elements & Phases



Phase V – Data Integration & Information Analysis

The fifth phase of IMPP consists of:

a) Integration of data pertaining to the integrity of MPL mainline pipe assets that could affect an HCA;

b) Analysis of information relative to the integrity of MPL facility and mainline pipe assets and associated risks that could affect an HCA.

Integrity, Damage Prevention & Risk (IDP&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

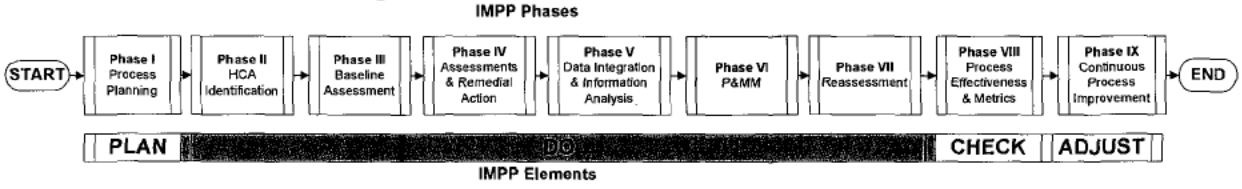
The IDP&R Risk Management Professional shall be responsible for the day-to-day activities relative to data integration and information analysis including the preparation and maintenance of all procedures and forms described in the following standard:

c) Standard MPLDOT006 Integrity Management Risk Management Process provides the procedure to:

1) Integrate data and perform information analysis about the integrity of a facility and mainline pipeline;

2) Evaluate potential HCA impact by a facility or mainline pipe to meet the requirements of 49 CFR §195.452(f) (3).

Figure 1 IMPP Elements & Phases



Phase VI – P&MM

The sixth phase of IMPP consists of evaluation, and implementation if appropriate, of specific measures needed on mainline pipe to protect an HCA, referenced as Preventative and Mitigative Measures (P&MM);

Integrity, Damage Prevention & Risk (IDP&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

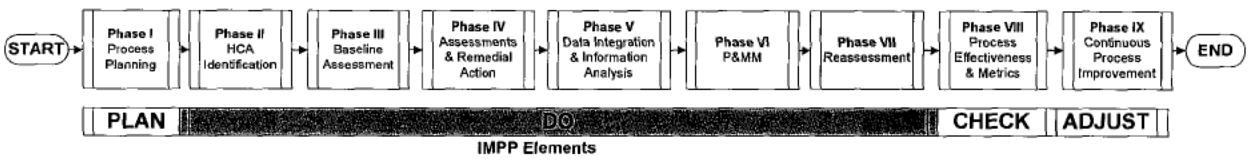
The IDP&R Risk Management Professional shall be responsible for the day-to-day activities relative to a P&MM evaluation and implementation including the preparation and maintenance of all procedures and forms described in the following standard:

a) Standard MPLDOT006 Integrity Management Risk Management Process provides the procedure to evaluate the application of preventive and mitigative measures (P&MM) on a facility and mainline pipe to protect an HCA to meet the requirements of 49 CFR §195.452 (f) (6).

Operations & Logistics (O&L) shall be responsible for the following reference:

a) Standard MPLDOT011 Leak Detection Adequacy Risk Assessment Process provides the procedure to evaluate the application and effectiveness of leak detection technology to protect an HCA to meet the requirements of 49 CFR §195.452 (f) (6).

Figure 1 IMPP Elements & Phases



Phase VII – Reassessment

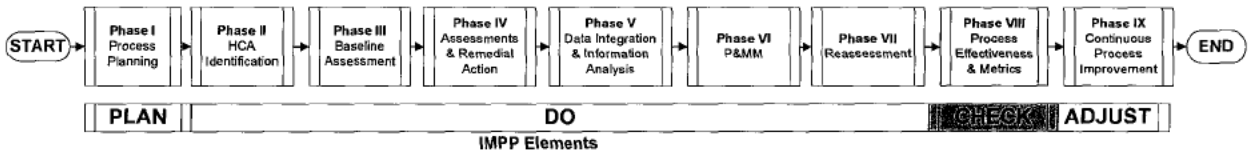
The seventh phase of IMPP consists of scheduling and implementing continuous evaluations of the integrity of MPL mainline pipe assets that could affect an HCA;

Integrity, Damage Prevention & Risk (IDP&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

The IDP&R Mechanical Integrity Process Leader shall be responsible for the day-to-day activities relative to a reassessments including the preparation and maintenance of all procedures and forms described in the following standard:

a) Standard MPLDOT007 Pipeline Mechanical Integrity Process provides the process and procedure to conduct a re-assessment for evaluating the integrity of a facility or mainline pipe to meet the requirements of 49 CFR §195.452 (f) (5).

Figure 1 IMPP Elements & Phases



8.4 Check

Introduction

The third PDCA element, CHECK, ensures that IMPP performance is continuously monitored and evaluated to identify needed improvements.

Environment, Safety & Regulatory (ES&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP element.

For conducting process effectiveness evaluations and metrics, reference Standard MPLGEN004 MPL Management System.

The CHECK element consists of the following phase:

a) Phase VIII – Process Effectiveness & Metrics

The CHECK element shall be initiated every year, or sooner if required, resulting from:

a) Identified changes to regulatory or industry standards
b) Break-downs in practices, procedures, processes or standards
c) Feedback from IMPP Stakeholders

The ES&R IMPP Leader shall be responsible for the initiation and maintenance of the AJDUST element.

Phase VIII – Process Effectiveness & Metrics

The eighth phase of IMPP consists of process effectiveness evaluations and metrics including:

a) Assessment
b) Monitoring

Environment, Safety & Regulatory (ES&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

The ES&R IMPP Process Leader shall be responsible for the day-to-day activities relative to process effectiveness and metrics including the preparation and maintenance of all procedures and forms described in the following standard:

c) Standard MPLDOT008 Integrity Management Process Performance Evaluation provides the methods for measuring the effectiveness of the MPL IMPP to meet the requirements of 49 CFR §195.452 (f) (7), including:

1) Process Performance Metrics
2) Process Incidents
3) Process Performance Evaluations

IMPP Stakeholder Steering Committee

MPL has established an IMPP Stakeholder Steering Committee consisting of:

a) ES&R IMPP Leader (Chair)
b) Vice President – Operations (Advisor)
c) ES&R Manager
d) Field Services & Planning Manager
e) Integrity, Damage Prevention & Risk Manager
f) ES&R Regulatory Compliance Supervisor (Advisor)

IMPP Stakeholder Steering Committee shall meet periodically based on availability of relevant information, but not less than two times a year, to evaluate IMPP process effectiveness and metrics. Strategic decisions made by this committee will be embodied within this standard. The final decisions regarding IMPP process effectiveness and metrics reside with this committee.

The ES&R IMPP Leader and Operations shall be responsible for establishing and communicating IMPP Performance Metrics;

DOT Compliance Representative shall be responsible for submitting annual MPL IMPP data and infrastructure information to API PPTS;

IMPP Stakeholders shall be responsible for evaluation of the applicable IMPP Performance Metrics, and address as appropriate, the effectiveness of their respective standard, including policies, procedures, processes and specifications described therein;

Periodic Evaluations

Periodic Evaluations are analytical reviews of a wide range of data and information regarding the pipeline integrity that includes but goes beyond simply 'assessment' results. The Periodic Evaluation process is distinct from the 'reassessment interval' process. Periodic Evaluations involve a different process than 'assessments.'

Risk Management and ES&R IMPP Chair shall be responsible for periodic evaluations. Periodic evaluations will be conducted by the ES&R IMPP Leader and a Risk representative. Attendees will

include available representatives from Risk, the FSP GIS Coordinator, Damage Prevention, Integrity Management Services, and ES&R.

The current Risk Management Process includes and satisfies the requirements for conducting Periodic Evaluations of pipeline integrity of each pipeline segment that could affect a high consequence area.

The Risk Management Process is a comprehensive assessment and evaluation process that addresses the requirements specified in 195.452 (j) (2). The periodic evaluation must, at a minimum, consider the results of:

- **a)** Baseline and periodic integrity assessments
- **b)** Risk analysis
- **c)** Decisions about remediation
- **d)** Preventive and mitigative actions

The frequency for conducting Periodic Evaluations must be based on a specific set of minimum required factors listed in 195.452(e), (g), (h), and (i), and may not necessarily follow the integrity assessment schedule. The documented frequency for Periodic Evaluation is considered to be a "Scheduled Trigger" under the Risk Management Standard MPLDOT006. Periodic Evaluation shall occur annually.

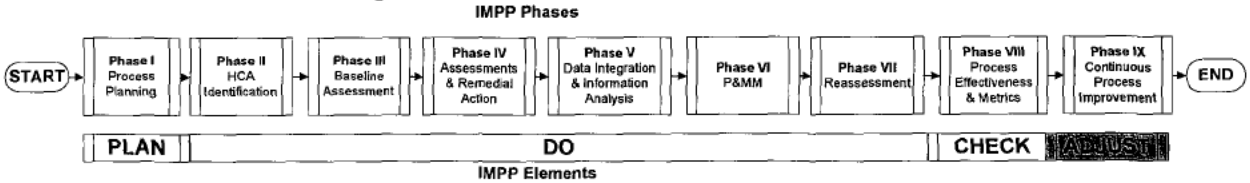
Periodic Evaluation process is distinct from the reassessment interval process. When determining the frequency of Periodic Evaluations (i.e. interval of next Risk Assessment), SMEs must base the decision on all applicable threats and risk factors identified during the Risk Management Process, including the following minimum factors:

- **e)** Results of the previous integrity assessment, defect type and size that the assessment method can detect, and defect growth rate;
- **f)** Pipe size, material, manufacturing information, coating type and condition, and seam type;
- **g)** Leak history, repair history and cathodic protection history;
- **h)** Product transported;
- **i)** Operating stress level;
- **j)** Existing or projected activities in the area;
- **k)** Local environmental factors that could affect the pipeline (e.g., corrosivity of soil, subsidence, climatic);
- **l)** geo-technical hazards; and
- **m)** Physical support of the segment such as by a cable suspension bridge.

8.4.3.1 Periodic evaluations shall be documented and where information is applicable to a certain segment, in the Final Risk Assessment and Additional P&MM Evaluation Report

Note: It shall be noted that Process Effectiveness and Metrics (Phase VIII) is not required for all MPL facility and mainline pipe asset or HCA changes or additions.

Figure 1 IMPP Elements & Phases



8.5 Adjust

Introduction

The fourth PDCA element, ADJUST, ensures identified improvements to IMPP are implemented for continuous improvement.

Environment, Safety & Regulatory (ES&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP element.

The CHECK element consists of the following phase:

a) Phase IX – Continuous Process Improvement

The ADJUST element shall be initiated every three (3) years, or sooner if required resulting from:

a) Identified changes to regulatory or industry standards
b) Break-downs in practices, procedures, processes or standards
c) Feedback from IMPP Stakeholders

The ES&R IMPP Leader shall be responsible for the initiation and maintenance of the AJDUST element.

Phase IX – Continuous Process Improvement

The ninth phase of IMPP consists of implementing process improvement.

Environment, Safety & Regulatory (ES&R) Manager, as the designated Stakeholder, shall be responsible for this IMPP phase.

The ES&R IMPP Process Leader shall be responsible for the day-to-day activities relative to continuous improvement including the preparation and maintenance of all procedures and forms and the following reference:

a) Attachment 12.20 IMPP Continuous Process Improvement

Note: *Continuous improvement hereafter shall be referred to as Continuous Process Improvement in this* standard and attachments.

Continuous Process Improvement consists of:

a) Assessing issues and process improvement recommendations, in the context of business value justification, risk and strategic alignment
b) Implementing needed improvements and corrective actions
c) Identifying decision makers and required changes to be incorporated into the process

IMPP Stakeholder Steering Committee

MPL has established an IMPP Stakeholder Steering Committee consisting of:

a) ES&R IMPP Leader (Chair)
b) Vice President – Operations (Advisor)
c) ES&R Manager
d) Field Services & Planning Manager
e) Integrity, Damage Prevention & Risk Manager
f) ES&R Regulatory Compliance Supervisor (Advisor)

IMPP Stakeholder Steering Committee shall meet periodically based on availability of relevant information, but not less than two times a year, to evaluate and initiate process improvements to IMPP. Strategic decisions made by this committee will be embodied within this standard. The final decisions regarding IMPP Continuous Process Improvement reside with this committee.

IMPP Stakeholders shall be responsible for:

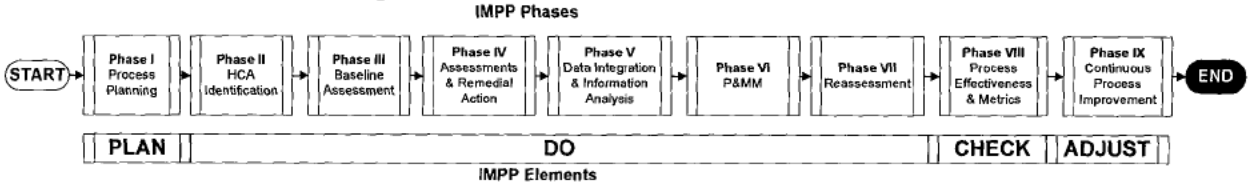
a) Implementation and project management of Continuous Process Improvement initiatives relative to their respective standard, including policies, procedures, processes and specifications described therein;

b) Communication of the progress and completion of assigned Continuous Process Improvement initiatives to the IMPP Leader.

The ES&R IMPP Leader shall be responsible for monitoring and communicating progress and completion of Continuous Process Improvement initiatives to IMPP Stakeholders;

Note: It shall be noted that Continuous Process Improvement (Phase IX) is not required for all MPL facility and mainline pipe asset or HCA changes or additions.

Figure 1 IMPP Elements & Phases



Note: The four PDCA process elements and nine phases of IMPP are continuous. However, for illustration purposes Figure 1 – IMPP Elements & Phases denotes the end or completion of IMPP.

RESPONSIBILITIES

9.1 Environment, Safety & Regulatory (ES&R)

ES&R Manager

Designated as an Owner and Stakeholder of:

a) IMPP Element - PLAN
b) IMPP Element - CHECK
c) IMPP Element - ADJUST

Designated as an Owner and Stakeholder of:

a) IMPP Phase I - Process Planning
b) IMPP Phase VIII - Process Effectiveness & Metrics
c) IMPP Phase IX - Continuous Process Improvement

As Senior Management, responsibilities include:

a) Oversight of day-to-day activities of the assigned Process Leader
b) Member of IMPP Stakeholder Steering Committee
c) Oversight of IMPP Periodic Evaluation Team
d) Overall IMPP compliance and effectiveness

No additional responsibilities other than those defined in this Standard.

Integrity Management Program Process (IMPP) Leader

Designated as a Subject Matter Expert (SME) specific to:

a) 49 CFR §195.452, "Pipeline Integrity Management in High Consequence Areas;"

As an SME, designated the Process Leader for the following IMPP Elements:

a) PLAN
b) CHECK
c) ADJUST

As an SME, designated the Process Leader for the following IMPP Phases:

a) IMPP Phase I - Process Planning
b) IMPP Phase VIII - Process Effectiveness & Metrics
c) IMPP Phase IX - Continuous Process Improvement

Chair of Periodic Evaluation Team and IMPP Stakeholder Steering Committee;

Prepare and maintain the Integrity Management Program Process, and this Standard MPLDOT003 Integrity Management Program Process;

Prepare and maintain Standard MPLDOT008 Integrity Management Performance Evaluation Process, and all procedures and forms described therein;

Monitor IMPP process effectiveness through MOCR;

Monitor and publish IMPP Performance Metrics, Incidents, and Performance Evaluations;

Obtain new regulatory data and information for evaluation, distribution and/or communication to Process Leaders for effective knowledge transfer and Continuous Process Improvement;

Document and report new regulatory information and discoveries in an audit tracking system (e.g. ALIRTS);

Document and report new industry information and discoveries in an audit tracking system (e.g. ALIRTS);

Prepare and submit electronic notifications to PHMSA;

IMPP Steering Committee member;

No additional responsibilities other than those defined in this Standard.

ES&R Regulatory Compliance Supervisor

IMPP Steering Committee member;

No additional responsibilities other than those defined in this Standard.

DOT Compliance Representative

Submit the annual MPL IMPP data and infrastructure information to API PPTS;

No additional responsibilities other than those defined in this Standard.

9.2 Field Services & Planning (FSP)

Field Services & Planning Manager

Designated as an Owner and Stakeholder of:

a) IMPP Element – DO (partial)

Designated as Owner and Stakeholder of:

a) IMPP Phase II - High Consequence Area Identification

As Senior Management, responsibilities include:

a) Oversight of day-to-day activities of the assigned Process Leader (see definition)
b) Member of IMPP Stakeholder Steering Committee
c) Oversight of Periodic Evaluation Team

No additional responsibilities other than those defined in this Standard.

High Consequence Area Process Leader

As an SME, designated the Process Leader for the following IMPP Element:

a) DO (partial)

As an SME, designated the Process Leader for the following IMPP Phase:

a) IMPP Phase II - High Consequence Area Identification

Member of Periodic Evaluation Team

Prepare and maintain Standard MPLDOT004 HCA Identification Process, and all procedures and forms described therein;

Prepare and maintain Standard MPLOPR020 High Consequence Area Monitoring and all procedures and forms described therein;

Manage through MOC:

a) HCA Identification Process

b) HCA Monitoring Process

Monitor HCA Identification Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

9.3 Integrity, Damage Prevention & Risk (IDP&R)

Integrity, Damage Prevention & Risk Manager

Designated as an Owner and Stakeholder of:

a) IMPP Element – DO (partial)

Designated as an Owner and Stakeholder of:

a) IMPP Phase III - Baseline Assessment
b) IMPP Phase IV - Assessments & Remedial Action
c) IMPP Phase V – Data Integration & Information Analysis
d) IMPP Phase VI – Preventative & Mitigative Measures

e) IMPP Phase VII - Reassessment

As Senior Management, responsibilities include:

a) Oversight of day-to-day activities of the assigned Process Leader
b) Member of IMPP Stakeholder Steering Committee
c) Oversight of Periodic Evaluation Team

No additional responsibilities other than those defined in this Standard.

Analysis Process Leader (APL)

Prepare and maintain Standard MPLMNT069 Managing In-Line Inspection Data;

Perform procedures and document all requirements for in-line inspection in accordance with Standard MPLMNT069 Managing In-Line Inspection Data;

Manage In-Line Inspection Data Process through MOCR;

No additional responsibilities other than those defined in this Standard.

Corrosion Control Adequacy Test Process Leader

CCAT Process Leader - performed by the Corrosion Control Specialist;

Prepare and maintain Corrosion Control Adequacy Test (CCAT) procedures and forms described in:

a) Standard MPLDOT005 Baseline Assessment Schedule Process

b) Standard MPLDOT007 Pipeline Mechanical Integrity Process

Manage CCAT Process through MOC;

Monitor CCAT Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

External Corrosion Direct Assessment Process Leader

ECDA Process Leader - performed by the Corrosion Control Specialist;

Prepare and maintain Standard MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines, and all procedures and forms described therein;

Manage ECDA Process through MOC;

Monitor ECDA Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Program Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

Mechanical Integrity Process Leader **

As an SME, designated the Process Leader for the following IMPP Element:

a) DO (partial)

As an SME, designated the Process Leader for the following IMPP Phases:

a) IMPP Phase III - Baseline Assessment
b) IMPP Phase IV - Assessments & Remedial Action
c) IMPP Phase VII - Reassessment

Member of Periodic Evaluation Team

Note: ** Mechanical Integrity Process Leader - performed by the Mechanical Integrity Leader;

Prepare and maintain the following standards, and all procedures and forms described therein:

a) Standard MPLDGN003 Pressure Test Design
b) Standard MPLDOT005 Baseline Assessment Schedule Process
c) Standard MPLDOT007 Pipeline Mechanical Integrity Process

Management tracking through MOCR:

a) Baseline Assessment Schedule Process
b) Pipeline Mechanical Integrity Process (Reassessment)
c) Pressure Testing Process

Monitor effectiveness of all assigned processes through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

Risk Management Professional

As an SME, designated the Process Leader for the following IMPP Element:

a) DO (partial)

As an SME, designated the Process Leader for the following IMPP Phases:

a) IMPP Phase V – Data Integration & Information Analysis
b) IMPP Phase VI – Preventative & Mitigative Measures

Member of Periodic Evaluation Team

Prepare and maintain Standard MPLDOT006 Integrity Management Risk Management Process, and all procedures and forms described therein;

Manage Risk Management Process through MOC;

Monitor Risk Management Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

Stress Corrosion Cracking Process Leader

SCC Process Leader - performed by the Corrosion Control Specialist;

Prepare and maintain Stress Corrosion Cracking (SCC) procedures and forms described in:

a) Standard MPLDOT005 Baseline Assessment Schedule Process
b) Standard MPLDOT007 Pipeline Mechanical Integrity Process

Manage SCC Process through MOC;

Monitor SCC Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

9.4 Operations

Vice President – Operations

Member/ Advisor of IMPP Stakeholder Steering Committee

No additional responsibilities other than those defined in this Standard.

9.5 Operations & Logistics (O&L)

Controls & Communications Supervisor

Prepare and maintain Standard MPLDOT011 Leak Detection Adequacy Risk Assessment Process, and all procedures and forms described therein;

No additional responsibilities other than those defined in this Standard.

9.6 Marketing & Transportation Engineering (M&TE)

M&TE Manager

No additional responsibilities other than those defined in this Standard.

Project Leader

As applicable, perform procedures and document all requirements in accordance with the following:

a) Standard MPLDGN003 Pressure Test Design
b) Standard MPLMNT069 Managing In-Line Inspection Data
c) Standard MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines

No additional responsibilities other than those defined in this Standard.

RECORDS MANAGEMENT

10.1 The appropriate Stakeholder shall complete the appropriate document and included it the Project File. The appropriate document shall be retained in the T&C Central File Room and applicable locations with the retention of Project File, Engineering and Construction – Final (ACT+6).

TRAINING

11.1 Purpose

Provide training on Standard MPLDOT003 Integrity Management Program Process for administration of the Integrity Management Program Process in accordance with 49 CFR §195.452 (f) (1-8).

11.2 Audience

All personnel who oversee or execute Integrity Management Program Process and identified on their organizations training plan for this Standard.

11.3 Learning Objectives

Awareness Level – General knowledge of Standard MPLDOT003 Integrity Management Program Process and requirements of this Standard.

Oversight Level – Know Standard MPLDOT003 Integrity Management Program Process, and the processes, procedures and responsibilities described therein, to provide oversight to individuals who perform the execution of this Standard.

Execution Level – Know Standard MPLDOT003 Integrity Management Program Process, and perform all processes, procedures and responsibilities described therein, for ensuring MPL compliance to elements described in 49 CFR §195.452 (f) (1-8).

11.4 Primary Delivery Methods

Awareness Level Training

Oversight Level Training

Execution Level Training

11.5 Delivery Time

Awareness Level - Approximately 1.0 hour

Oversight Level - Approximately 1.0 hour

Execution Level - Approximately 2.0 hours

11.6 Refresher Training

If a revision is made to the standard that involves a change in methods/procedures, refresher training must be completed.

11.7 Related Training

None.

ATTACHMENTS

12.1 IMPP Regulatory Application Matrix

12.2 IMPP Definitions

12.3 IMPP Elements, Phases & Standards Map

12.4 IMPP Phases & MPL Business Units Interaction Map

12.5 IMPP Timeline & Intervals Map

12.6 IMPP Steps & Interval Checklist (PLIMPPSICHK)

12.7 PHMSA IMP Notification Requirements

12.8 IMP Re-Inspection Interval PHMSA Notification Form (PLREINSPNFORM)

12.9 IMP Repair Schedule PHMSA Notification Form (PLREPAIRSPNFORM)

12.10 IMP Other Technology PHMSA Notification Form (PLOTPNFORM)

12.11 IMPP Personnel Qualifications

12.12 IMPP Qualification Record for Analysis Process Leader (PLIMPPQRAPL)

12.13 IMPP Qualification Record for CCAT Process Leader (PLIMPPQRCCATPL)

12.14 IMPP Qualification Record for ECDA Process Leader (PLIMPPQRECDAPL)

12.15 IMPP Qualification Record for HCA Process Leader (PLIMPPQRHCAPL)

12.16 IMPP Qualification Record for Mechanical Integrity Process Leader (PLIMPPQRMIPL)

12.17 IMPP Qualification Record for O & L Process Leader (PLIMPPQROLPL)

12.18 IMPP Qualification Record for Risk Management Professional (PLIMPPQRRMP)

12.19 IMPP Qualification Record for SCC Process Leader (PLIMPPQRSCCPL)

12.20 IMPP Continuous Process Improvement

12.21 Facility Integrity Management Process

SUMMARY OF CHANGES

11/08/2013 – Annual Review:
-Changed Owner and SME
-Removed references to Marathon Oil Company (MOC)
-Removed Minnesota Asset references
-Updated referenced documents to reflect most current versions
-Fixed broken links
-Reviewed and updated all attachments

MARATHON PETROLEUM COMPANY LLC
MARATHON PIPE LINE LLC
STANDARDS

Standard Number	Title	Standard Category	Standard Type	Resp. Org.	Revision Number	Effective Date
MPLDOT006	Integrity Management Risk Management Process	DOT	Policy	IDP&R	3	4/1/2012

Organization	Approver	Title	Signature	Subject Matter Expert
MPL	P. H. DePriest	Integrity, Damage Prevention & Risk Manager	On File	K. E. Orchard
TT&M	N/A			
M&TE	N/A			
T&L	N/A			

Records Retention: Policy, Standard, Procedure or Guideline-General (ACT+10)	**Original Date of Issue: 08/09/06**
Review & Update Requirements Max: 1 Years	
Attention: Printed copies should be used with caution. The user of this document must ensure the current approved version of the document is being used. This copy was printed on 12/9/2014 at 10:05.	

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8.5 Facility Risk Assessment and Additional P&MM Evaluation
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9.0 RESPONSIBILITIES
10.0 RECORDS MANAGEMENT
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13.0 SUMMARY OF CHANGES

1.0 STANDARD POLICY STATEMENT

1.1 This Standard establishes how the above named organization will meet a corporate directive, a legal requirement, or a regulatory requirement. Deviation to this Standard can only be granted by the Marathon Pipe Line (MPL) Vice President, Operations or the Integrity, Damage Prevention & Risk Manager (IDP&R Manager).

2.0 PURPOSE

2.1 To support MPL's Integrity Management Program (MPLDOT003 Integrity Management Program) and align with *49 CFR Part 195.452, "Pipeline Integrity Management in High Consequence Areas"*..

2.2 To establish a consistent and repeatable process for information analysis, risk analysis, and development of preventive and mitigative measures as directed by MPLDOT003 Integrity Management Program, in order to ensure compliance with the associated requirements of *49 CFR Part 195.452, "Pipeline Integrity Management in High Consequence Areas"*.

2.3 In addition, this standard policy will provide a foundation for MPL's effort to broaden the risk management program beyond the expectations set forth by *§195.452* and MPLDOT003 Integrity Management Program.

3.0 SCOPE

3.1 This Standard applies to MPL-managed pipeline systems, including mainlines and facilities, as defined per MPLDOT003 Integrity Management Program.

3.2 For a reference to the list of applicable MPL-managed assets see MPLDOT003 Integrity Management Program.

3.3 Mainlines specifically include active (Stage 1) pipeline segment groups that could impact a HCA.

3.4 Facilities specifically include active (Stage 1) sites that could impact a HCA with a type of Booster Station, Cavern Facility, Delivery Station, Junction, Station, Receipt Station, Refinery-DOT, or Terminal-DOT.

4.0 MAINTENANCE OF STANDARD

4.1 The Integrity, Damage Prevention & Risk Manager is responsible for the maintenance of this Standard.

5.0 REGULATIONS

5.1 This Standard documents MPL's compliance with the *United States Department of Transportation Code of Federal Regulations Part 195.452 Pipeline Integrity Management in High Consequence Areas*. For specific regulations cited throughout this Standard and associated attachments reference DOT/PHMSA Regulations.

5.2 Some States have programs that supplement or supersede the federal requirements. This Standard is intended to address those additional requirements, if applicable. For a list of these States reference MPLDOT003 Integrity Management Program.

6.0 REFERENCES

6.1 Internal

6.1.1 Auditing, Lessons Learned, Incident, & Recommendations Tracking System (ALIRTS)
6.1.2 Project Idea Form (PIF)
6.1.3 Electronic Management of Change Request Form (ELMOCR)
6.1.4 Integrity Threat Matrix
6.1.5 TNLGEN001: Standards Management
6.1.6 TNLHES001: Management of Change
6.1.7 MPLHES025: MPL Incident Reporting and Investigation
6.1.8 MPLDOT002: Pipeline and ROW Disposition
6.1.9 MPLDOT003: Integrity Management Program
6.1.10 MPLDOT004: HCA Identification Process
6.1.11 MPLDOT005: Baseline Assessment Schedule Process
6.1.12 MPLDOT007: Reassessment Schedule Process
6.1.13 MPLDOT008: Integrity Management Performance Evaluation Process
6.1.14 MPLDOT011: Leak Detection Adequacy Risk Assessment Process

6.2 External

6.2.1 *§195.452: Pipeline Integrity Management in High Consequence Areas*
6.2.2 API Standard 353: "Managing Systems Integrity of Terminal and Tank Facilities Managing the Risk of Liquid Petroleum Releases - First Edition"
6.2.3 API Standard 1160: Managing System Integrity for Hazardous Liquid Pipelines
6.2.4 API Standard 580 & 581
6.2.5 NTSB Reports

6.2.6 OPS Alerts, Notices, and Advisory Bulletins
6.2.7 PHMSA IMP Protocols and FAQs
6.2.8 PPTS Advisories

7.0 DEFINITIONS

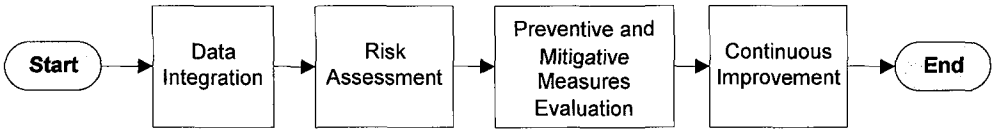
7.1 See MPLDOT003 Integrity Management Program for Integrity Management Program (IMP) definitions.

8.0 STANDARD CONTENT

8.1 Risk Management Process Overview

8.1.1 This Standard and associated attachments were developed to combine four related regulatory program elements into a single documented process. Figure 1: Risk Management Process Overview identifies these elements. To provide consistency, this figure has been included at the beginning of each of the related sections.

8.1.1.1 Figure 1: Risk Management Process Overview



8.1.2 This Standard explains the procedures MPL uses to meet four regulatory program element requirements as outlined in *§195.452*. The following table provides the location of the specific regulatory citations:

Regulatory Program Element	**Regulatory Citation** (Attachment 12.1)
Data Integration	DOT/PHMSA Regulations Section 2.1
Risk Assessment	DOT/PHMSA Regulations Section 2.2
Identification of Preventive and Mitigative Measures	DOT/PHMSA Regulations Section 2.2
Continual Process of Improvement	DOT/PHMSA Regulations Section 2.3

8.1.2.1 Per MPLDOT003 Integrity Management Program, the Risk Management Process will be conducted on all identified MPL mainline assessment segments and facility assets meeting all of the following three primary qualifiers:

a) DOT-Jurisdictional (reference Standard MPLDOT009 Determining DOT Jurisdiction)
b) Could affect a high consequence area (reference Standard MPLDOT004 HCA Identification Process)

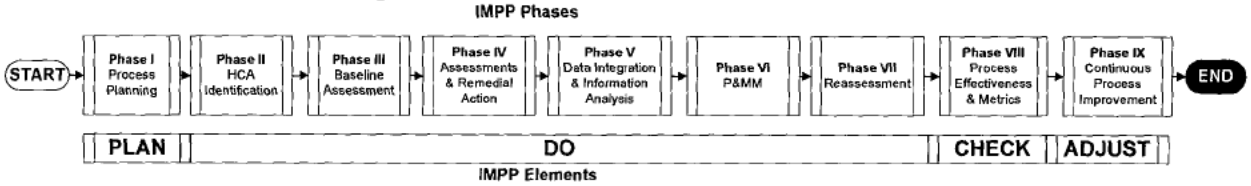
a) Implementation and project management of Continuous Process Improvement initiatives relative to their respective standard, including policies, procedures, processes and specifications described therein;

b) Communication of the progress and completion of assigned Continuous Process Improvement initiatives to the IMPP Leader.

The ES&R IMPP Leader shall be responsible for monitoring and communicating progress and completion of Continuous Process Improvement initiatives to IMPP Stakeholders;

Note: It shall be noted that Continuous Process Improvement (Phase IX) is not required for all MPL facility and mainline pipe asset or HCA changes or additions.

Figure 1 IMPP Elements & Phases



Note: The four PDCA process elements and nine phases of IMPP are continuous. However, for illustration purposes Figure 1 – IMPP Elements & Phases denotes the end or completion of IMPP.

RESPONSIBILITIES

9.1 Environment, Safety & Regulatory (ES&R)

ES&R Manager

Designated as an Owner and Stakeholder of:

a) IMPP Element - PLAN
b) IMPP Element - CHECK
c) IMPP Element - ADJUST

Designated as an Owner and Stakeholder of:

a) IMPP Phase I - Process Planning
b) IMPP Phase VIII - Process Effectiveness & Metrics
c) IMPP Phase IX - Continuous Process Improvement

As Senior Management, responsibilities include:

a) Oversight of day-to-day activities of the assigned Process Leader
b) Member of IMPP Stakeholder Steering Committee
c) Oversight of IMPP Periodic Evaluation Team
d) Overall IMPP compliance and effectiveness

No additional responsibilities other than those defined in this Standard.

Integrity Management Program Process (IMPP) Leader

Designated as a Subject Matter Expert (SME) specific to:

a) 49 CFR §195.452, "Pipeline Integrity Management in High Consequence Areas;"

As an SME, designated the Process Leader for the following IMPP Elements:

a) PLAN
b) CHECK
c) ADJUST

As an SME, designated the Process Leader for the following IMPP Phases:

a) IMPP Phase I - Process Planning
b) IMPP Phase VIII - Process Effectiveness & Metrics
c) IMPP Phase IX - Continuous Process Improvement

Chair of Periodic Evaluation Team and IMPP Stakeholder Steering Committee;

Prepare and maintain the Integrity Management Program Process, and this Standard MPLDOT003 Integrity Management Program Process;

Prepare and maintain Standard MPLDOT008 Integrity Management Performance Evaluation Process, and all procedures and forms described therein;

Monitor IMPP process effectiveness through MOCR;

Monitor and publish IMPP Performance Metrics, Incidents, and Performance Evaluations;

Obtain new regulatory data and information for evaluation, distribution and/or communication to Process Leaders for effective knowledge transfer and Continuous Process Improvement;

Document and report new regulatory information and discoveries in an audit tracking system (e.g. ALIRTS);

Document and report new industry information and discoveries in an audit tracking system (e.g. ALIRTS);

Prepare and submit electronic notifications to PHMSA;

IMPP Steering Committee member;

No additional responsibilities other than those defined in this Standard.

ES&R Regulatory Compliance Supervisor

IMPP Steering Committee member;

No additional responsibilities other than those defined in this Standard.

DOT Compliance Representative

Submit the annual MPL IMPP data and infrastructure information to API PPTS;

No additional responsibilities other than those defined in this Standard.

9.2 Field Services & Planning (FSP)

Field Services & Planning Manager

Designated as an Owner and Stakeholder of:

a) IMPP Element – DO (partial)

Designated as Owner and Stakeholder of:

a) IMPP Phase II - High Consequence Area Identification

As Senior Management, responsibilities include:

a) Oversight of day-to-day activities of the assigned Process Leader (see definition)
b) Member of IMPP Stakeholder Steering Committee
c) Oversight of Periodic Evaluation Team

No additional responsibilities other than those defined in this Standard.

High Consequence Area Process Leader

As an SME, designated the Process Leader for the following IMPP Element:

a) DO (partial)

As an SME, designated the Process Leader for the following IMPP Phase:

a) IMPP Phase II - High Consequence Area Identification

Member of Periodic Evaluation Team

Prepare and maintain Standard MPLDOT004 HCA Identification Process, and all procedures and forms described therein;

Prepare and maintain Standard MPLOPR020 High Consequence Area Monitoring and all procedures and forms described therein;

Manage through MOC:

a) HCA Identification Process

b) HCA Monitoring Process

Monitor HCA Identification Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

9.3 Integrity, Damage Prevention & Risk (IDP&R)

Integrity, Damage Prevention & Risk Manager

Designated as an Owner and Stakeholder of:

a) IMPP Element – DO (partial)

Designated as an Owner and Stakeholder of:

a) IMPP Phase III - Baseline Assessment
b) IMPP Phase IV - Assessments & Remedial Action
c) IMPP Phase V – Data Integration & Information Analysis
d) IMPP Phase VI – Preventative & Mitigative Measures

e) IMPP Phase VII - Reassessment

As Senior Management, responsibilities include:

a) Oversight of day-to-day activities of the assigned Process Leader
b) Member of IMPP Stakeholder Steering Committee
c) Oversight of Periodic Evaluation Team

No additional responsibilities other than those defined in this Standard.

Analysis Process Leader (APL)

Prepare and maintain Standard MPLMNT069 Managing In-Line Inspection Data;

Perform procedures and document all requirements for in-line inspection in accordance with Standard MPLMNT069 Managing In-Line Inspection Data;

Manage In-Line Inspection Data Process through MOCR;

No additional responsibilities other than those defined in this Standard.

Corrosion Control Adequacy Test Process Leader

CCAT Process Leader - performed by the Corrosion Control Specialist;

Prepare and maintain Corrosion Control Adequacy Test (CCAT) procedures and forms described in:

a) Standard MPLDOT005 Baseline Assessment Schedule Process

b) Standard MPLDOT007 Pipeline Mechanical Integrity Process

Manage CCAT Process through MOC;

Monitor CCAT Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

External Corrosion Direct Assessment Process Leader

ECDA Process Leader - performed by the Corrosion Control Specialist;

Prepare and maintain Standard MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines, and all procedures and forms described therein;

Manage ECDA Process through MOC;

Monitor ECDA Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Program Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

Mechanical Integrity Process Leader **

As an SME, designated the Process Leader for the following IMPP Element:

a) DO (partial)

As an SME, designated the Process Leader for the following IMPP Phases:

a) IMPP Phase III - Baseline Assessment
b) IMPP Phase IV - Assessments & Remedial Action
c) IMPP Phase VII - Reassessment

Member of Periodic Evaluation Team

Note: ** Mechanical Integrity Process Leader - performed by the Mechanical Integrity Leader;

Prepare and maintain the following standards, and all procedures and forms described therein:

a) Standard MPLDGN003 Pressure Test Design
b) Standard MPLDOT005 Baseline Assessment Schedule Process
c) Standard MPLDOT007 Pipeline Mechanical Integrity Process

Management tracking through MOCR:

a) Baseline Assessment Schedule Process
b) Pipeline Mechanical Integrity Process (Reassessment)
c) Pressure Testing Process

Monitor effectiveness of all assigned processes through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

Risk Management Professional

As an SME, designated the Process Leader for the following IMPP Element:

a) DO (partial)

As an SME, designated the Process Leader for the following IMPP Phases:

a) IMPP Phase V – Data Integration & Information Analysis
b) IMPP Phase VI – Preventative & Mitigative Measures

Member of Periodic Evaluation Team

Prepare and maintain Standard MPLDOT006 Integrity Management Risk Management Process, and all procedures and forms described therein;

Manage Risk Management Process through MOC;

Monitor Risk Management Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

Stress Corrosion Cracking Process Leader

SCC Process Leader - performed by the Corrosion Control Specialist;

Prepare and maintain Stress Corrosion Cracking (SCC) procedures and forms described in:

a) Standard MPLDOT005 Baseline Assessment Schedule Process
b) Standard MPLDOT007 Pipeline Mechanical Integrity Process

Manage SCC Process through MOC;

Monitor SCC Process effectiveness through published IMPP Performance Metrics, Incidents, and Performance Evaluations described in Standard MPLDOT008 Integrity Management Performance Evaluation Process;

No additional responsibilities other than those defined in this Standard.

9.4 Operations

Vice President – Operations

Member/ Advisor of IMPP Stakeholder Steering Committee

No additional responsibilities other than those defined in this Standard.

9.5 Operations & Logistics (O&L)

Controls & Communications Supervisor

Prepare and maintain Standard MPLDOT011 Leak Detection Adequacy Risk Assessment Process, and all procedures and forms described therein;

No additional responsibilities other than those defined in this Standard.

9.6 Marketing & Transportation Engineering (M&TE)

M&TE Manager

No additional responsibilities other than those defined in this Standard.

Project Leader

As applicable, perform procedures and document all requirements in accordance with the following:

a) Standard MPLDGN003 Pressure Test Design
b) Standard MPLMNT069 Managing In-Line Inspection Data
c) Standard MPLMNT127 External Corrosion Direct Assessment (ECDA) for Pipelines

No additional responsibilities other than those defined in this Standard.

RECORDS MANAGEMENT

10.1 The appropriate Stakeholder shall complete the appropriate document and included it the Project File. The appropriate document shall be retained in the T&C Central File Room and applicable locations with the retention of Project File, Engineering and Construction – Final (ACT+6).

TRAINING

11.1 Purpose

Provide training on Standard MPLDOT003 Integrity Management Program Process for administration of the Integrity Management Program Process in accordance with 49 CFR §195.452 (f) (1-8).

11.2 Audience

All personnel who oversee or execute Integrity Management Program Process and identified on their organizations training plan for this Standard.

11.3 Learning Objectives

Awareness Level – General knowledge of Standard MPLDOT003 Integrity Management Program Process and requirements of this Standard.

Oversight Level – Know Standard MPLDOT003 Integrity Management Program Process, and the processes, procedures and responsibilities described therein, to provide oversight to individuals who perform the execution of this Standard.

Execution Level – Know Standard MPLDOT003 Integrity Management Program Process, and perform all processes, procedures and responsibilities described therein, for ensuring MPL compliance to elements described in 49 CFR §195.452 (f) (1-8).

11.4 Primary Delivery Methods

Awareness Level Training

Oversight Level Training

Execution Level Training

11.5 Delivery Time

Awareness Level - Approximately 1.0 hour

Oversight Level - Approximately 1.0 hour

Execution Level - Approximately 2.0 hours

11.6 Refresher Training

If a revision is made to the standard that involves a change in methods/procedures, refresher training must be completed.

11.7 Related Training

None.

ATTACHMENTS

12.1 IMPP Regulatory Application Matrix

12.2 IMPP Definitions

12.3 IMPP Elements, Phases & Standards Map

12.4 IMPP Phases & MPL Business Units Interaction Map

12.5 IMPP Timeline & Intervals Map

12.6 IMPP Steps & Interval Checklist (PLIMPPSICHK)

12.7 PHMSA IMP Notification Requirements

12.8 IMP Re-Inspection Interval PHMSA Notification Form (PLREINSPNFORM)

12.9 IMP Repair Schedule PHMSA Notification Form (PLREPAIRSPNFORM)

12.10 IMP Other Technology PHMSA Notification Form (PLOTPNFORM)

12.11 IMPP Personnel Qualifications

12.12 IMPP Qualification Record for Analysis Process Leader (PLIMPPQRAPL)

12.13 IMPP Qualification Record for CCAT Process Leader (PLIMPPQRCCATPL)

12.14 IMPP Qualification Record for ECDA Process Leader (PLIMPPQRECDAPL)

12.15 IMPP Qualification Record for HCA Process Leader (PLIMPPQRHCAPL)

12.16 IMPP Qualification Record for Mechanical Integrity Process Leader (PLIMPPQRMIPL)

12.17 IMPP Qualification Record for O & L Process Leader (PLIMPPQROLPL)

12.18 IMPP Qualification Record for Risk Management Professional (PLIMPPQRRMP)

12.19 IMPP Qualification Record for SCC Process Leader (PLIMPPQRSCCPL)

12.20 IMPP Continuous Process Improvement

12.21 Facility Integrity Management Process

SUMMARY OF CHANGES

11/08/2013 – Annual Review:
-Changed Owner and SME
-Removed references to Marathon Oil Company (MOC)
-Removed Minnesota Asset references
-Updated referenced documents to reflect most current versions
-Fixed broken links
-Reviewed and updated all attachments

MARATHON PETROLEUM COMPANY LLC
MARATHON PIPE LINE LLC
STANDARDS

Standard Number	Title	Standard Category	Standard Type	Resp. Org.	Revision Number	Effective Date
MPLDOT006	Integrity Management Risk Management Process	DOT	Policy	IDP&R	3	4/1/2012

Organization	Approver	Title	Signature	Subject Matter Expert
MPL	P. H. DePriest	Integrity, Damage Prevention & Risk Manager	On File	K. E. Orchard
TT&M	N/A			
M&TE	N/A			
T&L	N/A			

Records Retention: Policy, Standard, Procedure or Guideline-General (ACT+10)	**Original Date of Issue: 08/09/06**
Review & Update Requirements Max: 1 Years	
Attention: Printed copies should be used with caution. The user of this document must ensure the current approved version of the document is being used. This copy was printed on 12/9/2014 at 10:05.	

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9.0 RESPONSIBILITIES
10.0 RECORDS MANAGEMENT
11.0 TRAINING
12.0 ATTACHMENTS
13.0 SUMMARY OF CHANGES

1.0 STANDARD POLICY STATEMENT

1.1 This Standard establishes how the above named organization will meet a corporate directive, a legal requirement, or a regulatory requirement. Deviation to this Standard can only be granted by the Marathon Pipe Line (MPL) Vice President, Operations or the Integrity, Damage Prevention & Risk Manager (IDP&R Manager).

2.0 PURPOSE

2.1 To support MPL's Integrity Management Program (MPLDOT003 Integrity Management Program) and align with *49 CFR Part 195.452, "Pipeline Integrity Management in High Consequence Areas"*..

2.2 To establish a consistent and repeatable process for information analysis, risk analysis, and development of preventive and mitigative measures as directed by MPLDOT003 Integrity Management Program, in order to ensure compliance with the associated requirements of *49 CFR Part 195.452, "Pipeline Integrity Management in High Consequence Areas"*.

2.3 In addition, this standard policy will provide a foundation for MPL's effort to broaden the risk management program beyond the expectations set forth by *§195.452* and MPLDOT003 Integrity Management Program.

3.0 SCOPE

3.1 This Standard applies to MPL-managed pipeline systems, including mainlines and facilities, as defined per MPLDOT003 Integrity Management Program.

3.2 For a reference to the list of applicable MPL-managed assets see MPLDOT003 Integrity Management Program.

3.3 Mainlines specifically include active (Stage 1) pipeline segment groups that could impact a HCA.

3.4 Facilities specifically include active (Stage 1) sites that could impact a HCA with a type of Booster Station, Cavern Facility, Delivery Station, Junction, Station, Receipt Station, Refinery-DOT, or Terminal-DOT.

4.0 MAINTENANCE OF STANDARD

4.1 The Integrity, Damage Prevention & Risk Manager is responsible for the maintenance of this Standard.

5.0 REGULATIONS

5.1 This Standard documents MPL's compliance with the *United States Department of Transportation Code of Federal Regulations Part 195.452 Pipeline Integrity Management in High Consequence Areas*. For specific regulations cited throughout this Standard and associated attachments reference DOT/PHMSA Regulations.

5.2 Some States have programs that supplement or supersede the federal requirements. This Standard is intended to address those additional requirements, if applicable. For a list of these States reference MPLDOT003 Integrity Management Program.

6.0 REFERENCES

6.1 Internal

6.1.1 Auditing, Lessons Learned, Incident, & Recommendations Tracking System (ALIRTS)
6.1.2 Project Idea Form (PIF)
6.1.3 Electronic Management of Change Request Form (ELMOCR)
6.1.4 Integrity Threat Matrix
6.1.5 TNLGEN001: Standards Management
6.1.6 TNLHES001: Management of Change
6.1.7 MPLHES025: MPL Incident Reporting and Investigation
6.1.8 MPLDOT002: Pipeline and ROW Disposition
6.1.9 MPLDOT003: Integrity Management Program
6.1.10 MPLDOT004: HCA Identification Process
6.1.11 MPLDOT005: Baseline Assessment Schedule Process
6.1.12 MPLDOT007: Reassessment Schedule Process
6.1.13 MPLDOT008: Integrity Management Performance Evaluation Process
6.1.14 MPLDOT011: Leak Detection Adequacy Risk Assessment Process

6.2 External

6.2.1 *§195.452: Pipeline Integrity Management in High Consequence Areas*
6.2.2 API Standard 353: "Managing Systems Integrity of Terminal and Tank Facilities Managing the Risk of Liquid Petroleum Releases - First Edition"
6.2.3 API Standard 1160: Managing System Integrity for Hazardous Liquid Pipelines
6.2.4 API Standard 580 & 581
6.2.5 NTSB Reports

6.2.6 OPS Alerts, Notices, and Advisory Bulletins
6.2.7 PHMSA IMP Protocols and FAQs
6.2.8 PPTS Advisories

7.0 DEFINITIONS

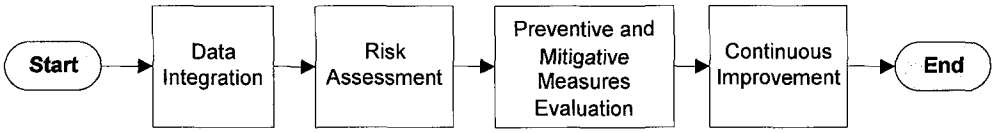
7.1 See MPLDOT003 Integrity Management Program for Integrity Management Program (IMP) definitions.

8.0 STANDARD CONTENT

8.1 Risk Management Process Overview

8.1.1 This Standard and associated attachments were developed to combine four related regulatory program elements into a single documented process. Figure 1: Risk Management Process Overview identifies these elements. To provide consistency, this figure has been included at the beginning of each of the related sections.

8.1.1.1 Figure 1: Risk Management Process Overview



8.1.2 This Standard explains the procedures MPL uses to meet four regulatory program element requirements as outlined in *§195.452*. The following table provides the location of the specific regulatory citations:

Regulatory Program Element	**Regulatory Citation** (Attachment 12.1)
Data Integration	DOT/PHMSA Regulations Section 2.1
Risk Assessment	DOT/PHMSA Regulations Section 2.2
Identification of Preventive and Mitigative Measures	DOT/PHMSA Regulations Section 2.2
Continual Process of Improvement	DOT/PHMSA Regulations Section 2.3

8.1.2.1 Per MPLDOT003 Integrity Management Program, the Risk Management Process will be conducted on all identified MPL mainline assessment segments and facility assets meeting all of the following three primary qualifiers:

a) DOT-Jurisdictional (reference Standard MPLDOT009 Determining DOT Jurisdiction)
b) Could affect a high consequence area (reference Standard MPLDOT004 HCA Identification Process)

c) Stage 1 (reference Standard MPLDOT002 Pipeline and ROW Disposition)

8.1.2.2 For a reference to the list of applicable MPL-operated assets, including newly constructed DOT-jurisdictional mainline assessment segments and facility assets, see MPLDOT003 Integrity Management Program.

8.1.3 All qualifying pipeline and/or facility assets will be incorporated into the Risk Management Process, per MPLDOT003 Integrity Management Program.

8.2 Initiating the Risk Management Process

8.2.1 The Risk Management Process is initiated by multiple triggers. Two categories of triggers, scheduled and unscheduled, will prompt the Risk Management Professional (RMP) to initiate the process.

8.2.1.1 Scheduled Triggers

a) Mainlines – Mainline data must be collected, reviewed, and/or revised for all segments prior to conducting the assessment. During the first quarter of each year, the RMP and appropriate Process Subject Matter Experts (SMEs) will collect and/or update the Mainline Relative Risk Scoring for all identified segments. The results of the Mainline Relative Risk Scoring will be used to complete the Mainline Risk Assessment and Additional P&MM Evaluation.

1) Standard Interval - The standard interval for the Mainline Risk Assessment and Additional P&MM Evaluation coincides with the IMP integrity assessment interval. When utilizing the standard interval, the constraints noted below will apply.

Standard Interval Requirement	Process Steps To Be Completed	Attachment 12.2
Completed annually, by the end of the 1st Quarter.	Data Integration	Section 2.0
	Relative Risk Assessment	Section 3.0
No Later than 36 months after an IMP integrity assessment is completed.	Analysis of Relative Risk Results	Section 4.0
	Additional Preventative and Mitigative Measures	Section 5.0
	Close-Out	Section 6.0

2) Alternate Interval – Alternate intervals may be selected by an SME panel to be less than the IMP integrity assessment interval. When utilizing an alternate interval, the SME Panel will determine the appropriate schedule constraints for the completion of the Relative Risk Assessment and Close-Out steps.

b) Facilities - Facility data must be collected, reviewed, and/or revised for all identified assets within a facility prior to conducting the assessment. During the first quarter of each year, the RMP and appropriate Process Subject Matter Experts (SMEs) will collect and/or update the Facility Ranking Model (FRM) for all identified facilities. Based upon the updated FRM, MPL will implement the facility risk assessment process identified in Section 8.5.2 (Facility Risk Assessment and Additional P&MM Evaluation) on the five (5) facilities with the highest relative risk score.

Standard Interval Requirement	Process Steps To Be Completed	Attachment 12.2
Completed annually, by the end of the 1st Quarter.	Verify Facility Risk Assessment Components	Section 2.0
	Data Integration	Section 3.0
	Relative Risk Assessment	Section 4.0
Completed by the end of the calendar year.	Accumulate Legacy Process Data	Section 5.0
	Additional Preventative and Mitigative Measures	Section 6.0
Complete within 3 months of above.	Close-Out	Section 7.0

8.2.1.2 Unscheduled Triggers

a) The Risk Assessment and P&MM Process may also be initiated as a result of certain unscheduled trigger events which indicate that a Risk Assessment and/or Additional P&MM evaluation is warranted. Upon the completion of the actions required by an unscheduled trigger, the re-assessment interval will revert to the scheduled trigger requirement. The following circumstances will be considered.

b) HCA Updates - Changes to High Consequence Areas (HCA's) on assets previously evaluated.

Note: De minimis changes which impact less than 5% of the segment length, or result in an increase in HCA length

of less than 5%, will not typically be considered an unscheduled trigger. Rather, these will be evaluated during the next scheduled interval.

1) Identification – The RMP will be notified via a MOCR initiated by the HCA Identification Process.
2) Action – Update the most recent relative risk assessment with HCA changes. Provide the risk scores to the process leaders for the Reassessment Schedule Process and Leak Detection Adequacy Process. Complete the analysis of relative risk scores and Additional P&MM evaluation for the pipeline segments within the HCA changes.
3) Schedule - In accordance with standard interval requirements, assuming the MOCR approval date is the equivalent of the integrity assessment completion date.

c) Newly Identified IMP Assets - The identification of additional assessment segments or facilities which are presently operated by MPL and determined to meet the requirements of Section 8.1.2.1.

1) Identification – The RMP will be notified via a MOCR initiated by the IMP Process.
2) Action – Incorporate the additional assets into the Risk Assessment and P&MM Process Schedule.
3) Schedule – Assuming the MOCR approval date is the initiating event, complete Data Integration and Relative Risk Assessment within 12 months. Complete Additional P&MM Evaluation within 24 months.

d) Newly Constructed IMP Assets - The construction of new assessment segments or facilities by MPL which meet the requirements of Section 8.1.2.1.

1) Identification – The RMP will be notified via a MOCR initiated by the IMP Process.
2) Action – Incorporate the additional assets into the Risk Assessment and P&MM Process Schedule.
3) Schedule – Assuming the operationally complete date is the initiating event, complete Data Integration and Relative Risk Assessment within 12 months. Complete Additional P&MM Evaluation within 24 months.

e) Newly Acquired IMP Assets - The acquisition of additional assessment segments or facilities by MPL from another pipeline operator which meet the requirements of Section 8.1.2.1.

1) Identification – The RMP will be notified via a MOCR initiated by the IMP Process.
2) Action – Incorporate the additional assets into the Risk Assessment and P&MM Process Schedule.
3) Schedule – Assuming the date MPL assumes operation is the initiating event, complete Data Integration and Relative Risk Assessment within 12 months. Complete Additional P&MM Evaluation within 24 months.

f) Periodic Evaluation – The identification of risk concerns during the Annual Periodic Evaluation Team Review conducted by ES&R per MPLDOT003, Section 9.1.2.4.

1) Identification – RMP participation in the Annual Periodic Evaluation Team meeting.
2) Action – Adjust the Risk Assessment and P&MM Process schedule.
3) Schedule – As per the Alternate Interval requirements above.

g) Releases - The occurrence of a reportable release on an MPL asset.

1) Identification – RMP review of Legacy Process data.
2) Action – Update the most recent relative risk assessment based upon the release and findings of the failure analysis. Provide the risk scores to the process leaders for the Reassessment Schedule Process and Leak Detection Adequacy Process. Complete the analysis of relative risk scores and Additional P&MM evaluation for the pipeline segments and/or integrity threats which are impacted by the updated risk assessment.
3) Schedule – No later than 18 months from the release date. (unless additional time is required to complete the failure analysis)

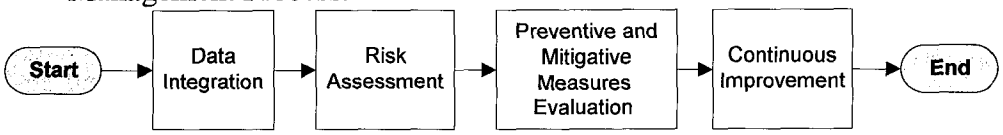
h) Operating Conditions - Significant changes in the operating conditions for a mainline assessment segment or facility asset that could materially increase the risk and require the evaluation of Additional Preventive & Mitigative Measures, and/or a change to the Periodic Evaluation interval. Significant changes in operating conditions will include a change in product service as well as notable changes in operating pressure, temperature, or flow rate.

1) Identification – RMP review of Legacy Process data.
2) Action – Update the most recent relative risk assessment based upon the change in operating conditions. Provide the risk scores to the process leaders for the Reassessment Schedule Process and Leak Detection Adequacy Process. Complete the analysis of relative risk scores and Additional P&MM evaluation for the pipeline segments and/or integrity threats which are impacted by the change in operating conditions.
3) Schedule – In accordance with standard interval requirements, assuming the date the change is determined is the equivalent of the integrity assessment completion date.

i) Threat Monitoring – The identification of a new or increased integrity threat for a pipeline segment, or the identification of a new threat on the Integrity Threat Matrix.

1) Identification – RMP review of Legacy Process data.
2) Action – Adjust the Risk Assessment and P&MM Process schedule.
3) Schedule – As per the Alternate Interval requirements above.

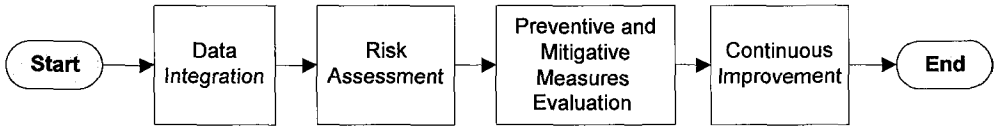
8.3 Data Integration: IMP data is the primary source of information in the Risk Management Process.



8.3.1 Mainline Assessment Segment Data: The mainline assessment segment data, stored in process-specific databases, must be requested, accumulated, and integrated into a single relational database before a risk assessment can be performed. Section 2 of Mainline Risk Assessment and Additional P&MM Evaluation provides details on the mainline assessment segment data integration process.

8.3.2 Facility Asset Data: The facility asset risk assessment data is accumulated by the RMP and integrated in the FRM prior to performing a risk assessment. Section 3.0 of Facility Risk Assessment and Additional P&MM Evaluation provides the details on the facility asset data integration process.

8.4 Mainline Risk Assessment and Additional P&MM Evaluation



8.4.1 History

8.4.1.1 In 2003 MPL conducted an initial risk ranking analysis to prioritize the baseline assessment schedule for each mainline segment subject to *49 CFR 195.452*. The initial risk ranking algorithm used to determine a risk score incorporated the following risk factors: operating pressure, potential for long seam susceptibility, quality of the information regarding metal loss from a prior ILI, HCA type, total HCA miles, and product transported. This risk ranking analysis, developed in 2003, is still used on new segments in MPL's pipeline system until more data is available to complete the more robust Dynamic Risk Assessment System (DRAS) risk analysis (see MPLDOT005 Integrity Management Threat Identification Prioritization Process for more information).

8.4.1.2 In 2003 MPL began the development of a more robust Risk Assessment Process. The Master Algorithm Development Notes contains the date, time, place, and participants for each meeting conducted during the effort to develop each algorithm. Each meeting began with a brief introduction of the threat, relevant information about the threat from the IMP Rule, and MPL's approach to assessing the threat. The assessment method involved both a relative indexing model of sub-factor influences and the evaluation conducted using the IMP Prioritization Tool (IPT). The

identification of sub-factor influences and the determination of meaningful bands, indexes, and weights for each sub-factor were the primary objectives of each algorithm development session.

8.4.1.3 In 2004, MPL selected Dynamic Risk Assessment Systems (DRAS) as the solution to a more robust Risk Assessment Process. In conjunction with MPL, DRAS began to further enhance the DRAS software package and align it with MPL's IT infrastructure. This method allowed MPL to integrate many areas of data and evaluate the threat-specific risk of failure values for individual dynamic segments. The Project Documentation IMP Risk Algorithm Improvements (ELMOCR #M05-219) was developed to establish a framework used to conduct the new algorithm meetings in 2004-2005. At the conclusion of the meetings, DRAS developed the Risk Algorithm Document (RAD) which details the threat, consequence, and total risk algorithm evaluations.

8.4.1.4 The Mainline Risk Algorithm Document (RAD) defines the improved mainline risk assessment algorithms. An understanding of the relative indexing is important to the scoring methodology used in the mainline risk assessment process. The algorithm development sessions relied heavily on SME knowledge for each individual threat. The SMEs consisted of Process Owners, Program Leaders, consultants, and many experienced MPL employees who specialize in preventing and mitigating integrity-related threats.

8.4.1.5 The primary objective of the current risk assessment process (Section 8.4.2) is to determine those segments where the likelihood and consequence of a failure would require further evaluation in the P&MM process (Section 8.8) and to assist in the mainline integrity reassessment interval calculation (MPLDOT007 Reassessment Schedule Process).

8.4.1.6 The first round of mainline risk assessments utilizing the DRAS software began in 2005 and was completed in 2006. The process for initiating a mainline risk assessment based on the scheduled and unscheduled triggers began in 2007.

8.4.2 Current Mainline Risk Assessment and Additional P&MM Evaluation

8.4.2.1 MPL employs a comprehensive combination of design, construction, operation, and maintenance processes to ensure the integrity of all pipeline assets. The purpose of the Mainline Risk Assessment and Additional Preventative and Mitigative Measures process is to seek additional actions to further enhance public safety and/or environmental protection. In addition, risk assessment results are utilized in the Reassessment Schedule Process and Leak Detection Adequacy Risk Assessment Process, and the Emergency Flow Restricting Device Evaluation Process.

8.4.2.2 A relative risk assessment is performed using American Innovations Risk Intelligence Platform (RIPL) to subdivide a mainline segment into linear divisions of comparable risk, referred to as a dynamic segment. The relative risk assessment considers the likelihood and consequence of failure for each dynamic segment. Relative risk scores provide a comparison of one dynamic segment to another, as well as allow the determination of dynamic segments with the highest risk. To facilitate the risk assessment process, MPL utilizes risk assessment software which allows for better integration of various data sets in order to evaluate threat-specific risk of failure values for individual dynamic segments. Refer to the Mainline Risk Algorithm Document (RAD) for details on the data sets and logic used to perform the relative risk assessment.

8.4.2.3 Additional P&MM Candidates are then identified by an SME Panel considering the results/analysis of the risk assessment, information and lessons learned from ongoing operations, local knowledge of the asset, as well as the effectiveness of the existing processes in place. Additional P&MM Candidates are evaluated by the SME Panel using the MPL Risk Prioritization Tool (RPT) and MPL Risk Tolerance Matrix to determine the existing and post-mitigation Risk Ranking, as well as considering the relative risk score reduction. The SME Panel then recommends Additional P&MM's for the assessment segment considering the risk response criteria contained in the MPL Risk Tolerance Schedule.

8.4.2.4 The Mainline Risk Assessment and Additional P&MM Evaluation includes the following steps:

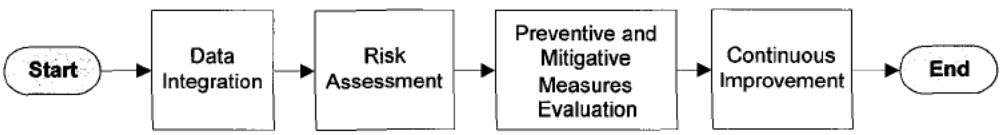
Description	Location (Attachment 12.2)
Data Integration	Section 2.0
Relative Risk Assessment	Section 3.0
Analysis of Relative Risk Results	Section 4.0
Additional Preventative and Mitigative Measures	Section 5.0
Close-Out	Section 6.0

8.4.3 Periodic Evaluation

8.4.3.1 The Mainline Risk Assessment and Additional P&MM Evaluation is a comprehensive assessment and evaluation process that addresses all requirements for conducting periodic evaluations as specified in 195.452(j)(2). This process considers the results of the baseline and periodic integrity assessments, information analysis (data integration and risk scores), decisions about remediation, and preventive and mitigative measures. As such, this process also satisfies the requirements for conducting Periodic Evaluations of pipeline integrity for each pipeline segment that could affect a high consequence area.

8.4.3.2 It is important to note that Periodic Evaluation is distinct from the integrity reassessment interval process (i.e. ILI or hydro test interval). MPL defines Periodic Evaluation as a combined process consisting of Data Integration, Risk Assessment, and Additional Preventative and Mitigative Measures evaluation. Periodic Evaluation will be conducted as frequently as needed to assure pipeline integrity. The requirements for determining the frequency of Periodic Evaluation are described in Section 8.2.

8.5 Facility Risk Assessment



8.5.1 History

8.5.1.1 During 2004-2005, MPL completed forty-nine (49) facility risk assessments using the Bass-Trigon IMP model. In 2006 an effort was initiated to continually improve the Risk

Management Process. MPL evaluated three facility risk assessment methods and developed an improved approach for future assessments. The following three methods were piloted on the MPL Pasadena Station in 2006:

a) Bass-Trigon Risk Management Approach (method used in 2004-05)
b) Shell Pipelines Facility Risk Assessment Technique
c) API Draft Guideline (January 12, 2006) - "Managing Systems Integrity of Terminal and Tank Facilities…Managing the Risk of Liquid Petroleum Releases" (Now API Standard 353- First Edition)

8.5.1.2 The results of the evaluation concluded that MPL would develop a tool in-house specific to the knowledge gained in an effort to combine the methods to best evaluate the risk at MPL facilities.

8.5.2 Current Facility Risk Assessment and Additional P&MM Evaluation

8.5.2.1 MPL employs a comprehensive combination of design, construction, operation, and maintenance processes to ensure the integrity of all pipeline assets. The purpose of the Facility Risk Assessment and Additional Preventative and Mitigative Measures Evaluation is to seek additional actions to further enhance public safety and/or environmental protection.

8.5.2.2 A relative risk assessment is performed to consider the likelihood and consequence of failure for each facility. Relative risk scores provide a comparison of one facility to another, as well as allow the determination of facilities with the highest risk. To facilitate the risk assessment process, MPL has developed a Facility Ranking Model (FRM) which utilizes a set of American Petroleum Institute (API) factors, with additional factors added by MPL, to prioritize each facility. Refer to the Facility Risk Algorithm Document (RAD) for details on the data sets and logic used to perform the relative risk assessment.

8.5.2.3 Based on the prioritization, a more detailed evaluation is conducted at selected facilities with the assistance of an SME Panel. This is referred to as the Facility Risk Evaluation Process (FREP). Additional P&MM