INTEGRATED CONTINGENCY PLAN

PORTLAND MARINE TERMINAL, DOCK & LUBRICANTS PLANT

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USCG: P-034
EPA: FRP OR-0019
DOT/PHMSA: 1611

Owner/Operator:

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VOLUME 1 OF 1

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Section I – Table of Contents

Sec. I-1 Purpose and Scope of Plan Coverage

This Integrated Contingency Plan (ICP) is designed to follow the National Response Team's (NRT) Integrated Contingency Plan Guidance (Federal Register # 61: 28641-28664). This ICP is a mechanism to consolidate multiple plans that the Company is required to maintain throughout the United States.

The purpose of this Plan is to help Facility personnel prepare for and respond quickly and safely to a spill incident originating at the Facility. The Plan's primary purpose is to ensure an effective, comprehensive response and prevent injury or damage to company employees, the public and the environment.

The specific objectives of the Plan are to:

- Define alert and notification procedures to be followed when a spill incident occurs.
- Document equipment, manpower and other resources available to assist with a spill incident response.
- Describe an oil spill response team, assign individuals to fill the positions on the team, and define the roles and responsibilities of team members.
- Define organizational lines of responsibility to be adhered to during a spill incident response.
- Outline response procedures and techniques to be used during a spill incident.
- Provide guidelines for handling a spill response operation.

The Company ICP Core contains information applicable to the following entities:

- Phillips 66 (previously associated with ConocoPhillips),
- Phillips 66 Company (previously associated with ConocoPhillips Company),
  - Chisholm Pipeline Company,
  - WesTTex 66 Pipe Line Company,
  - Phillips 66 Pipeline LLC (previously ConocoPhillips Pipe Line Company; Phillips Pipe Line Company merged with Tosco Pipeline Company and Union Pipeline Company and then with Conoco Pipeline Company to form ConocoPhillips Pipe Line Company.)
    - Lake Charles Pipe Line Company
    - Heartland Pipeline Company
    - Yellowstone Pipe Line Company
    - Pioneer Investment Corp.
    - Pioneer Pipe Line company
    - Salt Lake Terminal Company
    - 66 Pipe Line Company
    - Phillips Texas Pipeline Company, LTD.

Herein out everything is referred to Phillips 66 Company and will be referred to throughout this plan as the "Company.

Sec. I-2 Regulatory Compliance

This ICP is based on the National Incident Management System (NIMS) and the Incident Command System (ICS). This plan utilizes the standard format guidance provided for by the National Response Team. For the purposes of this plan the following federal agencies and their corresponding regulatory requirements are included in the plan.

The plan is intended to satisfy the requirements of regulatory agencies mandating written procedures to address planning and response to emergencies, including:	
✓	U.S. Environmental Protection Agency's (EPA) Oil Pollution Prevention Regulations, 40 CFR, Part 112, that requires a Non-Transportation Related Facility Response Plan.
✓	The Department of Transportation's (DOT) regulations as defined in 49 CFR 192.615, 194, 195.402 and similar regulations issued by the state agencies.
✓	U.S. Coast Guard, 33 CFR, Part 154
✓	The National Contingency Plan and applicable Area Contingency Plans.
✓	OSHA's 29 CFR 1910.
✓	Applicable State and Local requirements
✓	Oil Pollution Act of 1990 (OPA 90).
✓	Company has opted to follow the PREP Guidelines for exercise/drilling purposes.

Sec. I-2.1 Interface With Other Plans

This Plan has been prepared in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NCP provides for an organized and coordinated response by Federal agencies to discharges and threats of discharge of oil into the environment if the responsible party's response actions are improper or insufficient.

The NCP calls for a system of regional and local contingency plans. Regional and local agencies subsequently developed Area Contingency Plans (ACPs) that conform to the NCP. Both the NCP and the respective ACP are used to provide a framework for liaison and assistance during an oil spill response. This liaison may be in part or in full depending on the necessary level of Federal, State or Local agency involvement.

OPA '90 regulations stipulate that EPA-regulated facilities review Emergency Response Plans annually to insure conformance with the applicable ACP [30 CFR 112.20(g)(2)]. DOT regulated facilities are required to review and certify compliance with the applicable ACP every five years [49 CFR 194.121(a)]. Inconsistencies are corrected prior to compliance certification. Conformance is reviewed and certified by Company staff at headquarters.

Area Contingency Plans have been renamed as Regional Integrated Contingency Plans (RICP). RICPs can be found by EPA Region at the following U.S. National Response Team website: www.nrt.org.

The major agencies, and their contingency plans and responsibilities, are discussed below.

National Response Team (NRT): consists of representatives of primary and advisory Federal agencies. It serves as the national body for planning and preparedness, including recommending revisions to the NCP. The NRT may be activated in the event of a pollution incident, which exceeds the response capabilities of the Regional Response Team.

Regional Response Team (RRT): consists of representatives from selected Federal and State agencies and is the regional body responsible for planning and preparedness. The RRT functions as an emergency advisory and assistance team to the Federal On Scene Coordinator.

Federal On-Scene Coordinator (FOSC): the USCG provides the FOSC for oil spills occurring in the coastal zone and on inland navigable waterways. The EPA acts as FOSC in other inland areas. A Memorandum of Understanding for each region defines federal jurisdiction boundaries between the USCG and EPA. The FOSC has developed a Federal, Local Contingency Plan for each zone of responsibility.

Sec. I-3 General Facility Identification Information

Each geographic area and type of operations has its own unique challenges. In the guidance provided for by the National Response Teams ICP format all geographic specific operations and their corresponding regulatory requirements are found in the appropriate ICP Geographical Annexes to this plan. The corresponding facility specific information will also be found in the applicable ICP Geographical Annex.

Required emergency response notifications will be made during any emergency response operation. Refer to the Annex Notification Section located in this plan for contact information.

Emergency response operations involve actions taken at, or in close proximity to, the site of an incident that are designed to mitigate the situation, establish unified command and control over the incident, ensure the safety of responders and general public, develop plans of action, and facilitate communications. Emergency response operations also include actions taken away from the incident scene to support on-scene response operations, facilitate planning, address the concerns of external parties, and manage the financial aspects of response operations.

This plan demonstrates the potential response capabilities available by the Company to respond to any product release within the United States. It is not a guarantee of what will occur or the equipment/deployment sequencing that will be used in an actual spill event. Nothing in this plan is intended to limit the discretion of Company employees to select any sequence of actions or to take whatever time they deem necessary to maximize the effectiveness of the response, consistent with safety considerations.

This plan represents a planning standard but is not and should not be regarded as a performance guarantee. Response operations in any spill event will be tailored to meet the actual circumstances.

This response plan contains information applicable to the Company. This plan applies to emergency response operations carried out by the on-site field personnel and the Emergency Response Team. This plan applies to any type or size of incident that may occur within the United States.

The plan contains prioritized procedures for personnel to follow in the event of a release or other emergency situation involving Company assets.

Sec. I-4 Management Certification

MANAGEMENT CERTIFICATION

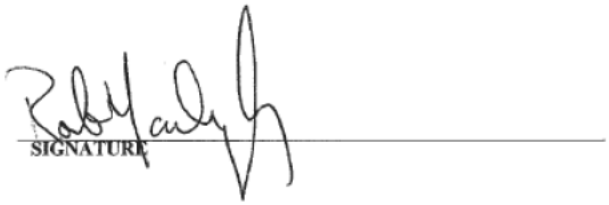
This plan is approved for implementation as herein described. Manpower, equipment and materials will be provided in accordance with all applicable regulatory requirements. The Company is dedicated to protection of the environment and commits to implement the necessary measures, as specified in this Plan, as necessary in a spill response emergency.

In addition to any OSRO and non-company resources listed in this Plan, the necessary personnel and equipment resources, owned or operated by the Company, are available to respond to a discharge within appropriate response times.

This plan has been prepared in accordance to and is consistent to the National Contingency Plan and the applicable Area Contingency Plan(s) for the business units covered by this plan.

This plan represents a planning standard, but is not and should not be regarded as a performance guarantee. Response operations in any incident will be tailored to meet the actual circumstances.

CERTIFICATION SIGNATURE:



SIGNATURE

Rob Yarbrough
PRINTED NAME

Director, Emergency Preparedness, Response & Security
TITLE

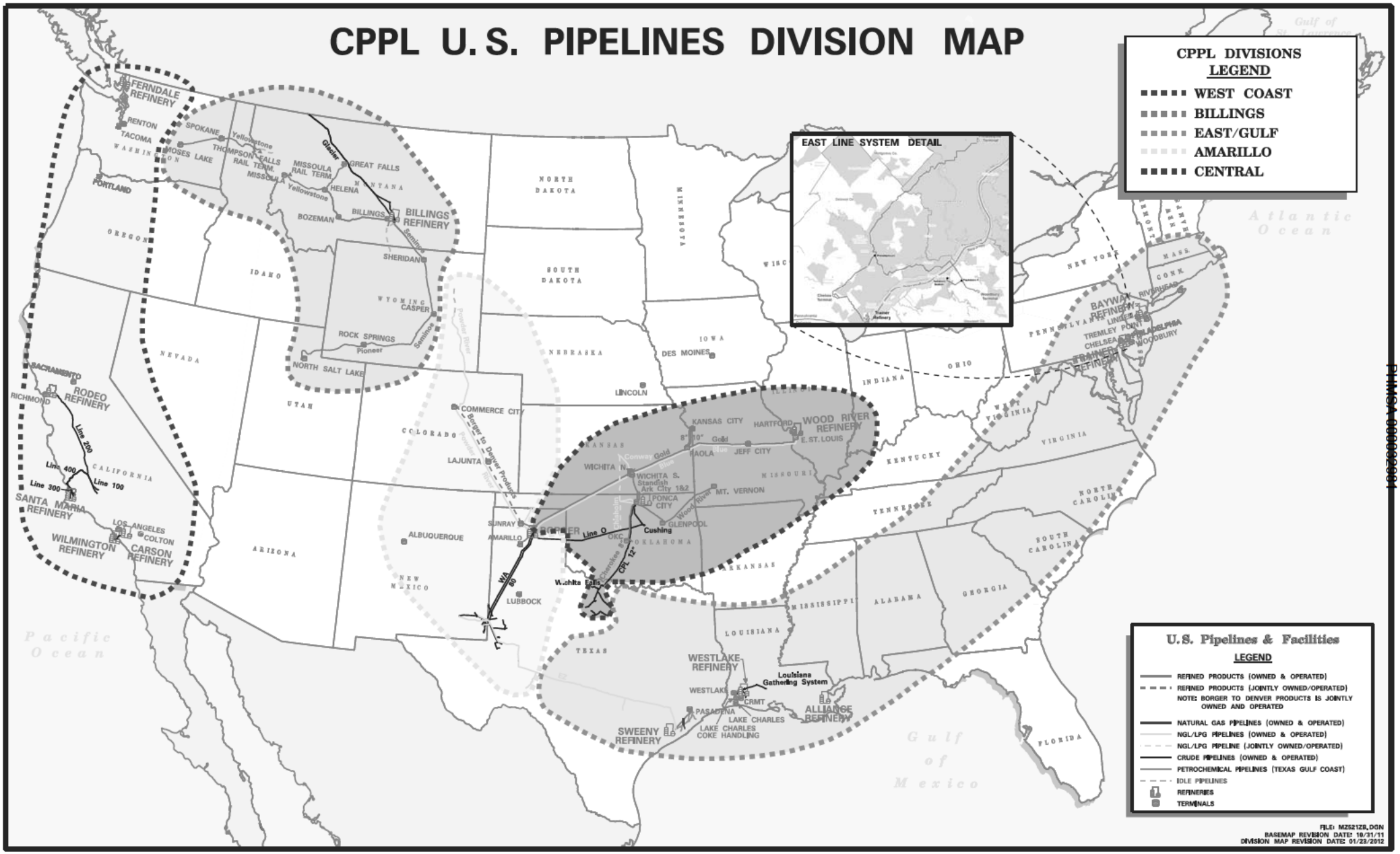
March 2012
DATE

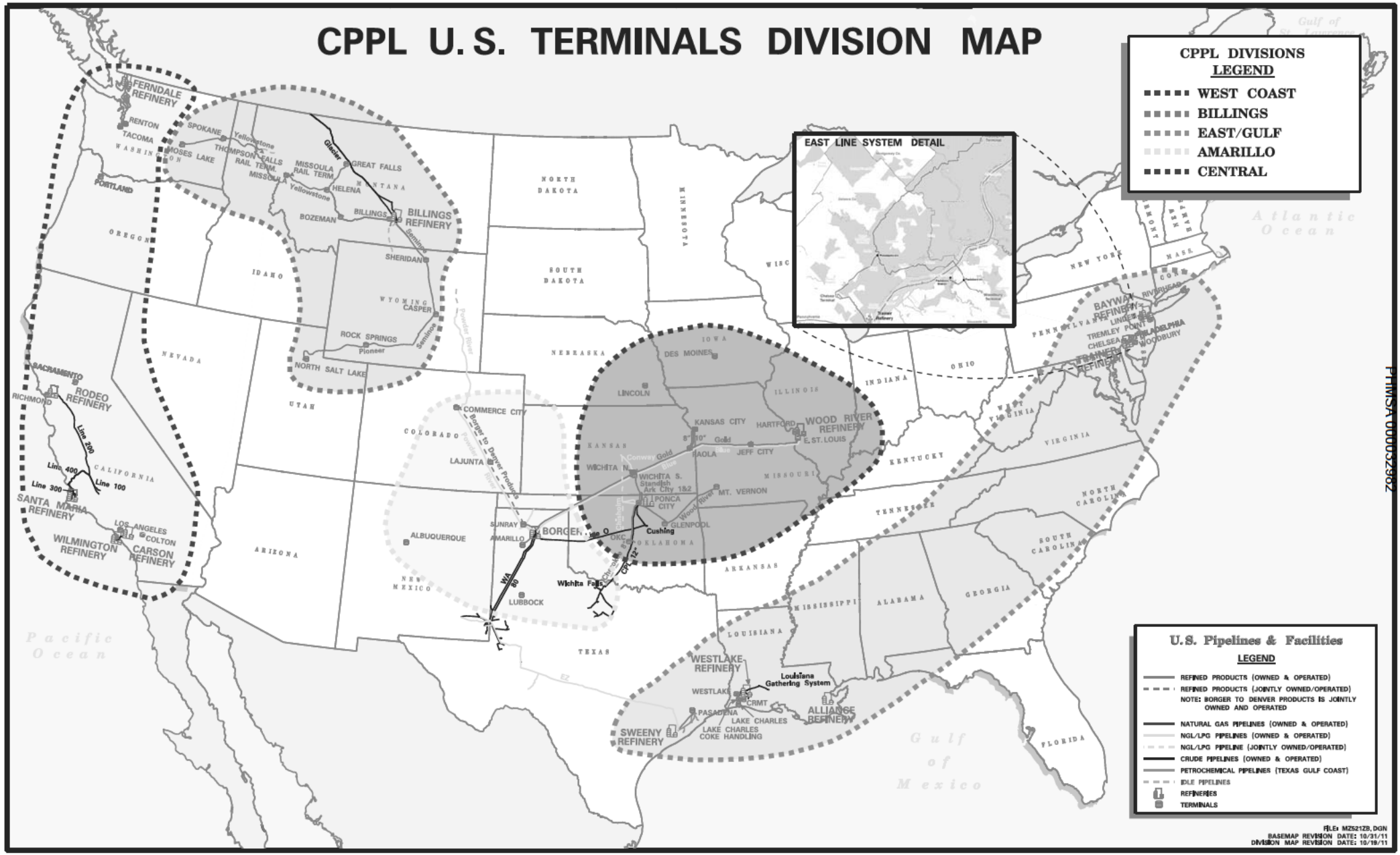
Sec. I-5 Consistency with NCP and ACPs

This ICP has been prepared and is maintained in accordance with the policies and information contained in the National Contingency Plan (NCP) as well as in the applicable Area Contingency Plans and their corresponding geographically specific requirements.

Areas of concern regarding consistency with NCP, and ACP's:	
•	Identification of environmentally and economically sensitive areas potentially impacted by a spill
•	Descriptions of Company's response strategies and responsibilities
•	Integration of Company's response efforts with those of the federal, state and local agencies

Response Zone	Applicable ACPs
Louisiana Response Zone (74)	EPA Region 6 Regional Intergraded Contingency Plan; USCG One Gulf Plan, MSO Port Arthur GRP and MSO New Orleans GRP
Texas Response Zone (75)	EPA Region 6 Regional Intergraded Contingency Plan; USCG One Gulf Plan, MSO Houston/Galveston GRP
Montana and Wyoming Response Zone (128)	EPA Region 8 Regional Contingency Plan; Clark Fork and Flathead Basin, Montana Sub-ACP; EPA Region 10 Northwest ACP
Kansas Response Zone (546)	EPA Region 7 Intergraded Contingency Plan
Oklahoma Response Zone (547)	EPA Region 6 Regional Intergraded Contingency Plan
Missouri Response Zone (551)	EPA Region 7 Intergraded Contingency Plan; EPA Greater St. Louis Sub-ACP
Illinois Response Zone (946)	EPA Region 5 Regional Intergraded Contingency Plan; EPA Greater St. Louis Sub-ACP; MSO Chicago ACP
Colorado Response Zone (953)	EPA Region 8 Regional Contingency Plan
California Response Zone (1277)	USCG 2000 ACP Los Angeles/Long Beach; USCG 2000 ACP for the California North Coast, San Francisco Bay and Delta, Central Coast; EPA Region 9 Mainland Regional Contingency Plan
East Washington Response Zone Plan (132)	EPA Region 10-Regional Contingency Plan; Northwest ACP


CPPL U. S. PIPELINES DIVISION MAP
CPPL DIVISIONS
LEGEND
WEST COAST
BILLINGS
EAST/GULF
AMARILLO
CENTRAL
EAST LINE SYSTEM DETAIL
FERNDALE REFINERY
RENTON
TACOMA
SPOKANE
MOSES LAKE
PORTLAND
OREGON
IDAHO
MISSOULA RAIL TERM.
THOMPSON FALLS RAIL TERM.
MISSOULA
Yellowstone
Glacier
GREAT FALLS
HELENA
MONTANA
BOZEMAN
BILLINGS
BILLINGS REFINERY
Seminoe
SHERIDAN
WYOMING
CASPER
ROCK SPRINGS
Pioneer
NORTH SALT LAKE
NEVADA
UTAH
SACRAMENTO
RODEO REFINERY
RICHMOND
Line 200
Line 400
Line 300
Line 100
CALIFORNIA
SANTA MARIA REFINERY
LOS ANGELES
COLTON
WILMINGTON REFINERY
CARSON REFINERY
ARIZONA
ALBUQUERQUE
NEW MEXICO
LUBBOCK
COMMERCE CITY
Borger to Denver Products
COLORADO
LAJUNTA
Pioneer Pipeline
NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
LINCOLN
DES MOINES
IOWA
MINNESOTA
WISC
KANSAS CITY
HARTFORD
WOOD RIVER REFINERY
E.ST.LOUIS
8" 10" Gold
PAOLA
JEFF CITY
Conway Gold
Blue
Ran
WICHITA N.
WICHITA S.
Standish
Ark City 1&2
PONCA CITY
MT. VERNON
MISSOURI
Wood River
Cushing
GLENPOOL
SUNRAY
AMARILLO
BORGER
Line O
OKC
OKLAHOMA
Cheyenne
Cheyenne
CPL 12"
Wichita Falls
ARKANSAS
TEXAS
LOUISIANA
MISSISSIPPI
ALABAMA
GEORGIA
FLORIDA
INDIANA
OHIO
KENTUCKY
TENNESSEE
VIRGINIA
WEST VIRGINIA
NORTH CAROLINA
SOUTH CAROLINA
PENNSYLVANIA
NEW YORK
MASS.
CONN.
RHODE ISLAND
BAYWAY REFINERY
LINDEN
TREMLEY POINT
CHELSEA
PHILADELPHIA
WOODBURY
TRAINER REFINERY
WESTLAKE REFINERY
Louisiana Gathering System
WESTLAKE
CRMT
PASADENA
LAKE CHARLES
ALLIANCE REFINERY
SWEENY REFINERY
LAKE CHARLES COKE HANDLING
Pacific Ocean
Atlantic Ocean
Gulf of Mexico
U.S. Pipelines & Facilities
LEGEND
REFINED PRODUCTS (OWNED & OPERATED)
REFINED PRODUCTS (JOINTLY OWNED/OPERATED)
NOTE: BORGER TO DENVER PRODUCTS IS JOINTLY OWNED AND OPERATED
NATURAL GAS PIPELINES (OWNED & OPERATED)
NGL/LPG PIPELINES (OWNED & OPERATED)
NGL/LPG PIPELINE (JOINTLY OWNED/OPERATED)
CRUDE PIPELINES (OWNED & OPERATED)
PETROCHEMICAL PIPELINES (TEXAS GULF COAST)
IDLE PIPELINES
REFINERIES
TERMINALS
FILE: MZ521ZB.DGN
BASEMAP REVISION DATE: 10/31/11
DIVISION MAP REVISION DATE: 01/23/2012



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Sec. I.6 Plan Implementation, Review and Update Procedures

Sec. I-6.1 Plan Implementation

This section outlines initial response procedures and implementation upon notification of a release. The Plan and the Facility's Spill Response Team become effective immediately upon notification of any type of spill, leak or emergency situation occurring at the Facility.

The specific action taken to control, contain and clean up a spill will vary with the type of oil spilled, and type of incident that has occurred. The incident commander will analyze the situation and exercise good judgment in formulating the best action plan for the type of incident that occurs. For initial Emergency Response Actions, see section 1.

This plan shall also be implemented in times of natural disasters (i.e., earthquakes, floods, tornadoes, hurricanes, etc.) as well as incidents involving civil unrest or terrorism, which could potentially adversely impact a Company asset resulting in the release of oil or highly volatile liquids. Each Incident Commander, in consultation with the incident command structure, shall be responsible to take any necessary action to minimize the impact that a natural disaster might have on a Company asset. Precautionary measures will be taken, as deemed appropriate by the Incident Commander, in consultation with the incident command structure, to prevent a release. The Commander will consider population, environmentally sensitive areas, pipeline or facility system design, and operating and maintenance practices when determining what precautionary measures to implement. These precautionary measures may include increasing patrols on pipelines, decreasing operating pressures, or shutting in lines, etc.

Sec. I-6.2 Plan Review and Update Procedures

Reviewing and updating this Plan shall be the responsibility of the Facility Manager. Revisions to the Plan may result from: 1) scheduled annual reviews; 2) as a result of conducting formal drills and training exercises; 3) from a response to an accidental discharge; 4) a change in the facility's configuration that materially alters the information included in the response plan; and 5) a material change at the facility (or with a contracted OSRO) which alters the required response capabilities and/or resources. All revisions to the Plan shall be distributed to all Plan holders. In addition, any material or significant changes at the facility that mandate a change in this Plan as described in pages 3, 4 and 5 of this Section shall be submitted to the appropriate regulatory agency. The following sections outline the procedures to be followed to ensure that the Plan is periodically reviewed and updated so that the Plan remains current and functional.

Plan revisions or amendments may be generated as a result of the annual and review process, or by a post drill/post discharge review as discussed above. If new or different operating conditions or information is determined to substantially affect the implementation of this Plan, the Facility Manager shall immediately modify this Plan to address such a change. Within 30 days of changes in the Record Copy of the Plan, revisions and amendments will be submitted to the appropriate Federal and State Agencies listed in this Plan. In addition, the Facility Manager will ensure all revisions and amendments are provided to each Plan holder for incorporation into his/her Plan. Applicable Agency (DOT, EPA & USCG) regulatory language is included below to assist with determining conditions and timeframes for various Agency plan revisions and submittals.

USCG Plan Revisions

A facility owner or operator must review his or her response plan(s) annually. This review shall incorporate any revisions to the plan, including listings of fish and wildlife and sensitive environments identified in the ACP in effect 6 months prior to plan review.

For an MTR facility, this review must occur within one month of the anniversary date of COTP approval of the plan. For an MTR facility identified as a "substantial harm facility" this review must occur within 1 month of the anniversary date of submission of the plan to the COTP.

The facility owner or operator shall submit any revision(s) to the response plan to the COTP and all other holders of the response plan for information or approval, as appropriate.

- Along with the revisions, the facility owner or operator shall submit a cover letter containing a detailed listing of all revisions to the response plan.
- If no revisions are required, the facility owner or operator shall indicate the completion of the annual review on the record of changes page.
- The COTP will review the revision(s) submitted by the owner or operator and will give written notice to the owner or operator of any COTP objection(s) to the proposed revisions within 30 days of the date the revision(s) were submitted to the COTP. The revisions shall become effective not later than 30 days from their submission to the COTP unless the COTP indicates otherwise in writing as provided in this paragraph. If the COTP indicates that the revision(s) need to be modified before implementation, the owner or operator will modify the revision(s) within the time period set by the COTP.

Any required revisions must be entered in the plan and noted on the record of changes page.

The facility owner or operator shall submit revisions to a previously submitted or approved plan to the COTP and all other holders of the response plan for information or approval within 30 days, whenever there is:

- A change in the facility's configuration that significantly affects the information included in the response plan;
- A change in the type of oil (petroleum oil group) handled, stored or transported that affects the required response resources;
- A change in the name(s) or capabilities of the oil spill removal organization;
- A change in the facility's emergency response procedures;
- A change in the facility's operating area that includes ports or geographic area(s) not covered by the previously approved plan. A facility may not operate in an area not covered in a plan previously submitted or approved, as appropriate, unless the revised plan is approved or interim operating approval is received;
- Any other changes that significantly affect the implementation of the plan.

Revisions to personnel and telephone number lists included in the response plan do not require COTP approval. The COTP and all other holders of the response plan shall be advised of these revisions and provided a copy of the revisions as they occur.

The COTP may require a facility owner or operator to revise a response plan at any time as a result of a compliance inspection if the COTP determines that the response plan does not meet the requirements or as a result of inadequacies noted in the response plan during an actual pollution incident at the facility.

EPA Plan Revisions

The owner or operator of a facility for which a response plan is required shall revise and resubmit revised portions of the response plan within 60 days of each facility change that materially may affect the response to a worst case discharge, including:

- A change in the facility's configuration that materially alters the information included in the response plan;
- A change in the type of oil handled, stored or transferred that materially alters the required response resources;
- A material change in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil;
- A material change in the facility's spill prevention and response equipment or emergency response procedures; and
- Any other changes that materially affect the implementation of the response plan.

For EPA-associated ERP's, amendments to personnel and telephone number lists included in the response plan and a change in the oil spill removal organization(s) that does not result in a material change in support capabilities do not require approval by the Regional Administrator. Facility owners or operators shall provide a copy of such changes to the Regional Administrator as the revisions occur.

DOT Plan Revisions

Each operator shall review its response plan at least every 5 years from the date of submission and modify the plan to address new or different operating conditions or information included in the plan.

If a new or different operating condition or information would substantially affect the implementation of a response plan, the operator must immediately modify its response plan to address such a change and, within 30 days of making such a change, submit the change to RSPA.
Examples of changes in operating conditions that would cause a significant change to an operator's response plan are:

- An extension of the existing pipeline or construction of a new pipeline in a response zone not covered by the previously approved plan;

- Relocation or replacement of the pipeline in a way that substantially affects the information included in the response plan, such as a change to the worst case discharge volume;
- The type of oil transported, if the type affects the required response resources, such as a change from crude oil to gasoline;
- The name of the oil spill removal organization;
- Emergency response procedures;
- The qualified individual;
- A change in the NCP or an ACP that has significant impact on the equipment appropriate for response activities; and
- Any other information relating to circumstances that may affect full implementation of the plan.

In addition, per 49 CFR 194.107 (c)(1)(x) and 194.121 (a)(2), Company will review and re-submit this Plan to the U.S. DOT Office of Pipeline Safety for approval every 5 years from the last Plan approval date.

Sec. I-7 Glossary/Acronyms

Term	Definition
A	
Absorbent Material	Any of several materials designed to absorb oil, both hydrocarbon and non-hydrocarbon.
Access/Staging Areas	Designated areas offering access to spill sites for the gathering and deployment of spill response equipment and personnel.
Adverse Weather	The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operation environment. Factors to consider include significant wave height, ice, temperature, weather-related visibility, and currents within the Captain of the Port (COTP) zone in which the systems or equipment are intended to function.
Agency Representative	Individual assigned to an incident from an assisting or cooperating agency that has been delegated full authority to make decisions on all matters affecting his/her agency's participation at the incident.
Air Operations Branch Director	The person primarily responsible for preparing and implementing the air operations portion of the Incident Action Plan. Also responsible for providing logistical support to helicopters assigned to the incident.
Alert	Means an incident has occurred at the terminal that has the potential to affect off-site locations.
Allocated Resources	Resources dispatched to an incident.
Alteration	Any work on a tank or related equipment involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of a tank.
Area	The geographic area for which a separate and distinct Area Contingency Plan has been prepared as described in the Oil Pollution Act of 1990. For EPA Areas with sub-area plans or annexes to the Area Contingency Plan, the EPA Regional Administrator will decide which sub-area is to be exercised within the triennial cycle.
Area Committee (AC)	Area Committees are those committees comprised of Federal, State and Local officials, formed in accordance with Section 4202 of the Oil Pollution Act of 1990, whose task is to prepare an Area Contingency Plan for the Area for response to a discharge of oil or hazardous substance.
Area Spill Management Team	The Area Spill Management Team is the group of individuals within the Coast Guard or EPA OSC organization with responsibility for spill response management within the respective Area.

Term	Definition
A (Cont'd)	
Assigned Resources	Resources checked-in and assigned work tasks on an incident.
Assignments	Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan.
Assistant	Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions. Assistants may also be used to supervise unit activities at camps.
Assisting Agency	An agency directly contributing tactical or service resources to another agency.
Available Resources	Incident-based resources that are immediately available for assignment.
Average Most Probable Discharge	(Small Oil Spill) – The size of the discharge as defined in 33 CFR 154.1020 (a discharge of the lesser of 50 barrels or 1 percent of the volume of the worst case discharge), 33 CFR 155.1020 (a discharge of 50 barrels of oil from the vessel during oil transfer operations) – (for Coast Guard regulated facilities & vessels); for EPA, the tiered planning quantity of 2,100 gallons or less, provided this amount is less than the worst case discharge; for PHMSA and BOEMRE, the size of the discharge as defined in each agency's respective regulations, as appropriate; and the size of the discharge as defined in the respective Area Contingency Plan.
B	
Barrel	Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit.
Base	The location as which the primary logistics functions are coordinated and administered. The Incident Command Post may be collocated with the base. There will only be one base per incident.
Boom	Any number of specially designed devices that float on water and are used to contain or redirect the flow of oil on the waters surface.
Boom Deployment	The methodology for installing boom based on differing water depths, currents, wave heights, etc.
Booming Strategies	Techniques which identify the location, quantity, and type of boom required to protect differing water bodies and their shore lines. These strategies are developed by identifying potential spill scenarios and assuming certain conditions which affect oil movement on water.

Term	Definition
B (Cont'd)	
Branch	The organizational level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section.
C	
Cache	A pre-determined complement of tools, equipment, and/or supplies stored in a designated location, and available for incident use.
Camp	A geographical site, within the general incident area, separate from the base, equipped and staffed to provide sleeping areas, food, water, and sanitary services to incident personnel.
Captain of the Port Zone (COTP)	Refers to a zone specified in 33 CFR Part 3 and the seaward extension of that zone to the outer boundary of the exclusive economic zone (EEZ).
CERCLA	The Comprehensive Environmental Response, Compensation Liability Act regarding hazardous substance releases into the environment and the cleanup of inactive hazardous waste disposal sites.
Certification	The act of confirming that an exercise: 1) was completed, 2) met the required objectives, and 3) was evaluated to determine effectiveness of the response plan based on exercise performance.
Check-In	The process whereby resources first report to an incident response. Check-in locations include: Incident Command Post (Resources Unit), Incident Base, Camps, Staging Areas, Heli-bases and Division/Group Supervisors (for direct line assignments).
CHEMTREC	Chemical Transportation Emergency Center which provides information and/or assistance to emergency responders. Can be reached 24 hours a day by calling 800-424-9300.
Chief	The ICS title of individuals responsible for command of functional sections: Operations, Planning, Logistics, and Finance/Administration.
Clean-up	For the purposes of this document, clean-up refers to the removal and/or treatment of oil, hazardous substances, and/or the waste or contaminated materials generated by the incident. Clean up includes restoration of the site and its natural resources.

Term	Definition
C (Cont'd)	
Clean-Up Contractor	Non-company person contractually engaged to respond and clean up an oil spill.
Clear Text	The use of plain English in radio communications transmissions. No Ten Codes nor agency specific codes are used when using Clear Text.
Coastal Waters	All tidally influenced waters extending from the head of tide seaward to the three marine league limit of state jurisdiction; and non-tidally influenced waters extending from the head of tide in the arms inland to the point at which navigation by regulated vessels is naturally or artificially obstructed.
Command	The act of directing, ordering, and/or controlling resources by virtue of explicit legal, agency, or delegated authority. May also refer to the Incident Command/Unified Command.
Command Post	A site located in the cold zone where response decisions and activities can be planned, coordinated, and managed. The Incident Commander and regulatory On-Scene Coordinator(s) may operate from this location.
Command Staff	It consists of the Information Officer, Safety Officer and Liaison Officer, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.
Communication Equipment	Equipment that will be utilized during response operations to maintain communication between employees, contractors, Federal/State/Local agencies. (Radio/telephone equipment and links).
Communications Unit	A vehicle (trailer or mobile van) used to provide the major part of an incident Communications Center.
Company Away Team	Volunteer Emergency Tier II Responders
Complex	A facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under Section 311(j) of the CWA.
Containment Boom	A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.
Contamination Reduction Zone	The area between the contaminated zone and the clean zone. This area is designed to reduce the probability that can clean zone will become contaminated. Also known as the warm zone.
Contingency Plan	A document used by (1) Federal, State, and Local agencies to guide ties planning and response procedures regarding spill of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.

Term	Definition
	C (Cont'd)
Contract or Other Approved Means	1. A written contractual agreement with a response contractor. The agreement should identify and ensure the availability of the specified personnel and equipment described under this plan within stipulated response times in the specified geographic areas; 2. Certification by the facility owner or operator that the specified personnel and equipment described under this plan are owned, operated, or under the direct control of the facility owner or operator, and are available within the stipulated times in the specified geographic areas; 3. Active membership in a local or regional oil spill removal organization that has identified specific personnel and equipment described under this plan that are available to respond to a discharge within stipulated times in the specified geographic areas; 4. A document which: a) Identifies the personnel, equipment, services, capable of being provided by the response contractor within stipulated response times in specified geographic areas; b) Sets out the parties' acknowledgment that the response contractor intends to commit the resources in the event of a response; c) Permits the Coast Guard to verify the availability of the response resources identified through tests, inspections and drills; and d) Is incorporated by reference in the response plan; or 5. With the written consent of the response contractor or the oil spill removal organization, the identification of a response contractor or oil spill removal organization with specified equipment and personnel which are available within stipulated response times in specific geographic areas: a) For a facility that could reasonably be expected to cause substantial harm to the environment; b) For a facility that handles, stores, or transports Group V petroleum oil; and c) For a facility that handles, stores, or transports non-petroleum oil.
Cooperating Agency	An agency supplying assistance other than direct tactical, support, or service functions or resources to the incident control effort (e.g., Red Cross, telephone company, etc.).

Term	Definition
C (Cont'd)	
Cost Unit	Functional unit within the Finance/Administration Section responsible for tracking costs, analyzing cost data, making cost estimates, and recommending cost-saving measures.
Critical Areas	Areas which, if impacted by a spill, may result in threats to public health and/or safety.
Crude Oil	Any liquid hydrocarbon mixture occurring naturally in the earth, whether or not treated to render it suitable for transportation, and includes crude oil from which certain distillate fractions may have been removed and crude oil to which certain distillate fractions may have been added.
Cultural Resources	Current, historic, prehistoric, and archaeological resources which include deposits, structures, sites, ruins, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to historical or prehistoric culture of people as well as the natural history of the state.
D	
Damage Assessment	The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.
Decontamination	The removal of hazardous substances from personnel and equipment necessary to prevent adverse health effects.
Deputy	A fully qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior, and, therefore, must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff, and Branch Directors.
Demobilization Unit	Functional unit within the Planning Section responsible for assuring orderly, safe and efficient demobilization of incident resources.
Director	The ICS title for individuals responsible for supervising a Branch.
Discharge	Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.
Discharge Clean-up Organization	A corporation, proprietorship, partnership, company organization, or association that has, as its primary function, engaged itself in the response to, clean up, and removal of spills of oil or hazardous substance.

Term	Definition
D (Cont'd)	
Dispatch	To move resources from one place to another.
Dispatch Center	A facility from which resources are directly assigned to an incident.
Dispersants	Those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.
Diversion Boom	A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert floating product towards a pick up point or away from certain areas.
Division	The organization level having responsibility for operation within a defined geographic area or with functional responsibility. The Division level is organizationally between the Task Force/Strike Team and the Branch.
Documentation Unit	Functional unit within the Planning Section responsible for collecting, recording and safeguarding all documents relevant to the incident.
Duty Officer	company support designed to provide communication assistance to the Incident Commander.
E	
Emergency Planning Zone	The area designated by the jurisdiction boundaries of those communities that are within a radial distance of one-half mile from the terminal.
Emergency Medical Technician (EMT)	A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine.
Emergency Operations Center (EOC)	A pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency response.
Emergency Response	The response to any occurrence that results, or is likely to result in a release of a hazardous substance due to an event.
Emergency Service	Those activities provided by the state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.
Environmentally Sensitive Areas (ESA)	Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.
Equipment Activation	The movement, staging, deployment and/or operation of response equipment as determined by the plan holder in consultation with the exercise design team.
Equipment Deployment Exercise	An equipment deployment exercise is an exercise where response equipment is deployed to a specific site and operated in its normal operating medium.

Term	Definition
E (Cont'd)	
Estuary	Unique environment at the mouth of coastal rivers where fresh water and sea water meet, providing important habitat for marine life, birds, and other wildlife.
Exclusion Zone	The area where contamination does or may occur.
Exclusive Economic Zone	The zone contiguous to the territorial sea of the United States extending to a distance up to 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.
Exercise Design Team	A team comprised of federal, state and industry representatives with responsibility for designing an Area Exercise. The exercise design team is charged with working with the lead plan holder to develop the scope, parameters and exercise scenario, although the lead plan holder retains the final decision on these.
F	
Facilities Unit	Functional unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.
Facility	Any pipeline, structure, equipment, or device used for handling oil including, but not limited to, underground and aboveground storage tanks, impoundments, mobile or portable drilling or workover rigs.
Facility That Could Reasonably Be Expected to Cause Significant and Substantial Harm	Any fixed MTR on-shore facility (including piping and any structures that are used for the transfer of oil between a vessel and a facility) that is capable of transferring oil, in bulk, to or from a vessel of 250 barrels or more, and a deepwater port. This also includes any facility specifically identified by the COTP.
Facility That Could Reasonably Be Expected to Cause Substantial Harm	Any mobile MTR facility that is capable of transferring oil to or from a vessel with a capacity of 250 barrels or more. This also includes any facility specifically identified by the COTP.
Federal On-Scene Coordinator (FOSC)	The pre-designated Federal On-Scene Coordinator operating under the authority of the National Contingency Plan (NCP).
Finance / Administration Section	The Section responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit.
First Responders, First Response Agency	A public health or safety agency (i.e., fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.

Term	Definition
F (Cont'd)	
Fish and Wildlife and Sensitive Environments	Areas that may be identified by either their legal designation or by evaluations of Area Committees (for planning) or members of the Federal On-Scene Coordinator's spill response structure (during responses). These areas may include wetlands, National and State parks, critical habitats for endangered/threatened species, wilderness and natural resource areas, marine sanctuaries and estuarine reserves, conservation areas, preserves, wildlife areas, wildlife refuges, wild and scenic rivers, recreational areas, national forests, Federal and State lands that are research national areas, heritage program areas, land trust areas, and historical and archeological sites and parks. These areas may also include unique habitats such as aquaculture sites and agricultural surface water intakes, bird nesting areas, critical biological resource areas, designated migratory routes, and designated seasonal habitats.
Food Unit	Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.
Function	In ICS, function refers to the five major activities in the ICS, i.e., Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., "the planning function."
G	
General Emergency	An incident has occurred and the affected community is implementing protective actions.
General Staff	The group of incident management personnel comprised of: Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.
Geographic Information System (GIS)	An electronic information system that provides a geo-referenced data base to support management decision-making.
Geographic Response Site (GRS)	Emergency planning/response geographical site.
Ground Support Unit	Functional unit within the Support Branch of the Logistics Section responsible for fueling, maintaining, and repairing vehicles, and the ground transportation of personnel and supplies.
Group	Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. (See Division.) Groups are located between Branches (when activated) and Single Resources in the Operations Section.

Term	Definition
H	
Handle	To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.
Harmful Quantity of Oil	The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen or discoloration upon water, shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.
Hazardous Chemicals	All chemicals that constitute a physical hazard or a health hazard as defined by 29 CFR 1910.1200, with the exceptions listed in section 311(e). This term comprises approximately 90 percent of all chemicals.
Hazardous Material	Any non-radioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.
Hazardous Substance	Any substance designed as such by the Administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, regulated pursuant to Section 311 of the Federal Water Pollution Control Act, or discharged by the TWC.
Hazardous Waste	Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.
Health Hazard	A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees.
Helibase	A location within the general incident area for parking, fueling, maintaining, and loading helicopters.
Helispot	A location where a helicopter can take off and land. Some helispots may be used for temporary loading.
High Consequence Area (HCA)	Includes commercially navigable waterway, a high population area, other populated area, (which means 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), and an unusually sensitive area, as defined in §195.6

Term	Definition
I	
High Population Area (HPA)	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.
Immediate Response Steps	The immediate steps that are to be taken by the spill observer after detection of a spill.
Incident	Any event that results in the spill or release of oil or hazardous materials.
Incident Action Plan (IAP)	Is initially prepared at the first meeting, contains general control objectives reflecting the overall incident strategy, and specific action plans for the next operational period. When complete, the Incident Action Plans will include a number of attachments.
Incident Area	Legal geographical area of the incident including affected area(s) and traffic route(s) to corresponding storage and disposal sites.
Incident Base	See "BASE"
Incident Commander	The individual responsible for managing all incident operations.
Incident Command Post (ICP)	The location at which the primary command functions are executed; may be collocated with the incident base.
Incident Command System	A standardized on-scene emergency management system specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.
Incident Communication Center	The location of the Communications Unit and the Message Center.
Incident Management Handbook (IMH)	The IMH is intended to be used as an easy reference job aid for responders; designed to assist responders in the use of the National Incident Management System (NIMS) Incident Command System (ICS) during response operations.
Company Away Team	Made up of Company volunteers from across North America. Will assist with activation, deployment and integration of the ICS/UCS spill response organization. ICS/UCS Division/Group Leaders are available
Incident Objectives	Statements of guidance and direction necessary for the selection of appropriate strategies, and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.
Incident Situation Display	The Situation Unit is responsible for maintaining a display of status boards that communicate critical incident information vital to establishing and maintaining an effective command and control environment.
Incident Support Team (IST)	Company responders.

Term	Definition
I (Cont'd)	
Industry	For the purpose of these guidelines, industry means the oil and hazardous substance industry required to submit response plans and comply with exercise requirements, as specified in appropriate vessel, facility, pipeline, and Outer Continental Shelf platform regulations. The USCG, EPA, RSPA and MMS administer these regulations.
Information Officer (IO)	A member of the Command Staff responsible for providing incident information to the public and news media or other agencies or organizations. There is only one Information Officer per incident. The Information Officer may have assistants.
Initial Clean-up	Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of cleanup increases significantly without timely remedial action. All sites must be evaluated to determine whether initial cleanup is total cleanup; however, this will not be possible in all cases due to site conditions (i.e., a site where overland transport or flooding may occur).
Initial Notification	The process of notifying necessary company personnel and Federal/State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.
Injury	A measurable adverse change, either long- or short-term, in the chemical or physical quality of the viability of a natural resource resulting either directly or indirectly from exposure to a discharge of oil, or exposure to a product of reactions resulting from a discharge of oil.
Inland Area	The area shoreward of the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) defined in 80.740 – 80.850 of Title 33 of the CFR. The inland area does not include the Great Lakes.
Interim Storage Site	A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.
Internally Reported Event	Refers to an incident has occurred that does not meet the reporting criteria established for notification of off-site authorities. No evacuation has occurred.
J	
Joint Information Center (JIC)	A facility established within, or near, the Incident Command Post where the Information Officer and staff can coordinate and provide incident information to the public, news media, and other agencies or organizations. The JIC is normally staffed with representatives from the FOSC, SOSC and RP.

Term	Definition
J (Cont'd)	
Jurisdiction	A range or sphere of authority. At an incident, public agencies have jurisdiction related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, state, or Federal boundary lines), or functional (e.g., police department, health department, etc.). (See Multi-Jurisdiction).
Jurisdictional Agency	The agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.
L	
Landing Zone	See "HELISPOT"
Lead Agency	The government agency that assumes the lead for directing response.
Lead Federal Agency	The agency that coordinates the federal response to incidents on navigable waters. The lead Federal agencies are: • U. S. Coast Guard (USCG): Oil and chemically hazardous materials incidents on navigable waters. • U. S. Environmental Protection Agency (EPA): Oil and chemically hazardous materials incidents on inland waters.
Lead State Agency	The agency that coordinates state support to Federal and/or Local governments or assumes the lead in the absence of Federal response.
Leader	The ICS title for an individual responsible for a Task Force/Strike Team or functional Unit.
Liaison Officer (LO)	A member of the Command Staff responsible for coordinating with stakeholder groups and representatives from assisting and cooperating agencies.
Light Oil Terminal Operations	The storage and distribution of gasoline and diesel fuel to wholesale customers.
Local Emergency Planning Committees (LEPC)	Provide input regarding a state's implementation of federal law. LEPC's provide local emergency planning, representing a variety of disciplines interested in hazardous materials management designed to help the State Chemical Emergency Planning and Response Commission (CEPRC) fit the needs of a particular region. CEPRC's are usually established by an Executive Order to fill the requirement in Title III, the Federal Superfund Amendments and Reauthorization Act of 1986. The act requires that each governor establish a state emergency response commission to address a variety of hazardous materials planning and community right-to-know issues.

Term	Definition
L (Cont'd)	
Local On Scene Coordinator (LOSC)	Local Government Representative.
Location Boundaries	Areas where oil may be expected to impact during the first day of a spill event.
Logistics Section	The Section responsible for providing facilities, services and materials for the incident.
Lower Explosive Limit	Air measurement to determine the lowest concentration of vapors that support combustion. This measurement must be made prior to entry into a spill area.
Lube Oil Terminal Operations	The blending of lubricating oils to Company specifications, and the operation of filling lines for packaging the finished oils for distribution to sales outlets.
M	
Managers	Individuals within ICS organizational units who are assigned specific managerial responsibilities (e.g., Staging Area Manager or Camp Manager).
Marinas	Small harbors with docks, services, etc. for pleasure craft.
Marine Facility	Any facility used for tank vessel wharfage or anchorage, including any equipment used for the purpose of handling or transferring oil in bulk to or from a tank vessel.
Marine Transportation Related Facility (MTR)	An on-shore facility, including piping and any structure used to transfer oil to or from a vessel, subject to regulation under 33 CFR Part 154 and any deepwater port subject to regulation under 33 CFR Part 150.
Maximum Extent Practicable	The limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst-case discharges from onshore non-transportation-related facilities in adverse weather. It considers the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the requirements in 112.20 or in a specific plan approved by the Regional Administrator.
Maximum Most Probable Discharge	(Medium Oil Spill) - The size of the discharge as defined in 33 CFR 154.1020 (a discharge of the lesser of 1,200 barrels or 10 percent of the volume of a worst case discharge), 33 CFR 155.1020 (a discharge of 2,500 barrels of oil for vessels with an oil cargo capacity equal to or greater than 25,000 barrels, or 10 percent of the vessel's oil cargo capacity for vessels with a capacity of less than 25,000 barrels) - (for Coast Guard regulated facilities & vessels); for EPA regulated facilities, a discharge greater than 2,100 gallons and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less; for RSPA and MMS, the size of the discharge as defined in each agency's respective regulations, if appropriate; and the size of the discharge as defined in the respective Area Contingency Plan.

Term	Definition
M (Cont'd)	
Medical Unit	Functional unit within the Service Branch of the Logistics Section responsible for developing the Medical Plan, and for providing emergency medical treatment for incident response personnel.
Message Center	The message center is part of the Communications Center and collocated with or adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status, and handles administration and tactical traffic.
Multi-Agency Coordination	A generalized term which describes the functions and activities of representatives of involved agencies and/or jurisdictions who come together to make decisions regarding the prioritizing of incidents, and the sharing and use of critical resources. The MAC organization is not a part of the on-scene ICS and is not involved in developing incident strategy or tactics.
Multi-Agency Incident	An incident where one or more agencies assists a jurisdictional agency or agencies. May be single or Unified Command.
N	
National Contingency Plan	The plan prepared under the Federal Water Pollution Control Act (33 United State Code SS1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code SS9601 et seq), as revised from time to time.
Natural Resource	Land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality.
Natural Resource Damage Assessment (NRDA)	The process of collecting and analyzing information to evaluate the nature and extent of injuries resulting from an incident, and determine the restoration actions needed to bring injured natural resources and services back to baseline and make the environment whole for interim losses. (15 CFR 990.30)
Nearshore Area	The area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico.
Non-Crude Oil	Any oil other than crude oil.
Non-Persistent or Group I Oil	Refers to a petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions -- a) At least 50% of which by volume, distill at a temperature of 340° C (645° F); and At least 95% of which by volume, distill at a temperature of 370° C (700° F).
Non-Petroleum Oil	Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.
Northwest Area Contingency Plan (NWACP)	Geographically area plan required by regulations.

Term	Definition
O	
Ocean	The offshore area and nearshore area as defined in this Appendix.
Officer	The ICS title for personnel responsible for the Command Staff positions of Safety, Liaison and Information.
Offshore Area	Refers to the area beyond 12 nautical miles measured from the boundary lines defined in 46 CFR Part 7 extending seaward to 50 nautical miles, except in the Gulf of Mexico.
Oil or Oils	Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR Part 302 adopted August 14, 1989, under Section 101(14) of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by P.L. 99-499.
Oil Spill Cooperative	Multi-company cooperative organization developed by industry to assist with oil spill response and clean up. Typically, manpower and equipment are identified by a company on a voluntary basis.
Oil Spill Removal Organization (OSRO)	An entity that provides oil spill response resources, and includes any for-profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provided required response resources.
Oil Spill Response Contractors	Persons/Companies contracted to undertake a response action to contain and/or clean up a spill.
Oily Waste	Oil-contaminated waste resulting from an oil spill or spill response operations.
On Scene Coordinator (OSC)	The federal official pre-designated by EPA or the USCG to coordinate and direct federal responses under subpart D, or the official designated by the lead agency to coordinate and direct removal actions under subpart E of the National Contingency Plan.
Operating Area	refers to the Rivers and Canals, Inland, Nearshore, Great Lakes or Offshore geographic location(s) in which a facility is handling, storing or transporting oil.
Operating Environment	refers to Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the conditions in which response equipment is designed to function.
Operational Period	The period of time scheduled for execution of a given set of operational actions specified in the Incident Action Plan. Operational Periods can be various lengths, usually not over 24 hours.

Term	Definition
O (Cont'd)	
Operations Section	Responsible for all operations directly applicable to the primary mission. Directs unit operational plans preparation, requests or releases resources, makes expedient changes to the Incident Action Plan (as necessary) and reports such to the Incident Commander. Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch.
Out-of-Service Resources	Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.
Owner or Operator	Any person, individual, partnership, corporation, association, governmental unit or public or private organization of any character.
P	
Persistent Oil	Under OPA 90, persistent oils are petroleum-based oils that do not meet the distillation criteria for a non-persistent oil. Persistent oils are classified based on a specific gravities as follows: • Group II – specific gravity less than .85; • Group III – specific gravity between .85 and less than .95; • Group IV – specific gravity .95 to and including 1.0.; and • Group V – specific gravity greater than 1.0.
Person	Any political subdivision, government agency, municipality, industry, public or private corporation, copartnership, association, firm, individual, or any other entity whatsoever.
Plan	Oil spill response, cleanup and disposal contingency plan.
Planning Meeting	A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning.
Planning Section	Responsible for collecting, evaluating and disseminating tactical information related to the incident, and for preparing and documenting Incident Action Plans. The section also maintains information on the current and forecast situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Environmental, Documentation, and Demobilization Units, and Technical Specialists.
Polrep	Pollution Report
Primary Response Contractor(s)	An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil.
Post-Emergency Response	The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.

Term	Definition
P (Cont'd)	
Procurement Unit	Functional unit within the Finance/Administration Section responsible for financial matters involving vendor contracts.
R	
Radio Cache	A cache may consist of a number of portable radios, a base station, and, in some cases, a repeater stored in a predetermined location for dispatch to incidents.
Recorders	Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics and Finance/Administration.
Recreational Areas	Publicly accessible locations where social/sporting events take place.
Regional Response Team (RRT)	A Federal response organization, consisting of representatives from specific Federal and state agencies, responsible for regional planning and preparedness before an oil spill occurs and for providing advice to the FOSC in the event of a major or substantial spill.
Regulated Vessel	A vessel with a capacity to carry 10,000 U.S. gallons or more of oil as fuel or cargo.
Repair	Any work necessary to maintain or restore a tank or related equipment to a condition suitable for safe operation.
Reporting Location	Any one of six facilities/locations where incident assigned resources may be checked in. The locations are: Incident Command Post-Resources Unit, Base, Camp, Staging Area, Helibase, or Division/Group Supervisors (for direct line assignments.) Check-in for each specific resource occurs at one location only.
Resources	All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.
Resources Unit	Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resource needs.
Response Activities	Refers to the containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to the environment.
Response Contractors	Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Term	Definition
R (Cont'd)	
Response Guidelines	Guidelines for initial response that are based on the types of product involved in the spill, these guidelines are utilized to determine clean-up methods and equipment.
Response Resources	The personnel, equipment, supplies and other capability necessary to perform the response activities identified in a response plan.
Response Plan	A practical plan used by industry for responding to a spill. Its features include (1) identifying the notification sequence, responsibilities, response techniques, etc. in an easy to use format; (2) using decision trees, flowcharts, and checklists to insure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from that required by regulatory agencies to prevent confusion during a spill incident.
Responsible Party (RP)	The owner/operator of the vessel or facility that is the spill source.
Responsible Party Incident Commander (RPIC)	Responsible Party's designated incident commander.
Restoration	The actions involved in returning a site to its former condition.
Rivers and Canals	A body of water confined within the inland area that has a project depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.
S	
Safety Officer (SO)	A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety. The Safety Officer may have assistants.
Section	The organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics, Finance/Administration. The Section level is organizationally between Branch and Incident Commander.
Securing the Source	Steps that must be taken to stop the spill of oil at the source of the spill.
Self-Certification	Self-certification involves the following action on the part of the plan holder: 1) completed the exercise, 2) ensured the exercise met the required objectives, and 3) evaluated effectiveness of the plan based on exercise performance. Documentation must be approved and signed by an appropriate official within the organization.

Term	Definition
S (Cont'd)	
Self-Evaluation	Self-evaluation means the plan holder evaluates effectiveness of the plan during the exercise using the stated objectives as minimum criteria and an evaluation process, which adequately measures performance. The plan holder is then responsible for correcting deficiencies identified in the evaluation process.
Service Branch	A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical and Food Units.
Ship	Any boat, ship, vessel, barge or other floating craft of any kind.
Single Resource	An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.
Site Emergency	means an incident has occurred and the entire terminal, with the exception of critical employees has been sheltered on-site or evacuated.
Site Safety and Health Plan (SSHP)	Site-specific document required by state and Federal OSHA regulations and specified in the Area Contingency Plan. The SSHP, at minimum, addresses, includes, or contains the following elements: health and safety hazard analysis for each site task or operation, comprehensive operations workplan, personnel training requirements, PPE selection criteria, site-specific occupational medical monitoring requirements, air monitoring plan, site control measures, confined space entry procedures (if needed), pre-entry briefings (tailgate meetings, initial and as needed), pre-operations commencement health and safety briefing for all incident participants, and quality assurance of SSHP effectiveness.
Site Conditions	Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.
Site Security and Control	Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.
Situation Unit	Functional unit within the Planning Section responsible for collecting, organizing and analyzing incident status information, and for analyzing the situation as it progresses. Reports to the Planning Section Chief.
Skimmers	Mechanical devices used to skim the surface of water and recover floating oil. There are four basic categories of skimmers; suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices. These vary in efficiency depending on the type of oil and size of spill.

Term	Definition
S (Cont'd)	
Sorbents	Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.
Source Control	Actions necessary to control the spill source and prevent the continued release of oil or hazardous substance(s) into the environment.
Span of Control	On how many organizational elements may be directly managed by one person. Span of Control may vary from three to seven, and a ratio of one to five reporting elements is recommended.
Spill Management Team (SMT)	The spill management team is the group of personnel identified to staff the appropriate organizational structure to manage spill response implementation in accordance with the response plans.
Spill Observer	The first company individual who discovers an oil spill. This individual must function as the responsible person-in-charge until relieved by an authorized supervisor.
Spill Response	All actions taken in responding to spills of oil and hazardous materials, i.e., receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.
Spill Response Personnel	Federal, State, Local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be preapproved on a list maintained in each region.
Staging Area	The location where incident personnel and equipment are staged awaiting tactical assignment.
Stakeholders	Any person, group, or organization affected by, and having a vested interest in, the incident and/or the response operation.
State Emergency Response Commission (SERC)	A group of officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Reauthorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.
State On-Scene Coordinator (SOSC)	The pre-designated State On-Scene Coordinator.
Strategy	The general plan or direction selected to accomplish incident objectives.

Term	Definition
S (Cont'd)	
Strike Team	Specified combinations of the same kinds and types of resources, with common communications and a leader.
Substantial Threat of a Discharge	Any incident or condition involving a facility that may create a risk of discharge of fuel or cargo oil. Such incidents include, but are not limited to storage tank or piping failures, above ground or underground leaks, fires, explosions, flooding, spills contained within the facility, or other similar occurrences.
Supervisor	The ICS title for individuals responsible for directing the activities of a Division or Group.
Supply Unit	Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.
Support Branch	A Branch within the Logistics Section responsible for providing personnel, equipment and supplies to support incident operations. Includes the Supply, Facilities, Ground Support and Vessel Support Units.
Supporting Materials	Refers to the several attachments that may be included with an Incident Action Plan (e.g., communications plan, map, site safety and health plan, traffic plan, and medical plan).
T	
Tabletop Exercise (TTX)	A tabletop exercise is an activity in which key members of the plan holder's staff with emergency management responsibilities are gathered together informally, usually in a conference room, to discuss actions to be taken during an oil or hazardous substance spill, based upon the response plan and their standard operating procedures. The primary characteristic is a verbal "walk through" of a response. The tabletop exercise is designed to elicit constructive discussion by the participants, usually without time constraints, as they examine and resolve problems based on the response plan. A tabletop exercise has participants practice problem solving and resolve questions of coordination and assignment of responsibilities in a non-threatening format, under minimum stress.
Tactical Direction	Directions given by the Operations Section Chief including: the tactics appropriate for the selected strategy; the selection and assignment of resources; tactics implementation; and performance monitoring for each operational period.
Tactics	Deploying and directing resources during an incident to accomplish the desired objective.
Task Force	A group of resources with common communications and a leader assembled for a specific mission.
Technical Specialists	Personnel with special skills or technical expertise who can be used anywhere within the ICS organization.

Term	Definition
T (Cont'd)	
Temporary Flight Restrictions (TFR)	Temporary airspace restrictions for non-emergency aircraft in the incident area. TFRs are established by the FAA to ensure aircraft safety and are normally limited to a five-nautical-mile radius and 2000 feet in altitude.
Tidal Current Charts	Comprehensive charts which contain the predicted tidal current for each day of the year for designated areas. These charts specify the direction and speed of the current in the specific areas.
Tidal Current Tables	Tables which contain the predicted times and heights of high and low waters for each day of the year for designated areas.
Time Unit	Functional unit within the Finance/Administration Section responsible for recording time for incident personnel and hired equipment.
Toxic Substances	Substances that have the capacity to produce personal injury or illness to man through ingestion, inhalation or absorption through any of the body's surfaces.
Tribal On Scene Coordinator (TOSC)	Local Tribal Agency Representative.
U	
Unauthorized Spill	Spills excluding those authorized by an in compliance with a government permit, seepage from the earth solely from natural causes, and unavoidable, minute spills of oil from a properly functioning engine, of a harmful quantity of oil from a vessel or facility either: (1) into coastal water; or (2) on any waters or land adjacent to coastal waters where harmful quantity of oil may enter coastal waters or threaten to enter coastal waters if the spill is not abated, not contained and the oil is not removed.
Underwriter	An insurer, a surety company, a guarantor, or any person other than an owner or operator who undertakes to pay all or part of the liability of an owner or operator.
Unified Command (UC)	A command structure consisting of the Federal On Scene Coordinator, the State On Scene Coordinator and the Responsible Party. The Unified Command is utilized during a spill response to achieve the coordination necessary to carry out an effective and efficient response.
Unit	The organizational element having functional responsibility for a specific incident planning, logistic, or finance/administration activity.
Unusual Event	Means an incident has occurred which is noticeable and dramatic from the Terminal perimeter, however, no outside assistance is required and no evacuation outside the incident scene has occurred.

Term	Definition
V	
Verification	The act of ensuring that an exercise was certified. The Coast Guard, EPA, RSPA or MMS will conduct verification.
Vessel Support Unit	Functional unit within the Support Branch of the Logistics Section responsible for implementing the Vessel Routing Plan; for fueling, maintaining, and repairing vessels and other vessel support equipment; and coordinating transportation on the water and between or among shore resources.
Volunteer	For purpose of the NIMS, a volunteer is any individual accepted to perform services by the lead agency, which has authority to accept volunteer services, when the individual performs services without promise, expectation, or receipt of compensation for services performed. See, e.g., 16 U.S.C. 742f(c) and 29 CFR 553.101.
W	
Wildlife Rescue	Efforts made in conjunction with Federal and State agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.
Worst Case Discharge	for an on-shore non-transportation-related facility means - ". . . the largest foreseeable discharge in adverse weather conditions as determined using the [EPA Final Rule] . . . worksheets . . ." (EPA Final Rule, 40 CFR 112.2, July 1, 1994).
Worst Case Unauthorized Discharge	The largest foreseeable unauthorized spill under adverse weather conditions. For facilities located above the high water line of coastal waters, a worst case spill includes those weather conditions most likely to cause oil spilled from the facility to enter coastal waters.
Worst Case Discharge	The size of the discharge as defined in 33 CFR 154.1020 (in the case of an onshore facility and deepwater port, the largest foreseeable discharge in adverse weather conditions meeting the requirements of 33 CFR 154.1029), 33 CFR 155.1020 (a discharge in adverse weather conditions of a vessel's entire oil cargo) - (for Coast Guard regulated facilities & vessels); for EPA, the size of the discharge required in 40 CFR 112.20; for RSPA and MMS, the size of the discharge as defined in each agency's respective regulations, as appropriate; and the size of the discharge as defined in the respective Area Contingency Plan.

Acronyms

Acronym	Description
ACP	Area Contingency Plan
ADAPTS	Air Deliverable Anti-Pollution Transport
AFFF	Aqueous Film Forming Foam
AGT	Any Gross Tonnage (TONS)
AOR	Area of Responsibility
API	American Petroleum Institute
ARPA	Automatic Radar Plotting Aid
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
AT	Airtight
ATSDR	Agency for Toxic Substances and Disease Registry
AWG	American Wire Gauge
B	Beam
BBL	Barrel (Unit of Volume Equal to 42 Gallons)
C	Degrees Centigrade
C3	Command, Control, and Communications
C & R	Cargoes and Restriction (List)
CCR	California Code of Regulations
CDB	Continuous Discharge Book
CDG	Subcommittee on the Carriage of Dangerous Goods, IMO
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFM	Cubic Feet per Minute
CFR	Code of Federal Regulations
CG or USCG	Coast Guard
CGA	Compressed Gas Association
CGIS	Coast Guard Intelligence Service
CH	Cargo Hold
CHEMTREC	Chemical Transportation Emergency Center
CHRIS	Chemical Hazards Response Information System

Acronym	Description
CMA	Chemical Manufacturers Association
CMST	Crisis Management Support Team
CNG	Compressed Natural Gas
CO	Commanding Officer
COA	Certificate of Adequacy
COC	Certificate of Compliance
COE	U.S. Army Corps of Engineers (also USACE)
COF	Certificate of Fitness
COFR	Certificate of Financial Responsibility
COI	Certificate of Inspection
COIL	Central Oil Identification Laboratory
COMDTINST	Commandant Instruction
COMDTNOTE	Commandant Notice
COMDTPUB	Commandant's Publication
CONUS	Continental United States
COPH	Cargoes of Particular Hazard
CORE	Contingency Response
COTP	Captain of the Port
COW	Crude Oil Washing
C/S	General Cargo Ship
CSA	Canada Standards Association
CSC	International Convention for Safe Containers, 1972
CT	Cargo Tank
C/V	Container Vessel
CVS	Commercial Vessel Safety Program
CWA	Clean Water Act
DEIS	Draft Environmental Administration
DL	Decision Letters
DOSC	Deputy On-Scene Coordinator
DOT/PHMSA	U.S. Department of Transportation/Pipeline & Hazardous Materials Safety Administration
DWT	Deadweight Tons

Acronym	Description
EEBA	Emergency Escape Breathing Apparatus
EEI	Essential Elements of Information
EERU	Environmental Emergency Response Unit
EG	Emergency Generator Room
EIS	Environmental Impact Statement
EMT	Emergency Medical Technician
EO	Executive Order
EOC	Emergency Operations Center
EOD	Explosive Ordinance Disposal
EP	Estimated Position
EPA	U.S. Environmental Protection Agency
EPR&S	TPTN Emergency Preparedness, Response & Security Group
ERAD	Environmental and Regulatory Affairs Department
ERM	Environmental Response Map
ERT	Emergency Response Team
ESA	Environmentally Sensitive Area
ESD	Emergency Shutdown
ETF	Emergency Task Force
FCC	Federal Communications Commission
FCL	Flammable Cryogenic Liquid
FMC	Federal Maritime Commission
FOIA	Freedom of Information Act
FOIL	Field Oil Identification Laboratory
FEMA	Federal Emergency Management Agency
FOSC	Federal On-Scene Coordinator
FP	Flashpoint
FPN	Federal Project Number
FR	Federal Register
FT	Fuel Tank
FTJ	Failure to Join
FWPCA	Federal Water Pollution Control Act (as amended) (33 U.S.C. 1251 et seq.)

Acronym	Description
GAL	Gallons
GMT	Greenwich Mean Time
GPM	Gallons Per Minute
GRS	Geographical Response Site
GT	Gross Tons
HAZMAT	Hazardous Materials
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCA	High Consequence Area
HP	High Pressure
HPA	High Population Area
IC	Incident Commander
ICS	Incident Command System
IDHL	Immediately Dangerous to Life and Health
IG	Inert Gas
IGS	Inert Gas System
CMST	Crisis Management Support Team
IMH	Incident Management Handbook
IOPP	International Oil Pollution Prevention Convention
IS	Intrinsically Safe
IST	Incident Support Team
JRT	Joint Response Team
JTTF	Joint Terrorism Task Force
KW	Kilowatt
LEL	Lower Exposure Limit
LEPC	Local Emergency Planning Committee
LNG	Liquefied Natural Gases
LOA	Length Overall
LOC	Letter Of Compliance
LOP	Line Of Position
LOSC	Local On Scene Coordinator
LOX	Liquefied Oxygen

Acronym	Description
LP	Low Pressure
LPG	Liquefied Petroleum Gases
LRT	Local Response Team
MAWP	Maximum Allowable Working Pressure
MMS	Mineral Management Service
MSDS	Material Safety Data Sheet
MSL	Mean Sea Level
MSO	Coast Guard District Marine Safety Office
MSRC	Marine Spill Response Corporation
N/A	Not Applicable
NC	Not Certified
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NIOSH	National Institute of Standards and Technology
NLS	Noxious Liquid Substances
NM	Nautical Mile
NMT	Not More Than
NOAA	National Oceanic and Atmospheric Administration
NPRM	Notice of Proposed Rulemaking
NRC	National Response Center
NRDA	Natural Resources Damage Assessment
NRT	National Response Team
NSF	National Strike Force
NWACP	North West Area Contingency Plan
OPA 90	Oil Pollution Act of 1990
ORB	Oil Record Book
OSC	On-Scene Coordinator
OSHA	Federal Occupational Safety and Health Administration
OSRL	Oil Spill Response Limited
OSRO	Oil Spill Response Organization
OT	Oil Tight

Acronym	Description
OVA	Organic Vapor Analyzer
OVM	Organic Vapor Monitor
OWS	Oily Water Separator
PEL	Permissible Exposure Limit
PID	Photo Ionization Detector
POLREP	Pollution Report
PPE	Personal Protective Equipment
PPM	Parts Per Million
PSI	Pounds per square inch
QDC	Quick Disconnect Coupling
QI	Qualified Individual
RA	Regional Administrator
RCP	Regional Contingency Plan
RCRA	Resource Conservation and Recovery Act
RRT	Regional Response Team
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Water Drinking Act of 1986
SERC	State Emergency Response Commission
SHO	Safety and Health Official
SI	Surface Impoundment
SIC	Standard Industry Codes
SMART	Special Monitoring for Applied Response Technologies
SPCC	Spill Prevention, Control, and Countermeasures
SSC	Scientific Support Coordinator
STEL	Short-term Exposure Level
TLV	Threshold Limit Value
TLV-C	Threshold Limit Value - Ceiling
TOSC	Tribal On Scene Coordinator
TPTN	Transportation
TWA	Time-weighted Average
UEL	Upper Exposure Limit

Acronym	Description
USCG	U.S. Coast Guard
USGS	U.S. Geological Survey
U.S.	United States
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USPCI	U.S. Pollution Control, Incorporated
UST	Underground Storage Tank
UTV	Utility Vehicle
WT	Water Tight

Section II – Table of Contents

Sec. II-1 Discovery

Initial response actions are those taken by local personnel immediately upon becoming aware of a discharge or emergency incident, before the Company Emergency Response Team is formed and functioning. Timely implementation of these initial steps is of the utmost importance because they can greatly affect the overall response operation.

Sec. II-2 Initial Response

Immediate actions are required at the onset of an emergency response to mitigate the extent of a release, minimize the potential hazard to human health and the environment, and implement an effective response. It is also important to act decisively and in so doing, create a professional working atmosphere among Company and regulatory authority personnel and public officials. This section is intended to provide guidance for determining the appropriate initial response and notification actions that should be carried out in the event of a release or other emergency incident.

General guidelines on the procedures and sequence for making the various internal and external notifications following any type of product release or other emergency incident can be found elsewhere in this plan in the applicable ICP Geographical Annex. The information provided herein focuses primarily on internal notifications and reporting with some general information provided for external notifications. Relevant external notifications will be found in the geographic specific ICP Geographical Annex along with all notification checklists applicable to that area.

Sec II-2.1 On-Scene Incident Commander / Qualified Individual

It is the On-Scene Incident Commander's / Qualified Individual's responsibility to first make the appropriate notifications, then to initiate response operations. This individual has absolute authority to obligate any funds necessary to carry out all required and/or directed response activities. This individual will also act as liaison with city, county, state and federal agencies. They are also responsible to direct operations of the Emergency Response Teams, activate the Company Emergency Management Team as appropriate as appropriate.

Sec. II-3 Notification Procedures

Primary communications for Company response activities will consist of the following:	
✓	Company mobile phones, hard line phones, faxes, and Company intranet devices.
✓	Communications needs beyond primary communications devices will be supplied by Company contracted OSRO's.

Sec II-3.1 Field Personnel

Any person who observes or becomes aware of a release shall immediately report the incident to the person in charge. Information related to the incident should be captured on the Incident Report Form located in this section.

The minimum duties required of the QI (or PIC for Marine Terminals) include:	
✓	Notify all response personnel, as needed
✓	Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification
✓	Notify and provide necessary information to appropriate Federal, State, and local authorities with the designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Commission
✓	Assess the possible hazards to human health and the environment due as a result of the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any hazardous surface waters runoffs from water or chemical agents used to control fire and heat-induced explosion)
✓	Assess and implement prompt removal actions to contain and then remove the substance released
✓	Coordinate rescue and response action as previously arranged with all response personnel
✓	Use authority to immediately access company funding to initiate response, mitigation and clean-up activities
✓	Direct clean-up activities until properly relieved of this responsibility

Sec II-3.2 Emergency Response Team Contact Information

The Emergency Response Team may be activated as a group or individually, depending upon the size, location, nature, and complexity of the incident.

The response organization is capable of providing trained personnel, services, and response equipment on a twenty-four hour per day basis.

Sec II-3.3 Field Notifications

1. Call 911 or local emergency phone number for the jurisdiction affected by the incident.
2. Notify Person In Charge.
3. Notify the Company Control Center.
4. Notify the Duty Officer to activate support resources, as needed.

Sec II-3.4 Required Notification Information

The Incident Report Form should be used to document information and to log notifications. Provide the following information regarding the incident, when making internal notifications:

- Brief description of the incident, including the location.
- The impact or potential impact.
- Contact name and telephone number to obtain follow-up information.

Sec II-3.5 Duty Officer Role

The Duty Officer is a support tool designed to provide communication assistance to the Company Incident Commander. The Duty Officer is in place to provide a 24/7 contact that can assist with internal notifications to facilitate a timely response to emergency situations.

NOTE: ***Regardless of the situation, the ultimate responsibility for making proper internal and external notification is with the Incident Commander.*** The Duty Officer is a support tool, available to the Incident Commander to ensure that timely internal and external notifications are made in an effective and efficient manner.

Sec II-3.5.1 Duty Officer Response

When notified, the duty officer will contact the requested company representative (SME), following the detailed requests received by the caller, the Notification Flowchart and Internal Contact List. The company representative (SME) will determine the applicable internal and external notifications and ensure that they are completed. The SME will also ensure that other appropriate company representatives (SME) have been notified in the notification process.

Sec II-3.6 Emergency "Meet-Me" Conference Line Activation

The company has established a transportation conference number that is active 24/7 to assist in the management of emergencies. (Refer to the List of Contacts, Emergency Notification Telephone List, located in this plan for support resource contact information), dial the number and pass code listed; instruct others involved in the incident to do the same. The line is capable of receiving up to thirty phone connections simultaneously to assist in the management of the event.

Sec II-3.7 Incident Reporting Guidance

Refer to the Company Website.

Sec II-3.8 Notifications Requirements & Threshold Criteria

Each business unit, staff or group shall provide notification to Corporate Executive Management via the 24-hour Notification Hotline as soon as possible after the occurrence of any incident that meets the Notification Threshold Criteria.

Crisis Management Notification Requirements & Thresholds	
✓	The following identify internal and external reporting thresholds.
• Incidents	
✓	An incident resulting in an on-the-job employee or contractor fatality, or public fatality.
✓	Lost workday on-the-job injury to an employee or contractor.
✓	Resulting in one or more injuries requiring immediate overnight hospitalization and treatment of employee, contractor or the public.
✓	Incident resulting in multiple injuries/illnesses to employees, contractors or to the public.
• Spills and Releases	
✓	To environmentally sensitive areas, national parks or wildlife habitats and refuges which are likely to attract media attention or cause closure, stoppage or re-routing of traffic on a public road or waterway.
✓	Liquid hydrocarbon spills or releases from primary containment greater than 100 bbls (15.9 cubic meters).
✓	Hazardous chemical spills or releases from primary containment greater than 5,000 bbls (2.27 metric tons).
✓	On-shore produced water spills or releases greater than 100 bbls (15.9 cubic meters).
• Property Damage/Business Interruption	
✓	Property damage events likely to exceed $100,000.00 (USD) in estimated damages (Examples: fire, explosion, acts of nature, vandalism, theft, etc.).
✓	Any situation that should be brought to the attention of Corporate Management (CM&ER) due to actual or potential impact on the Company such as: Unscheduled business interruption that will likely result in $1, 000, 000 (USD) or more in estimated losses. This also applies to Partner/JV operated operations that meet the criteria.
• Evacuation/Shelter-In-Place	
✓	Evacuation beyond facilities of Company employees' and contractor personnel.
✓	Shelter-In-Place of the public
✓	Mandatory evacuation of the public.
• Well Control Incidents	
✓	Loss of surface well control that endangers the rig, onsite personnel or the environment.

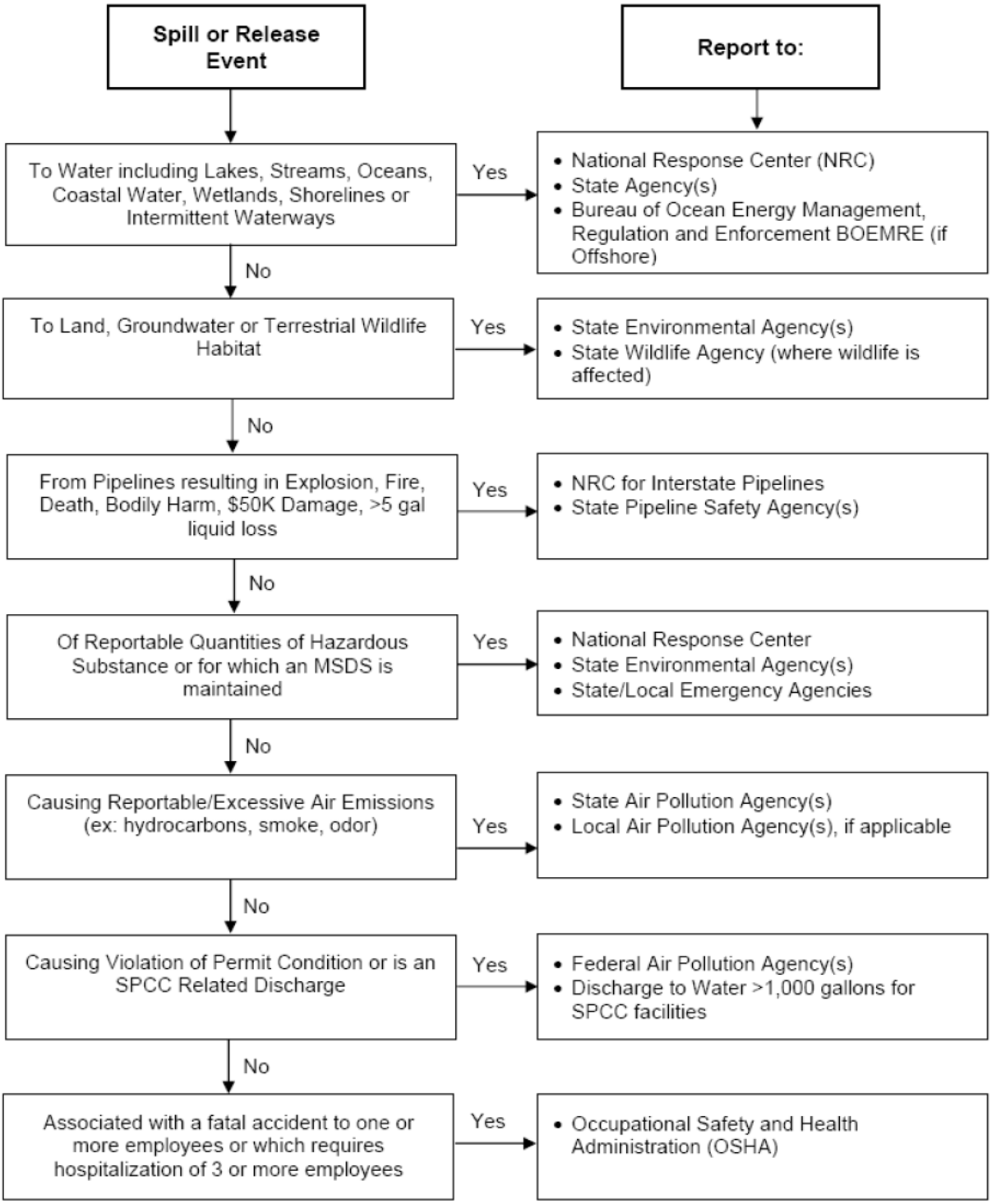
• Public Relation/Actual or Potential Impact	
✓	Serious transportation issues such as derailments involving our products and spills or releases resulting in traffic stoppage or evacuations.
✓	Acts of terrorism (e.g. bomb threats, sabotage, kidnapping, employee violence, etc.).
✓	That attracts, or could attract media attention including, but not limited to confrontations with anti-industry groups.
✓	Multiple complaints of acute illness by third parties allegedly caused by Company operations or products (i.e.: calls by more than one individual.).
• External Department of Transportation Reporting Thresholds	
✓	An incident involving a pipeline system failure that resulted in either a fire or explosion not intentionally set by the operator; or significant, in the judgment of the operator, even though it did not meet any other criteria as listed in this section.
✓	Spill or release to environmentally sensitive areas, as described by the Department of Transportation (DOT)
✓	Spill or release in any water of the United States.
✓	Spill cleanup/product loss costs reaching and exceeding $50,000.00.
✓	Property Damage costs reaching and exceeding $50,000.00
Transportation – HSE Manager Reporting Threshold	
In addition to above threshold criteria for incidents, the following requires notification to the Transportation HSE Manager or alternate as per the Incident Notification and Investigation Policy:	
✓	An incident involving an employee or contractor OSHA recordable injury or illness.

Sec II-3.9 Notification and Support Teams

Subject Matter Expert (SME) – Primary Company Representative	
Contacts in the following areas provide support for internal and external notifications; assist with supporting plans, assessment and documentation:	
✓	Environmental Director
✓	Health & Safety Director
✓	DOT Regulatory Compliance Manager
✓	Emergency Preparedness, Response & Security Director

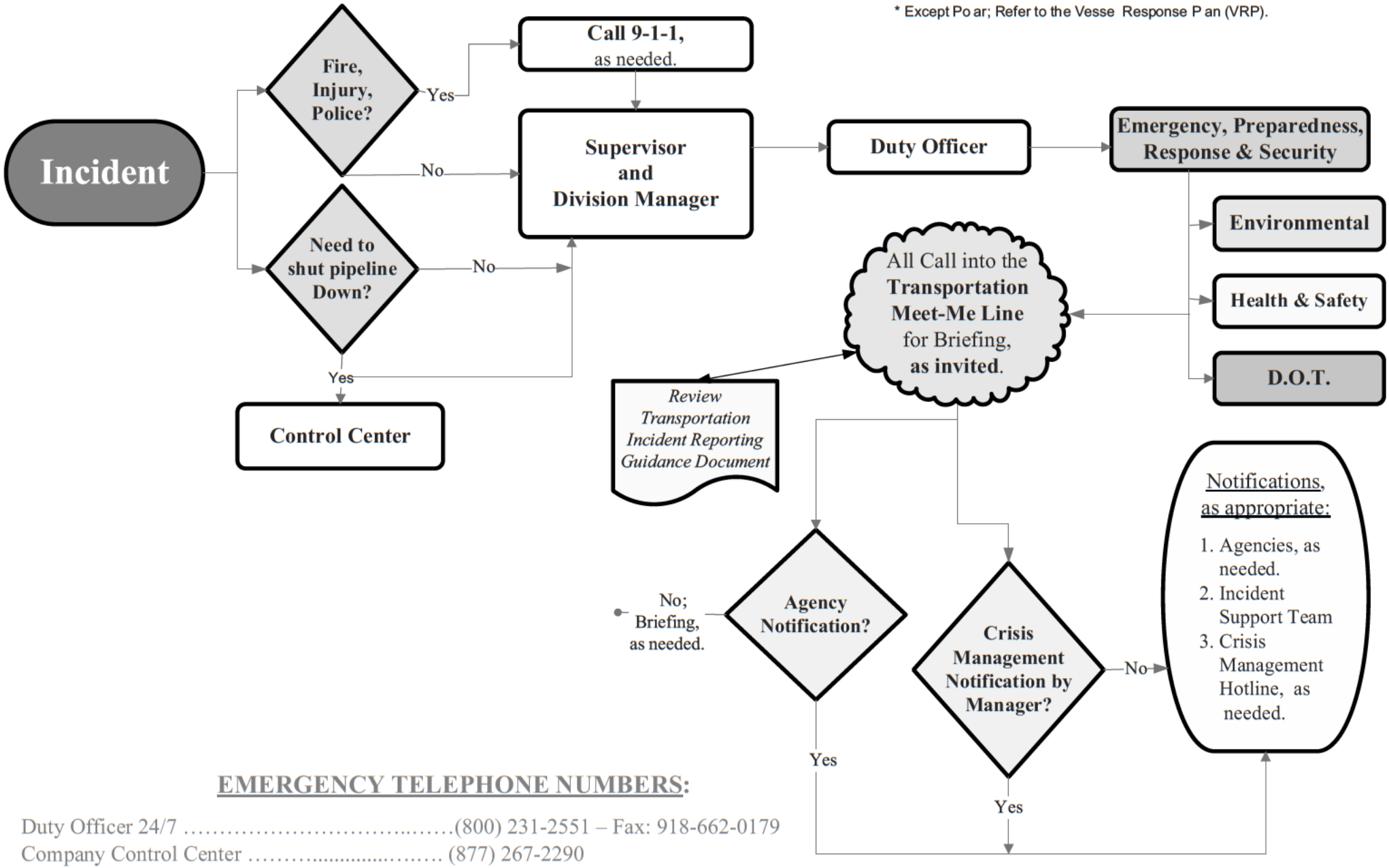
Incident Support Team (IST)	
Consists of the personnel in the following positions:	
✓	Pipelines Manager
✓	Terminals Manager
✓	Division Managers
✓	Logistics Manager
✓	Engineering & Projects Manager
✓	Health, Safety & Environmental Manager
✓	Emergency Preparedness, Response & Security Director
✓	TPTN Tier 1 Team and/or any other support staff, as deemed necessary by the IST, or requested by the IC.
Company Away Team	
Activation of the team can be made through the Crisis Management Hotline. Follow the Notification Flowchart located in this Section. A description of the Company Away Team organization is as follows:	
✓	Approximately thirty ICS positions can be staffed a minimum of three personnel deep.
✓	The team is made up of Company volunteers from across North America
✓	Operations Division/Group Leaders are available
✓	One hundred plus personnel are available for activation
✓	Will assist with activation, deployment and integration of the ICS spill response organization
✓	Resources also include dedicated communications equipment (i.e., computers, phones, radios, etc.).
✓	Typically the team members attend two weeks of response training and/or exercises annually. Additionally, specialized training in Fire & HAZMAT Response, Oil Spill Response, Incident Command System (NIMS) and Incident/Consequence Management is provided depending on the ICS position.
Tier 1 Response	
✓	Any response that can be effectively managed completely within Transportation services, including functional resources and contractors.
Tier 2 Response	
✓	Any response that requires resources beyond Transportation's ability to effectively manage (i.e., one or more away team resource(s) are deployed to assist with response management).
Tier 3 Response	
✓	Any response that requires the activation of the Crisis Management Support Team (CMST) to assist with the management of the response.

Figure Sec II-1 Overview of External Notifications for Major Incidents



Transportation* Notifications Flowchart

* Except Po ar; Refer to the Vesse Response P an (VRP).



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EMERGENCY TELEPHONE NUMBERS:

Duty Officer 24/7 ……..……(800) 231-2551 – Fax: 918-662-0179
Company Control Center ……..…… (877) 267-2290
Transportation Meet Me Conference Line ……..(866) 836-3169; Pass Code: 157528
Axiom Medical Consulting …… (281) 419-7063
Employee Hotline (Evacuation & Natural Disaster)….. (866) 397-3822
Crisis Management Hotline ……..(800) 342-5119 *or* 281-293-5119

Revision: 201240405

Figure Sec II-3 Transportation Incident Notification & Reporting Tool

QI/IC Field Version

The following incidents should be immediately reported to the Transportation Duty Officer. The Transportation Duty Officer will contact the on-call Transportation Emergency Preparedness, Response and Security (EPR&S) team member. EPR&S will contact the person reporting the incident to the Duty Officer to determine the level of response and support required and if an Incident Briefing meeting should be scheduled. Incidents marked as "Crisis Hotline Notification" will need to be immediately reported to the Transportation Duty Officer. Transportation HSE is responsible for reporting incidents to the Crisis management Hotline.

Incident Notification Criteria **Duty Officer Number:** 1-800-231-2551
INJURY:
Incident resulting in an on-the-job employee, contractor or public fatality.
Incident resulting in one or more injuries requiring immediate overnight hospitalization and treatment of employee, contractor or the public.
Incident resulting in multiple injuries/illnesses to employees, contractors or the public.
SPILLS/RELEASES:
Greater than 5-gallons, or potential to exceed 5-gallons. This includes suspected, but not yet confirmed potential leaks.
HVL (Any volume.)
To environmentally sensitive areas, any water of the United States, national Parks or wildlife habitats and refuges. (Any volume)
That attracts or is likely to attract media attention.
That causes closure, stoppage or re-routing of traffic on public road or waterway.
PROPERTY DAMAGE/BUSINESS INTERRUPTION:
Property damage events exceeding or likely to exceed $25,000 in estimated damages (example fire, explosion, pipeline repairs, collision, act of nature, vandalism, theft, etc.)
Unscheduled business interruption events exceeding or likely to exceed $1,000,000 (USD) or more in estimated losses regardless of cause.
EVACUATION/SHELTER IN PLACE
Evacuation beyond facilities of employees or contractor personnel (includes evacuation as a result of storms or threat of storms).
Shelter-In-Place of employees or contractors.
Shelter-In-Place or mandatory evacuation of the public.
PUBLIC RELATIONS/ACTUAL OR POTENTIAL COMPANY IMPACT
Any situation that attracts or is likely to attract media attention.
Serious transportation incidents such as derailments involving our products resulting in a closure of a public road and/or re-routing or stoppage of traffic.
Acts of terrorism (bomb threat, sabotage, kidnapping, employee violence, etc.)
Confrontations with anti-industry groups that could attract media attention.
Multiple complaints of acute illness by third parties allegedly caused by our operations or products (i.e. calls by more than one individual)
SECURITY
Theft or Vandalism of Company property, equipment and/or facility
Security Breach (trespassing)
Suspicious activity (Picture tacking, parking near facility, etc.)
Threats by telephone or warnings from local enforcement.

Sec II-3.10 External Notifications

Sec II-3.10.1 Agencies (Federal, State & Local)

The Incident Commander is responsible for assuring that all required notifications/reports are completed in a timely manner for all incidents. All contacts with Local, State, and Federal regulatory agencies must be properly documented. The Duty Officer is a support tool designed to provide communication assistance to the Company Incident Commander. The Duty Officer is in place to provide a 24/7 contact to assist the Incident Commander with internal support team notifications to facilitate a timely response to emergency situations. Refer to the Transportation Notifications Flowchart, Incident Notification and Reporting Tool and the Incident Report Form located in this section. Upon completion of the initial notifications and the implementation of the initial response actions, periodic follow-up notifications should be made to the National Response Center and state agencies to provide updated information on the incident. The internal support teams may assist the Incident Commander with follow-up information to the agencies.

Sec II-3.10.2 National Response Center (NRC)

NRC	
If you have a spill/release to report, contact the NRC via the toll-free number or visit the NRC Web Site (http://www.nrc.uscg.mil) for additional information on reporting requirements and procedures. **Refer to Annex 2 Notifications**.	
Reporting Requirements	
☐ **Type**	All spills that impact or threaten navigable water or adjoining shorelines
☐ **Verbal:**	Within 1 Hour of release
☐ **Written:**	As requested by the agency

Sec II-3.10.3 Environmental Protection Agency (EPA)

EPA	
Refer to Annex 2 Notifications.	
Reporting Requirements	
Type	All spills that impact or threaten navigable water or adjoining shorelines
Verbal:	As soon as possible
Written:	As requested by the agency

Sec II-3.10.4 United States Coast Guard (USCG)

United States Coast Guard
U.S. Department of Homeland Security

Refer to Annex 2 Notifications.	
Reporting Requirements	
Type	All spills that impact or threaten navigable water or adjoining shorelines
Verbal:	As soon as possible
Written:	As requested by the agency

Sec II-3.10.5 Department of Transportation (DOT) – Pipeline and Hazardous Materials Safety Administration (PHMSA)

DOT/PHMSA	
Refer to Annex 2 Notifications.	
Reporting Requirements	
In addition to the reporting of accidents to the NRC, a written/electronic accident report (DOT/PHMSA F 7000-1), must be submitted as soon as practicable but no later than 30 days after the incident for releases resulting in the following:	
☐	Caused a death or a personal injury requiring hospitalization.
☐	Explosion or fire not intentionally set by the operator.
☐	Caused estimated property damage, including cost of cleanup and recover, value of lost product, and damage to the Company property or others or both, exceeding $50,000.
☐	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.
☐	In the judgment of the Incident Commander/Qualified Individual that the event was significant enough even though it did not meet the criteria of any of the above incidents.
The electronic form can be found at https://opsweb.phmsa.dot.gov. Notify the appropriate DOT Coordinator to complete the DOT/PHMSA F 7000-1.	

Sec II-3.10.6 Occupational Safety & Health Administration

OSHA *Occupational Safety & Health Administration*	
Refer to Annex 2 Notifications.	
Reporting Requirements	
☐	Basic requirement. Within eight (8) hours after the death of any employee from a work-related incident or the in-patient hospitalization of three or more employees as a result of a work-related incident, you must orally report the fatality/multiple hospitalization by telephone or in person. In accordance with 29 CFR 1904.39 the following information is to be supplied to OSHA when reporting an incident: ☐ Company name; ☐ Location of the Incident; ☐ Time of Incident; ☐ Number of fatalities or hospitalized employees; ☐ Names of any injured employees; ☐ Contact person and his/her phone number; ☐ A brief description of the incident.

Sec II-3.10.7 State and Local notifications

All required State and Local notifications will be listed as well. They can be found in the applicable **Annex 2 Notifications**.

Sec II-3.10.8 Follow-up Notifications

Upon completion of the initial notifications and the implementation of the initial response actions, periodic follow-up notifications shall be made to the National Response Center and State Agencies to provide updated information on the incident including (before to have you:	
•	Name of facility or pipeline
•	Time of release
•	Location of discharge
•	Name of material involved
•	Reason for discharge (e.g., material failure, excavation damage, corrosion, etc.)
•	Estimated volume of oil/product discharged
•	Weather conditions on-scene
•	Actions taken or planned by persons on scene

Sec II-3.10.9 Incident Command Posts

The Company has determined Incident Command Post (CP) locations within each operating area where adequate resources are available to command an incident. In response to most incidents, a CP is established at existing Company facilities. In the event of a significant incident for which Company facilities are not adequate, a more appropriate Command Post location must be selected based on the incident circumstances. Possible sources of other CP locations would include appropriate government, public, and commercial facilities available for CP purposes. Local governments usually maintain facilities which have been pre-designated for CP purposes. These facilities are often prescribed in Area Contingency Plans and/or local governments' Emergency Operations Plans.

Incident Command Post Characteristics	
•	Initial CP location should consider the nature and expected duration of the incident. The location is a safe area usually near the incident. The CP can be moved if necessary, although once established, it will normally not be relocated.
•	The CP should have the ability to provide security and controlled access.
•	The CP should be large enough to provide adequate working room for all assigned personnel, including agency representatives.
•	The CP should provide the resources necessary to manage the incident, e.g., meeting rooms, communications equipment, documentation equipment, materials and supplies needed to support the command function, etc.
•	The incident Communications Center, if established at an incident, is often located with or adjacent to the CP.

Sec II-3.10.10 Documentation

Documentation of a spill provides not only a historical account covering the entire period from pre-spill through cleanup actions to final post-spill assessment, but also serves as a legal instrument and a means to account for all cleanup costs. Documentation relies heavily upon detection and assessment functions, and together these functions provide the necessary data on the extent of the spill and the necessity for control measures. While facility personnel are in charge of this important function, it may be desirable to utilize consultants who can provide overall guidance on type of data collection required and, where necessary, assist in data collection or provide sampling survey personnel.

An important aspect to bear in mind when designing forms and entering data is to use a quantitative system. Avoiding relative or arbitrary terms such as large, small, thick, thin, a lot, not much, etc. These cause confusion and are not comparable between locations and individuals.

To ensure that all pertinent data and information are available for the incident report, documentation should commence immediately upon notification of a spill and should continue until termination of all operations. The Documentation Unit Leader should coordinate all documentation. The documentation unit leader, incident commander, deputy incident commander, directors, supervisors, and designated support personnel should keep notes on all

significant occurrences, including details and time of occurrence. Notes are best kept in chronological log format, to be compiled later in the final report. Every contact, written or verbal, with government personnel should be noted. All data should be written in a bound notebook, from which pages cannot be removed without leaving some track. Numbering of notebooks and pages may also help in filing of field data and provide for a method of reference later. These notebooks should also be used by supervisory personnel for documentation of an individual's activities. The Documentation Unit Leader should be responsible for distributing suitable notebooks to all personnel, and for assuring that personnel make proper use of the notebooks.

Sec. II-4 Response Management System

This Section describes specific duties and responsibilities of the members of the Company Response Team. This section should be used as a guide; specific circumstances during an incident response may require different actions. Certain duties, responsibilities and position titles listed here may not be needed in all circumstances and may change with time as the response evolves.

The Company response team consists of trained personnel that will respond to all company emergency incidents. Trained and qualified OSRO personnel will be called on fill ICS/UCS roles as required, including but not limited to positions in the Operations, Planning and Logistics sections.

Sec. II-4.1 Incident Command System Structure

The Company has adopted the National Incident Management System (NIMS) ICS/UCS organization as outlined in:

- Homeland Security Presidential Directive Five (HSPD-5)
- National Response Plan (NRP), December 2005

All Federal, State, tribal, and local levels of government, as well as many private sector and non-governmental organizations use ICS/UCS for a broad spectrum of emergencies. These range from small to complex incidents, both natural and manmade, and include acts of catastrophic terrorism. The Company has adopted the NIMS ICS/UCS to allow the partnership of Unified Command to be developed when required in training, exercises or responses.

Note: The document, FEMA 501, National Incident Management System was referenced in the development of this document.

ICS/UCS Organization	
The ICS/UCS is applicable across a spectrum of incidents that may differ in terms of size, scope, and complexity because of its:	
✓	Functional unit management structure.
✓	Modular organizational structure that is extendable to incorporate all necessary elements. Responsibility and performance begin with the incident command element, the IC/UC, and build from the top down.

Functional Areas	
ICS/UCS is usually organized around five major functional areas:	
✓	Command
✓	Operations
✓	Planning
✓	Logistics
✓	Finance/administration.
The IC will establish the sixth functional area, intelligence, based on the requirement of the situation at hand.	

Transitional Steps	
Some of the more important transitional steps that are necessary to apply ICS/UCS in a field incident environment include the following:	
✓	Recognize and anticipate the requirement that organizational elements will be activated and take the necessary steps to delegate authority as appropriate.
✓	Establish incident facilities as needed, strategically located, to support field operations.
✓	Establish the use of common terminology for organizational functional elements, position titles, facilities, and resources.
✓	Rapidly evolve from providing oral direction to the development of a written IAP.

Modular Extension	
The modular concept is based upon the following considerations:	
✓	Develop the form of the organization to match the function or task to be performed.
✓	Staff only those functional elements that are required to perform the task.
✓	Observe recommended span-of-control guidelines.
✓	Perform the function of any non-activated organizational element at the next highest level.
✓	Deactivate organizational elements no longer required.

Management Assignments	
The IC's initial management assignments will normally be one or more section chiefs to manage the major ICS/UCS functional areas.	
✓	Section chiefs will further delegate management authority for their areas as required.
✓	If needed, section chiefs may establish branches or units as appropriate for the section.
✓	Each functional unit leader will further assign individual tasks within the unit as needed.
✓	Section chiefs serve as the general staff for the IC.

Staffing	
Use the separate sections to organize staff as the need arises.	
✓	Section chiefs will further delegate management authority for their areas as required.
✓	If needed, section chiefs may establish groups/branches/units as appropriate for the section.

Leadership Titles	
✓	Incident Command; Incident Commander.
✓	Command Staff; Officer.
✓	Section; Section Chief.
✓	Branch; Branch Director.
✓	Divisions/Groups; and Supervisors (Supervisor is only used within the operations section).
✓	Unit; and Unit Leader (Applies to the subunits of the planning, logistics, and finance / administration sections).

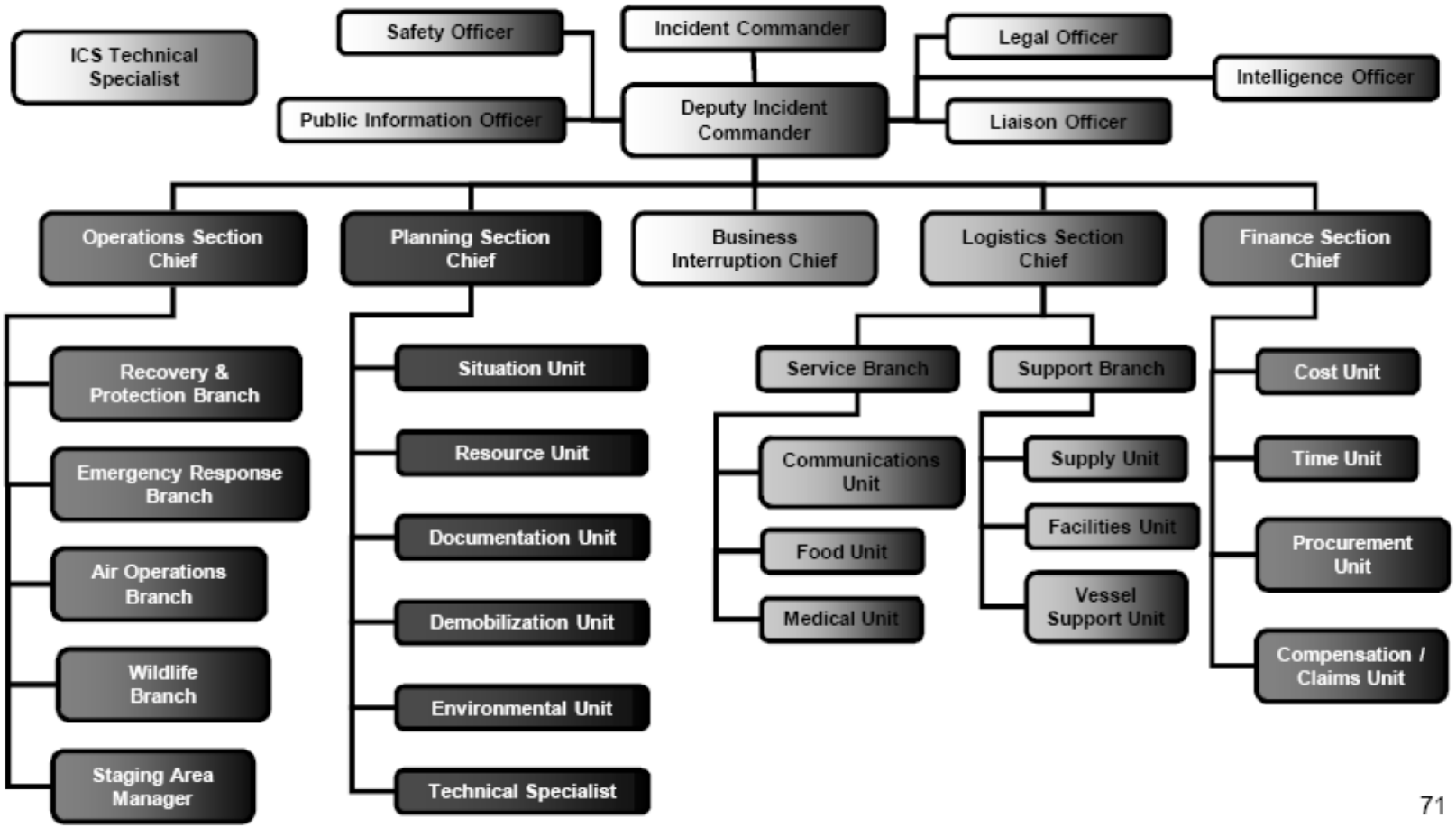
Partners	
Several types of agencies could be in the ICS/UCS, and work together or in combinations depending on the situation.	
✓	Fire
✓	Law enforcement
✓	Public health
✓	Public works/ Emergency services
✓	State Agencies
✓	Tribal Representatives
Other participants may include private individuals, companies, or nongovernmental organizations, some of which may be fully trained and qualified to participate as partners in the ICS/UCS.	

Tactical Operations	
The specific method selected for organizing and executing incident operations will depend on the:	
✓	Type of incident.
✓	Agencies involved.
✓	Objectives and strategies of the incident management effort.

Organization	
The organizational structure for incident tactical operations can vary and may be based on:	
✓	A method to accommodate jurisdictional boundaries.
✓	An approach that is strictly functional in nature.
✓	A mix of functional and geographical approaches.

Branches	
Establish branches in ICS/UCS for reasons such as:	
✓	The numbers of divisions and/or groups exceed the recommended span of control for the operations section chief.
✓	The nature of the incident calls for a functional branch structure.
✓	The incident is multi-jurisdictional.

Sec. II-4.2 Company IMT Organization Chart (Sample from IMH)



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Sec. II-4.3 Common Responsibilities

Common Responsibilities Checklist	
Receive assignment from your agency, including:	
☐	Job assignment (e.g., Strike Team designation, position, etc.).
☐	Brief overview of type and magnitude of incident.
☐	Resource order number and request number.
☐	Reporting location & time.
☐	Travel instructions.
☐	Any special communications instructions (e.g., travel, radio frequency).
☐	Monitor incident related information from media, internet, etc., if available.
☐	Assess personal equipment readiness for specific incident and climate (e.g.) medications, money, computer, medical record, etc.). Maintain a checklist of items and possible a personal Go-Kit.
☐	Inform others as to where you are going and how to contact you.
☐	Review Incident Management Handbook.
☐	Take advantage of available travel to rest prior to arrival.
Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:	
☐	Incident Command Post (CP), Base/Camps, Staging Areas, and Helibases.
☐	If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
☐	Receive briefing from immediate supervisor.
☐	Agency Representatives from assisting or cooperating agencies report to the Liaison Officer (LNO) at the CP after check-in.
☐	Acquire work materials.
☐	Abide by organizational code of ethics.
☐	Participate in IMT meetings and briefings as appropriate.
☐	Ensure compliance with all safety practices and procedures. Report unsafe conditions to the Safety Officer.
☐	Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
☐	Organize and brief subordinates.
☐	The Command and General staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control. (1 Supervisor per 7 people) Put in Common Responsibilities
☐	Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
☐	Use clear text and ICS/UCS terminology (no codes) in all radio communications.
☐	Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit.
☐	Ensure all equipment is operational prior to each work period.
☐	Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.

Common Responsibilities Checklist (Cont'd)	
☐	Respond to demobilization orders and brief subordinates regarding Demobilization.
☐	Prepare personal belongings for demobilization.
☐	Return all assigned equipment to appropriate location.
☐	Complete Demobilization Check-out process before returning to home base.
☐	Participate in After-Action activities as directed.
☐	Carry out all assignments as directed.

Sec. II-4.4 Roles and Responsibilities

Sec. II.4.4.1 Incident Commander and Deputy IC Responsibilities

The Incident Commander's responsibility is the overall management of the incident. On most incidents, the command activity is carried out by a single IC. The IC is selected by qualifications and experience. The IC may have a deputy, who may be from the same agency, or from an assisting agency. Deputies may also be used at the section and branch levels of the ICS/UCS organization. Deputies may have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. When span of control becomes an issue for the IC, a Deputy IC/Chief of Staff may be assigned to manage the Command Staff.

Incident Commander and Deputy IC Checklist	
☐	Review common responsibilities.
☐	Obtain a briefing from the prior IC (201 Briefing).
☐	Determine incident objectives & general direction for managing the incident.
☐	Establish the immediate priorities.
☐	Establish a CP.
☐	Brief Command Staff and General Staff.
☐	Establish an appropriate organization.
☐	Ensure planning meetings are scheduled as required.
☐	Approve and authorize the implementation of an IAP.
☐	Ensure that adequate safety measures are in place.
☐	Coordinate activity for all Command and General Staff.
☐	Coordinate with key people and officials.
☐	Approve requests for additional resources or for the release of resources.
☐	Keep internal and external stakeholders informed.
☐	Evaluate/Approve the use of trainees, volunteers, and auxiliary personnel.
☐	Authorize release of information to the news media.
☐	Ensure ICS 209 is completed and forwarded to appropriate higher authority.
☐	Order the demobilization of the incident when appropriate.

Sec. II.4.4.2 Safety Officer

The Safety Officer (SOFR) function is to develop and recommend measures for assuring personnel safety and to asses and/or anticipate hazardous and unsafe situations. Only one primary SOFR will be assigned for each incident. The SOFR may have specialists, as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities, such as air operations, hazardous materials, etc.

Safety Officer Checklist	
☐	Review Common Responsibilities.
☐	Identify hazardous situations associated with the incident.
☐	Complete the initial incident action plan site safety and control analysis (ICS Form 201-5)
☐	Participate in tactics and planning meetings, and other meetings and briefings as required.
☐	Review the IAP for safety implications.
☐	Provide safety advice in the IAP for assigned responders.
☐	Exercise emergency authority to stop and prevent unsafe acts.
☐	Investigate accidents that have occurred within the incident area.
☐	Assign assistants, as needed.
☐	Review and approve the medical plan (ICS Form 206).
☐	Develop the site safety plan and publish site safety plan summary (ICS Form 208) as required.

Sec. II.4.4.3 Public Information Officer

The Public Information Officer (PIO) is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. Only one primary PIO will be assigned for each incident, including incidents operating under a Unified Command (UC) and multiple jurisdiction incidents. The PIO may also have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. Agencies have different policies and procedures relative to the handling of public information.

Public Information Officer Checklist	
☐	Review Common Responsibilities.
☐	Determine from the IC/UC if there are any limits on information release.
☐	Develop material for use in media briefings.
☐	Obtain IC/UC approval of media releases.
☐	Inform media and conduct media briefings.
☐	Arrange for tours and other interviews or briefings that may be required.
☐	Manage a Joint Information Center (JIC) if established.
☐	Obtain media information that may be useful to incident planning.
☐	Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

Sec. II.4.4.4 Liaison Officer

Incidents that are multi-jurisdictional, or have several agencies involved, may require the establishment of the Liaison Officer (LNO) position on the Command Staff. Only one primary LNO will be assigned for each incident, including incidents operating under UC and multi-jurisdiction incidents. The LNO may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The LNO is assigned to the incident to be the contact for assisting and/or cooperating Agency representatives.

Liaison Officer Checklist	
☐	Review common responsibilities.
☐	Be a contact point for agency representatives.
☐	Maintain a list of assisting and supporting agencies, including name and contact information. Monitor check-in sheets daily to ensure that all agency representatives are identified.
☐	Assist in establishing and coordinating interagency contacts.
☐	Keep agencies supporting the incident aware of incident status.
☐	Monitor incident operations to identify current or potential inter-organizational problems.
☐	Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.
☐	Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the Operations Section Chief during oil and HAZMAT responses.
☐	Coordinate response resource needs for incident investigation activities with the Operations Section Chief.
☐	Ensure that all required agency forms, reports and documents are completed prior to demobilization.
☐	Brief IC/UC on agency issues and concerns.
☐	Have debriefing session with the IC/UC prior to departure.
☐	Coordinate activities of visiting dignitaries.

Sec. II.4.4.5 ICS/UCS Technical Specialist

ICS/UCS Technical Specialist Checklist	
☐	Review common responsibilities.
☐	Determine site specific training requirements and need for a training program.
☐	Develop site specific training program and implement as necessary.
☐	Determine the feasibility of using trainees in the response.
☐	Review trainee assignments and modify if appropriate.
☐	Coordinate the assignments of trainees to incident positions with the Resources Unit.
☐	Keep the Safety Officer apprised of status of compliance with training requirements.
☐	Make follow-up contacts in the field to provide assistance and advice for trainees to meet training objectives, as appropriate, and with approval of Unit Leaders to ensure trainees receive performance evaluation.
☐	Monitor operational procedures and evaluate training needs.
☐	Respond to requests for information concerning training activities.
☐	Give the Training Specialist records and logs to the Documentation Unit at the end of each operational period.
☐	Maintain Unit Log (ICS 214).

Sec. II.4.4.6 Legal Officer

Legal Officer Checklist	
☐	Review common responsibilities.
☐	Obtain briefing from the Incident Commander.
☐	Advise the Incident Commander (IC) and the Unified Command (UC), as appropriate, on all legal issues associated with response operations.
☐	Establish documentation guidelines for and provide advice regarding response activity documentation to the response team.
☐	Provide legal input to the Documentation Unit, the Compensation/Claims Unit, and other appropriate Units as requested.
☐	Review press releases, documentation, contracts and other matters that may have legal implications for the Company.
☐	Participate in Incident Command System (ICS) meetings and other meetings, as requested.
☐	Participate in incident investigations and the assessment of damages (including natural resource damage assessments).
☐	Maintain Individual/Activity Log (ICS Form 214a).

Sec. II.4.4.7 Intelligence/Security Officer

Intelligence/Security Officer Checklist	
☐	Collect and analyze incoming intelligence information from all sources.
☐	Determine the applicability, significance, and reliability of incoming intelligence information.
☐	As requested, provide intelligence briefings to the IC/UC.
☐	Provide intelligence briefings in support of the Incident Command System Planning Cycle.
☐	Provide Situation Unit with periodic updates of intelligence issues that impact consequence management operations.
☐	Answer intelligence questions and advise Command and General Staff as appropriate.
☐	Supervise, coordinate, and participate in the collection, analysis, processing, and dissemination of intelligence.
☐	Assist in establishing and maintaining systematic, cross-referenced intelligence records and files.
☐	Establish liaison with all participating law enforcement agencies including the CGIS, FBI/JTTF, State and Local police departments.
☐	Conduct first order analysis on all incoming intelligence and fuse all applicable incoming intelligence with current intelligence holdings in preparation for briefings.
☐	Prepare all required intelligence reports and plans.
☐	As the incident dictates, determine need to implant Intelligence Specialists in the Planning and Operations Sections.

Sec. II.4.4.8 Operations Section Chief

The Operations Section Chief (OSC), a member of the General Staff, is responsible for the management of all operations directly applicable to the primary mission. The OSC will normally be selected from the organization/agency with the most jurisdictional responsibility for the incident and will work in the ICP.

The OSC activates and supervises organization elements in accordance with the IAP and directs its execution. The OSC also directs the preparation of Unit operational plans, requests or releases resources, makes expedient changes to the IAP, as necessary, and reports such to the IC. The OSC may have deputy OSC's who may be from the same organization or from an assisting agency. In complex incidents, the OSC may assign a Deputy OSC to supervise on-scene operations.

Operations Section Chief Checklist	
☐	Review common responsibilities.
☐	Obtain briefing from IC/UC.
☐	Request sufficient section supervisory staffing for both ops & planning activities.
☐	Convert operational incident objectives into strategic and tactical options through a work analysis matrix.
☐	Coordinate and consult with the PSC, SOFR, technical specialists, modeling scenarios, trajectories on selection of appropriate strategies and tactics to accomplish objectives.
☐	Identify kind and number of resources required to support selected strategies.
☐	Subdivide work areas into manageable units.
☐	Develop work assignments and allocate tactical resources based on strategy requirements.
☐	Coordinate planned activities with the SOFR to ensure compliance with safety practices.
☐	Prepare ICS 234 Work Analysis Matrix with PSC to ensure Strategies, Tactics and tasks are in line with ICS 202 Response Objectives to develop ICS 215.
☐	Participate in the planning process and the development of the tactical portions (ICS 204 and ICS 220) of the IAP.
☐	Assist with development of long-range strategic, contingency, and demobilization plans.
☐	Supervise Operations Section personnel.
☐	Monitor need for and request additional resources to support operations as necessary.
☐	Coordinate with the LOFR and AREP's to ensure compliance with approved safety practices.
☐	Evaluate and monitor current situation for use in next operational period planning.
☐	Interact and coordinate with Command on achievements, issues, problems, significant changes special activities, events, and occurrences.
☐	Troubleshoot operational problems with other IMT members.
☐	Supervise and adjust operations organization and tactics as necessary.
☐	Participate in operational briefings to IMT members as well as briefings to media, and visiting dignitaries.
☐	Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
☐	Receive and implement applicable portions of the Incident Demobilization Plan.

Sec. II.4.4.9 Planning Section Chief

The Planning Section Chief (PSC), a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of incident information and maintaining status of assigned resources. Information is needed to 1) understand the current situation; 2) predict the probable course of incident events; 3) prepare alternative strategies for the incident; and 4) submit required incident status reports. The PSC may have a deputy PSC, who may be from the same organization or from an assisting agency. The Deputy PSC should have the same qualifications as the individual for whom they work and must be ready to take over position at any time.

Planning Section Chief Checklist	
☐	Review Common Responsibilities.
☐	Collect, process, and display incident information.
☐	Assist OSC in the development of response strategies.
☐	Supervise preparation of the IAP.
☐	Facilitate planning meetings and briefings.
☐	Assign personnel already on-site to ICS/UCS organizational positions as appropriate.
☐	Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation).
☐	Determine the need for any specialized resources in support of the incident.
☐	Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
☐	Assemble information on alternative strategies.
☐	Provide periodic predictions on incident potential.
☐	Keep IMT apprised of any significant changes in incident status.
☐	Compile and display incident status information.
☐	Oversee preparation and implementation of the Incident Demobilization Plan.
☐	Incorporate plans (e.g., Traffic, Medical, Communications, and Site Safety) into the IAP.
☐	Develop other incident supporting plans (e.g., salvage, transition, security).
☐	Assist Operations with development of the ICS 234 Work Analysis Matrix.
☐	Maintain Unit Log (ICS 214).

Sec. II.4.4.10 Logistics Section Chief

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

The LSC may have Deputy LSCs, who may be from the same organization or from an existing agency. The Deputy LSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

Logistics Section Chief Checklist	
☐	Review Common Responsibilities.
☐	Plan the organization of the Logistics Section.
☐	Assign work locations and preliminary work tasks to Section personnel.
☐	Notify the Resources Unit of the Logistics Section Units activated, including names and locations of assigned personnel.
☐	Assemble and brief Logistics Branch Directors and Unit Leaders.
☐	Determine and supply immediate incident resource and facility needs.
☐	In conjunction with Command, develop and advise all Sections of the IMT resource approval and requesting process.
☐	Review proposed tactics for upcoming operational period for ability to provide resources and logistical support.
☐	Identify long-term service and support requirements for planned and expected operations.
☐	Advise Command and other Section Chiefs on resource availability to support incident needs.
☐	Provide input to and review the Communications Plan, Medical Plan and Traffic Plan.
☐	Identify resource needs for incident contingencies.
☐	Coordinate and process requests for additional resources.
☐	Track resource effectiveness and make necessary adjustments.
☐	Advise on current service and support capabilities.
☐	Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
☐	Receive and implement applicable portions of the Incident Demobilization Plan.
☐	Ensure the general welfare and safety of Logistics Section personnel.
☐	Maintain Unit Log (ICS 214).

Sec. II.4.4.11 Finance Section Chief

The Finance Section Chief (FSC), a member of the General Staff, is responsible for all financial, administrative and cost analysis aspects of the incident and for supervising members of the Finance/Admin Section. The FSC may have Deputy FSCs who may be from the same organization or from an assisting agency. The Deputy FSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

Finance Section Chief Checklist	
☐	Review Common Responsibilities.
☐	Participate in incident planning meetings and briefings as required.
☐	Review operational plans and provide alternatives where financially appropriate.
☐	Manage all financial aspects of an incident.
☐	Provide financial and cost analysis information as requested.
☐	Gather pertinent information from briefings with responsible agencies.
☐	Develop an operating plan for the Finance/Admin Section; fill supply and support needs.
☐	Determine the need to set up and operate an incident commissary.
☐	Meet with Assisting and Cooperating Agency Representatives, as needed.
☐	Maintain daily contact with agency(s) administrative headquarters on Finance/Admin matters.
☐	Ensure that all personnel time records are accurately completed and transmitted to home agencies, according to policy.
☐	Provide financial input to demobilization planning.
☐	Ensure that all obligation documents initiated at the incident are properly prepared and completed.
☐	Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.
☐	Develop recommended list of Section resources to be demobilized and initial recommendation for release when appropriate.
☐	Receive and implement applicable portions of the Incident Demobilization Plan.
☐	Maintain Unit Log (ICS 214)

Sec. II-5 Response Procedures

A person evaluating a situation must assess the circumstances surrounding an event, to determine if an emergency situation exists, and respond accordingly. Company personnel are trained in hazards or emergency recognition procedures as described below.

An emergency in pipeline and facility operations often originates with the unexpected release or spill of commodities. Uncontained commodities and high vapor concentrations present substantial hazards for fires or explosions until they dissipate to safe levels. In these situations, sources of ignition must be controlled to eliminate fire and explosion hazards. The Company has strict rules for controlling sources of ignition within the property to avoid such explosions or fires. Potential sources of ignition become more difficult to control on public property. Early detection and quick response are the best actions to reduce the hazards.

The purpose of this section is to identify the response checklist/procedures to follow based on the type of incident that could occur at the facility and related pipeline systems. The checklists below are developed to allow the field personnel the ability to make sound decisions during the initial response of an incident. The checklists are not meant to substitute for emergency response knowledge, training, or sound judgment calls and do not account for all circumstances. In the event of any type of incident, it is imperative that the safety of **all** personnel be considered **first**, and then the protection of property second.

The level of required response is dependent upon the severity of the release, the size, potential environmental, social and economic impact and the expected public interest in the event.

Response Procedures Covered in this Section		Section
•	Initial Discovery	Sec II-5.1
•	Immediate Action Checklist	Sec II-5.2
•	General Initial Response Procedures – Terminals	Sec II-5.3
•	General Initial Response Procedures – Pipeline Maintenance Crews	Sec II-5.4
•	Emergency Shut Down	Sec II-5.5
•	Injury / Medical / Rescue	Sec II-5.6
•	Unconfirmed Report of a Leak	Sec II-5.7
•	Pipeline Leak or Rupture	Sec II-5.8
•	Failure of Manifold, Mechanical Loading Arm, Other Transfer Equipment or Hoses	Sec II-5.9
•	Tank Overfill	Sec II-5.10
•	Tank Failure	Sec II-5.11
•	Fire / Explosion	Sec II-5.12
•	Pipeline Station or Manifold Fire	Sec II-5.13
•	Truck Loading Rack Fire	Sec II-5.14
•	Tank Fire Pre-Plan / Flowchart	Sec II-5.15
•	Spill Response Strategy Guide	Sec II-5.16
•	Oil Spill / Release	Sec II-5.17
•	Oil Spill Surveillance	Sec II-5.18
•	Spills to Groundwater	Sec II-5.19
•	Natural Disasters	Sec II-5.20
•	Bomb Threat	Sec II-5.21

Sec. II-5.1 Initial Discovery / Response Actions

Initial response actions are those taken by local personnel immediately upon becoming aware of a discharge or emergency incident. Timely implementation of these initial steps is of the utmost importance because they can greatly affect the overall response operation.

Initial Discovery / Response Actions Checklist		
DISCOVERER	Initiate Initial Response Procedures and Notifications. A list of contact numbers is located in the Contacts section of this plan.	
INITIAL INCIDENT COMMANDER RESPONSE GUIDELINES		
The appropriate response to a particular incident may vary depending on the nature and severity of the incident.		
✓	**Action**	**Definition**
☐	Secure the source.	Act quickly to shut-in source, close valves, etc. (IF SAFE TO DO SO, PROPERLY TRAINED & HAVE PROPER PPE).
☐	Consider safety of personnel / call for medical assistance if needed.	Pull an alarm, push an evacuation button, use radio or call 911. EVACUATE IF NECESSARY.
☐	Shut off ignition sources.	Motors, open flames, electrical circuits.
☐	Coordinate rescue and medical response actions.	Perform this task only if trained to do so (i.e., member of medical & rescue teams) Refer to hospital listings in the Contacts section.
☐	Identify pollutant and assess possible hazards to human health and the environment.	Identify source and volume; characterize oxygen levels, explosive character, toxicity of air on scene, splash and ingestive hazards.
☐	Initiate containment if necessary and safe to do so.	Contact OSROs as necessary.
☐	Conduct air monitoring.	Monitor the air quality in the area near the release to ensure there are no organic vapors which may pose an inhalation or flammability hazard.
☐	Report all incidents to the Duty Officer.	Follow Notification Procedures in ICP Geographical Annex 2. Contact Numbers located in the Contacts section.
Initial Incident Commander	Name:	

Sec. II-5.2 Immediate Action Checklist

Spill Observer / Dispatcher	
•	If a pressure drop is noticed or a leak is suspected, notify the Terminal Supervisor and/or the maintenance supervisor immediately and stop all product transfers.
•	To minimize damage, close all automatic isolation valves, if available.
•	Assist with initial response actions as directed.
Line Flyer	
•	Report all abnormal activity and dead vegetation in the vicinity of a pipeline.
•	If action requires immediate attention, report via radio.
•	In the event radio contact cannot be made; the line flyer will land and report to Company management by telephone.
Terminal Supervisor / Maintenance Supervisor	
•	Determine level of response needed, hazards of product(s) involved and proper response guidelines to be followed. (For additional information refer to Company Maintenance Manual (MPR) - MPR-4005.)
•	Work with local law enforcement to make sure all personnel/citizens are a safe distance away from the hazard area.
•	Notify Fire Department as appropriate.
•	Notify Company management as appropriate.
•	Dispatch response team to the site of the suspected leak and assume the position of IC. Implement ICS/UCS and establish a workable CP and Communications Center. Determine the extent of spill or release, verify product type(s), identify material(s), estimate quantity spilled or released, approximate rate of discharge, estimate movement of the spill/vapor cloud, estimate the wind direction. (Report volume details within one hour per DOT regulations)
•	Instruct response team to eliminate sources of vapor cloud ignition. Shut down all engines and motors. (Refer to MPR-3001 and MPR-4003).
•	Review pipeline alignment sheets to become familiar with the location of mainline valves and elevation characteristics. Review environmentally sensitive area maps for the location of any sensitive area that may be impacted.
•	Advise response team on manual valves locations; order them closed if appropriate.
•	Note time of spill or time of first detection, location, source and cause of spill.
•	Make a note of response actions taken and by whom.
•	Instruct response team to attend to injured personnel.
•	Call out cleanup or general contractors, as necessary.
•	Collect information necessary to complete the Incident Report Form.
•	Make appropriate notifications to local and state governmental agencies of the spill and proposed actions. Document names of agencies called, person who received the calls, and the times the calls were made.
•	Complete the Incident Report Form and notifications.
•	Advise neighboring property owners and operators of any threat to their property or personnel.
•	Direct initial response actions.
•	Call additional emergency response contractors as necessary.

Sec II-5.3 General Initial Response Procedures – Terminals

This checklist is generic to all Company Plans and is included as an additional checklist to supplement facility specific checklists contained in this Plan.

Terminals	
•	Any employee observing a spill should take emergency action to stop the release at the source in a safe manner and immediately notify the Terminal or Maintenance Supervisor.
•	Upon becoming aware of a spill, the Facility Supervisor will assess the spill in terms of the location and volume and determine if the ICS/UCS should be activated.
•	Once it has been determined to activate the ICS/UCS, the Facility Supervisor will assume the role of Incident Commander and initiate the following actions: a) Confirm that injured personnel have been attended to and arrange for medical assistance and transportation to hospitals, if necessary, and ensure the safety of all response personnel. b) Confirm that personnel have been assigned to stop the release and flow of oil, and secure leaks. c) Assess the spill; determine parameters such as spill volume, extent, speed, and direction of movement. d) Integrate local evacuation plans into the Unified Command decision-making process. e) Confirm that containment equipment and oil spill contractors have been deployed. f) Notify the appropriate Company management. g) Notify appropriate federal, state and local government agencies, including local utilities and Company HSE personnel. h) Begin development of an initial incident action plan (ICS 201 Forms).
•	Once product is spilled on water, action should be taken as rapidly as possible to control and recover it to minimize damage to the environment. Physical removal of the oil is the preferred action in almost all cases. However, from a practical standpoint, much of the product spilled during a minor spill will be dispersed by wind and wave action. Effective physical removal will be dependent upon relatively calm weather and water conditions and the speed with which the slick can be corralled and removed.

Sec II-5.4 General Initial Response Procedures – Pipeline Maintenance Crews

These procedures have been designed to 1) provide safety to the public and company personnel when threatened by the release of hydrocarbons from a pipeline to the environment, and 2) to coordinate activities for prompt and safe repair of the pipeline and the return to normal operating conditions.

Events that require immediate response include:	
•	Extreme pressure reduction on the line
•	Extreme flow rate changes
•	Extreme measurement losses or gains
•	Receiving notices of an emergency nature such as: a) Release of hazardous liquids from a pipeline facility b) Operational malfunction causing a hazardous condition c) Fire, explosion, or natural disaster involving pipeline facilities d) Notification of a potential leak or hazard

Whenever any of the above conditions occur, the following emergency shutdown procedures should be initiated:	
•	Shutting in the line at the nearest block valves.
•	Notifying the nearest pump station and/or the appropriate control center.
•	Maintenance crewmembers should notify their immediate supervisor who will in turn notify appropriate Company contacts.
•	If the exact location of the leak is unknown, the Incident Commander will request a line flyer, or if it is at night, manpower might be used to walk the line.
•	Once a leak site has been located, the following information should be obtained. a) Have all ignition sources been eliminated? b) Are any schools, homes or commercial properties at risk and should they be evacuated? c) Should access to the area be restricted (roads blocked)? If so, assistance should be requested from law enforcement agencies. d) Have local response agencies been advised of the product's characteristics and handling precautions which are described in the MSDS's? e) Are railroads or utility companies in the area and have they been notified? f) Will product flow into any waterways or roadways? g) Work with Company Environmental Services to conduct a natural resource damage assessment.
•	The Duty Officer should be notified: a) Federal and/or state agencies may need to be contacted if a spill or release meets the criteria outlined in this manual. b) Following an assessment of the release site, an evaluation should be made regarding the effect of downtime on product scheduling. Appropriate Notifications will be made.

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[redacted]

Sec. II-5.6 Injury / Medical / Rescue

Medical Emergency Checklist		
Procedures	✓	Date/Time
Activate professional medical care for the victim by: ☐ Call 911 to arrange for ground or air ambulance support. Provide the 911 dispatch the following information: ☐ Your name and location ☐ Type of medical emergency ☐ Name and location of the injured ☐ Condition of injured ☐ Contact phone number ☐ Transport injured to a local hospital or physician.	☐	__/__/__ ____:____
Caller's Name:		
Note: Evacuation of seriously ill or injured persons should be conducted by ground or air ambulance only. **Transportation by company or private vehicle should be discouraged, unless advised to do so by medical authorities**. All medical emergencies should be documented and applicable emergency notifications completed.		

Sec II-5.7 Unconfirmed Report of a Leak

Following an unconfirmed report of a leak, or the substantial threat of a leak, the sequential response actions that should be implemented immediately are:

Unconfirmed Report of a Leak		
Procedures	✓	Date/Time
Contact the Control Center and request a line balance check and shut down line if a leak is suspected or pipeline integrity is compromised.	☐	__/__/__ ____:____
Conduct aerial or ground reconnaissance of the area at the first possible opportunity (incident may occur at night or in inclement weather) and contact the Control Center to shut down line if reconnaissance detects a potential leak.	☐	__/__/__ ____:____
Isolate line segment	☐	__/__/__ ____:____
Start internal and external notification procedures.	☐	__/__/__ ____:____
Mobilize response and repair personnel.	☐	__/__/__ ____:____

Sec. II-5.8 Pipeline Leak or Rupture

Pipeline Leak or Rupture Checklist		
Procedures	✓	Date/Time
Assess situation and exercise caution.	☐	__/__/__ :
Eliminate all ignition sources onsite.	☐	__/__/__ :
Shut down pumps, close block valves, and shut down affected line.	☐	__/__/__ :
If person(s) down, refer to Medical Emergency Checklist.	☐	__/__/__ :
Contain spill (if safe to do so).	☐	__/__/__ :
Assign person to direct emergency response vehicles.	☐	__/__/__ :
Conduct air monitoring, per the Safety Officer's instruction.	☐	__/__/__ :
Make necessary notifications	☐	__/__/__ :
Ensure safety of personnel involved in spill response activities	☐	__/__/__ :
Coordinate deployment of containment and recovery equipment	☐	__/__/__ :
Designate staging areas for personnel and equipment	☐	__/__/__ :
Coordinate activities of clean-up contractors	☐	__/__/__ :
Set up Command Post, if warranted	☐	__/__/__ :

Emergency Response Guide First Responder

Piping Leak

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone
- Do not attempt to contain spilled gasoline on water

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire dept assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
- Follow Notifications Procedures (Notifications Section of this Plan)

COMMAND MANAGEMENT
2

- Assume the role of ncident Commander
- Make an announcement to all on the scene that you have assumed Command
- Establish a Unified Command Post up wind up hill and up stream of the incident in the cold zone
- Establish a Unified Staging Area up wind up hill and up stream of the incident in the cold zone
- Begin assigning CS positions as necessary
- Meet greet & brief responding Agencies as they arrive at the Unified Command Post
- Ensure Safety Officer begins and completes a Site Safety Plan

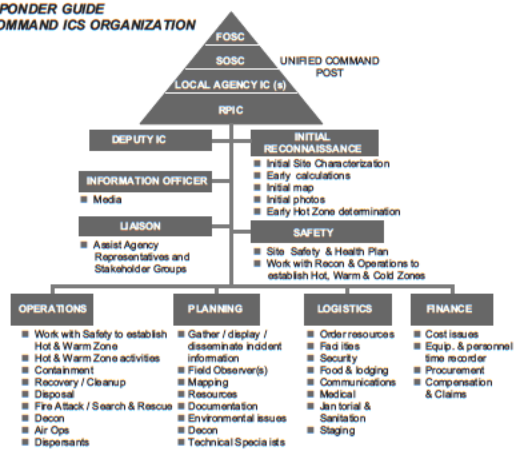
IDENTIFICATION AND ASSESSMENT

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of impact on water air soil plant life & wildlife

ACTION PLANNING

- Complete an CS Form 201 and ncident Action Plan

FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Job Site Safety Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees containment & control tactical deployment
- OSRO's work under the Operations Section and should not freelance

PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on water intakes adjoining properties public recreation sites & sensitive sites
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean up strategies should be part of the Unified AP
- Decon runoff needs to be contained and properly disposed of

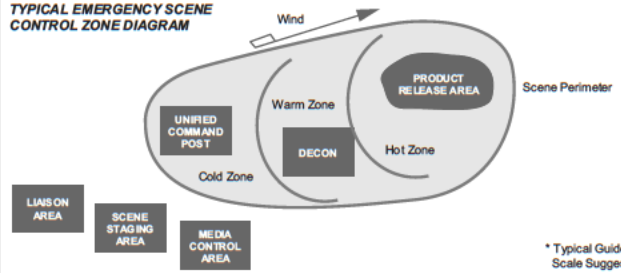
DISPOSAL

- Ensure early notification of HES
- Consult Waste Management Section of this Plan

DOCUMENTATION

- Ensure early completion of CS Form 201 & SSHP
- Ensure proper retention of all incident related documents
- Ensure timely incident critique & record lessons learned

TYPICAL EMERGENCY SCENE
CONTROL ZONE DIAGRAM



* Typical Guide/No Scale Suggested

SAFETY FIRST

FACILITY MITIGATION/PROTECTION ACTIONS

- Shut-off flow
- solate leaking section of piping
- Notify Terminal Superintendent or designee
- Place a container under the leak and attempt to temporarily plug the hole
- nitiate spill containment (if outside containment area)
- Evacuate contents of line with suctin pump or flush with water to remove remaining oil
- Block and purge affected equipment
- nitiate recovery/clean-up actions

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- ncident Report Form & Notifications
- CS Form 201 (ncident Breifing, 1-5)
- CS Form 214 (Unit Log)
- Site Safety and Health Plan (SSHP)
- CS Form 232 (Resources at Risk Summary)

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline, Diesel & Crude Oil	128
Oil < 200°FP	171
LPG	119
Natural Gas	115

PHMSA 000033058

Emergency Response Guide First Responder

Piping Rupture

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone
- Do not attempt to contain spilled gasoline on water

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire dept assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
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COMMAND MANAGEMENT
2

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- Ensure Safety Officer begins and completes a Site Safety Plan

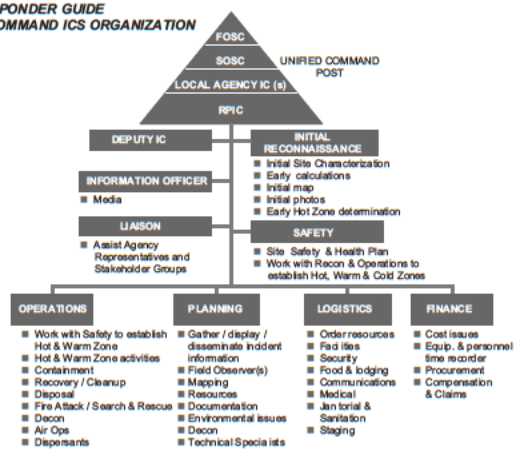
IDENTIFICATION AND ASSESSMENT

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of impact on water air soil plant life & wildlife

ACTION PLANNING

- Complete an CS Form 201 and ncident Action Plan

FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Job Site Safety Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees containment & control tactical deployment
- OSRO's work under the Operations Section and should not freelance

PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on water intakes adjoining properties public recreation sites & sensitive sites
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean up strategies should be part of the Unified AP
- Decon runoff needs to be contained and properly disposed of

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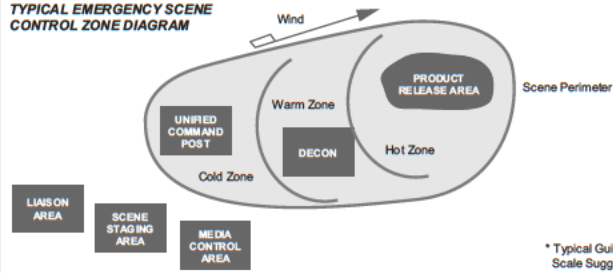

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DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline, Diesel & Crude Oil	128
Oil < 200°FP	171
LPG	119
Natural Gas	115

PHMSA 000033059

Sec. II-5.9 Failure of Manifold, Mechanical Loading Arm, Other Transfer Equipment or Hoses

Equipment Failure Checklist		
Procedures	✓	Date/Time
Immediately stop work activities.	☐	__/__/__ __:__
Shut off transfer pumps. Close header and tank valves.	☐	__/__/__ __:__
Notify Terminal Operations Manager and the Vessel PIC. (Marine Terminal)	☐	__/__/__ __:__
Drain remaining contents of dike to vessel tanks.	☐	__/__/__ __:__
Secure the area.	☐	__/__/__ __:__
Initiate oil spill cleanup response actions.	☐	__/__/__ __:__

Emergency Response Guide First Responder

Failure of Transfer Equip

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone
- Do not attempt to contain spilled gasoline on water

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire dept assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
- Follow Notifications Procedures (Notifications Section of this Plan)

COMMAND MANAGEMENT
2

- Assume the role of ncident Commander
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- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of impact on water air soil plant life & wildlife

ACTION PLANNING

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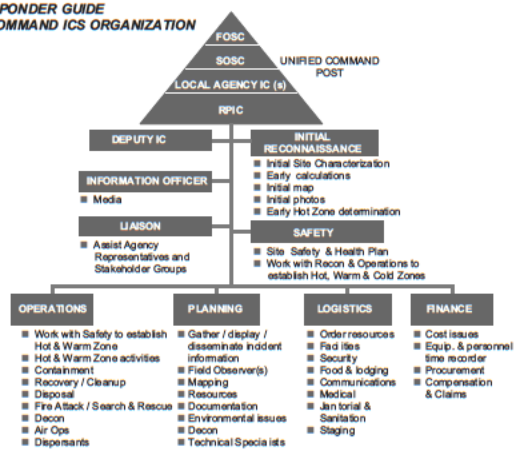
FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
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CONTAINMENT & CONTROL

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- Operations Section Chief oversees containment & control tactical deployment
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PROTECTIVE ACTIONS

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DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
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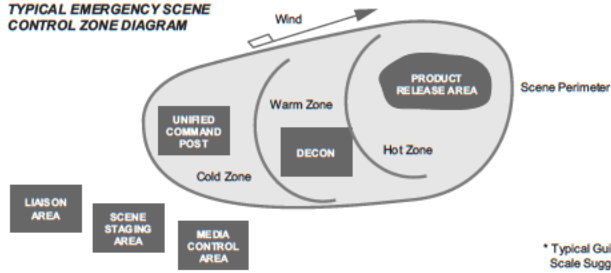

* Typical Guide/No Scale Suggested

SAFETY FIRST

FACILITY MITIGATION/PROTECTION ACTIONS

- Shut off tranfer pumps Close header & tank valves
- Notify Terminal Operators/Manager/Vessel
- Drain remaining contents of like to vessel tanks
- Secure area
- nitiate response actions

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- Notification Fax
- CS Form 201 (ncident Breifing)
- CS Form 214 (Unit Log)
- Site Safety and Health Plan
- CS Form 232 (Resources at Risk Summary)

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline	128
Diesel	128
Crude Oil	128
Oil < 200°FP	171

PHMSA 000033061

Emergency Response Guide First Responder

Equipment Failure

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
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- Determine the immediate hot zone
- Do not attempt to contain spilled gasoline on water

ISOLATE AND DENY ENTRY

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NOTIFICATIONS

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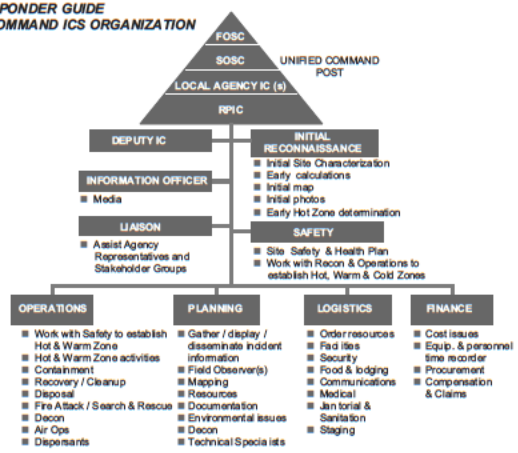
FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Job Site Safety Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees containment & control tactical deployment
- OSRO's work under the Operations Section and should not freelance

PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on water intakes adjoining properties public recreation sites & sensitive sites
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean up strategies should be part of the Unified AP
- Decon runoff needs to be contained and properly disposed of

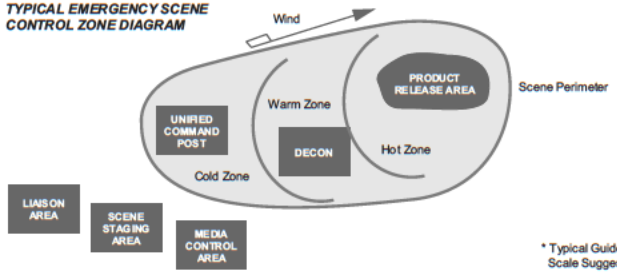
DISPOSAL

- Ensure early notification of HES
- Consult Waste Management Section of this Plan

DOCUMENTATION

- Ensure early completion of CS Form 201 & SSHP
- Ensure proper retention of all incident related documents
- Ensure timely incident critique & record lessons learned

TYPICAL EMERGENCY SCENE
CONTROL ZONE DIAGRAM



* Typical Guide/No Scale Suggested

SAFETY FIRST

FACILITY MITIGATION/PROTECTION ACTIONS

- Shut-off flow
- Notify Terminal Superintendent or designee
- Tighten leaky valve or fitting if safe
- Transfer tank contents to avaliable tankage

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- Notification Fax
- CS Form 201 (ncident Breifing)
- CS Form 214 (Unit Log)
- Site Safety and Health Plan
- CS Form 232 (Resources at Risk Summary)

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline	128
Diesel	128
Crude Oil	128
Oil < 200°FP	171

PHMSA 000033062

Sec. II-5.10 Tank Overfill

Tank Overfill Response Checklist		
Procedures	✓	Date/Time
Immediately stop work activities.	☐	__/__/__ :
Shut off flow to tank.	☐	__/__/__ :
If safe, ensure dike drains are closed (if applicable).	☐	__/__/__ :
Initiate oil spill response actions.	☐	__/__/__ :
Secure the area.	☐	__/__/__ :
Notify terminal supervisor.	☐	__/__/__ :
Begin transfer of contents to other tankage.	☐	__/__/__ :

Sec. II-5.11 Tank Failure

Tank Failure Response Checklist		
Procedures	✓	Date/Time
Immediately stop work activities.	☐	__/__/__ :
Shut off flow to tank.	☐	__/__/__ :
If safe, ensure dike drains are closed (if applicable).	☐	__/__/__ :
Initiate oil spill response actions.	☐	__/__/__ :
Secure the area.	☐	__/__/__ :
Notify terminal supervisor.	☐	__/__/__ :
Begin transfer of contents to other tankage.	☐	__/__/__ :

Emergency Response Guide First Responder

Tank Overfill

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone
- Do not attempt to contain spilled gasoline on water

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire dept assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
- Follow Notifications Procedures (Notifications Section of this Plan)

COMMAND MANAGEMENT
2

- Assume the role of ncident Commander
- Make an announcement to all on the scene that you have assumed Command
- Establish a Unified Command Post up wind up hill and up stream of the incident in the cold zone
- Establish a Unified Staging Area up wind up hill and up stream of the incident in the cold zone
- Begin assigning CS positions as necessary
- Meet greet & brief responding Agencies as they arrive at the Unified Command Post
- Ensure Safety Officer begins and completes a Site Safety Plan

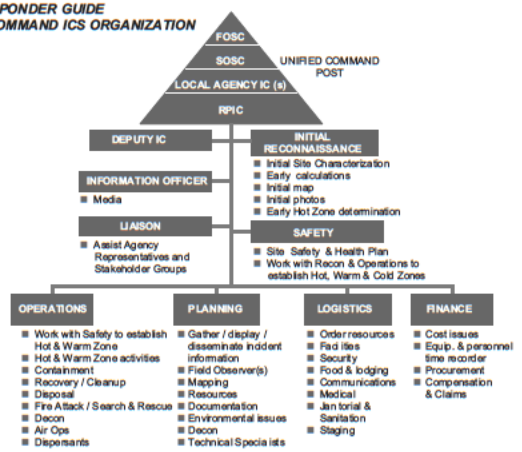
IDENTIFICATION AND ASSESSMENT

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of impact on water air soil plant life & wildlife

ACTION PLANNING

- Complete an CS Form 201 and ncident Action Plan

FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Job Site Safety Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees containment & control tactical deployment
- OSRO's work under the Operations Section and should not freelance

PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on water intakes adjoining properties public recreation sites & sensitive sites
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean up strategies should be part of the Unified AP
- Decon runoff needs to be contained and properly disposed of

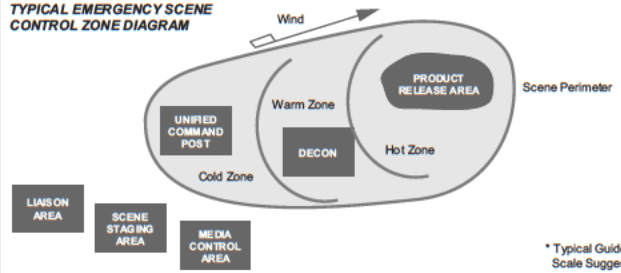
DISPOSAL

- Ensure early notification of HES
- Consult Waste Management Section of this Plan

DOCUMENTATION

- Ensure early completion of CS Form 201 & SSHP
- Ensure proper retention of all incident related documents
- Ensure timely incident critique & record lessons learned

TYPICAL EMERGENCY SCENE
CONTROL ZONE DIAGRAM



* Typical Guide/No Scale Suggested

SAFETY FIRST

FACILITY MITIGATION/PROTECTION ACTIONS

- Shut off flow to tank
- f safe ensure dike drains are closed
- Begin transfer of contents to other tankage
- Notify Terminal Superintentent
- Secure area
- nitiate response actions

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- ncident Report Form & Notifications
- CS Form 201 (ncident Breifing, 1-5)
- CS Form 214 (Unit Log)
- Site Safety and Health Plan (SSHP)
- CS Form 232 (Resources at Risk Summary)

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline, Diesel & Crude Oil	128
Oil < 200°FP	171
LPG	119
Natural Gas	115

PHMSA 00033064

Emergency Response Guide First Responder

Tank Failure

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone
- Do not attempt to contain spilled gasoline on water

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire dept assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
- Follow Notifications Procedures (Notifications Section of this Plan)

COMMAND MANAGEMENT
2

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- Make an announcement to all on the scene that you have assumed Command
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- Establish a Unified Staging Area up wind up hill and up stream of the incident in the cold zone
- Begin assigning CS positions as necessary
- Meet greet & brief responding Agencies as they arrive at the Unified Command Post
- Ensure Safety Officer begins and completes a Site Safety Plan

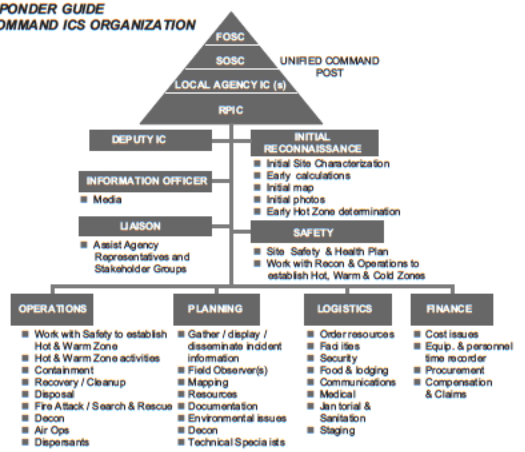
IDENTIFICATION AND ASSESSMENT

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of impact on water air soil plant life & wildlife

ACTION PLANNING

- Complete an CS Form 201 and ncident Action Plan

FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Job Site Safety Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees containment & control tactical deployment
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PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on water intakes adjoining properties public recreation sites & sensitive sites
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean up strategies should be part of the Unified AP
- Decon runoff needs to be contained and properly disposed of

DISPOSAL

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- Consult Waste Management Section of this Plan

DOCUMENTATION

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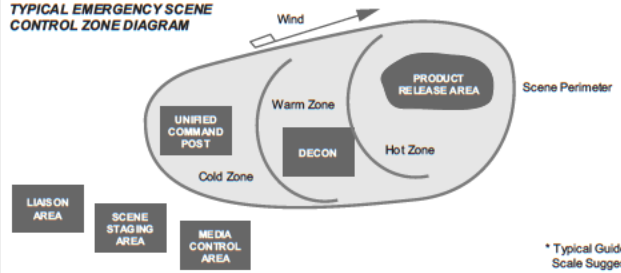
TYPICAL EMERGENCY SCENE
CONTROL ZONE DIAGRAM



* Typical Guide/No Scale Suggested

SAFETY FIRST

FACILITY MITIGATION/PROTECTION ACTIONS

- f safe ensure dike drains are closed
- Notify Terminal Superintendent or designee
- Secure area
- nitiate response actions

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- ncident Report Form & Notifications
- CS Form 201 (ncident Breifing, 1-5)
- CS Form 214 (Unit Log)
- Site Safety and Health Plan (SSHP)
- CS Form 232 (Resources at Risk Summary)

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline, Diesel & Crude Oil	128
Oil < 200°FP	171
LPG	119
Natural Gas	115

PHMSA 000033065

Sec. II-5.12 Natural and Other Gas Leaks

Natural and Other Gas Leaks		
Procedures	✓	Date/Time
Immediately stop work activities.	☐	__/__/__ __:__
Shut down and isolate flow.	☐	__/__/__ __:__
Evacuate the area.	☐	__/__/__ __:__
Eliminate sources of ignition.	☐	__/__/__ __:__
All equipment used when handling product must be grounded.	☐	__/__/__ __:__
Water spray may reduce vapors or divert vapor cloud.	☐	__/__/__ __:__
If exposed, make sure exposed clothing is removed and decon occurs.	☐	__/__/__ __:__

Sec. II-5.13 Natural and Other Gas Leak In or Near a Building

Natural and Other Gas Leaks In or Near a Building		
Procedures	✓	Date/Time
Immediately stop work activities.	☐	__/__/__ :
Protect public first, then facilities.	☐	__/__/__ :
Safely evacuate building if gas is detected inside building.	☐	__/__/__ :
Always look and listen for any signs of escaped gas.	☐	__/__/__ :
All open flames are to be extinguished.	☐	__/__/__ :
Determine leak severity.	☐	__/__/__ :
Do not enter building with audible leaking gas.	☐	__/__/__ :
Test the environment to determine safe entry.	☐	__/__/__ :
Evacuate people from adjacent buildings.	☐	__/__/__ :
Shut off electrical power to building.	☐	__/__/__ :
Eliminate all other potential sources of ignition.	☐	__/__/__ :
Isolate the building from gas sources of ignition.	☐	__/__/__ :
Close necessary inlet and outlet block valves and open blowdown valves.	☐	__/__/__ :
After gas sources are shut off, utilize portable combustible gas indicator/detector to determine safe environment.	☐	__/__/__ :

Emergency Response Guide First Responder

Natural and Other Gas Leaks

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help evaluate and deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire department assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
- Follow Notifications Procedures (Notifications Section of this Plan)

COMMAND MANAGEMENT
2

- Assume the role of ncident Commander
- Make an announcement to all on the scene that you have assumed Command
- Establish a Unified Command Post up wind up hill and up stream of the incident in the cold zone
- Establish a Unified Staging Area up wind up hill and up stream of the incident in the cold zone
- Begin assigning CS positions as necessary
- Meet greet & brief responding Agencies as they arrive at the Unified Command Post
- Ensure Safety Officer begins and completes a Site Safety Plan

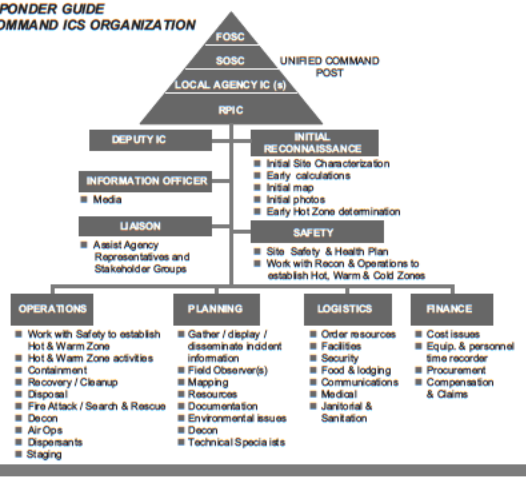
IDENTIFICATION AND ASSESSMENT

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of impact on water air soil plant life & wildlife

ACTION PLANNING

- Create an nitial Action Plan (CS Form 201)

FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Site Safety Health Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees containment & control tactical deployment
- OSROs work under the Operations Section and should not freelance

PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on water intakes adjoining properties public recreation sites & sensitive sites
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team

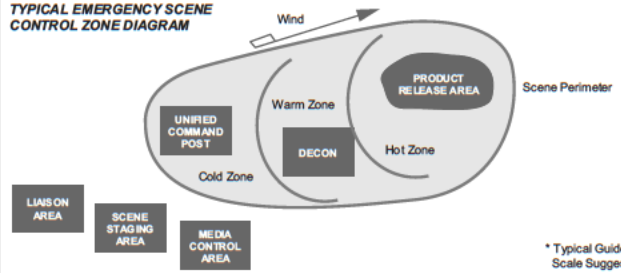
DISPOSAL

- Minimal disposal issues

DOCUMENTATION

- Ensure early completion of CS Form 201 & SSHP
- Ensure proper retention of all incident-related documents
- Ensure timely incident critique & record lessons learned

TYPICAL EMERGENCY SCENE
CONTROL ZONE DIAGRAM



* Typical Guide/No Scale Suggested

SAFETY FIRST

FACILITY MITIGATION/PROTECTION ACTIONS

- Shut down and isolate flow
- Evacuate the area
- Eliminate sources of ignition
- All equipment used when handling product must be grounded
- Water spray may reduce vapors or divert vapor cloud
- f exposed make sure exposed clothing is removed and decon occurs

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- Notification Fax
- CS Form 201 (ncident Briefing)
- CS Form 202
- Site Safety Plan
- CS Form 215

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline	128
Diesel	128
LPG	119
Natural Gas	115
Crude Oil	128

PHMSA 000033068

Emergency Response Guide First Responder

Natural and Other Gas Leak In or Near a Building

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help evaluate and deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire department assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
- Follow Notifications Procedures (Notifications Section of this Plan)

COMMAND MANAGEMENT
2

- Assume the role of ncident Commander
- Make an announcement to all on the scene that you have assumed Command
- Establish a Unified Command Post up wind up hill and up stream of the incident in the cold zone
- Establish a Unified Staging Area up wind up hill and up stream of the incident in the cold zone
- Begin assigning CS positions as necessary
- Meet greet & brief responding Agencies as they arrive at the Unified Command Post
- Ensure Safety Officer begins and completes a Site Safety Plan

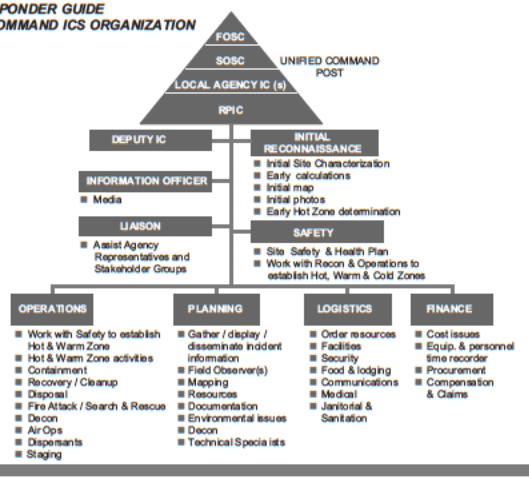
IDENTIFICATION AND ASSESSMENT

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of potential impact on the area

ACTION PLANNING

- Create an nitial Action Plan (CS Form 201)

FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Site Safety Health Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees containment & control tactical deployment

PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on area
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team

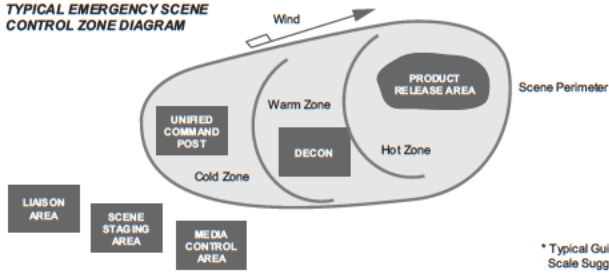
DISPOSAL

- Minimal disposal issues

DOCUMENTATION

- Ensure early completion of CS Form 201 & SSHP
- Ensure proper retention of all incident-related documents
- Ensure timely incident critique & record lessons learned

TYPICAL EMERGENCY SCENE
CONTROL ZONE DIAGRAM



GENERAL PROCEDURES

- Protect public first then facilities
- Safely evacuate building if gas is detected inside building
- Always look and listen for any signs of escaped gas
- Do not open a building door if escaped gas is detected
- All open flames are to be extinguished
- Determine leak severity
- Do not enter building with audible leaking gas
- Test the environment to determine safe entry
- Evacuate people from adjacent buildings

GENERAL PROCEDURES (CONTINUED)

- Shut off electrical power to building
- Eliminate all other potential sources of ignition
- solate the building from gas sources if possible
- Close necessary inlet and outlet block valves and open blowdown valves
- After gas sources are shut off utilize portable combustible gas indicator/detector to determine safe environment

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- Notification Fax
- CS Form 201 (ncident Briefing)
- CS Form 202
- Site Safety Plan
- CS Form 215

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline	128
Diesel	128
LPG	119
Natural Gas	115
Crude Oil	128

PHMSA 000033069

Sec. II-5.14 Fire / Explosion

It is the Company's intention to comply with all applicable fire regulations. The objective of the emergency planning and response program is to produce a favorable outcome at the incident with minimal risk to the public, employees and contractors, and emergency responders.

Life safety shall be the highest priority for all personnel.

Fire / Explosion / Blowout Checklist		
Procedures	✓	Date/Time
Person in Charge – Call 911 and activate fire alarm.	☐	__/__/__ :
Eliminate all ignition sources.	☐	__/__/__ :
Begin Emergency Shut Down if necessary.	☐	__/__/__ :
If person(s) down, refer to Medical Emergency Checklist	☐	__/__/__ :
When fire is noticed at any facility, secure the source if safe to do so.	☐	__/__/__ :
Account for all personnel in the unit or area where the fire occurred.	☐	__/__/__ :
Evacuate all non-essential personnel, if necessary.	☐	__/__/__ :
Establish communications. Contact PIC.	☐	__/__/__ :
Search for and rescue missing or injured personnel as required.	☐	__/__/__ :
Use the buddy system.	☐	__/__/__ :
Ensure the Facility Operators control the process.	☐	__/__/__ :
Conduct air monitoring to ensure safety of personnel and appropriate PPE is required to respond. (For additional information, see the Site Safety and Health Plan and/or the Safety Coordinator.)	☐	__/__/__ : ____:____
Conduct initial fire fighting by IC/UC personnel (trained in the use of firefighting equipment and PPE), which may include use of monitors, deluge systems, and portable fire extinguishers.	☐	__/__/__ : ____:____
Evacuate nearby residents if required.	☐	__/__/__ :

Emergency Response Guide First Responder

Fire or Explosion

SAFETY
1

- Your safety first and then the safety of others
- Stay out of the hazard area
- f performing Recon approach up wind up hill up stream
- Determine the immediate hot zone
- Do not attempt to contain spilled gasoline on water

ISOLATE AND DENY ENTRY

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- f on the scene ask agency resources to help deny entry into immediate area

NOTIFICATIONS

- Contact your Supervisor
- Contact Control Center
- Dial 911 if ambulance police or fire dept assistance is needed
- Contact local OSRO (Notifications Section of this Plan)
- Follow Notifications Procedures (Notifications Section of this Plan)

COMMAND MANAGEMENT
2

- Assume the role of ncident Commander
- Make an announcement to all on the scene that you have assumed Command
- Establish a Unified Command Post up wind up hill and up stream of the incident in the cold zone
- Establish a Unified Staging Area up wind up hill and up stream of the incident in the cold zone
- Begin assigning CS positions as necessary
- Meet greet & brief responding Agencies as they arrive at the Unified Command Post
- Ensure Safety Officer begins and completes a Site Safety Plan

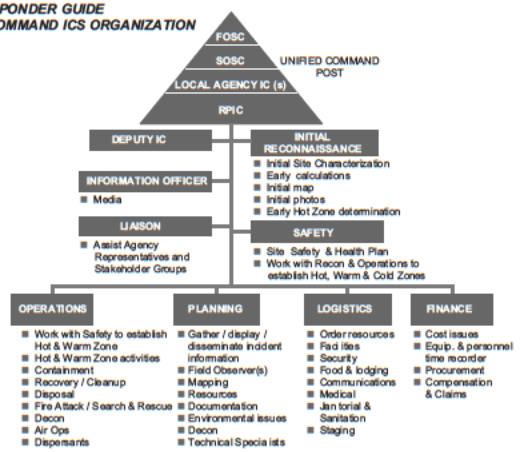
IDENTIFICATION AND ASSESSMENT

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities
- Ensure safe Recon to determine extent of impact on water air soil plant life & wildlife

ACTION PLANNING

- Complete an CS Form 201 and ncident Action Plan

FIRST RESPONDER GUIDE
UNIFIED COMMAND ICS ORGANIZATION



PROTECTIVE EQUIPMENT
3

- Ensure proper levels of PPE
- Ensure PPE is in line with Job Site Safety Plan

CONTAINMENT & CONTROL

- Containment & control strategies should be developed within the Unified AP process/follow ACP
- Operations Section Chief oversees strategies

PROTECTIVE ACTIONS

- Ensure safe Recon to assess impact on area
- Protective action tactical deployment should be part of the Unified AP

DECONTAMINATION / CLEANUP
4

- Decon activities take place under the CS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean up strategies should be part of the Unified AP
- Decon runoff needs to be contained and properly disposed of

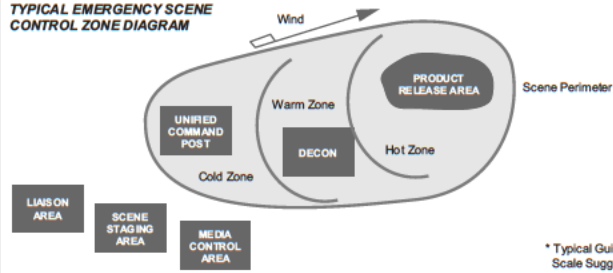
DISPOSAL

- Ensure early notification of HES
- Consult Waste Management Section of this Plan

DOCUMENTATION

- Ensure early completion of CS Form 201 & SSHP
- Ensure proper retention of all incident related documents
- Ensure timely incident critique & record lessons learned

TYPICAL EMERGENCY SCENE
CONTROL ZONE DIAGRAM



* Typical Guide/No Scale Suggested

SAFETY FIRST

FACILITY MITIGATION/PROTECTION ACTIONS

- Alert personnel
- Notify Supervisor or designee
- Activate alarm as required
- Notify local fire department
- Evacuate non-essential individuals
- dentify cause/source/materials involved
- Contain fire/spill/material released
- Consider potential for escalation
- Protect exposures

INITIAL ICS/NOTIFICATION FORMS THAT MAY BE UTILIZED

- ncident Report Form & Notifications
- CS Form 201 (Incident Briefing, 1-5)
- CS Form 214 (Unit Log)
- Site Safety and Health Plan
- CS Form 232 (Resources at Risk Summary)

DOT EMERGENCY RESPONSE GUIDEBOOK QUICK REFERENCE PAGES

Product	Guide #
Gasoline, Diesel & Crude Oil	128
Oil < 200°FP	171
LPG	119
Natural Gas	115

PHMSA 000033071

Sec. II-5.14.1 Fire Prevention

Accumulated debris, oil waste, trash, and other potential fuels can be present in all operations and will add to the fire danger. Strict control and isolation of these fuel sources should be exercised to avoid their accumulation in inhabited areas. Gasoline storage and transfer should follow applicable codes. A fire extinguisher should also be made readily available. Smoking is not allowed near flammable materials. Welding and burning require a hot work permit where hydrocarbon mixtures may exist, i.e., vessels, tanks, pipelines, etc., which may contain explosive mixtures or atmospheres. All fires should be completely extinguished before fire-fighting personnel leave the work site.

Sec. II-5.15 Pipeline Station or Manifold Fire

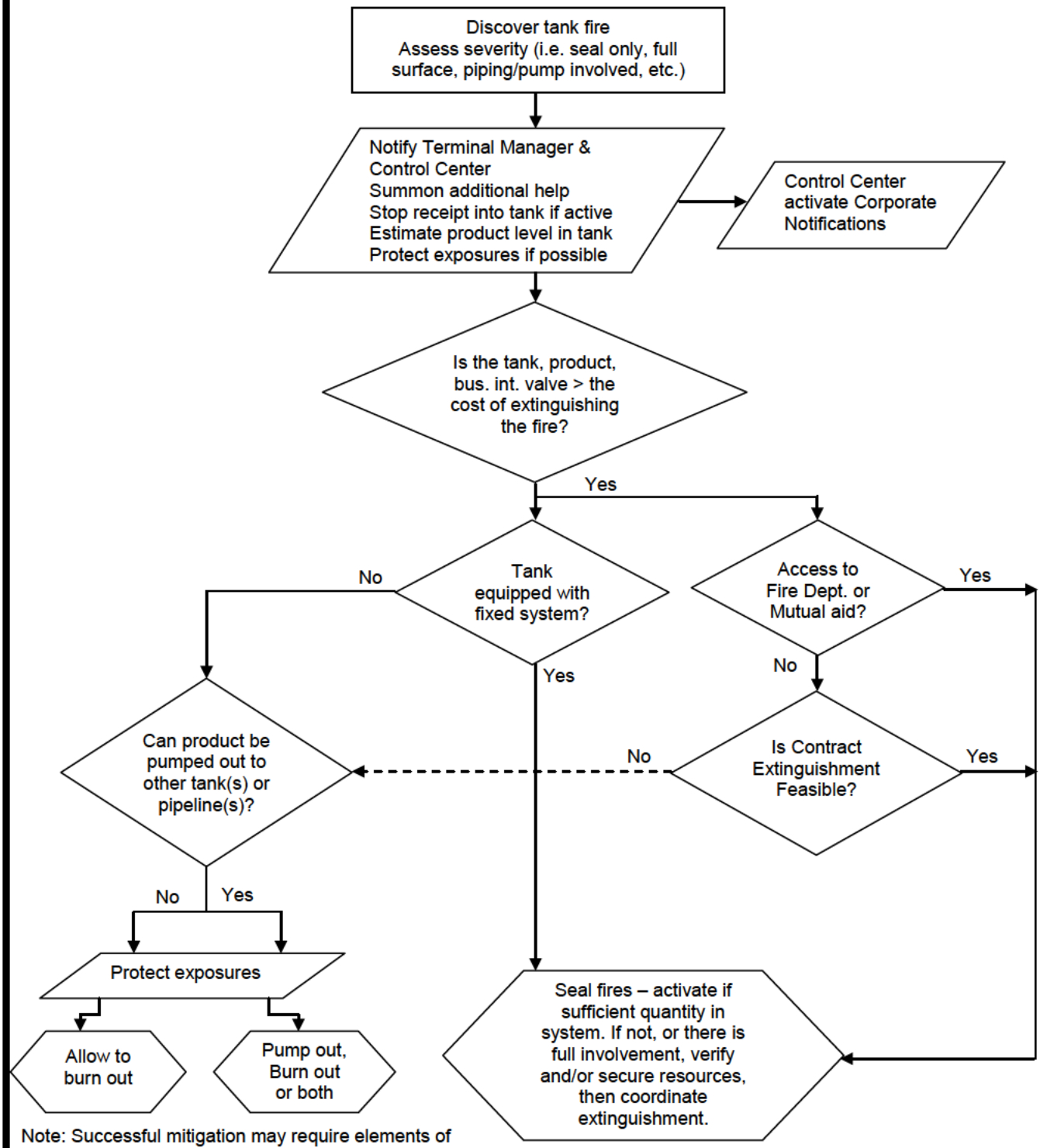
Pipeline Station or Manifold Fire		
Procedures	✓	Date/Time
Bear in mind it is better to take plenty of time in an emergency than to rush in and sustain personal injury.	☐	__/__/__ __:__
Personnel should immediately evacuate hazardous area.	☐	__/__/__ __:__
Extinguish fire at once, if possible, with the equipment at hand. a) If product cannot be shut off, it is better to let a controlled fire burn than to extinguish it as the fuel may spread and flashback occur.	☐	__/__/__ __:__
If telephone is not in hazardous area, notify Supervisor and Control Center and proceed to shut down as outlined in Section II.	☐	__/__/__ __:__
IF TELEPHONE IS IN HAZARDOUS AREA, do not attempt to use it. a) **Trip emergency shutdown control**. b) Close fuel supply valve if the emergency shutdown control fails. c) Get information to Supervisor and fire department as quickly as possible by any available means.	☐	__/__/__ __:__
Reduce fuel supply by: a) Closing valves where possible. b) Close tank valves immediately. c) Close mainline fire gates valves on Supervisor's orders if not in the fire area. If in the fire area, the nearest upstream and downstream valves are to be closed.	☐	__/__/__ __:__
Notify Terminal Supervisor, Operations Supervisor, and TPTN Duty Officer. Notify all off-site personnel of Facility Emergency Incident.	☐	__/__/__ __:__
If foam is needed, contact necessary resources for assistance.	☐	__/__/__ __:__
Post guards at gates or roadways. Call for any help deemed necessary: ambulance, sheriff (to barricade roads, etc.).	☐	__/__/__ __:__
Isolate the fire as much as possible and control spreading to other properties by wetting with water.	☐	__/__/__ __:__
After the fire has been extinguished or controlled, permit only authorized personnel to go near the location.	☐	__/__/__ __:__
Public Relations: Contact EPR&S Group to request media support as needed.	☐	__/__/__ __:__

Sec. II-5.16 Truck Loading Rack Fire

Truck Loading Rack Fire		
Procedures	✓	Date/Time
Be calm – Think first and act with care. Equipment can be replaced – lives cannot.	☐	__/__/__ :
Stop all loading on rack. **Trip emergency shutdown switch – close valves on loading riser.**	☐	__/__/__ :
Attempt to put out or control fire with dry chemical extinguisher. Prompt action can extinguish a small fire.	☐	__/__/__ :
Notify Fire Department	☐	__/__/__ :
If immediate action does not extinguish the fire, then:		
Clear rack of all truck not on fire and shut off fuel supply by closing all valves on loading lines.	☐	__/__/__ :
Advise Supervisor and/or other employees on duty of the fire.	☐	__/__/__ :
If anyone is injured or burned, remove from area.	☐	__/__/__ :
Summon help as needed: ambulance, sheriff, etc.	☐	__/__/__ :
In some cases it may be better to isolate the fire and permit it to exhaust the fuel, rather than to extinguish and risk an explosion.	☐	__/__/__ :
Water should be applied to lines, equipment and tanks in the fire and surrounding area.	☐	__/__/__ :
Good judgment is essential as to position of personnel because of potential hazard of heat-induced failure of piping and tanks.	☐	__/__/__ :
Turn off switches on electrical service in fire area.	☐	__/__/__ :
Close gates, post guards to keep spectators away, use sheriff or police to assist.	☐	__/__/__ :
Public Relations: Contact EPR&S Group to request media support as needed..		__/__/__ :

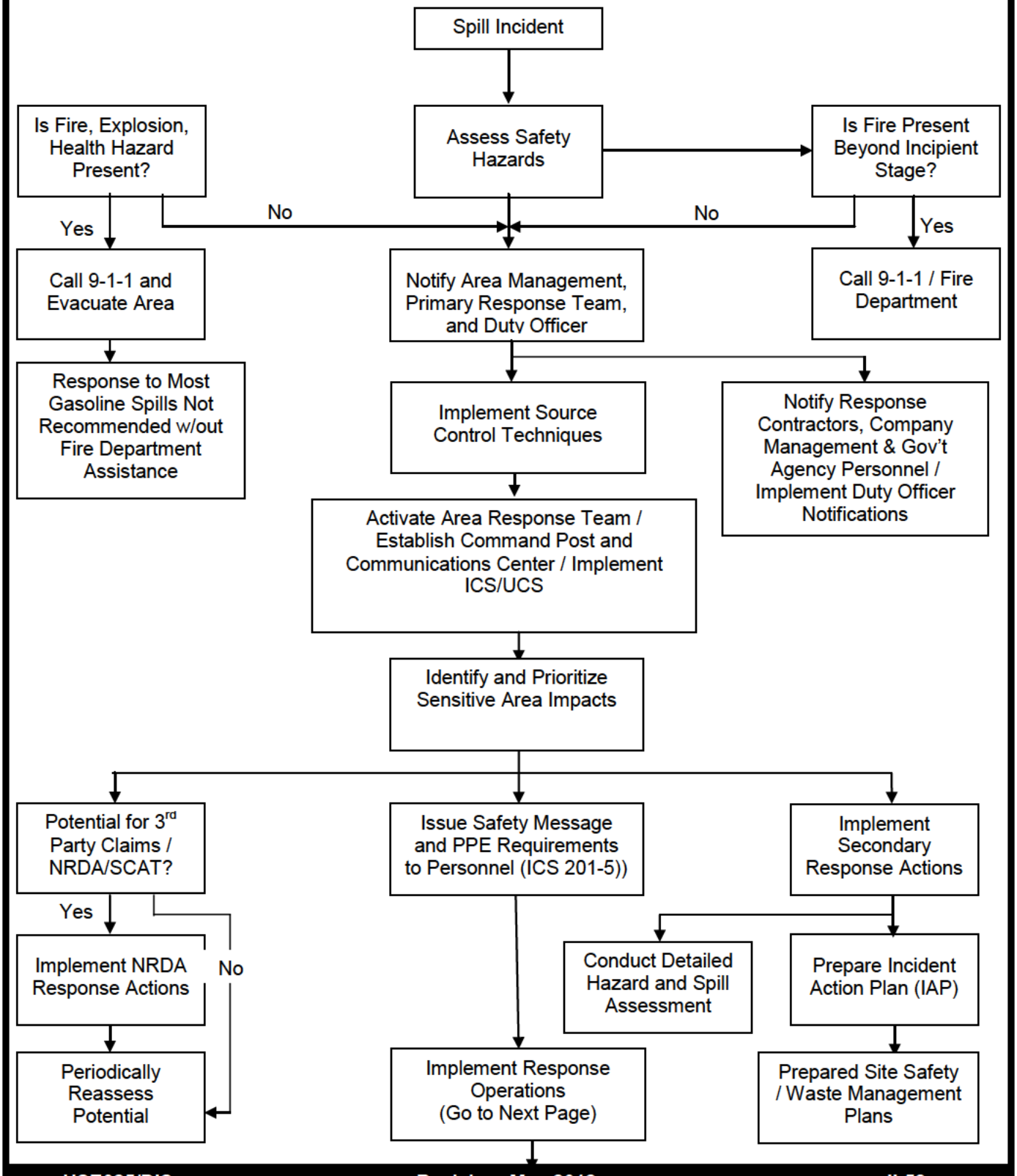
Sec. II-5.17 Tank Fire Pre-Plan / Flowchart

NOTE: REFER TO COMPANY EMERGENCY RESPONSE WEB SITE FOR A LINK TO THE TANK FIRE PRE-PLANS. DIAGRAMS AND OTHER REFERENCE MATERIALS CAN BE FOUND IN THE COMPANY OPERATIONS FIELD HANDBOOK.

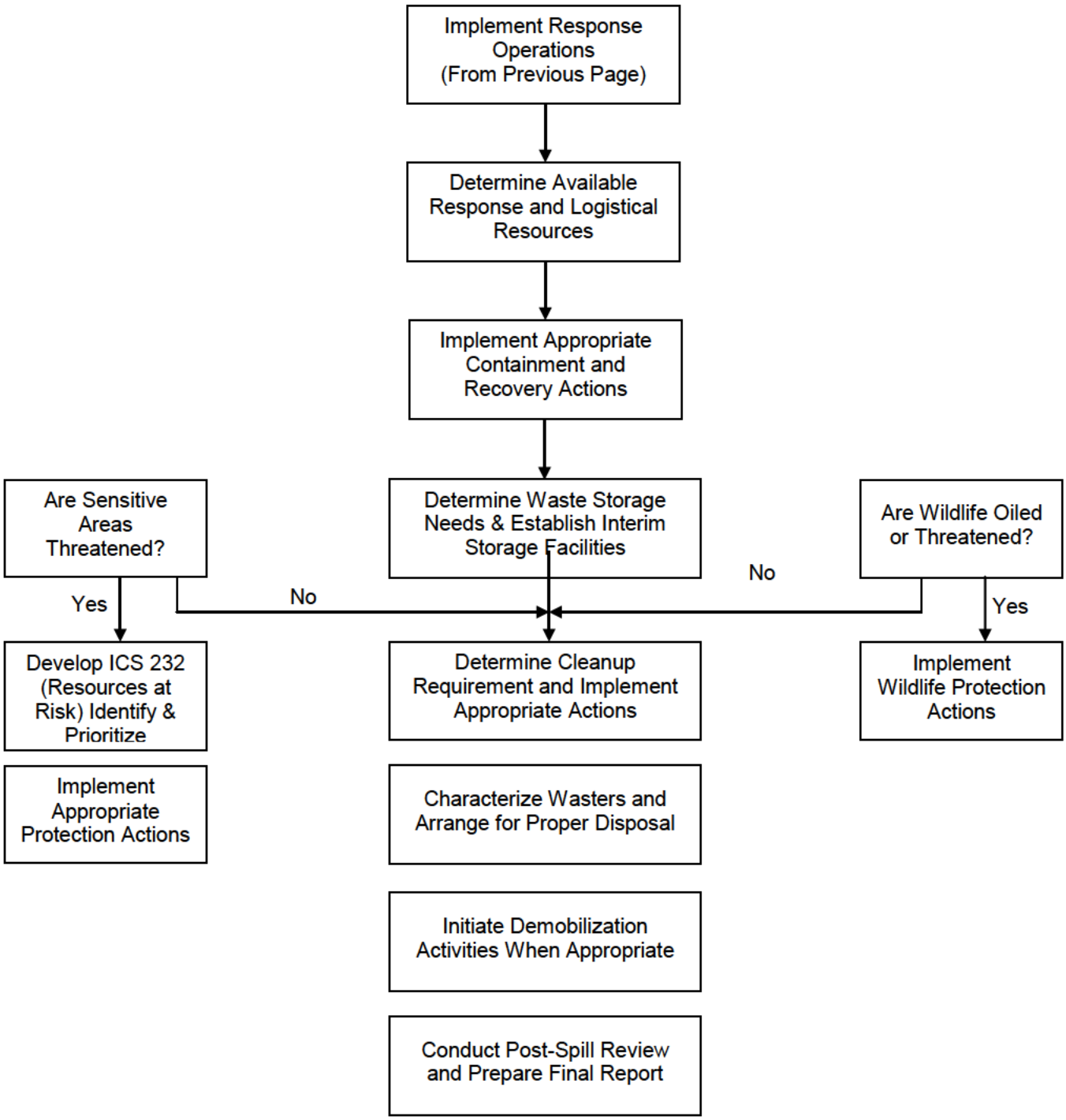


Note: Successful mitigation may require elements of all 3 options.

Sec. II-5.18 Spill Response Strategy Guide



Sec. II-5.18 Spill Response Strategy Guide (Cont'd)



Note: Pipeline Emergency Response operations dictate that the Company and Agency Incident Commanders will establish the location of the Incident Command Post and Communication Center. Factors that will be taken into account when deciding on the Incident Command Post will include but not be limited to: location of the pipeline release, personal and public safety, geography, preference of local, state and federal response personnel, weather, size of CP needed and workability.

Sec. II-5.19 Oil Spill / Release

Oil Release Checklist		
Procedures	✓	Date/Time
Consider safety of personnel.	☐	__/__/__ __:__
Shut off ignition sources.	☐	__/__/__ __:__
Stop the flow of spilled product.	☐	__/__/__ __:__
Coordinate rescue and medical response actions.	☐	__/__/__ __:__
Identify release and assess possible hazards to human health and the environment.	☐	__/__/__ __:__
Report all spills to Supervisor and Management.	☐	__/__/__ __:__

Sec. II-5.20 Oil Spill Surveillance

Spill Surveillance Guidelines	
•	Spill surveillance should begin as soon as possible to aid response personnel with assessing spill size, movement and potential impact locations.
•	Cloud shadows, sediment, floating organic matter, submerged sand banks or wind-induced patterns on the water may resemble an oil slick if viewed from a distance.
•	Use surface vessels to confirm the presence of any suspected oil slicks, if safe to do so. If possible, direct the vessels from the aircraft and photograph the vessels from the air to show their position and size relative to the slick.
•	It is difficult to adequately observe oil on the water from a boat, dock or shoreline.
•	Spill surveillance is best accomplished using helicopters or small planes. Helicopters are preferred due to their superior visibility and maneuverability characteristics.
•	If fixed-wing planes are used, high wing types provide better visibility than low-wing types.
•	Document all observations in writing and with photographs and/or videotapes.
•	Describe the approximate oil slick dimensions based on available reference points (i.e. vessel, shoreline features, facilities). Use aircraft or vessel (if safe to do so) to traverse the length and width of the slick while timing each pass. Calculate the approximate size and area of the slick by multiplying speed and time.
•	Record aerial observations on detailed maps.
•	In the event of reduced visibility, such as dense fog or cloud cover, boats may be used for patrols and documenting the location and movements of the spill. Boats will only be used if safe conditions are present, including on-scene weather and product characteristics.
•	Surveillance is also required during spill response operations in order to gauge effectiveness of response operations, to assist in locating skimmers and to continually assess size, movement and impact of spill.

Aerial Spill Surveillance Data Sheet

Incident Name:	**Date / Time:**
Environmental Conditions	
Wind Speed (kts):	Wind Direction:
Current Speed (kts):	Current Direction:
Air Temperature (°F)	Water Temperature (°F)
Comments	
Clear ☐	Partly Cloudy ☐ / Cloudy ☐

Spill Location				
Leading Edge	Latitude	Deg	Min	Sec
	Longitude	Deg	Min	Sec
Trailing Edge	Latitude	Deg	Min	Sec
	Longitude	Deg	Min	Sec

Spill Description						
	Barely Discernable	Silvery Sheen	Faint Colors	Bright Bands of Color	Dull Brown	Dark Brown
Length						
Width						

General Description

Sec. II-5.20 Oil Spill Surveillance (Cont'd)

Spill Volume Estimating	
Early in a spill response, estimation of spill volume is required in order to:	
•	Report to agencies
•	Determine liquid recovery requirements
•	Assess manpower and equipment requirements
•	Determine disposal and interim storage requirements

In the event that actual spill volumes are not available, it may be necessary to estimate this volume.

Spill Volume Estimation Methods	
•	**Water**: Visual observation and calibration with the A.P.I. Task Force on Oil Spill Cleanup, Committee for Air and Water Conservation's Spill Size Estimation Matrix. This matrix is included as Figure II-5.1 for spills to water. Other methods which can be used to determine size and volume of a spill include, but are not limited to: • Other methods which can be used to determine size and volume of a spill include, but are not limited to: • Vessel/line capacity formulas • Infra-red thermal imaging
•	**Land**: • Use the Transportation Spill to Land Estimation Tool • SCADA (Control Center calculation) • Tank Data Program

Figure II-5.1 – Spill Estimation Factors

Use this table to calculate the amount of an oil spill to water:

Estimated Area* (sq ft)	Estimated Amount of Spill in GALLONS**					
	Barely Discernible	Silvery Sheen	Faint Colors	Bright Bands of Color	Dull Brown	Dark Brown
1,000	< 1/8	< 1/8	< 1/8	< 1/8	< 1/8	< 1/8
5,000	< 1/8	< 1/8	< 1/8	< 1/8	< 1/8	3/8
10,000	< 1/8	< 1/8	< 1/8	< 1/8	1/4	2/5
15,000	< 1/8	< 1/8	< 1/8	< 1/8	3/8	1/2
20,000	< 1/8	< 1/8	< 1/8	1/4	2/5	1
30,000	< 1/8	< 1/8	< 1/8	1/4	3/5	1
50,000	< 1/8	< 1/8	1/4	2/5	1	3
100,000	< 1/8	1/4	2/5	3/4	3	5
300,000	3/8	3/5	1	2	6	14
600,000	1/2	1	2	4	13	29
900,000	3/4	2	3	7	20	43
1,000,000	7/8	2	4	7	22	47
1,250,000	1	2	5	9	27	59
1,500,000	1	3	5	11	32	70
1,750,000	2	3	6	13	38	82
2,000,000	2	4	7	14	43	94
4,000,000	4	8	15	30	90	95
6,000,000	5	11	22	44	132	286
8,000,000	7	15	29	58	174	377
10,000,000	9	18	36	72	216	468
12,500,000	11	23	45	90	270	585
15,000,000	14	27	54	108	324	702
17,500,000	16	32	63	126	378	819
20,000,000	18	37	72	144	432	936
22,500,000	21	41	82	164	492	1,066
25,000,000	23	45	90	180	540	1,170
27,500,000	25	50	100	200	600	1,300

*Arrived at by multiplying estimated length of spill by estimated width. Round up to next highest value.
**Calculated from guide published by the API Task Force on Oil Spill Cleanup, Committee for Air and Water Conservation.
< Means less than

Sec. II-5.20.1 Estimating Spill Trajectories

Oil spill trajectories may initially be estimated in order to predict direction and speed of the slick movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas and provide an estimate of the most likely locations for protection, containment and recovery.

The following methods may be used to predict spill movement:	
•	Vector Analysis (using wind speed/direction, tides, and current speed/direction)
•	Computer trajectory modeling programs (including but not limited to): • World Oil Spill Model (WOSM) • OilMap • General NOAA Oil Modeling Environment (GNOME)

The Company will utilize internal subject matter experts with consultants as necessary to perform trajectory analysis and fate & effect modeling.

Input variables for proper modeling include, but are not limited to:	
•	Spill location, volume, and time of spill
•	Nature of the spill - continuous or single incident
•	Wind speed & direction
•	Water movement (current) speed & direction
•	Water temperature
•	Sea state
•	Atmospheric temperature
•	Characteristics of spilled material

This information can be obtained from many sources, including but not limited to:	
•	Reports from personnel at the spill site
•	Commercial weather services
•	National Oceanic and Atmospheric Administration (NOAA)
•	Internal Company databases

Sec. II-5.20.2 Sampling and Testing

In defining an acceptable response to a spill incident, it is necessary to know certain physical and chemical characteristics of the spill material. If positive identification of the spilled material can be made without testing, product data may be obtained from a material safety data sheet (MSDS), product specification information, and/or records of product physical and chemical properties.

Occasionally a spill may occur in which the spilled material is not readily identifiable. Typically, laboratory analytical data for spill event samples will not be instantaneously available during an emergency. Therefore, it is necessary and desirable to field-categorize oils as the product reacts and changes in the environment. Although varying widely in physical and chemical properties, oil products have common basic features that permit their grouping for predictive evaluation of environmental effects and determination of control actions. In addition, as petroleum products react and change (e.g., weather) when exposed in the environment, the laboratory data may not be representative of "real-time" conditions; rather the data may instead reflect the chemical characteristics of the spilled material(s) at the time of sample collection.

The **Oil Spill Trajectory Request Form** is located in Section III of this plan.

Sec. II-5.21 Spills to Groundwater

Sec. II-5.21.1 General

Spills to bare ground will initially spread laterally on the surface and then begin migrating downward through the soil and, depending on a variety of factors and circumstances, could reach groundwater. During vertical migration the spill will spread laterally to some degree and a portion of the oil will be absorbed by the soil particles or become trapped in small pores eventually immobilizing the spill.

In general, oil will continue migrating downward until:
• Residual Saturation is reached (all of the oil is absorbed by the soil)
• Impenetrable Layer (silt, clay, sandstone, rock) is encountered
• Groundwater is reached

If a spill does reach groundwater, the oil will form a mound on the surface of the groundwater (water table) and begin to spread horizontally but preferentially in the direction of groundwater flow. For higher groundwater velocities, a narrow plume elongated in the direction of groundwater flow will form whereas for lower velocities the plume broadens and assumes a more circular pattern. The thickness of the plume or layer of oil on the water table will decrease with distance from the source.

As with vertical migration, a portion of the oil will adhere to soil particles and become trapped in small or water filled pores eventually becoming immobilized. For instantaneous or quasi-instantaneous spills, 40-70% of lateral spreading will generally occur in the first 24 hrs whereas 60-90% occurs in the first week.

Sec. II-5.21.2 Response Actions

In the event of a spill to bare ground, there are a number of actions that should be taken to assess the spill and, if groundwater is impacted, initiate recovery and limit the extent of impact. A decision guide is provided at the end of this section that outlines the general response actions that should be taken. Additional information on these response actions is also provided below.

Sec. II-5.21.3 Initial Assessment

As for any spill, the initial response actions for spills to bare ground should include the assessment of health and safety hazards. See the Site Safety and Health Plan as well as the following parameters.

Initial Assessment Parameters	
•	Spill Size and Product Accumulation (pooled oil) Depth
•	Product Type (viscosity)
•	Soil Type/Permeability/Moisture Content
•	Depth to Groundwater
•	Estimated Response Time to Initiation of Recovery Actions

Sec. II-5.21.4 Ground Impact Potential

Once the assessment is completed, the potential for the spill to impact underlying groundwater should be determined and generally requires some knowledge of the local hydrogeology including soil type/permeability and depth to groundwater, and groundwater flow direction. The common factors, along with selected examples, that contribute to a spill having a higher or lower potential to impact groundwater are:

Higher Potential	
•	Shallow Groundwater (generally <20 ft)
•	Low Viscosity Oil (gasoline)
•	Dry Soil with Low Oil Retention Capacity
•	Highly Permeable Soils (sand, gravel, coarse grained mixed sediment)
•	Large Volume
•	Pooled Oil (creates hydraulic head that enhances penetration)
•	Response Time (several hours before pooled oil recovery begins)

Lower Potential	
•	Deep Groundwater (generally >20 ft)
•	Medium to High Viscosity Oil (industrial fuel oils, crude, lubricants, etc.)
•	Wet or Moist Soils with High Oil Retention Capacity
•	Low Permeability Soils (silts, clays, fine grained mixed sediment)
•	Small Volume
•	No Pooled Oil on Surface
•	Response Time (expeditious recovery of pooled oil or saturated soils)

Sec. II-5.21.4 Ground Impact Potential (Cont'd)

For small spills that do not pool on the ground surface, vertical penetration into the soil is often limited to 4 to 8 inches with the exception of coarse gravels which could allow considerably deeper penetration. Depth of penetration can be estimated if you know the square footage of surface impact, soil type, depth to groundwater and spill volume. Using the above information and the table shown below, a calculation of how much oil can be adsorbed/retained by the soil between the surface and the water table. If the retention capacity is significantly greater than the spill volume, the potential for the spill to reach groundwater would be low and vice versa.

Retention Capacity	
Soil Type	Oil Retention Capacity (gal / yd^3)
Stones, coarse gravel	1
Gravel, coarse san	1.6
Coarse sand, medium sand	3
Medium sand, fine sand	5
Fine sand, silt	8

Sec. II-5.21.5 Supplemental Assessment

If the potential exists for a spill to reach groundwater, additional assessment activities should be conducted to confirm groundwater has been impacted and, if so, assess the extent of impacts. In most cases, experienced remediation contractors already under contract to the Company will be utilized to conduct subsequent assessment activities.

These activities commonly include:	
•	**Backhoes or Excavators** – excavate pits/trenches to determine penetration depth/groundwater impacts (limited to depths of 10–20 ft)
•	**Hand or Power Augers** – install borings to collect soil/water samples and can be used to install temporary wells (often limited to 15-30 ft)
•	**Direct Push Drilling Rigs** – install borings to collect soil/water samples and can be used to install temporary wells (often limited to 50-100 ft)
•	**Hollow Stem Auger (HAS) or rotary drill rigs -** install borings to collect soil samples and wells for groundwater samples (limited to 100-500 ft)

The type of method used often depends on equipment availability, depth to groundwater and access to the spill area. For areas with shallow groundwater and good access, backhoes or excavators are often the most expedient means of determining penetration depth and groundwater impacts. If access is limited, such as in many tank farms, hand or power augers can be used to install borings and collect samples. Direct push (Geoprobe) rigs can get into many areas but are generally truck mounted and will need road access. For areas with good access and where groundwater is deeper, hollow stem augers or rotary drill rigs are often the best equipment for subsequent assessment.

Sec. II-5.21.5 Supplemental Assessment (Cont'd)

Borings or pits should be installed, if safe to do so, in the main spill area where penetration is typically greatest. If groundwater impacts are confirmed or expected, additional borings or wells should be installed by stepping out laterally from the spill area and primarily in the down gradient direction until the groundwater impact area is delineated.

It is important to note that if intrusive activities (excavation, drilling, hand augers, etc.) are necessary, additional air monitoring of the excavation and breathing zone around the activities should be conducted to ensure additional hazards are not created by the activities. In addition, if excavation activities are conducted and it is necessary for workers to enter the excavation, confined space permitting and/or shoring regulations may apply.

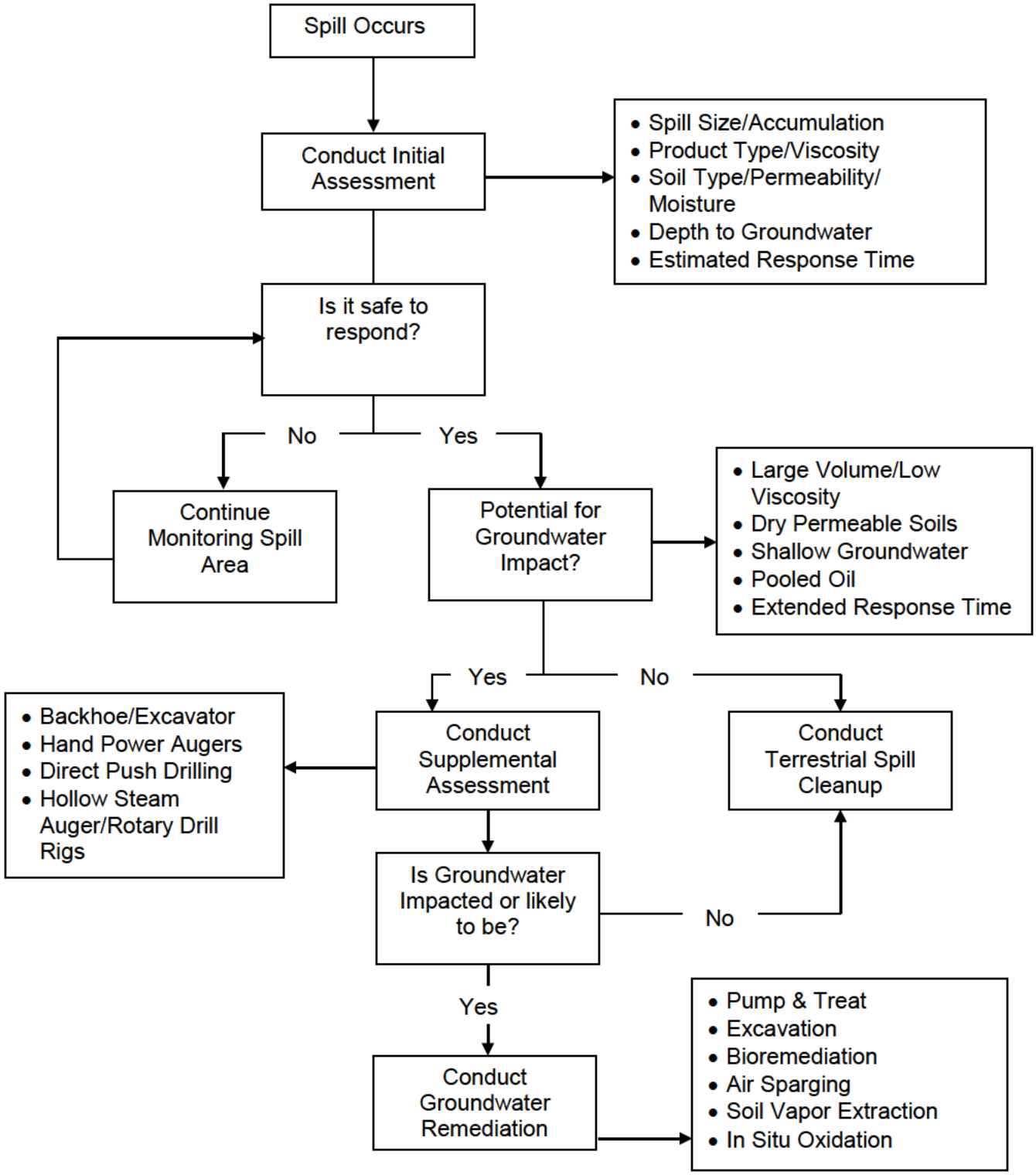
Sec. II-5.21.6 Recover/Remediation

In the event a spill does reach groundwater or the threat of reaching groundwater remains, recovery or remediation activities will need to be conducted to mitigate the impacts. The impacts could be limited to low concentrations of hydrocarbons that have dissolved into the groundwater or, for larger spills, involve a layer of oil/product floating (separate, or non-aqueous, phase hydrocarbons) on the groundwater surface (water table) accompanied by elevated concentrations of dissolved (aqueous phase) hydrocarbons in the groundwater.

Some of the more common groundwater remediation techniques include:	
•	Pump and Treat
•	Excavation
•	Bioremediation
•	Air Sparging
•	Soil Vapor Extraction
•	In Situ Oxidation

Selection of the most appropriate remediation technique will depend on a number of factors including product type, soil type, depth to groundwater, access, extent of impacts, current groundwater use, etc. The Company will utilize experienced remediation contractors to select and implement the most appropriate remediation technique(s). The local or regional remediation contractor(s) under contract to the Company are provided in the Contacts Section of this plan, along with their contact information.

Figure II-5.2 – Groundwater Spill Response Strategy Guide



Sec. II-5.22 Natural Disasters

This checklist identifies actions to be taken when the Pipeline and/or its facilities are threatened by thunderstorms, producing lightning or high winds.

Thunderstorms / Lightning / High Winds Checklist		
Procedures	✓	Date/Time
Establish communications with the Field office for weather updates.	☐	__/__/__ [00:00]
Upon notification by weather monitoring of impending severe weather conditions, notify the initial Incident Commander or the appropriate office of the situation.	☐	__/__/__ [00:00]
Personnel will be instructed to shut down all nonessential activities and take shelter where available until the storm has passed.	☐	__/__/__ [00:00]
Immediately bring personnel off vessels, tanks, pipe racks, and other elevated work areas. Suspend product loading operations and close all tank openings.	☐	__/__/__ [00:00]
Take shelter until the storm has passed.	☐	__/__/__ [00:00]

Tornado Safety Checklist		
If a ***tornado warning*** has been issued. Use the following checklist		
Procedures	✓	Date/Time
Establish communications with the Field office for weather updates.	☐	__/__/__ [00:00]
Sound the alarm.	☐	__/__/__ [00:00]
Have location personnel report to the designated area.	☐	__/__/__ [00:00]
Avoid all windows and proceed to an interior room on the lowest floor or tornado shelter, if available. • Interior stairwells will be one of the best shelters, if available.	☐	__/__/__ [00:00]
Seek shelter under a sturdy/heavy piece of furniture.	☐	__/__/__ [00:00]
Use your arms to protect the back of your head and neck.	☐	__/__/__ [00:00]
Once the all clear has sounded:		
Account for all Personnel	☐	__/__/__ [00:00]
Begin search and rescue if any personnel is missing	☐	__/__/__ [00:00]

Earthquake		
Procedures	✓	Date/Time
Assess situation and exercise caution.	☐	__/__/__ [00:00]
Emergency Shut Down, if necessary. Notify Control Center as needed.	☐	__/__/__ [00:00]
If damage has occurred, close the nearest block valves on either side of the damaged location.	☐	__/__/__ [00:00]
Conduct visual inspection of the line(s) using one or more of the following methods. ☐ Aircraft ☐ Vehicle ☐ Walking	☐	__/__/__ [00:00]
Evacuate the line for closer inspection and/or pressure test prior to resuming operations, if necessary.	☐	__/__/__ [00:00]
Inspect system integrity	☐	__/__/__ [00:00]
Check off-site areas for damage.	☐	__/__/__ [00:00]

River Flood, Severe Storm, Freeze Protection Preparedness Checklist		
Procedures	✓	Date/Time
Refer to applicable Flood, Hurricane, and Freeze Protection Preparedness Plan	☐	__/__/__ [00:00]

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[redacted]

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Sec. II-6 Detection Procedures

Sec. II-6.1 Release Detection

The Company has a number of safety systems and practices in place to prevent the occurrence and mitigate the subsequent impact of accidental releases. The systems are designed to alert operators with alarms and provide automatic shut-in functions in the event of a release. Pipeline operators are trained to respond to the various system alarms in order to identify and control releases immediately.

The routine responsibilities that ensure releases will be detected and mitigated as soon as possible by IC/UC personnel may include, but are not limited to the following:	
•	Regularly scheduled visual and aerial monitoring.
•	Routine walk-through and monitoring of process equipment to ensure proper operation of all equipment at each facility.
•	Immediate response to alarms and signals that may indicate a possible release.
•	Identification and control of the source as soon as safely possible.
•	Notify the Person in Charge.

All pipelines operated by the Company are equipped with high and low pressure sensors. In the event of a change in pipeline pressure beyond a specified set point, the pressure sensors will trigger an alarm to the facility operator and/or shut down the pipeline and process equipment.

The Company operators will perform the following procedures when they are alerted to a potential pipeline emergency:		
Procedures	✓	Date/Time
Ensure that the pipeline pressure sensing equipment is not malfunctioning.	☐	__/__/__ [00:00]
The supervisor will request a field inspection of the pipeline in question to identify the source of the suspected leak.	☐	__/__/__ [00:00]
In the event an oil leak is discovered along the pipeline, this Plan will be activated.	☐	__/__/__ [00:00]
In the event a leak is not found, an investigation into the cause of the pressure change will continue until determined.	☐	__/__/__ [00:00]

Sec. II-6.2 Discharge Detection Systems

The Company will provide a detailed description of the procedures and equipment used to detect discharges. A section on discharge detection by personnel and a discussion of automated discharge, if applicable, will be included for both regular operations and after hours operations. In addition, the Company will discuss the reliability of any automated system, how it will be checked and how frequently the system will be inspected.

Sec. II-6.3 Discharge Detection by Personnel

Sec. II-6.3.1 Routine Inspections

Terminal operators perform routinely scheduled terminal inspections. Terminal equipment and current movements are checked for evidence of leaks or spills in addition to various other observations such as security, equipment operation, etc.

Sec. II-6.3.2 Safe Fill

When pipeline receipts or transfers are made, the volumes used in the calculations for space available use a safe fill height as the maximum operating level.

Sec. II-6.3.3 Receipt Monitoring

Terminal employees coordinate all receipts with pipeline representatives. This involves determination of the volume of each product grade prior to receipt. The receipt progress, incoming volumes and high level alarm signals are monitored at all times when product is being transferred into the terminal from the pipeline by the Control Center.

Sec. II-6.3.4 Tank Gauging

Each tank scheduled to receive a receipt is gauged prior to receipt to confirm that space is available for the receipt.

Sec. II-6.3.5 High Level Alarms

All tanks are equipped with high level alarms. High level alarms are indicated by an audible signal that can be heard anywhere on the complex as well as visual indication in the Control Room. A signal is also sent to the Control Center and requires immediate contact with the facility operator. Alarms are tested periodically in accordance with company preventive maintenance procedures.

Sec. II-6.3.6 Volume Reconciliation

Tanks are gauged at month end as part of our physical inventory reconciliation program.

Sec. II-6.3.7 Pipe Testing

Belowground piping is periodically tested.

Sec. II-6.3.8 Observations and Documentation

The condition of tanks and equipment are observed when employees responsible for the operation and maintenance of the terminal are on shift. Documentation of these conditions will be logged periodically at the discretion of the local supervisor.

The following are elements of the oil inventory control system:

Sec. II-6.3.9 Physical Inventory

This currently serves as the basis for comparing an inventory-reporting period with the previous reporting period. Current practice uses end of month physical inventory [calculated in net barrels per petroleum measurement tables (ASTM D1250 80, 5B, and 6B)] as an opening inventory for the next month's reporting period.

Sec. II-6.3.10 Facility Throughput

Facility throughput is product leaving a tank primarily through a truck loading rack with meters. Meters on truck loading racks are to be calibrated according to a set interval. They are also reconciled in conjunction with physical inventory taking as well as on a standalone basis. Quantity loaded shall be determined on a net basis using temperature from temperature probes mounted at or near the loading rack and gross gallon quantities from meter pulses. These throughput quantities shall be deducted from inventory.

Sec. II-6.3.11 Product Variation

A physical inventory can be taken to compare with the book inventory quantity, if necessary. The difference between the book and physical quantity is a product variation. Variations may be positive or negative. Statistical Process Control (SPC) is the basis for determining whether this variation should trigger an investigative effort to determine whether product is unknowingly being discharged.

Sec. II-6.3.12 Statistical Process Control (SPC)

Control limits (both upper and lower) are set for each product variation based upon historical information at each facility. Product variations between the control limits are considered to be OK and do not require an investigation or documentation. These variations inside of limits are considered to be a "random" occurrence that is an inherent part of the control process. Product variations outside the control limits are to be investigated using techniques outlined in Transportation's Terminal Operation and Procedures Manual with documentation required at both the terminal and Accounting. The control limits will be periodically checked to determine if they are still valid or whether process changes or improvements have invalidated them.

If a release is detected, personnel are directed to notify the proper authorities (see the Notifications Section).

(b) (7)(F)

[redacted]

Sec. II-6.6 Good Engineering Practices.

The Company's approach to preventing discharges is to assure that all facilities are properly designed, constructed, maintained and operated.

Some examples of good engineering practices may include but are not limited to the following:

Engineering Practices	
•	Components in the pipeline system are designed and constructed in accordance with written specifications.
•	Components are inspected to ensure that quality is maintained during material procurement and construction.
•	Trained personnel are used during the construction of the facilities.
•	Various testing methods are used during construction of the facilities.
•	External and internal corrosion control methods are used to maintain the facilities in the best possible condition.
•	A preventive maintenance program reduces the potential for component malfunction or failure
•	Company personnel are properly trained to operate and maintain the pipeline system
•	Company has an extensive safety and drug testing program for its employees and requires the same for its contractors.
•	Company systems are designed and operated with safety factors in place. For example, the maximum operating pressure of a system is always less than the design pressure of the system and the test pressure of the system.
•	Pressures are monitored and controlled so that the maximum operating pressures are not exceeded.
•	When appropriate, internal inspection tools are used or lines are subjected to additional hydrostatic testing to determine and assure their integrity.
•	All wastes are stored in accordance with applicable regulatory requirements (DOT containers that are non-leaking, closed, in good condition, properly marked/labeled, inspected to ensure integrity, etc.)

Sec. II-6.7 Third-Party Damage Prevention

If the systems are properly designed, constructed, operated and maintained, then the most probably source of discharge is due to third-party damage. In order to minimize the risk of damage caused by a third-party a number of steps may be taken, including, but not limited to the following:

Prevention of Third-Party Damage	
•	The facilities are designed to reduce the chance of third-party damage. For example, most of the facilities are buried or located within fenced and locked areas.
•	Areas especially sensitive to third-party damage are road, railroad, and water crossings. Pipelines in these areas usually have additional wall thickness, or burial depth, or are cased to reduce the chance of damage.
•	Company facilities are normally located on well- maintained and clearly marked rights-of-way.
•	Company facilities are normally monitored by aerial or other patrol at least once per week to check for encroachment and construction activities.
•	Company participates in one-call pipeline locating and notification systems where available.
•	Company conducts education programs to reduce the possibility of third-party damage.

Sec. II-6.8 Corrosion Mitigation

For external corrosion prevention, the Company generally prevents corrosion of buried pipelines by using approved long-life pipeline coatings supplemented with cathodic protection. Aboveground facilities are generally inspected annually and provided protective coating systems to prevent corrosive deterioration. These primarily include buildings, aboveground pipelines and tanks.

In order to prevent internal corrosion of the pipelines, the Company uses chemical injection, pigging and corrosion inhibitors, and inspects pipelines located in high population density areas and environmentally sensitive areas with in-line inspection pigs, where appropriate. A large number of pipelines are hydrostatically tested.

Sec. II-6.9 Spill Mitigation

Source control and mitigation involve anything from shutdown of operations to patching a leak, containing a spill, dispersing a vapor cloud, protecting a sensitive area, recovering the spilled material, or other such activities that are involved in an emergency response. Because of the infinite number of circumstances under which an incident could occur and the variety of equipment that could be involved, it is impractical to describe procedures that should be followed in all foreseeable emergency situations.

Sec. II-6.10 Tank Overfill and Fire Prevention

Each tank is provided with a connection for a semi-fixed fire protection system. Individual foam laterals that run from connections outside the dike areas serve each tank. The foam laterals are controlled by manual valves. Connections to the tanks depend on roof construction. Foam fire fighting capabilities are provided by the Refinery and/or the Linden Fire Department.

Each bulk storage tank is equipped with a liquid level gauging device and an independent high-level alarm system with audible and visual alerts. During product movements the operator and field personnel maintain radio communication. All tanks are also manually gauged to check the accuracy of the automatic liquid level gauging system.

Delivery personnel monitor tank levels during the filling period for small mobile/portable tanks to provide overfill protection.

Sec. II-6.10.1 Storage Tank Overfill Lines

All overflow or vent lines on bulk storage tanks, as well as the building heating oil and gasoline additive tanks, are directed into the tank's secondary containment areas. Overflow lines on the jet fuel and diesel fuel additive tanks are directed into the truck rack secondary containment.

Sec. II-6.11 Visual Tank Inspection

The visual tank inspection checklist presented below has been included as guidance for inspections and monitoring. Also included in the visual tank inspection will be an inspection of the tank foundation and associated piping. All tankage, pumping equipment, piping and related terminal equipment are inspected every working day for leakage, malfunctions of seals, etc. Storage tanks are inspected monthly and annually and findings are recorded. Example forms are included in this plan. These records shall be maintained for a minimum of five years.

Check tanks for leaks, specifically looking for:	
•	Drip marks
•	Discoloration of tanks
•	Puddles containing stored materials
•	Corrosion
•	Cracks
•	Localized dead vegetation

Check foundation for:	
•	Cracks
•	Discoloration
•	Puddles containing stored materials
•	Settling
•	Gaps between tank and foundation
•	Damage cause by vegetation roots

Check piping for:	
•	Droplets of stored material
•	Discoloration
•	Corrosion
•	Bowing of pipe between supports
•	Evidence of stored material seepage on valves and seals
•	Localized dead vegetation

Terminal operators visually inspect all tanks each working day for leaks. Daily tank gauges are reviewed for evidence of product loss that would indicate a leak in the tank. Any visible oil leaks from tank seams, gaskets, rivets and/or bolts are corrected immediately.

Sec. II-6.12 Secondary Containment Inspection

The secondary containment areas shown on the site plans will be inspected on an annual basis. The inspections will include checking for the following:

Dike or berm system:	
•	Level of precipitation in dike/available capacity
•	Operation status of drainage valves
•	Debris
•	Erosion
•	Location/status of pipes, inlets, drainage beneath tanks, etc.

Secondary containment:	
•	Cracks
•	Discoloration
•	Presence of stored materials (standing liquid)
•	Corrosion
•	Valve conditions

Retention and drainage ponds:	
•	Erosion
•	Available capacity
•	Presence of stored material
•	Debris
•	Stressed vegetation

Sec. II-6.13 Pipeline Inspections

All pipelines within the Company Pipeline System are monitored on a regular and routine basis. Control Center personnel monitor and control line pressures and product flow rate, operate remotely controlled valves, operate pumps and engines, and monitor the type of product currently in the line at any given point. These control centers are operated on a 24-hour basis. Should a leak occur, the operators monitoring the lines can have the line shut down within minutes. The operators can then dispatch field personnel to physically inspect the line in the area of the suspected leak.

(b) (7)(F) These lines are observed regularly by facility/pipeline maintenance personnel. In addition to these inspections, aircraft that fly the pipeline on a scheduled weekly basis inspect the lines.

Sec. II-6.14 Buried Piping

Nearly all piping has been moved above grade. Most of the remaining buried, underground lines run under roadways. Some piping appears as "buried", but is really only penetrating an elevated roadway or containment berm for a short distance, approximately 20 feet. Even though such penetrations require sealing to not compromise the containment, any leakage from short, elevated lengths would appear where the pipe penetrates the berm/roadway, rather than migrate vertically downward through compacted clay berms/roadways. This leakage would readily be detected by personnel during routine visual inspections.

There are no existing state-of-the-art leak detection devices available for retrofitting to existing buried piping. When a leak is detected from a buried pipe, the Company will excavate, examine, and evaluate the pipe for the cause of the failure. Localized pipe failures will be repaired or replaced. For extensive pipe failures requiring substantial reconstruction, the Company will upgrade to the standard specified under the DPCC regulations. For the purposes of this plan, substantial reconstruction is defined as more than 50 percent of the replacement value of an existing pipe section from valve to valve.

Facility practices generally prohibit the installation of buried pipes, other than water and sewer lines. The need for new buried product piping is evaluated on a case-by-case basis. If such a need is identified, the Company will install new buried piping to the standard specified under the DPCC regulations. Should new elevated roadway/containment berm penetrations be required for a project, they will be constructed according to current practices.

Sec. II-6.14.1 Exposed Buried Piping

If a section of buried pipe is exposed for any reason, it is carefully examined for deterioration, and, if found to be deteriorated, shall be repaired or replaced. Buried piping requiring substantial reconstruction or replacement shall be rerouted above grade, if possible, or upgraded to new buried piping standards.

Sec. II-6.14.2 Out-of-Service Pipes

If not in service for extended periods of time, terminal pipe connections are blind flanged, plugged or capped and appropriately marked. This practice applies to- all piping in the terminal where an open-ended line could exist, whether or not protected by valving.

Sec. II-6.14.3 Pipe Supports

In accordance with good engineering practice and petroleum industry standards, pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction of the pipeline.

Sec. II-6.14.4 Elevated Pipes

Elevated pipelines to the loading racks are sufficiently high and the supports adequately protected to prevent tank trucks from accidentally hitting them. Speed limit signs posted at the entrance of each loading rack bay limit any impact damage to aboveground pipelines.

Sec. II-6.15 Dike Drainage

Drainage of precipitation accumulation from dike areas is performed only after inspection of the accumulation to ensure compliance with applicable water quality standards. Any water possessing a film, sheen or discoloration on the surface is not discharged until such sheen has been physically removed with the use of absorbent pads.

Drain valves are sealed and locked at all times except when there is an operator on-site who:	
•	Inspects the water for a film, sheen, or discoloration;
•	Removes any film, sheen, or discoloration;
•	Monitors the discharge; and,
•	Records the discharge event in the SPCC plan.

Sec. II-6.16 High Level Alarms

High level alarms on storage tanks are inspected routinely to simulate actual operating conditions to ensure that overfill during tank filling operations are adequately detected. Results of high-level alarm inspections are recorded in the SPCC plan once every six months.

Sec. II-6.17 Rack Drain

Rack drains are inspected to ensure that any petroleum release from the loading facilities can be conveyed through clean, open drains into proper on-site containment. Results of the rack drain inspections are recorded in the SPCC plan every six (6) months.

Sec. II-6.18 Cathodic Protection System

Cathodic protection systems are inspected to ensure proper function. Results are updated in once every six (6) months.

Sec. II-6.19 Delivery Lines and Manifold

The facility tests the delivery lines and manifold on an annual basis with a two (2) hour recorded pressure test.

Sec. II-7 Emergency Response Equipment, Testing & Deployment

Sec. II-7.1 Response Equipment for Small Discharges

Response equipment for small discharges (< 50 barrels) will primarily come from contracted OSRO's as well as any Company equipment stored locally. Much of this equipment is utilized for day-to-day booming of vessels, as well as for immediate rapid response to all leaks/discharges by terminal personnel and contractors. The equipment can be operated by terminal personnel and/or contractor personnel listed in this Plan. The Management Response Team may authorize additional contractor-supplied equipment and personnel, as needed. This Plan discusses onsite tank storage capacity for recovered oil/water mixtures.

***All OSRO specific information will be detailed in the applicable ICP Geographical Annex.**

Sec. II-7.2 Response Equipment for Medium Discharges

Response equipment for medium (1,200 barrels) discharges again will come from Contacted OSRO's as well as from Company equipment stored locally. Other contractors may be called upon as well depending on the specific needs. These too are listed in the applicable ICP Geographical Annex.

Sec. II-7.3 Response Equipment for Worst-Case Discharges

Response equipment for a worst-case discharge at any Company operational facility/pipeline is located in the applicable ICP Geographical Annex. The Company has guaranteed through contract or other approved means the ability to ensure appropriate response capabilities to any area worst case discharge. In addition, the Company has also ensured the ability to sustain prolonged operations as well.

Sec. II-8 Waste Management Plan

Sec. II-8.1 Introduction

The following wastes may be generated and could be determined to be "hazardous":	
•	Paint Chips
•	Avgas Filters
•	Petroleum contaminated materials that are not considered “of-spec product”

Most of the wastes are "hazardous" due to the benzene concentrations in the wastes (>0.5 mg/l) or ignitability. The avgas filters are frequently determined to be "hazardous" due to the lead concentrations (>5.0 mg/l) in the filters. The paint chips are typically hazardous for lead, chromium or both (>5.0 mg/l).

The following materials are more frequently generated and are not considered a solid waste or a “hazardous waste”.

These materials are exempt from the definition of a solid waste because they are classified as an “off-spec product” destined for product reclamation.	
•	Tank bottom water
•	Loading rack runoff
•	Tank bottom sludge
•	Oil/water separate sludge

It is the purpose of the Terminal’s hazardous waste contingency plan to minimize hazards to human health and the environment in the event of an emergency. This plan is designed to address emergencies that may occur during operations at this facility involving hazardous wastes.

Sec. II-8.2 Applicability

The plan must be carried out immediately whenever there is a fire, explosion or release of **hazardous waste** that could threaten human health or the environment.

Sec. II-8.3 Amendments to Plan

The contingency plan must be reviewed and immediately amended whenever:	
•	Applicable regulations are revised
•	Plan fails in an emergency
•	Facility changes in design, construction, operation, maintenance, or any way increasing the potential for fires, explosions, or releases of hazardous waste, or changes the response necessary in an emergency
•	List of emergency coordinators changes
•	List of emergency equipment changes

Sec. II-8.4 Identification of Emergency Coordinator

The names, addresses and phone numbers (office and home) of all persons qualified to act as emergency coordinator are located ICP Geographical Annex 2 of this plan.

Sec. II-8.5 Emergency Procedures

Whenever there is an imminent or actual emergency situation the emergency coordinator or alternate must immediately activate the facility alarm systems or communications system. The actions that must be taken in the event of a release of hazardous waste to the air, soil or surface water at the facility are located in this Core Plan.

Sec. II-8.6 Evacuation Plan

Due to the characteristics of the hazardous wastes generated, evacuation of a facility should not be necessary. In the event evacuation is necessary, the facility evacuation plan should be followed. A description of the signal(s) to be used and evacuation routes is provided. The facility drainage plan can be located at the end of this section.

Sec. II-8.7 Notification Requirements

The only emergency that may occur with regard to the management of hazardous waste at the facility is a sudden or non-sudden release of hazardous waste. The reportable quantity (RQ) for spills of D018 waste is 10 pounds (1.2 gallons). Any spill equal to or greater than the RQ must be reported to the National Response Center. Reporting procedures should follow the guidelines provided in this Core Plan.

Sec. II-8.8 Arrangements with Agencies and Contractors

As required by 40 CFR 264.53, all Terminals will have provided the police departments, fire departments, hospitals and State and Local Emergency Response Teams that may be called upon to provide emergency services. In addition, the Company will make every effort to invite local agencies to participate, as appropriate, in any exercise or drill. .

Sec. II-8.9 Emergency Equipment

Emergency Equipment	
•	A list of all spill response equipment available in the event of a release is listed in the appropriate ICP Geographical Annex of this Core Plan. A list of spill response contractors to be used by the facility in the event of a release that could surpass the response capabilities of the facility is also located in appropriate ICP Geographical Annex of this Core Plan.
•	A list of emergency fire equipment at the facility is located in the Emergency Procedures Plan.
•	A description of the facility's communication equipment and plan is provided in this Core Plan.
•	A description of the facility's alarm systems is provided in this Core Plan.

Federal, state and local rules designed to ensure safe and secure handling of waste materials govern the waste disposal activities of the Company. To ensure proper disposal of recovered oils plus associated debris, the Company's Waste Management and Recycling Guide should be consulted/followed. The Company's Environmental Group will advise/support IC/UC on all waste management needs during an emergency response to ensure compliance with all applicable regulations and internal waste management policies and guidelines.

The Company must describe how and where the facility intends to recover, reuse, decontaminate or dispose of materials after a discharge has taken place. The appropriate permits required to transport or dispose of recovered materials according to local, State and Federal requirements must be addressed.

Material that must be accounted for in the disposal plan, as appropriate, include	
•	Recovered product
•	Contaminated equipment and materials, including drums, tank parts, valves, shovels
•	Personnel protective equipment
•	Decontamination solutions
•	Adsorbents
•	Spent Chemicals

These plans must be prepared in accordance with Federal (e.g., the Resource Conservation and Recovery Act [RCRA], State and local regulations, where applicable.

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

Initial Waste Management Concerns:	
•	Skimmer Capacity
•	Periodic removal of contained oil
•	Adequate supply of temporary storage capacity and materials

The following action items should be conducted during a spill response:	
•	Development of a site-specific Safety and Health Plan addressing the proper PPE and waste handling procedures
•	Development of a Disposal Plan
•	Continuous tracking of oil disposition in order to better estimate amount of waste that could be generated over the short and long-term
•	Organization of waste collection, segregation, storage, transportation and proper disposal
•	Minimization of risk of any additional pollution
•	Regulatory review of applicable laws to ensure compliance
•	Documentation of all waste handling and disposal activities
•	Disposal of all waste in a safe and approved manner

Good hazardous waste management includes:	
•	Reusing materials when possible
•	Recycling or reclaiming waste
•	Treating waste to reduce hazards or reducing amount of waste generated

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

Overall Objectives	
•	Worker Safety
•	Waste Minimization
•	Cost-Effectiveness
•	Minimization of Environmental Impacts
•	Proper Disposal
•	Minimization of present and future environmental liability

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

Designated Site Activities	
•	Storage
•	Waste segregation
•	Cost-Effectiveness
•	Packaging
•	Transportation

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

A general flowchart for waste management guidelines is shown in Figure II-8.1. An overall checklist for containment and disposal is located in Figure II-8.2.

Sec. II-8.10 Storage

During an oil spill the volume of oil that can be recovered depends on the storage capacity available. Typical short-term storage methods are summarized in Figure II-8.3. If storage containers such as bags or drums are used, the container should be clearly marked and/or color-coded to indicate the type of material or waste contained and/or the ultimate disposal option.

Figure II-8.1 – Waste Management Flowchart

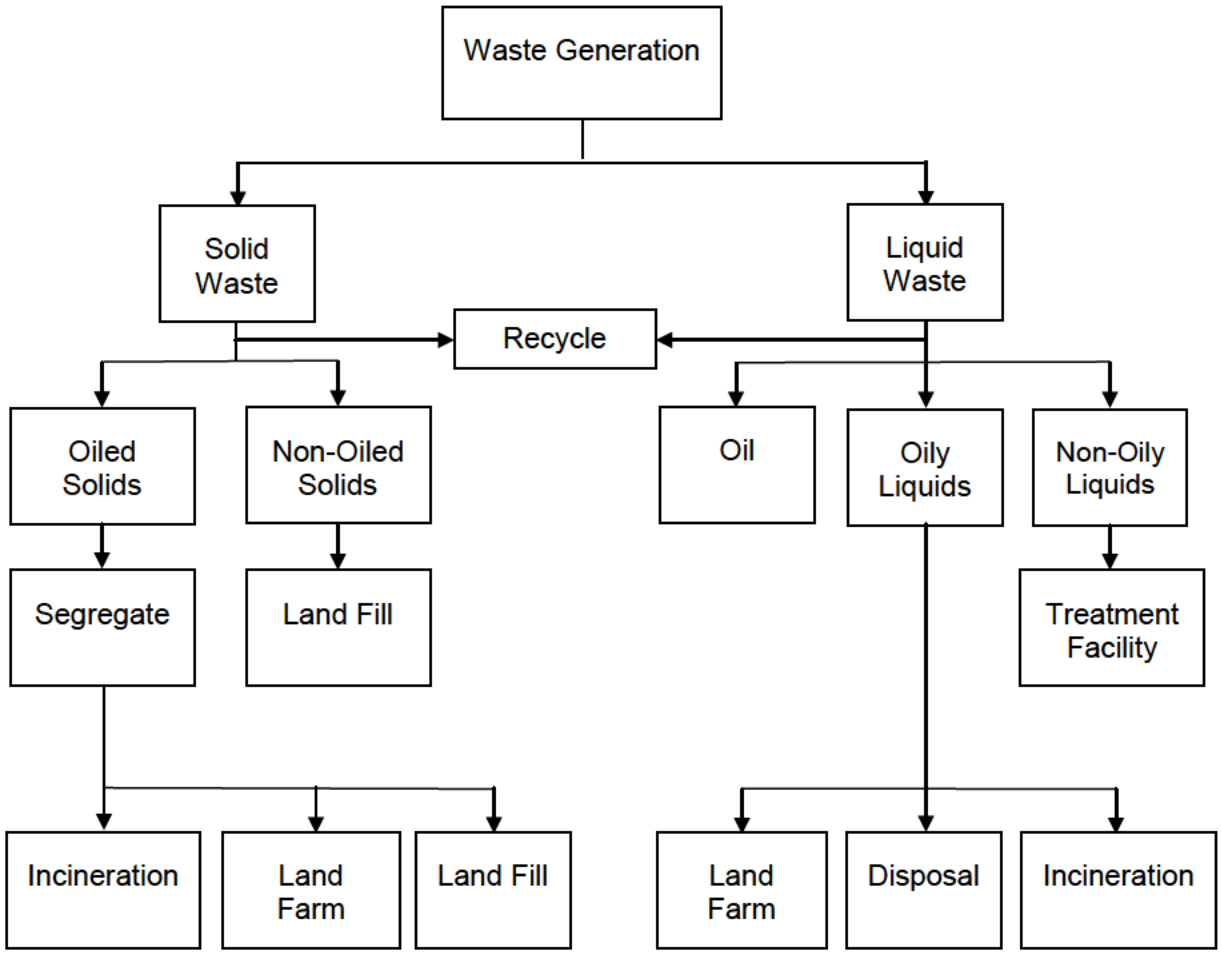

Figure II-8.2 – General Waste Containment and Disposal Checklist

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

Figure II-8.3 – Temporary Storage Methods

	PRODUCT						
Containment	OIL	OIL/WATER	OIL/SOIL	OIL/DEBRIS (Small)	OIL/DEBRIS (Medium)	OIL/DEBRIS (Large)	Capacity
Drums			X	X			.2-.5 yd^3
Bags			X	X	X		1-2 yd^3
Boxes			X	X	X		1-5 yd^3
Open Top Rolloff	X	X	X	X	X	X	8-40 yd^3
Roll Top Rolloff	X	X	X		X	X	15-25 yd^3
Vacuum Box	X	X					15-25 yd^3
Frac Tank	X	X					500-20,000 gal
Poly Tank	X	X					200-4,000 gal
Vacuum Truck	X	X	X				2,000-5,000 gal
Tank Trailer	X	X					2,000-4,000 gal
Barge	X	X					3,000+ gal
Berm, 4 ft	X	X	X	X	X	X	1yd^3
Bladders	X	X					25-1,500 gal

Approved waste management facilities can be located on the Company website:
http://hse.conocophillips.net/EN/environmental/waste/program/Pages/index.aspx

Sec. II-9 Disposal Plan

Oil will be recovered and water will be disposed of as normal produced water through permitted UIC injection wells or third-party disposal wells. Solid waste recovered during clean-up activities will be stored in secure areas (lined, bermed temporary storage areas, lined pits, or tanks) until permits can be secured for proper disposal.

Disposal Options for contaminated soil, depending upon analysis, include but are not limited to the following:	
•	Surface remediation
•	Enhanced surface remediation
•	Third party recycling (adsorbents)
•	Third party disposal

These disposal options will be dependent upon laboratory analysis per current federal, state and local regulation. The Company Waste Management and Recycling Guide should be consulted for the appropriate analytical requirements for each waste stream. Necessary federal, state and local permits will be obtained by Company Environmental personnel.

Oil contaminated absorbent materials will be stored in covered secured containers and ultimately shipped for recycling.

Spilled material will be skimmed to recover product and minimize contamination of vegetation and soil. Low pressure flushing will also be used to enhance recovery of liquid product. Absorbent materials may be used to recover spilled material that vacuum trucks are unable to pick up. Absorbent materials (and booms) are then recycled and returned for potential future use. Other oil contaminated booms, boats, and boots, will be cleansed by qualified contractors or wiped down on site with rags. The rags will be disposed of properly.

The Company has contracted with USCG Certified OSROs for each ICP Geographical Annex. Contact information and response capability for each OSRO can be found in that particular ICP geographically Annex.

The OSRO(s) contracted to respond in each ICP Geographical Annex is capable of being on site and ensuring planned temporary storage and waste disposal activities are accomplished within the appropriate tier times. They will provide sufficient temporary storage to ensure enough capacity is available to respond to a worst-case discharge.

Figure II-9.1 Disposal Plan Form

Disposal Plan				**Page 1 of 3**
Date:		Location:		
Source of Release:				
Amount of Release:				
Incident Name:				
State On-Scene Coordinator:				
Federal On-Scene Coordinator:				
Time Required for Temporary Storage:				
Proposed Storage Method:				
Identified Storage Location / Staging Area:				
Disposal Priorities				
Sample Date:		Sample ID:		
Analysis Required (Type):				
Laboratory Performing Analysis:				
Disposal Options				
	Available	Likely	Possible	Unlikely
Landfill				
In-situ Bio-Remediation				
In-situ Burn				
Pit Burning				
Hydrocyclone				
Off Site Incineration				
Reclaim				
Recycle				
Resources Required for Disposal Option(s)				

Figure II-9.1 Disposal Plan Form (Cont'd)

Disposal Plan	Page 2 of 3
General Information	
Generator Name:	
US EPA ID#:	
Waste Properties:	
Waste Name::	
US EPA Waste Code:	
State Waste Code:	
EPA Hazardous Waste:	
Waste Storage and Transportation:	
Proposed Storage Method:	
Proposed Transportation Method:	
Permits Required for Storage:	
Permits Required for Transportation:	
Estimated Storage Capacity:	
Number and Type of Storage Required:	
Local Storage Available for Temporary Storage of Recovered Oil:	
PPE Required for Waste Handling:	
Waste Coordinator	Date:

Figure II-9.1 Disposal Plan Form (Cont'd)

Disposal Plan		Page 3 of 3
Sample Information		
Incident Name:		
Sample Number:	Date Sent:	
Source of Sample:		
Date Sample Data Received:		
Waste Hazardous? (Circle One)	YES	NO
Permits/Variances Requested:		
Approval Received on Waste Profile:		
Date Disposal Can Begin:		
Disposal Facilities:		
Profile Number:		
Storage Contractors:		
Waste Transporters:		
PPE Designated and In Accordance With Site Safety Plan:		
Additional Information:		
Waste Coordinator		Date:

Sec. II-10 Containment and Recovery

Sec. II-10.1 General

Containment and recovery refers to the techniques or methods that can be employed to contain and recover petroleum spills on water or the containment of petroleum spills flowing overland. Recovery of terrestrial spills is often very similar, or uses the same techniques as shoreline cleanup.

The following considerations should be taken into account when planning or implementing containment and recovery operations:	
•	Containment is most effective when conducted near the source of the spill where the oil has not spread over a large area and the contained oil is of sufficient thickness to allow effective recovery and/or cleanup.
•	Feasibility is generally dependent on the size of the spill, available logistical resources, implementation time, and environmental conditions or the nature of the terrain in the spill area.
•	Aquatic (water) containment is primarily conducted through the use of oil spill containment booms.
•	Skimmers are usually the most efficient means of recovery of aquatic spills, although pumps, vacuum systems, and sorbents can also be effective, particularly in smaller waterways.
•	Terrestrial (land) containment typically involves berms or other physical barriers.
•	Recovery of free petroleum from the ground surface is best achieved by using pumps, vacuum sources, and/or sorbents.

Sec. II-10.2 Technique Selection - Terrestrial Containment and Recovery

The primary factors influencing terrestrial containment and recovery are:	
•	**Size** - Most containment techniques provide limited storage capacity.
•	**Slope** - Berms and barriers are generally less effective on steeper slopes and accessibility may be limited.
•	**Surface texture** - Rough surfaces with natural ridges and depressions enhance containment and should be taken advantage of whenever possible.
•	**Substrate permeability** - Highly permeable sediments will allow rapid penetration of oil into the substrate, thus complicating containment and recovery.
•	**Existing drainage courses** - Oil is more easily contained and recovered if it is flowing within, or can be diverted to, existing natural or manmade drainage structures.
•	**Stormwater runoff** - Runoff generally requires the containment of larger quantities of liquids and complicates oil recovery.

Sec. II-10.3 Technique Selection - Aquatic Containment and Recovery

Selection of an appropriate aquatic containment, protection and recovery technique depends on a number of factors including:	
•	**Current speed** - Surface currents greater than 1 knot can cause boom failure or entrainment of oil beneath the boom when the boom is deployed perpendicular to the current. If deployed at an angle, boom can generally be effective up to 2-3 knots.
•	**Water depth** - Depths greater than 50 feet can complicate boom anchor placement, whereas depths less than 2 feet can preclude effective boom use.
•	**Channel width** - Widths of more than 200 to 300 feet will generally preclude using booms to completely contain oil floating in the waterway, particularly if strong currents are present.
•	**Slick thickness** - Recovery effectiveness with pumps/vacuum systems and skimmers decreases as slick thicknesses decline, becoming relatively ineffective for very thin slicks or sheens.
•	**Shoreline access** - Obstacles (rocks, debris, man- made structures, etc.) in the water or steep or densely vegetated shorelines could restrict access and present safety and operational problems.
•	**Anchor points** - Soft bottom substrates can complicate boom anchor placement.
•	**Safety** - High currents and winds, large obstacles, and other dangerous conditions could present safety hazards and preclude certain techniques.

The OSRO(s) contracted to respond in each ICP Geographical Annex is capable of being on site and ensuring spill containment activities are accomplished within the appropriate tier times. They will provide sufficient containment equipment to ensure enough capacity is available to respond to a worst-case discharge.

Sec. II-10.4 Protection Technique Selection

Technique	Description	Primary Logistical Requirements	Use Limitations[1]	Potential Environmental Effects
Spills on Land				
A. Containment / Diversion Berms	Construct earthen berms ahead of advancing surface spill to contain spill or divert it to a containment area.	Equipment* 1 backhoe, bulldozer, front-end loader, or set of hand tools Personnel 4-8 Workers	• Steep Slopes • Porous substrate	• Disturbance to surface soils and vegetation • Increased oil penetration
B. Storm Drain Blocking	Block drain opening with sediments, plastic sheet, boards, etc. and secure prevent oil from entering drain.	Equipment* Misc. hand tools, 1 board, plastic sheet, mat, etc. Personnel 1-2 Workers	• May be advantageous for oil to enter drain • Heavy precipitation	• Increased oil penetration • Oil can spread to other areas
C. Blocking Dams	Construct dam in drainage course/stream bed to block and contain flowing oil. Cover with plastic sheeting. If water is flowing, install inclined pipes during dam construction to pass water underneath.	Equipment* 1 backhoe, bulldozer, front-end loader, or set of hand tools, 1 plastic sheeting roll Personnel 4-6 Workers	• Upstream storage capacity • Flowing water	• Increased oil penetration
D. Culvert Blocking	Block culvert opening with plywood, sediments, sandbags, etc. to prevent oil from entering culvert	Equipment* Misc. hand tools, misc. plywood, sandbags, etc Personnel 3-4 Workers	• Upstream storage capacity • Flowing water	• Increased oil penetration
E. Interception Trench	Excavate ahead of advancing surface/ near-surface spill to contain oil. Cover bottom and downgradient side with plastic.	Equipment* 1 backhoe or set of hand, tools, misc. plastic sheeting Personnel 3-6 Workers	• Slope • Depth to near-surface flow	• Increased oil penetration • Disturbance to surface soils and vegetation

Sec. II-10.4 Protection Technique Selection (Cont'd)

Technique	Description	Primary Logistical Requirements	Use Limitations[1]	Potential Environmental Effects
Spills on Water				
F. Diversion Booming	Boom is deployed from the shoreline at an angle towards the approaching slick and anchored or held in place with a work boat. Oil is diverted towards the shoreline for recovery.	Equipment* 1 boat, 3 anchor systems (min), 100 feet boom (min) Personnel 3 workers plus boat crew	• Currents >2-3 kts • Waves > 1-2 ft • Water depth >50 feet (anchoring) • Sensitive shorelines	• Minor substrate disturbance at anchor points • Heavy oiling at shoreline anchor point
G. Narrow Channel Containment Booming	Boom is deployed across entire river channel at an angle to contain floating oil passing through channel.	Equipment* 1 boat, vehicle, or winch; 1-2 booms (1.2 x channel width each); 2-10 anchor systems Personnel 2-3 Workers	• Currents >2-3 kts • Water depth >50 feet (anchoring) • Sensitive shorelines	• Minor substrate disturbance at anchor points • Heavy shoreline oiling at downstream anchor point
H. Sorbent Barriers	A barrier is constructed by installing two parallel lines of stakes across a channel, fastening wire mesh to the stakes, and filling the space between with sorbents.	Equipment* (per 100 ft of barrier): misc. hand tools, 1 boat, 20 fence posts, 200 ft wire mesh, 200 ft^2 sorbents, misc. fasteners, support lines, additional stakes, etc. Personnel 2-3 Workers	• Water depths >5-10 feet • Currents >0.5 kts • Soft substrate	• Minor substrate disturbance at post and shoreline anchor points • High substrate disturbance if boat is not used
I. Exclusion Booming	Boom is deployed across or around sensitive areas and anchored in place. Approaching oil is excluded from area.	Equipment* (per 500 ft of boom): 1 boat, 6 anchor systems, 750 ft boom (min) Personnel 3 workers plus boat crew	• Currents >1-2 kts • Waves >1-2 feet • Water depth >50 feet (anchoring)	• Minor substrate disturbance at anchor points

Sec. II-10.4 Protection Technique Selection (Cont'd)

Technique	Description	Primary Logistical Requirements	Use Limitations[1]	Potential Environmental Effects
Spills on Water (Cont'd)				
J. Deflection Booming	Boom is deployed from the shoreline away from the approaching slick and anchored or held in place with a work boat. Oil is deflected away from shoreline.	Equipment* 1 boat, 5 anchor systems, boom (200 feet) Personnel 3 workers plus boat crew	• Currents >2-3 kts • Waves >1-2 feet • Water depth >50 feet (anchoring) • Onshore winds	• Minor substrate disturbance at anchor points • Oil is not contained and may contact other shorelines
K. Inlet Dams	A dam is constructed across the inlet or channel using local shoreline sediments to prevent oil from entering inlet. Dam can be covered with plastic to minimize erosion.	Equipment* 1 backhoe, bulldozer, front-end loader, or set of hand tools, 1 plastic sheeting roll Personnel 2-6 workers	• Water outflow • Inlet depth >5 feet • Excessive inlet width	• Sediment/vegetation disturbance at borrow areas • Inlet substrate disturbance • Increases suspended sediments • Water in inlet can become stagnant
L. Debris / Ice Exclusion	Install fence barrier upstream of containment site to exclude debris/ice	Equipment* (per 100 ft of barrier): misc. hand tools, 1 boat, 10 fence posts, 100 feet cyclone fence, misc fasteners, support lines, etc. Personnel 2-3 workers	• Water depth >5-10 feet • Currents >3-4 kts • Soft substrate	• Minor substrate disturbance at post an anchor points

[1] In addition to implementation and accessibility.
* Need to establish a safe perimeter and follow safety precautions as appropriate before work begins.

Sec. II-10.5 Shoreline and Terrestrial Cleanup

Sec. II-10.5.1 General

In the event that terrestrial sediments do become oiled or that petroleum contacts and becomes stranded on a shoreline, cleanup operations should be undertaken to minimize the environmental effects of the petroleum. In most instances, cleanup efforts are not subject to the same time constraints as containment, recovery, and protection operations. As a result, better planning and greater attention to detail is possible. The exception is where there is a high probability of stranded oil becoming remobilized and migrating to previously unaffected areas. In this case, cleanup operations should be implemented immediately.

The following items should be considered in detail:	
•	Documentation of the location, degree, and/or extent of oil conditions
•	Evaluation of all environmental, cultural, economic, and political factors
•	Cleanup technique selection
•	Mitigation of physical and environmental damage associated with cleanup technique implementation
•	Cost-effectiveness

The shoreline or terrestrial oil conditions can range from those which require immediate and thorough cleanup to lightly oiled areas where no action may be the most environmentally sound option. The amount and type of oil, shoreline sensitivity, substrate or shoreline type, intrusive nature of the candidate techniques, and shoreline exposure are all factors that influence technique selection and whether or not cleanup will be required.

Sec. II-10.5.2 Cleanup Technique Selection - Shoreline

The selection of an appropriate shoreline cleanup technique is primarily dependent on the following factors:	
•	**Substrate type** - Finer-grained sediments typically require different techniques than coarse- grained sediments.
•	**Oil conditions** - Heavier oil conditions and larger areas may require more intrusive or mechanical methods, whereas lighter conditions may not require any form of cleanup. For example – removing lighter oils in a marsh area or wetland may cause more harm to the environment than allowing for natural attenuation and biodegrading.
•	**Shoreline slope** - Heavy equipment may not be usable on steeper shorelines.
•	**Shoreline sensitivity** - Intrusive techniques may create a greater impact than the oil itself.
•	**Oil penetration depth** - Significant penetration can reduce the effectiveness of several techniques.

Sec. II-10.5.3 Cleanup Technique Selection - Terrestrial

The selection of an appropriate terrestrial cleanup technique is primarily dependent on the following factors:	
•	**Size** - Larger areas will generally require the use of mechanical methods, whereas manual techniques can be used for smaller areas.
•	**Slope** - The use of heavy equipment is often restricted to gradually sloped areas, and manual techniques may be considered unsafe if used on steep terrain.
•	**Sediment type** - Softer sediments may reduce trafficability for heavy equipment and the presence of coarser sediments and bedrock could also restrict the use of certain types of heavy equipment.
•	**Oil penetration depth** - Significant penetration may require the use of heavy equipment or special subsurface remediation techniques.
•	**Impacted groundwater** - Special subsurface remediation techniques would likely be required.

Detailed containment and recovery guidelines, including diagrams and descriptions are described in the **Company's Operations Field Response Manual.**

The OSRO(s) contracted to respond in each ICP Geographical Annex are capable of being on site and ensuring spill recovery activities are accomplished within the appropriate tiered response times. They will provide sufficient recovery equipment to ensure enough capacity is available to respond to a worst-case discharge.

Sec. II-10.6 Non-Mechanical Response Options

Non-mechanical response options that could be used in responding to a spill include:	
•	Chemical treatment / dispersants
•	Bioremediation
•	In-situ Burning

Although the physical control and recovery of spilled oil is advocated and generally preferable, such actions are not always possible or practical because of factors including safety hazards, remote spill sites, or weather. When non-mechanical methods can result in reduced human hazard or environmental damage, consideration of their use is appropriate but will require regulatory approval.

Sec. II-10.7 Dispersants – Criteria for Use

Consideration of dispersant use during a spill must account for all aspects of the situation including:	
•	Nature of the oil
•	Resources at risk
•	Adequacy of cleanup techniques
•	Natural dispersion
•	Time
•	Logistics
•	Economics
•	Chemical dispensability of the oil
•	Nature of the oil/dispersant mixture

Special considerations such as threatened or endangered species, critical habitats, historical or cultural sites, and other structures must also be considered in the decision process.

Sec. II-10-7.1 Approval Process

All pre-approved dispersants are found in the NCP product schedule. This list is updated on a monthly or bimonthly basis. When considering dispersant use, only a product on this list may be used except during an emergency situation such as an immediate threat to human life. The Federal On-Scene Coordinator (FOSC) may authorize the use of dispersants when concurrence has been received by the RRT. In the case where dispersants are necessary due to an immediate threat, the FOSC may authorize their use and inform the RRT of the action by the most rapid mean of communication available.

Sec. II-10.8 In-situ Burning

When mechanical recovery of spilled oil is not feasible, in-situ burning should be considered as a potentially viable option. Since burning presents a potential safety and air pollution hazard to the surrounding area, approval from appropriate regulatory agencies is required.

In-situ burning alters the composition of the spilled oil by eliminating anywhere from 90 to 99 percent of the original volume of oil provided it is controlled within a fire resistant boom or other containment system. A portion of the original oil is released into the atmosphere as soot and gaseous emissions. Solid or semi-solid residues typically remain following a burn but are relatively easy to retrieve. They can be further reduced in volume through repeated burns, and ultimately are collected and removed from the marine environment.

Sec. II-10.8.1 Evaluation

In-situ burning generates a thick black smoke that contains primarily particulates, soot, and various gases (carbon dioxide, carbon monoxides, water vapor, nitrous oxides and PAHs). The components of the smoke are similar to those of car exhaust. Of these smoke constituents, small particulates less than 10 microns in diameter, known as PM-10, (which can be inhaled deeply into the lungs) are considered to pose the greatest risk to humans and nearby wildlife. Each affected area is considered on a case-by-case basis.

Decisions to burn or not to burn oil in areas considered case-by-case are made on the basis of the potential for humans to be exposed to the smoke plume, and pollutants associated with it. PM-10 exposure is generally limited to 150 micrograms per cubic meter. Smoke plume modeling is done to predict which areas might be adversely affected. In addition, in-situ burning responses require downwind air monitoring for PM-10. Aerial surveys are also conducted prior to initiating a burn to minimize the chance that concentrations of marine mammals, turtles and birds are in the operational area and affected by the response. SMART (Special Monitoring for Applied Response Technologies) protocols are used. They recommend that sampling is conducted for particulates at sensitive downwind sites prior to the burn (to gather background data) and after the burn has been initiated. Data on particulate levels are recorded and the Scientific Support Team forwards the data and recommendations to the Unified Command.

The potential for implementing a successful burn of spilled oil depends upon the knowledge and experience of those responsible for the assessment of the spill situation. Review of the spill conditions, together with the above spill checklist, will ensure that the safety issues, the benefits, and the environmental impacts will have been examined carefully. While steps may be taken to move critical equipment into position for a possible burn, there will be no attempt to ignite spilled oil without prior authorization from both Federal and/or State On-Scene Coordinators.

Before a spill on water is ignited, several factors must be considered:	
•	Oil type, amount and condition
•	Environmental conditions
•	Availability of personnel and equipment
•	Timing
•	Human safety
•	Danger of fire spreading
•	Presence of explosive vapors
•	Damage to nearby habitats that may prolong natural recovery

Sec. II-10.8.2 Approval Process and Monitoring

When a request for an in-situ burn is made:	
•	The burn must be outside the corporate city limits, except as deemed necessary by the local fire department.
•	Wind direction should move the smoke away from the city and/or populated Areas
•	Burning must be at least 300 feet from any adjacent properties.
•	Burning should commence between the hours of 9:00 am and 5:00 pm of the same day.
•	Wind speed should be between 6 and 23 mph during the burn period.
•	Burn should not be conducted during persistent atmospheric thermal inversions.

In general, SMART is conducted when there is a concern that the general public may be exposed to smoke from the burning oil. It follows that monitoring should be conducted when the predicted trajectory of the smoke plume indicates that the smoke may reach population centers, and the concentrations of smoke particulates at ground level may exceed safe levels. Monitoring is not required, however, when impacts are not anticipated.

Execution of in situ burning has a narrow window of opportunity. It is imperative that the monitoring teams are alerted of possible in situ burning and SMART operations as soon as burning is being considered, even if implementation is not certain. This increases the likelihood of timely and orderly

The monitoring teams are deployed at designated areas of concern to determine ambient concentrations of particulates before the burn starts. During the burn, sampling continues and readings are recorded both in the data logger of the instrument and manually in the recorder data log.

After the burn has ended and the smoke plume has dissipated, the teams remain in place for sometime (15-30 minutes) and again sample for and record ambient particulate concentrations. During the course of the sampling, it is expected that the instantaneous readings will vary widely.

However, the calculated time-weighted average readings are less variable, since they represent the average of the readings collected over the sampling duration, and hence are a better indicator of particulate concentration trend. When the time-weighted average readings approach or exceed the Level of Concern (LOC), the team leader conveys this information to the In-Situ Burn Monitoring Group Supervisor (ISB-MGS) who passes it on to the Technical Specialist in the Planning Section (Scientific Support Coordinator, where applicable), which reviews and interprets the data and passes them, with appropriate recommendations, to the Unified Command.

SMART activities are directed by the Operations Section Chief in the ICS/UCS. It is recommended that a "group" be formed in the Operations Section that directs the monitoring effort. The head of this group is the Monitoring Group Supervisor. Under each group there are monitoring teams. At a minimum, each monitoring team consists of two trained members: a monitor and assistant monitor. An additional team member could be used to assist with sampling and recording. The monitor serves as the team leader. The teams report to the Monitoring Group Supervisor who directs and coordinates team operations, under the control of the Operations Section Chief.

Communication of monitoring results should flow from the field (Monitoring Group Supervisor) to those persons in the ICS/UCS who can interpret the results and use the data. Typically, this falls under the responsibility of a Technical Specialist on in-situ burning in the Planning Section of the command structure. The observation and monitoring data will flow from the Monitoring Teams to the Monitoring Group Supervisor. The Group Supervisor forwards the data to the Technical Specialist. The Technical Specialist or his/her representative reviews the data and, most importantly, formulates recommendations based on the data. The Technical Specialist communicates these recommendations to the ICS/UCS. Quality assurance and control should be applied to the data at all levels. The Technical Specialist is the custodian of the data during the operation, but ultimately the data belongs to the ICS/UCS incident files. This will ensure that the data is properly archived, presentable, and accessible for the benefit of future monitoring operations.

Sec. II-10.9 Bioremediation

Sec. II-10.9.1 General

Bioremediation is the process of applying nutrients (fertilizer containing nitrogen and phosphorus) or genetically engineered bacteria to oiled terrestrial or shoreline areas to accelerate the natural biodegradation process. During this process, micro-organisms (bacteria) oxidize hydrocarbons, ultimately converting them to carbon dioxide and water. Biodegradation occurs primarily at the oil/water or oil/air interface and is limited by oxygen, moisture, and nutrient availability. It is also sensitive to temperature; the lower the ambient temperature, the lower the rate. If nutrients are used, they must be supplied in such a way that they will not be washed away by tides or any water runoff.

Sec. II-10.9.2 Evaluation

The decision to use bioremediation treatment should be based on the type of spill, the character of the area impacted, and the local political jurisdiction. In some cases, other forms of cleanup may be required in conjunction with nutrient addition to achieve the desired enhancement rate. Extensive efforts to achieve more acceptance of this technology are underway. As in the case of other oil spill response chemicals, approval must be obtained from the FOSC and SOSC before the nutrients are applied and the products must be listed on government product schedules where required. An expert should be consulted.

The use of biological additives is regulated under Subpart J of the NCP (40 CFR 300.900). Under the NCP, options for the authorization of biological agents are outlined, including a provision for conditional preapproval for use under certain conditions and in certain locations. Consult with the FOSC to determine whether an applicable preauthorization has been approved. The current application and approval procedure includes state approval and does not preempt the States from having their own testing criteria.

The Incident Commander will be responsible for providing the FOSC and SOSC with incident specific information needed to approve the conduct of bioremediation operations.

Sec. II-11 Water Quality and Sediment Quality Analysis

If the situations requires, following a release of oil to a waterway, Company will attempt to gather background data to determine the current conditions of the impacted waterway and sediments. An attempt will be made to collect samples ahead of the plume to determine current background conditions. Water quality data and sediment quality data will also be collected from within the impacted area to determine the changes in conditions. Following cleanup efforts, additional sampling will be conducted to demonstrate the effectiveness of the cleanup operations.

The sampling protocol will be determined by the volume and type of material spilled. In general, near surface water samples will be obtained along with sediment samples. In some cases, depending on spill-specific conditions, stratified sampling may be required. The following EPA analytical methods may be utilized to determine if oil from the Company release exists on the bottom sediments or within the water column. This is not intended to be an exhaustive list, but may be used as a guideline when deciding which methods to use.

Sec. II-11.1 EPA Analytical Methods**

Product	Constituent	Possible EPA Methods
GASOLINE	Benzene	8020, 8240
	Toluene	8020, 8240
	Ethylbenzene	8020,8240
	Xylenes	8020, 8240
DIESEL	Polynuclear Aromatic Hydrocarbons	8100, 8270, 8310
	BTEX	8020, 8240
OILS	Total Petroleum Hydrocarbons	418.1, Modified 8015

** Contact your Environmental Representative for assistance in selecting the proper analytical methods.

Sec. II-12 Drainage Plan

In addition to automated alarms and routine inspections to tanks and dikes, procedures are in place to further ensure the safety of personnel, equipment and protection of the environment. These procedures are intended to be followed at all times to maintain the safety of the facility and to mitigate or prevent the damage potential of a large-scale discharge.

The following elements will be addressed under general facility, storage tanks, the truck rack area, tank water draining, or facility piping and valves as appropriate:	
•	Available containment volume
•	Route of drainage
•	Drainage through construction materials
•	Type/quantity of valves and separators
•	Sump pump capacities
•	Weir/boom containment capacity and location
•	Other cleanup material
•	General Facility: The available containment volume of this facility is location in ICP Geographical Annex 1 of this plan.

Sec. II-12.1 Storage Tanks

Each storage tank has a diked area. However, adjacent tanks share common dike walls and accumulated liquids can be drained from one diked area to another through valve regulated drain lines. Accumulated water is removed from diked areas through locked drain valves as necessary. Water accumulation within diked areas is visually inspected for petroleum products and any accumulation of oil is removed with sorbent materials before the water is removed. Drain valves are locked closed when not in use.

Drainage from undiked areas is controlled as follows: The two dock loading/unloading areas are equipped with spill pans for catching spilled oil. These pans are covered when there is no barge loading in order to minimize the amount of rainwater that collects in the pans. The pans are piped into a quick drain system, consisting of large containment pits that would channel any spilled product into a 10,000-gallon storage tank. After a rain event, the water in the containment pit is visually inspected prior to being pumped out.

Inspections and drainage events are recorded in the terminal SPCC logbook that is retained for a period of three years.

Sec. II-12.2 Truck Rack Area

There is an aboveground sump for the truck loading rack area. The sump will handle a small amount of storm run-off and has the petroleum containment capacity of a tank truck compartment. The loading rack is covered in order to reduce the amount of rainfall entering the system. Accumulated oil and water is hauled to a company approved treatment facility. All other non-contact storm water leaves the facility via sheet flow.

Sec. II-12.3 Tank Water Drains

Discharge from tank water drains are prevented by:	
•	Procedures require terminal personnel to be present at all times during the water draining operation.
•	All water from the tank is drained into a water collection tank for disposal under guidelines established by applicable pollution control laws, rules and regulations.

Sec. II-13 Detection/Mitigation Procedures

Sec. II-13.1 Discharge Detection

The Company has a number of safety systems and practices in place to prevent the occurrence and mitigate the subsequent impact of accidental discharges. The systems are designed to alert operators with alarms and provide automatic shut-in functions in the event of a discharge. Pipeline operators are trained to respond to the various system alarms in order to identify and control releases immediately.

SAFETY SYSTEM LIST	
•	Prevention practices and procedures
•	Pipeline and breakout tank inspection and testing procedures
•	Discharge detection equipment and procedures
•	Recognition of emergency conditions and prediction of the consequences
•	Leak response actions
•	Public education

The detection of a discharge from the Company pipeline system may occur in a number of ways, including:	
•	Discharge detection by Company personnel, pipeline patrols, or the general public
•	Automated discharge detection by the Supervisory Control and Data Acquisition (SCADA) system at the Control Center which monitors flow and pressure on most lines as well as breakout tank oil levels.
•	Various other procedures and practices

Sec. II-13.2 Discharge Detection by Personnel

All pipelines operated by the Company are equipped with high and low pressure sensors. In the event of a change in pipeline pressure beyond a specified set point, the pressure sensors will trigger an alarm to the facility operator and/or shut down the pipeline and process equipment.

The routine responsibilities that ensure releases will be detected and mitigated as soon as possible by IC/UC personnel may include, but are not limited to the following:	
•	Regularly scheduled visual and aerial monitoring.
•	Routine walk-through and monitoring of process equipment to ensure proper operation of all equipment at each facility.
•	Immediate response to alarms and signals that may indicate a possible release.
•	Identification and control of the source as soon as safely possible.
•	Notify the Initial Incident Commander.

The Company operators will perform the following procedures when they are alerted to a potential pipeline emergency:		
Procedures	✓	Date/Time
Ensure that the pipeline pressure sensing equipment is not malfunctioning.	☐	__/___/___ [00:00]
The supervisor will request a field inspection of the pipeline ROW in question to identify the source of the suspected leak.	☐	__/___/___ [00:00]
In the event an oil leak is discovered along the pipeline, this Plan will be activated.	☐	__/___/___ [00:00]
In the event a leak is not found, an investigation into the cause of the pressure change will continue until determined.	☐	__/___/___ [00:00]

Right-of-way (ROW) marker signs are installed and maintained at road crossings and other noticeable points and provide an emergency 24-hour telephone number to be used by any person wishing to report a pipeline leak.

Sec. II-13.3 Automated Discharge Detection

Sec. II-13.3.1 Pressure and Flow Monitors

Most pipelines have hi-low pressure and flow monitors that exercise local control or transmit data to the Control Center or both. These systems are set to alarm or shut down on preset deviations of pressure or flow. In case of an alarm, the Control Center will take action in accordance with Operating Instructions.

Sec. II-13.3.2 System Shutdown

An employee who discovers an outage, receives a report that an outage has occurred, or observes other hazardous conditions shall request shutdown of the affected system and notify the Area Supervisor if he is satisfied that a Company line is involved.

Sec. II-13.3.3 Overfill Alarm

Breakout tanks are equipped with high- and low-level alarms. Overfill or complete loss will trigger alarms transmitted to both the Control Center and local area office.

Sec. II-13.4 Leak Detection Systems, Devices, Equipment, or Procedures

Sec. II-13.4.1 Leak Detection and System Shutdown

The Company's leak detection and response guidelines cover those facilities, controls, and actions required to detect a leak or spillage from the pipeline and to minimize the extent of such leak or spillage and its effect on public safety, the environment, and property.

Levels of Leak Detection	
The Company currently uses the following three types of leak detection systems:	
•	Level I – Volume Balance
•	Level II – Flow Rate and Pressure Deviation
•	Level III – Pressure and Equipment Status Change

In determining the proper level to assign to a given pipeline system, a system analysis is required. In making such an analysis, consideration should be given to:	
•	Material characteristics
•	System physical condition
•	System size, throughput, and operating conditions
•	Existing controls
•	Evaluation of leak/hazard/response scenarios
•	Public safety
•	Environmental pollution exposure
•	Potential property losses
•	Cost/benefit

Sec. II-13.5 Leak Detection Systems, Devices, Equipment, or Procedures

Sec. II-13.5.1 Leak Detection and System Shutdown

The primary consideration in selecting the leak detection system is public safety. Environmental pollution and property losses are important considerations, but since restoration and compensation means are available, these effects should be considered secondary to public safety.

(b) (7)(F)

[redacted]

Sec. II-13.6 Leak Detection Systems, Devices, Equipment, or Procedures

Sec. II-13.6.1 Leak Detection and System Shutdown

(b) (7)(F)

[redacted]

Sec. II-13.7 Leak Detection Systems, Devices, Equipment, or Procedures

(b) (7)(F)

[redacted]

General Pipeline Leak Response Actions	
Travel to Suspected Site of Leak	
•	A means of locating the leak site is necessary for minimum travel time. The general location of the leak may be known from reports.
•	If precise directions are not available for finding the site, air surveillance and assistance from a helicopter or other aircraft may be necessary. Areas should maintain a list of companies with aircraft for charter.
Find Leak	
•	If oil continues to escape from the line, the leak may be detected visually.
•	If underwater, the leak can be found by having a diver survey the line. The line may have to be pressured up to force gas or oil out of the leak to aid in locating the leak.
Determine Extent of Damage	
•	In determining the extent of damage, three basic conditions of the line must be determined: • Degree of damage to the line • Length of damaged line • Misalignment angle if an underwater pipeline
Report to Area Supervisor	
•	Once the extent of damage has been determined, the following information should be reported: • Location of leak • Size of the Line • Type of coating • Length of damaged section • Misalignment angle • Water depth (if appropriate) • Local terrain conditions
Begin Repair Preliminaries	
•	Perform whatever repair preliminaries are possible if it safe to do so.

Sec. II-13.8 Source Control

This section provides guidelines for controlling a release near the source and mitigating the associated consequences. Source control and mitigation involve anything from shutdown of operations to patching a leak, containing a spill, dispersing a vapor cloud, protecting a sensitive area, recovering the spilled material, or other such activities that are involved in an emergency response. Because of the infinite number of circumstances under which an incident could occur and the variety of equipment that could be involved, it is impractical to describe procedures that should be followed in all foreseeable emergency situations.

In the event of a spill involving a pipeline leak or rupture, the initial mitigation actions will likely consist of:	
•	Shutting down the pipeline
•	Relieving the pressure on the affected line section
•	Isolating the line section by closing the appropriate valves
•	Evacuating the remaining contents of the affected line section
•	Exposing the leak or rupture and installing a temporary patch

If the incident were to involve a breakout tank leak or overfill, the initial mitigation actions may include:	
•	Terminating transfer operating to the tank, if in progress
•	Ensuring associated secondary containment system drain valves are closed
•	Transferring the tank contents into available tankage or back into the pipeline
•	Patching the leak if feasible and safe
•	Water flooding the containment area, if applicable, to minimize soil penetration

Source control measures are implemented as close as possible to the source of a spill to minimize the extent of the affected area and generally involve:	
•	Construction of barriers, trenches, or earthen berms for containment
•	Construction of berms or trenches for diverting spill to containment area
•	Deployment of containment booms in waterways down current of the source
•	Deployment of recovery equipment (pumps, vacuum trucks, skimmers)

Sec. II-13.9 Good Engineering Practices.

The Company's approach to preventing discharges is to assure that all facilities are properly designed, constructed, maintained and operated in accordance with applicable codes, regulations and good engineering practices.

Some examples of good engineering practices may include but are not limited to the following:

Engineering Practices	
•	Components in the pipeline system are designed and constructed in accordance with written specifications.
•	Components are inspected to ensure that quality is maintained during material procurement and construction.
•	Trained personnel are used during the construction of the facilities.
•	Various testing methods are used during construction of the facilities.
•	External and internal corrosion control methods are used to maintain the facilities in the best possible condition.
•	A preventive maintenance program reduces the potential for component malfunction or failure
•	Company personnel are properly trained to operate and maintain the pipeline system
•	Company has an extensive safety and drug testing program for its employees and requires the same for its contractors.
•	Company systems are designed and operated with safety factors in place. For example, the maximum operating pressure of a system is always less than the design pressure of the system and the test pressure of the system.
•	Pressures are monitored and controlled so that the maximum operating pressures are not exceeded.
•	When appropriate, internal inspection tools are used or lines are subjected to additional hydrostatic testing to determine and assure their integrity.
•	All wastes are stored in accordance with applicable regulatory requirements (DOT containers that are non-leaking, closed, in good condition, properly marked/labeled, inspected to ensure integrity, etc.)

Sec. II-13.9 Third-Party Damage Prevention

If the systems are properly designed, constructed, operated and maintained, then the most probable source of discharge is due to third-party damage. In order to minimize the risk of damage caused by a third-party a number of steps may be taken, including, but not limited to the following:

Prevention of Third-Party Damage	
•	The facilities are designed to reduce the chance of third-party damage. For example, most of the facilities are buried or located within fenced and locked areas.
•	Areas especially sensitive to third-party damage are road, railroad, and water crossings. Pipelines in these areas usually have additional wall thickness, or burial depth, or are cased to reduce the chance of damage.
•	Company facilities are normally located on well- maintained and clearly marked rights-of-way.
•	Company facilities are normally monitored by aerial or other patrol at least once per week to check for encroachment and construction activities.
•	Company participates in one-call pipeline locating and notification systems where available.
•	Company conducts education programs to reduce the possibility of third-party damage.

Sec. II-13.10 Corrosion Mitigation

For external corrosion prevention, the Company generally prevents corrosion of buried pipelines by using approved long-life pipeline coatings supplemented with cathodic protection. Aboveground facilities are generally inspected annually and provided protective coating systems to prevent corrosive deterioration. These primarily include buildings, aboveground pipelines and tanks.

In order to prevent internal corrosion of the pipelines, the Company uses chemical injection, pigging and corrosion inhibitors, and inspects pipelines located in high population density areas and environmentally sensitive areas with in-line inspection pigs, where appropriate. A large number of pipelines are hydrostatically tested. For further details regarding the Corrosion Prevention program, refer to the Company Pipeline Integrity Management Program.

Sec. II-13.11 Spill Mitigation

Source control and mitigation involve anything from shutdown of operations to patching a leak, containing a spill, dispersing a vapor cloud, protecting a sensitive area, recovering the spilled material, or other such activities that are involved in an emergency response. Because of the infinite number of circumstances under which an incident could occur and the variety of equipment that could be involved, it is impractical to describe procedures that should be followed in all foreseeable emergency situations.

Sec. II-13.12 Breakout Tanks

The visual tank inspection checklist presented below has been included as guidance for inspections and monitoring. Also included in the visual tank inspection will be an inspection of the tank foundation and associated piping. All tankage, pumping equipment, piping and related terminal equipment are inspected every working day for leakage, malfunctions of seals, etc. Storage tanks are inspected monthly and annually and findings are recorded. Example forms are included in this plan. These records shall be maintained for a minimum of five years.

Check tanks for leaks, specifically looking for:	
•	Drip marks
•	Discoloration of tanks
•	Puddles containing stored materials
•	Corrosion
•	Cracks
•	Localized dead vegetation

Check foundation for:	
•	Cracks
•	Discoloration
•	Puddles containing stored materials
•	Settling
•	Gaps between tank and foundation
•	Damage cause by vegetation roots

Check piping for:	
•	Droplets of stored material
•	Discoloration
•	Corrosion
•	Bowing of pipe between supports
•	Evidence of stored material seepage on valves and seals
•	Localized dead vegetation

Tank roof drains and firewall drains are normally kept closed.

The Company's major tanks have tank gauges which transmit oil heights to the Operations Control Center, where tank levels are monitored continuously. The tank gauges have alarms set for each tank for high tank level, low tank level, and emergency low tank level. Each tank also has an independent device which gives an alarm for emergency high tank level.

Sec. II-13-14 Response Procedures

A person evaluating a situation must assess the circumstances surrounding an event, to determine if an emergency situation exists, and respond accordingly. Company personnel are trained in hazards or emergency recognition procedures as described below.

An emergency in pipeline and facility operations often originates with the unexpected release or spill of commodities. Uncontained commodities and high vapor concentrations present substantial hazards for fires or explosions until they dissipate to safe levels. In these situations, sources of ignition must be controlled to eliminate fire and explosion hazards. The Company has strict rules for controlling sources of ignition within tank farm property to avoid such explosions or fires. Potential sources of ignition become more difficult to control on public property. Early detection and quick response are the best actions to reduce the hazards.

The purpose of this section is to identify the response checklist/procedures to follow based on the type of incident that could occur along the Pipeline System. The checklists below are developed to allow the field personnel the ability to make sound decisions during the initial response of an incident. The checklists are not meant to substitute for emergency response knowledge, training, or sound judgment calls and do not account for all circumstances. In the event of any type of incident, it is imperative that the safety of all personnel be considered first, and then the protection of property second.

Sec. II-14 Evacuation

Evacuation plans will be located in the applicable ICP Geographical Annex. All evacuation directives will be communicated through an audible signal, either through voice by the Emergency Response Coordinator, or by the activation of an alarm system. All facility personnel are trained routinely in evacuation and emergency response procedures. The facility contains no critical equipment that requires employees to continue to operate after the evacuation notification is made.

The purpose of the evacuation plan is to provide some guidance in the event shutdown and evacuation are necessary. In the event of an incident, the Terminal Operator will stop the flow of product by normal operating procedures. The facility supervisor shall be notified immediately of the emergency. Any terminal personnel who are not trained as Hazardous Material Technicians will evacuate the terminal. The Fire Department will be notified if there is a fire. Arriving personnel, equipment and fire resources will be met at the main terminal gate of the Facility, unless deemed unsafe to do so. Tactical deployment of arriving resources will depend on the current situation.

Evacuating personnel shall proceed in an orderly manner. The Operations Supervisor will account for all employees and arrange for medical assistance as required.

Sec. II-14.1 Training

The Company believes that constant training of its employees is the cornerstone of effective emergency response and mitigation of threats to human health and the environment. Personnel evacuation direction is further defined as follows:

- **Facility Employees** - All Company employees who are not directly involved with the abatement of the emergency will immediately evacuate the area of the emergency. They will proceed via an unthreatened route to the facility main gate and remain in a "stand by" mode until instructed by the Emergency Response Coordinator to do otherwise. Should access to the facility main gate be threatened by the emergency, proceed to a location on the facility unthreatened by the emergency and notify the Emergency Response Coordinator of your whereabouts as soon as practical.

- **Contractors, Freight Haulers, Vendors and Other Visitors** - All non-company personnel will immediately evacuate the plant when notified of an emergency. All material loading or unloading will cease. Personnel will proceed to the facility main gate via an unthreatened route. Non-Company personnel will exit immediately upon approval of the Emergency Response Coordinator. Should access to the facility main gate be threatened by the emergency, proceed to a location on the facility unthreatened by the emergency and notify the Emergency Response Coordinator of your whereabouts as soon as practical. After personnel evacuation was initiated, emergency response agencies and teams would be notified (either from on-site or off-site immediately after the evacuation was completed), and immediate response actions would be initiated to minimize threats to human health and the environment.

- **Community** - In the unlikely event that evacuation plans were required beyond the boundary of the facility, the Emergency Response Coordinator or designee would communicate further directives. These plans will include guidance of where to move potentially affected parties to minimize threats to human health and the environment.

When the alarm is sounded or a signal to evacuate is given all personnel should:

Evacuation Checklist		
Procedures	✓	Date/Time
Immediately stop work activities.	☐	__/__/__ [00:00]
Check the wind direction.	☐	__/__/__ [00:00]
Move upwind or cross wind.	☐	__/__/__ [00:00]
Check the wind again.	☐	__/__/__ [00:00]
Initial Incident Commander will conduct a head count to account for all personnel known to be at the facility.	☐	__/__/__ [00:00]
Initial Incident Commander will assist in alerting and escorting personnel, including visitors and contractors to the appropriate evacuation point.	☐	__/__/__ [00:00]
Initial Incident Commander will notify the TPTN Duty Officer.	☐	__/__/__ [00:00]
Initial Incident Commander will assist in hazard control activities as requested.	☐	__/__/__ [00:00]
Initial Incident Commander will initiate search and rescue of missing persons. Injured personnel will be transported to the nearest emergency medical facility.	☐	__/__/__ [00:00]
All other personnel will remain at the evacuation point until the "All Clear" signal is given.	☐	__/__/__ [00:00]
Note: Evacuation should be carried out in an orderly manner. Personnel should WALK, not run or panic.		

(b) (7)(F)

[redacted]

(b) (7)(F)

[redacted]

(b) (7)(F)

[redacted]

Sec. II-16 Site Safety and Health Plan

Sec. II-16.1 Introduction

This document describes the health and safety guidelines developed for the Response Operations to protect personnel, visitors, and the public from physical harm and exposure to hazardous materials or wastes. The procedures and guidelines contained herein are based upon the best available information at the time of the plan's preparation. Specific requirements will be reviewed and revised when new information is received and/or conditions change.

The Site Safety & Health (SS&H) Plan is designed to comply with applicable Federal, State OSHA regulations for Response Operations covered in 29 CFR 1910.120 and Company H&S Policies. Specifically, this program provides procedures and information for program administration, safety and health considerations, personal protective equipment, medical surveillance, training, site control, industrial hygiene monitoring programs, personal hygiene, sanitation, housekeeping, and the decontamination of both personal protective equipment and equipment utilized during the response.

The ICS Forms for the Site Safety and Health Plan (ICS 201-5 and ICS 208) are located in the Forms Section of this plan.

Sec. II-16.2 Scope

All spill response and remedial activities will be conducted in accordance with this SS&H Plan. This plan will cover all personnel, including Company employees, contractors, subcontractors, government employees, and visitors. The SS&H Plan will be modified as necessary and where applicable will address multiple work environments. A copy of this program will be posted at all command, operations, and field centers for the duration of the clean-up activity. It is the responsibility of each manger, supervisor, and crew foremen to be familiar with this plan and to assist in its implementation.

Sec. II-16.3 Program Administration

The Safety and Health Officer will administer the SS&H Plan. The Safety and Health Officer will be available to answer questions regarding effective implementation of the Program Plan. The Safety and Health Officer is supported by other staff personnel advisors in Safety, Industrial Hygiene, Occupational Medicine, Environmental, Operations and Legal.

It is the responsibility of the Safety and Health Officer to monitor the effectiveness of the SS&H Plan and to contact the appropriate support staff for guidance if changes to the plan are necessary.

All employees who may be directly involved in any clean-up activities are required to have completed HAZWOPER Training and to have been briefed on the contents of this SS&H Plan. All employers and employees will be responsible for adhering to all Federal, State and Local regulations that may not be specifically outlined in this program.

The Safety and Health Officer will enforce compliance with the SS&H Plan and all other requirements. Any deviations from the stipulated requirements, which are noted by the Safety and Health Officer or any other Company personnel, will be communicated to the responsible contractor. The contractor will take immediate actions to correct the deviations and prepare a written corrective action report to be submitted to the Safety and Health Officer.

Sec. II-16.4 Daily Safety Briefings

Site safety meetings/briefings are the first step in maintaining site safety. Daily meetings will be held at the start of each shift to ensure that all personnel understand site conditions and operating procedures, to ensure that personal protective equipment is being used correctly, to address worker health and safety concerns and to communicate any changes or revisions to the Site Safety and Health Plan.

Briefing Attendance Forms shall be used to document that individuals working the Response Operation recognize the hazards present and the policies and procedures required to minimize exposure or adverse effects of these hazards.

Sec. II-16.5 Visitor Policy

All visitors must provide all required training documentation prior to arrival on-site, if possible. The On-Scene Coordinator and Public Affairs Advisor, or their designee, must approve the site visit and shall coordinate visitor tours with the Spill Containment/Clean-up Organization. The SS&H shall designate a safe route through the site and away from the on-going operations, and provide for visitor escorts. The Team Leader/Foreman at the task site must be notified when the visitor approaches. The Team Leader-Foreman shall acknowledge visitor arrival onsite and communicate approval of the visit and acceptable duration for the visitor onsite.

Visitors are expected to dress appropriately for a field visit and when required, shall wear personal protective equipment (PPE) consistent with that used by workers at the Response Site.	
•	All visitors shall be approved prior to arrival at the Incident Site
•	All visitors to be escorted.

Sec. II-16.6 Response

During the initial response phase the ICS 201-5 form is used to ensure hazards are identified, evaluated and managed; and would typically be used for a Tier 1 response. The ICS 201-5 form can be supported by attachments such as the released product MSDS and other topics at the Safety Officers discretion. In a Tier 1 response the safety officer transitions to the ICS 208 form at their discretion

The Tier 2 response would typically use the MSDS, ICS 208 form and Medical Plan form. The ICS 201-5 form would be in place until the Tier 2 Safety team can transition from the Tier 1 team. The ICS 208 form can also be supported with attachments of MSDS and Medical Plan, at the Safety Officers discretion. MSDSs are available at the facility or may be accessed via the netMSDS intranet website at http://w3apps.phillips66.com/netmsds/ or the webMSDS internet website at: http://corpapps.phillips66.net/webmsds/MSDSViewer.aspx. When a response has transitioned to the "project phase" the project is usually turned over to a remediation project group. At that time a SSHP will be developed based on company safety and health procedures.

Sec. II-16.7 Site Safety and Health Plan Evaluation Checklist

SITE SAFETY & HEALTH PLAN EVALUATION CHECKLIST	
Name of Program Reviewed:	
Program Drafted By (Name/Organization):	
Program Reviewed By:	**Date of Review:**
Review Includes (check those appropriate):	
☐	Comprehensive Work Plan (post-emergency)
☐	Safety & Health Program (for planning not site-specific)
☐	Site-Specific Site Safety & Health Plan (post-emergency)
☐	Emergency Response Plans (emergency phase & routine sites)
Comprehensive Work plan [1910.120(b)(3)]	
☐	Work tasks, and objectives defined
☐	Methods of accomplishing tasks & objectives defined
☐	Personnel requirements for work plan accomplishments
☐	Training requirements identified (see 1910.120(e))
☐	Informational programs implemented (see 1910.120(i))
☐	Medical surveillance programs (see 1910.120(f))
Safety and Health Program [1910.120(b)]	
General:	
☐	A written safety and health program [1910.120(b)(1)]
☐	Organizational structure [1910.120(b)(1)(ii)(A)]
☐	Safety and health training program
☐	Medical surveillance program
☐	Employer SOP on safety and health
Organization Structure [1910.120(b)(2)]:	
☐	Chain of command identified
☐	Responsibilities of supervisors and employees
☐	Identifies supervisor
☐	Identifies site safety and health officer(s)
☐	Other personnel functions and responsibilities
☐	Lines of authority / responsibility / communications
Site-Specific Safety & Health Plan [1910.120(b)(4)]	
For spill response operations (as opposed to those that start from a remedial action) these plans will vary in detail as the response progresses. During the initial emergency phase, responders rely on generic emergency response plans - contingency plans - while a site-specific plan is being developed. As the response progresses into post-emergency phase recovery operations, a basic site-specific plan is used and may become quite detailed for prolonged or large cleanups. Finally, a spill response may become a fully controlled site cleanup (e.g., remedial cleanups) where a fully developed site-specific plan is developed, including detailed emergency response plans for on-site emergencies.	

SITE SAFETY & HEALTH PLAN EVALUATION CHECKLIST (CONT'D)

Site-Specific Safety & Health Plan [1910.120(b)(4)] (Cont'd)

General – Identify and/or specify:

❒	Risks for each task in work plan	❒	Employee training assignments
❒	Protective equipment for each task/objective	❒	Medical surveillance requirements
❒	Frequency and types of air monitoring	❒	Frequency and types of personnel monitoring
❒	Sampling techniques	❒	Air monitoring instruments to be used
❒	Maintenance and calibration for instrumentation	❒	Site control measures
❒	Site map	❒	Work zones
❒	Use of "buddy system"	❒	Alerting means for emergencies
❒	Safe working practices	❒	Nearest medical assistance
❒	Decontamination procedures	❒	Emergency response plan
❒	Confined space entry procedures	❒	Spill containment program
❒	Pre-entry briefings [1910.120(b)(4)(iii)	❒	Provisions for continual evaluation of plan

Site Characterization and Analysis:

❒	Spill sites shall be evaluated to identify specific site hazards and determine appropriate safety and health controls.

Preliminary Evaluation – Performed by a qualified person, prior to site entry, to identify and/or specify:

❒	Protection methods and site controls	❒	All inhalation/skin hazards
❒	Location and approximate size of site	❒	Description of response activity
❒	Duration of response activity	❒	Site topography and accessibility (include air and ground accessibility)
❒	Safety and health hazards anticipated	❒	Pathways for hazardous substance dispersion
❒	Status of emergency response units (rescue, fire, hazmat)		

Risk Identification [1910.120(c)(7):

❒	Employees on site are informed of identified risks	❒	All information concerning chemical, physical and toxicological properties of each substance available to the employer are made available to the responders

Detailed Evaluation [1910.120(c)(2)]:

❒	Immediately after preliminary evaluation, a detailed evaluation is conducted to determine safety controls and protection needed.

Monitoring [1910.120(h)]:

❒	Monitoring performed during initial entry	❒	Monitoring performed periodically
❒	Personnel monitoring performed		

Illumination Requirements [1910.120(m)]

❒	Areas accessible to employees are lighted to levels not less than the intensities outlined in Table H-120.1

Sanitation Requirements [1910.120(n)]:

❒	Potable(n)(1) / Non-potable water(n)(2)	❒	Toilet facilities (n)(3)
❒	Washing facilities (n)(6)	❒	Shower and change rooms (n)(7)

SITE SAFETY & HEALTH PLAN EVALUATION CHECKLIST (CONT'D)	
Emergency Response Plans [1910.120(l) and (q)] for emergency response operations (e.g., contingency plans used prior to site safety plan development), routine sites (e.g., emergency plans for remedial sites)	
Purpose is to prepare for anticipated emergencies:	
❒	Plan is written and available for inspection
Elements [1910.120(l)(2)(i-ix) to be specified	
❒	Pre-emergency planning
❒	Personnel roles, lines of communication
❒	PPE and emergency equipment
❒	Emergency recognition and prevention
❒	Safe distances and places of refuge
❒	Site security and control
❒	Evacuation routes and procedures
❒	Emergency medical treatment and first aid
❒	Emergency decon procedures
❒	Emergency alerting and response procedures
❒	Critique of response and follow-up
Additional Elements [1910.120(l)(3)(i)(A-B)]:	
❒	Site topography, layout and prevailing weather conditions
❒	Procedures for reporting incidents to: local, state, and federal government agencies
❒	Employee alarm system is installed to notify persons of an emergency situation
Additional Requirements [1910.120(l)(3)(ii-viii)] Emergency Response Plan shall be:	
❒	A separate section of Site Safety and Health Plan
❒	Compatible with federal, state and local plans
❒	Rehearsed as part of on-site training
❒	Current

Sec. II-16.8 Site Exposure Monitoring Plan

Site Name:	Date / Time:

A. Monitoring Plan	
➢	Air monitoring at the spill site and surrounding areas will be done to ensure site worker and community safety.
➢	Air monitoring will be done during work shift site characterization and on each work shift during cleanup activities until results indicate no further monitoring is required.
➢	All monitoring done at the cleanup site will be documented and the data maintained by qualified personnel on site.
➢	Monitoring will be done in accordance with OSHA 29 CFR 1920.120. Monitoring will be done: ❒ During initial site entry and characterization; ❒ If a new potential inhalation hazard is introduced into the work area; ❒ During cleanup activities, on each work shift; ❒ If a new task is begun that may involve potential inhalation exposure.
➢	Noise monitoring, radiation monitoring, etc. will be conducted as needed.
B. Initial Site Monitoring	
➢	Monitoring will be done during initial site entry. The monitoring will include checking for: ❒ Oxygen (O_2) deficiency using a direct reading oxygen meter; ❒ Flammable atmospheres (%LEL) using a combustible gas indicator; ❒ Benzene, hydrogen sulfide, hydrocarbons, and combustion by-products (SO_2, CO), as needed, using direct-reading instruments, colorimetric indicator tubes, and/or other valid methods.
➢	Instruments will be calibrated prior to and following use.
➢	All monitoring will be documented. (See attached form for example)
C. Post-Emergency Monitoring (On-Going)	
➢	Monitoring for benzene, hydrogen sulfide, hydrocarbons and combustion by-products will be done during each work shift on an on-going basis, as needed. Repeat initial site monitoring if any significant changes occur (i.e., temperature increases, more material released, wind direction changes, etc.)
➢	Checks for oxygen deficiency and flammable atmospheres will be made if confined spaces are encountered, or as required.
➢	Exposure monitoring shall be done as necessary. Personnel samples will be collected under the direction of the industrial hygiene personnel. Samples will be analyzed by a laboratory accredited by the American Industrial Hygiene Association.
➢	Results of site monitoring will be made available to site workers' supervision for informing all affected employees. Results will be available to the Command Center for review by regulatory agencies.

Sec. II-16.9 Industrial Hygiene HAZMAT Information – Field Data Form

Date:	Time	Wind Dir.	Wind Speed	Temp.
Event Description:				

Location Description	Time	PID / FID	H_2S	SO_2	CO	LEL	O_2	Benzene	Other	Comments
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
12.										

Sec. II-17 Personal Protective Equipment

All work shall be conducted in accordance with procedures established during pre-entry briefings and the attached Work Plan. Personal Protective Equipment shall be selected and used to protect personnel from hazards that are likely to be encountered as identified during the initial site characterization and subsequent monitoring.

The Safety and Health Officer will determine the PPE requirements for each task associated with the incident based on the work to be conducted, associated hazards, and the following criteria:	
1. PPE Use and Limitations	
Several factors must be considered when selecting and using PPE:	
➢	The protective clothing, gloves and boots must be resistant to permeation or penetration by oil and other chemicals that may be encountered on the site.
➢	Protective clothing and gloves should be durable for heavy work.
➢	Protective clothing and glove materials must maintain protection and flexibility in hot or cold weather conditions.
➢	Protective clothing must be large enough to fit over other clothing without ripping and tearing.
➢	For respirator use, procedures must be in place for the proper selection, use, care, and fit testing of the respirators. Additionally, wearer must be advised as to respirator cartridge expected life and of monitoring for contaminant breakthrough, etc.
➢	Protective footwear must have non-slip soles. Additionally, conditions may require the use of steel toe and/or steel shank footwear.
2. Work Duration	
The work duration is expected to last for the full shift and will involve moderate to heavy physical exertion during cleanup activities.	
3. PPE Maintenance and Storage	
PPE will be maintained and stored by an assigned work crew. Protective clothing and gloves will be evaluated during and at the end of each shift and will be replaced as necessary. Boots and other PPE may be decontaminated for re-use.	
4. PPE Decontamination and Disposal	
PPE may be decontaminated in designated areas by assigned crews using soap or other suitable cleanser and rinse water. The cleaning solution used will be disposed of in properly labeled containers according to applicable regulations. Contaminated protective gloves and any other PPE to be disposed of will be placed in properly labeled bags and disposed of according to applicable regulations.	

5. PPE Training and Proper Fitting	
All site cleanup workers, supervisors and others entering the contaminated zone will be given training in proper use of PPE. The training will include:	
➢	How to use PPE
➢	When and where to use the PPE
➢	How to inspect PPE to determine if it is working properly
Care will be taken to ensure employees are provided properly fitted PPE.	
6. PPE Donning and Doffing Procedures	
Prior to starting work, all site cleanup workers and others required to wear PPE will be instructed on proper procedures for donning and doffing PPE. Doffing of contaminated clothing, gloves and boots must be done in a manner to prevent skin exposure to the oil or chemicals.	

Personal Protective Equipment (PPE)	
Respiratory:	Wear a positive pressure air supplied respirator in situations where there may be potential for airborne exposure above exposure limits. If exposure concentration is unknown or if conditions immediately dangerous to life or health (IDLH) exist, use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
Skin:	The use of thermally resistant gloves is recommended.
Eye/Face:	Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended. Depending on conditions of use, a face shield may be necessary.
Other Protective Equipment:	A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.
	Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

Sec. II-18 Decontamination

Decontamination is the systematic removal of residual chemicals from personnel and equipment after exposure to toxic, flammable and/or hazardous products.

The benefits of Decontamination include:	
•	Enhancing the safety of responders and other personnel.
•	Decreasing the hazard of environmental contamination.
•	Restricting contamination to the immediate area and minimizes the potential for injury to others.
•	Each step in the process reduces the amount of residual product on the clothing until safe and acceptable levels area achieved.

Non-Emergency / Routine vs. Emergency Decontamination	
•	**Routine decontamination** is designed to reduce the amount of residual product on the clothing until safe and acceptable levels are achieved.
•	**Emergency decontamination** is designed to remove the patient from the hazardous area, remove contaminated clothing and flush the product off the patient. This will be accomplished taking into account any medical considerations. Water should be used to perform the emergency decontamination of the patient. There is less regard for runoff retention, and the emphasis is to expedite emergency medical treatment.

Decontamination Methods	
There are many methods for decontamination. The proper method will be determined by the situation and materials involved.	
Dilution	The application of water to reduce the concentration of product to a point that it no longer presents a hazard.
Absorption	Mechanically pulled in or soaked up by the sorbent.
Chemical Degradation	Altering the chemical composition of the material to the point that it is less hazardous or easier to remove. For example, emulsifying a gasoline spill.
Disposal	Easiest form of “decontamination”.
Note: Contaminated products require proper disposal – incineration, burial, etc.	

Factors Influencing Methodology	
•	Product(s) involved
•	Hazards associated with the product(s)
•	Degree or extent of contamination
•	Physical and chemical properties of the product(s)

Sec. II-19 Response Termination and Follow-up Procedures

Termination activities are divided into three phases: debriefing the incident, post-incident analysis, and critiquing the incident. The extent to which these phases are undertaken depends on the nature and magnitude of the spill or release. Even a small product release could elicit very detailed termination activities. For example, a release of H_2S resulting with subsequent employee, or public, negative impact. Additionally, some spills or releases trigger outside agency reporting. These events would trigger the formal termination procedures outlined in this section.

Sec. II-19.1 Debriefing the Incident

Debriefings should begin as soon as the "emergency" phase of the operation is completed. Ideally, this should be before first responders leave the scene, and it should include the hazmat response team, sector officers, and other key players such as public information officers and agency representatives who the Incident Commander determines would benefit from being involved.

Debrief Checklist	
Procedures	✓
Use safety meeting attendance forms and or memoranda to document the debriefing.	☐
Inform responders exactly what hazardous materials they were (possibly) exposed to and the signs and symptoms.	☐
Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation	☐
Assign information-gathering responsibilities for a Post-Incident Analysis and critique.	☐
Summarize the activities performed by each sector, including topics for follow-up.	☐
Reinforce the positive aspects of the response.	☐
Debrief Performed By:	Date/Time

Sec. II-19.2 Post-Incident Analysis: (PIA)

Response Termination
Termination activities are divided into three phases: debriefing the incident, post-incident analysis, and critiquing the incident. The extent to which these phases are undertaken depends on the nature and magnitude of the spill or release. Even a small product release could elicit very detailed termination activities. For example, a release of H_2S with subsequent employee or public negative impact. Additionally, some spills or releases trigger outside agency reporting. These events would trigger the formal termination procedures outlined in this section.

General Information	
Debriefing the Incident	
❒	Debriefings should begin as soon as the "emergency" phase of the operation is completed. Ideally, this should be before first responders leave the scene, and it should include the hazmat response team, sector officers, and other key players such as public information officers and agency representatives who the IC determines would benefit from being involved.
❒	Inform responders exactly what hazardous materials they were (possibly) exposed to and the signs and symptoms.
❒	Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation.
❒	Assign information-gathering responsibilities for a Post-Incident Analysis (PIA) and critique.
❒	Summarize the activities performed by each sector, including topics for follow-up.
Safety meeting attendance forms and or memoranda may be utilized to document the debriefing.	

Post-Incident Analysis:	
	PIA is the detailed, step-by-step review of the incident to establish a clear picture of the events that took place during the incident. It is conducted to establish a clear picture of the emergency response for further study.
	The PIA is not the same as investigations conducted to establish the probable cause of the accident for administrative, civil, or criminal proceedings. Those are usually conducted utilizing root cause or hazard and operability methodologies. One person or (or office) should be designated to collect information about the response during the debriefing. Additional data may be obtained from Command post logs, incident reports and eyewitness interpretations.
	Once all available data has been assembled and a rough draft report developed, the entire package should be reviewed by key responders to verify the available facts are arranged properly and actually occurred. The PIA should focus on four key topics: *Command and Control, Tactical Operations, Resources and Support Services*.
	*Command and Contro*l – Was command established and sectors organized? Did information flow from operations personnel through Sector Officers to the Incident Commander? Were response objectives communicated to the personnel expected to carry them out?
	Tactical Operations – Were the tactical options ordered by the IC and implemented by emergency response personnel effective? What worked? What did not?
	Resources – Were the resources adequate for the job? Are improvements needed to apparatus and/or equipment? Were personnel trained to do the job effectively?
	Support Services – Were the support services received from other organizations adequate? What is required to bring support to the desired level?

Critiquing the Incident:	
A commitment to critique an all hazardous material response will improve IMT performance by improving efficiency and pinpointing weaknesses. Use the tool as a valuable learning experience (everyone came to the incident with good intentions) A good critique promotes:	
	Trust in the response system as being self-correcting.
	Willingness to cooperate through teamwork.
	Continuing training of skills and techniques.
	Pre-planning for significant incidents.
	Sharing information between response agencies.

Critique Format:	
A critique leader is assigned. This can be anyone who is comfortable and effective working in front of a group. The critique leader should:	
❒	Control the critique. Introduce the players and procedures. Keep it moving and end on schedule.
❒	Ensure that specific questions receive detailed answers.
❒	Ensure that all participants follow the critique rules.
❒	Ensure that each operational group presents their observations.
❒	Keep notes of important points.
❒	Sum up the lessons learned.
❒	Follow up.
❒	Following the critique, forward the written comments to management. They should highlight suggestions for improving response capabilities and alternative solutions.
❒	When larger incidents are involved or injuries have occurred, formal reports shall be circulated so that everyone in the response system can understand the "lessons learned."

Section III – Table of Contents

Sec III-1 Overall Training

Experienced, well-trained people are essential for successful implementation of this Emergency Response Plan. Exercises are performed to check the effectiveness of the training and to test the Plan. An ongoing training and exercise program will be carried out at the facility. In addition to maintaining maximum familiarity with all aspects of the Plan, the training and exercise program is intended to provide members of the spill response team with the basic knowledge, skills and practical experience necessary to perform safe and effective spill response operations in accordance with the plan.

In order to have a successful exercise program, it is important for responders to be aware of and knowledgeable of the policies set forth in the Area Contingency Plan (ACP) and the use and location of Geographic Response Plans (GRPs) as applicable. Training on the contents of the ACP and use of the GRPs is conducted with annual ICS/UCS training, as applicable.

OSHA's Hazardous Waste Operations and Emergency Response (HAZWOPER) rule (29 CFR 1910.120) became law on March 6, 1990. It sets minimum training and/or competency requirements for people associated with an oil spill emergency. HAZWOPER requirements are described in the following section. Additional training and exercise requirements are discussed in the balance of this section.

The training coordinator will devise a training plan and schedule in response to governmental regulations and the specific requirements of the Company, and implement the training plan in cooperation with local oil spill response co-ops and selected contractors. Representatives of governmental agencies and other interested parties may be invited to observe or participate in these activities as determined appropriate.

Sec. III-2 Response Training

As required in the DOT regulation 49 CFR Appendix A to part 194 the company has developed a program for facility response training. Please refer to the appropriate training documentation, which is maintained and available in this section of the Core Plan.

Sec. III-2.1 Description of Response Training

The following summarizes the response training elements for all Facilities:	
•	Incident Command System (ICS) Training Program
•	Classroom Training
•	HAZWOPER Response Qualifications

Sec. III-3 Incident Command System (ICS)/HAZWOPER Training Program

Background

The Incident Command System (ICS) was first developed as a result of wild fires in southern California in the 1970s. In 1980, the ICS (originally developed by an entity called Firescope) made the transition into a national program called the National Incident Management System (NIMS). At that time, ICS became the backbone of a wider-based system for all Federal agencies with wildland fire management responsibility.

The NIMS ICS has also now been adopted by the U.S. Coast Guard for response to all oil and hazardous substance spills and has been integrated into the National Response System and therefore the National Contingency Plan of the U.S. The U.S. Federal Emergency Management Agency (FEMA) is adopting the ICS, as well as industry entities such as the National Fire Protection Association (NFPA).

In summary, the company ICS/UCS organizations and the associated training program was developed directly from NIMS.

Training Requirements

It is important to have well trained Spill Management Team. New Employees will complete ICS 100 and ICS 200 Level Training. Persons filling key roles in the ICS/UCS Organization (i.e. Command Staff Officers and General Staff Section Chiefs) will also complete ICS 300 Level Training and comply with one of the following:

Command and General Staff Additional Requirements	
•	Observe position a minimum of one WCD exercise
•	Serve as Deputy (position) a minimum of one WCD exercise
•	Serve previously in (position) in a WCD exercise or actual response

ICS 100, ICS 200, and ICS 300 Level Training can be achieved through various mediums including:

1. For ICS 100 and ICS 200 Level Training courses are available on-line through the FEMA Independent Study Courses through the Emergency Management Institute. A certificate will be provided upon completing each course. http://www.training.fema.gov/IS/crslist.asp:
    - IS-100 Introduction to Incident Command System, I-100
    - IS-200.a ICS for Single Resources and Initial Action Incidents

2. The Company also offers ICS 100, ICS 200, and ICS 300 internally online through Computer Based Training (CBT), via the Company Learning Management System. A certificate will be provided upon completing each course.

Training Requirements (Cont'd)

3. Instructor Lead Courses- ICS 100, ICS 200, and ICS 300 are also available though a class room setting. Contact the Company's Emergency Management Coordinator to scheduling the course internally. In addition the course being offered through the company, both the Emergency Management Institute and the National Fire Academy sponsor NIMS compliant ICS-300 Level Training. Please contact your local or State's Emergency Management Agency or State Fire Academy for details about when and where these courses will be available.

Personnel Response Training Logs

The Company will conduct Emergency Response Plan training annually for their personnel to meet the requirement for "personnel response training logs". **The actual retention of this activity's documentation is maintained in the Company Learning Management System.** Please consult the training coordinator for further information on these records.

Sec. III-3.1 Classroom Training

The Company conducts training at this facility. The topics applicable to response training may consist of, but are not limited to, the following:	
•	Facility Response Plan/OPA (annual)
•	SPCC/HWCP Training (annual)
•	PPE Use, Care and Maintenance
•	Biannual Boom Deployment Exercises (If owned and maintained at the facility)
•	Tabletop Drills per this ERP
•	Fire Extinguishing School
•	First Aid/CPR

Sec. III-3.2 HAZWOPER Response Qualifications

Certain designated Company employees are required to obtain qualifications to meet different levels of initial training (each require 8 hours of annual refresher training) in accordance with OSHA 1910.120 or HAZWOPER. The five (5) levels of HAZWOPER qualification applicable to Company employees are:	
•	First Responder - Awareness (Level 1) (Sufficient hours of training to demonstrate competencies)
•	First Responder - Operations (Level 2) (8 hours initial)
•	Hazardous Material Technician (Level 3) (24 hours initial)
•	Hazardous Material Specialist (Level 4) (24 hours initial)
•	"On-Scene" Commander or Incident Commander (Level 5) (24 hours initial)

Sec. III-3-3 HAZWOPER Levels

First Responder Awareness Level	
First responders at the Awareness Level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the Awareness Level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:	
•	An understanding of what hazardous substances are, and the risks associated with them in an incident.
•	An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.
•	The ability to recognize the presence of hazardous substances in an emergency.
•	The ability to identify the hazardous substances, if possible.
•	An understanding of the role of the first responder awareness individual in the employer's emergency response plan including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook.
•	The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

Sec. III-3.3 HAZWOPER Levels (Cont'd)

First Responder Operations Level

First responders at the Operations Level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release.

Their function is to contain the release from a safe distance, keep it from spreading and prevent exposures. First responders at the Operational Level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level and the employer shall so certify:

•	Knowledge of the basic hazard and risk assessment techniques.
•	Know how to select and use proper personal protective equipment provided to the first responder operational level.
•	An understanding of basic hazardous materials terms.
•	Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and PPE available with their unit.
•	Know how to implement basic decontamination procedures.
•	An understanding of the relevant standard operating procedures and termination procedures.

Hazardous Materials Technician

Hazardous Materials Technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. Hazardous Materials Technicians shall have received at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify:

•	Know how to implement the employer's emergency response plan.
•	Know the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.
•	Be able to function within an assigned role in the Incident Command System.
•	Know how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician.
•	Understand hazard and risk assessment techniques.
•	Be able to perform advance control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit.
•	Understand and implement decontamination procedures.
•	Understand termination procedures.
•	Understand basic chemical and toxicological terminology and behavior.

Sec. III-3.3 HAZWOPER Levels (Cont'd)

Hazardous Materials Specialist	
Hazardous Materials Specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The Hazardous Materials Specialist would also act as the site liaison with Federal, state, local and other government authorities in regards to site activities. Hazardous Materials Specialists shall have received at least 24 hours of training equal to the technician level and in addition have competency in the following areas and the employer shall so certify:	
•	Know how to implement the local emergency response plan.
•	Understand classification, identification and verification of known and unknown materials by using advanced survey instruments and equipment.
•	Know of the state emergency response plan.
•	Be able to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialist.
•	Understand in-depth hazard and risk techniques.
•	Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.
•	Be able to determine and implement decontamination procedures.
•	Have the ability to develop a site safety and control plan.
•	Understand chemical, radiological and toxicological terminology and behavior.

On Scene Incident Commander	
Incident Commanders, who will assume control of the incident scene beyond the First Responder Awareness Level, shall receive at least 24 hours of training equal to the First Responder Operations Level and in addition have competency in the following areas and the employer shall so certify:	
•	Know and be able to implement the employer's Incident Command System.
•	Know how to implement the employer's emergency response plan.
•	Know and understand the hazards and risks associated with employees working in chemical protective clothing.
•	Know how to implement the local emergency response plan.
•	Know of the state emergency response plan and of the Federal Regional Response Team.
•	Know and understand the importance of decontamination procedures.

Sec. III-3.4 Refresher Training

Those employees who are trained in accordance with the above descriptions shall receive annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly.

Sec. III-3.5 HAZWOPER Training Certification and Documentation

The Company will certify that its spill management response team members assigned to all HAZWOPER levels have received the required training or equivalent and are competent. The Company will train and maintain its spill management team members to HAZWOPER per 29 CFR 1910.120(q) as a minimum. Upon receiving the initial HAZWOPER training, response team members will be issued a certificate indicating that they have completed the required amount of HAZWOPER training and can function as a response team member. A copy of the certificate is included in this Section. Documentation of specific training received by each employee is maintained within the Learning Management System.

Refresher training must satisfy the OSHA requirement to maintain competency and at least 4 hours[1] of refresher training must be completed. In order to maintain competency, the annual refresher may consist of any of the classes or combinations of classes listed in the Company approved HAZWOPER Courses Table outlined in this section.

[1]*Facilities located in the state of Washington require a minimum of 8-hours of refresher training annually.*

The Learning Management System may be queried to determine the amount of HAZWOPER training that an employee has received, as well as, to verify that the annual refresher training requirement has been met. The designated Facility Supervisor will determine the specific refresher training provided for each employee.

By completing one of these options, the company considers the individual certified per 29 CFR 1910.120(q)(8)(ii).

Sec. III-3.6 Response Contractors

All contractors responding to a spill/release that involves the Company will be required by their contracts to satisfy the HAZWOPER training requirements of 29 CFR 1910.120 for their position.

Sec. III-3.7 Other Response Personnel

Sec. III-3.7.1 Skilled Temporary Support Personnel

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

Sec. III-3.7.2 Specialist Employees

Specialist employees are experts who would provide technical advice or guidance during response to a spill incident. Examples of such specialists might include chemists, biologists, industrial hygienists, physicians, or others with skills useful during a spill response operation. Such persons must receive appropriate training or demonstrate competency in their specialty annually. There are no specific requirements on training content or hours of training for these persons except that it entails whatever is necessary to maintain competency in their specific area of expertise. Training and demonstration of competency for skilled support personnel and specialists should be documented.

Sec. III-3.7.3 Casual Laborers

Casual laborers will generally not be hired, but may be employed by the Company's response contractors or other response organizations. Contractors will be responsible for providing the appropriate HAZWOPER training to these laborers prior to their involvement in response operations.

Sec. III-3.7.4 Volunteers

Normally, the Company will not hire and/or train volunteers for work on an oil spill response incident. Consequently, the company will refer volunteers to appropriate state and/or local agencies or organizations that are set up to handle volunteers. In addition, the Company will refer volunteers to appropriate wildlife rescue agencies or contractors, such as the International Bird Rescue Research Center, which may be contracted by the Company to work on the spill cleanup.

In the event that the Unified Command approved "volunteers" the Incident Action Plan will include them as resources with scope of work, training and PPE as required.

Sec. III-3.8 Waste Handling Training

Field operations personnel receive extensive regulatory-required training in HAZWOPER, HAZCOM, emergency response, fire fighting, and other areas as described in this section. Employees at sites which generate hazardous waste receive additional orientation and training specific to hazardous waste regulatory requirements, and hazardous waste emergency response. Site emergency coordinators (qualified individuals) also receive additional training on incident command systems.

Sec. III-3.9 Training Records

Training records will be maintained as long as personnel have duties under the Response Plan. Training documentation may be verified in the Company Learning Management System.

Sec. III-3.10 Company Approved HAZWOPER Courses

The following courses may be used for annual HAZWOPER Refresher Certification. A minimum of four (4) hours credit must be accrued annually to maintain HAZWOPER Refresher Certification. *(The state of Washington requires a minimum of 8-hours refresher training annually).*

Title	Area	Credit Hours	Frequency	References
Incident Command System (ICS)	ER	3.0	Initial/Annual	ERP
OPA '90 Plan Review	ER	1.0	Initial/Annual	ERP: EPA, DOT and USCG (PowerPoint or classroom)
OPA '90 Exercise - Table Top Exercise	ER	4.0	Annual	ERP
OPA '90 Exercise - Equipment Deployment	ER	3.0	Annual/ Semi-Annual	ERP
Security Training - Facility Personnel	ER	1.0	Initial & Changes	FSP (PowerPoint or classroom)
Security Training - Marine Facility Security Officer (FSO)	ER	4.0	Initial & Changes	FSO Training Program (PowerPoint or classroom)
Security - Facility Exercise	ER	2.0	Annual	FSP
Security - Marine Facility Quarterly Drill	ER	1.0	Initial & Quarterly	FSP
Combined Spill Response and Security Exercise	ER	4.0	Annual	ERP & FSP
Spill Prevention Control and Countermeasure Plans (SPCC)	ENV	1.0	Initial & Changes	ERP & SPCC
Spill Prevention Meeting	ER	1.0	As needed	ERP & FSP
Asbestos Communication of Hazard to Employees	HS	1.0	As needed	OSHA 1910.1001
Benzene	HS	1.0	Initial	OSHA 1910.1028
Field Survey Instruments & Equipment	HS	1.0	Annual	OSHA 1910.120
Fire Protection Equipment - Classroom	HS	1.0	Annual	OSHA 1910.155, 157, 158, 160, 164
Fire Protection Equipment – Hands-on	HS	1.0	Every 2 years	OSHA 1910.155, 157, 158, 160, 164
Hazard Communication	HS	2.0	Initial/As needed	OSHA 1910.1200
HAZWOPER – First Responder Awareness Level	ER	2.0	Initial/Annual	OSHA 1910.120
HAZWOPER – First Responder Operations Level	ER	2.0	Initial/Annual	OSHA 1910.120
HAZWOPER – General Training	ER	2.0	Initial/Annual	OSHA 1910.120
HAZWOPER – Hazardous Materials Technician	ER	24.0	Initial/Annual	OSHA 1910.120
HAZWOPER – On-Scene Incident Commander	ER	24.0	Initial/Annual	OSHA 1910.120
Hot Work Permits	HS	0.5	Initial/3-Years	OSHA 1910.120

Sec. III-3.10 Company Approved HAZWOPER Courses (Cont'd)

Title	Area	Credit Hours	Frequency	References
Hydrogen Sulfide – H2S	HS	1.0	Initial/3-Years	OSHA 1910.1028
Lead Awareness	HS	1.0	Initial/Changes	OSHA 1910.1025
Lockout/Tagout	HS	1.0	Initial/3-Years	OSHA 1910.147
Medical Services and First Aid - CPR	HS	6 Hours	Per Certification	OSHA 1910.151; Requires a Certified Instructor Course to be taught (determined locally)
NPDES Permitting and Hydrostatic Testing	ENV	1.0	As needed	Environmental Training Guideline
Occupational Exposure to Blood borne Pathogens	HS	1.0	Initial	OSHA 1910.1030
Occupational Noise Exposure	HS	12.0	Initial/ Annual (For Program Participants)	OSHA 1910.95
Permit-Required Confined Space Entry – General Awareness	HS	2.0	Initial/Periodically	OSHA 1910.146
Personal Protective Equipment	HS	1.0	Initial/As Needed	OSHA 1910.132, 133,135; OSHA 1926.500-503
RCRA-Personnel Training for Generators of Hazardous Waste Who accumulate waste on-site Storage	ENV	4.0	Initial/Annual	40 CFR 264.16 and 262.34
Respiratory Protection	HS	2.0	Initial/Annual	OSHA 1910.134
Safe Transportation of Hazardous Materials – Air	DOT	2.0	Initial/2 Years	IATA
Safe Transportation of Hazardous Materials – General Awareness	DOT	2.0	Initial/2 Years	49 CFR 172.704
Safe Transportation of Hazardous Materials – Highway	DOT	2.0	Initial/3 years	49 CFR 172.704
Safe Transportation of Hazardous Materials – Rail	DOT	2.0	Initial/3 years	49 CFR 172.704
Safe Transportation of Hazardous Materials – Water	DOT	2.0	Initial/3 years	49 CFR 172.704
Safety Related Work Practice - Electrical Hazards - Unqualified	HS	1.0	3-Years	OSHA 1910.331-.335
Security – General Awareness (Global)	SEC	1.0	Annual	
Specifications for Accident Prevention Signs and Tags	HS	1.0	As needed	OSHA 1910.145
Trenching and Excavation - Awareness	HS	1.0	Initial & Reg. Changes	OSHA 1926.651

Refer to the Learning Management System for additional course information and documentation.

Sec. III-4 Response Exercise Program

Experienced, well-trained people are essential for successful implementation of this Emergency Response Plan. Exercises are performed to check the effectiveness of the training and to test the Plan. An ongoing training and exercise program will be carried out at the facility. In addition to maintaining maximum familiarity with all aspects of the Plan, the training and exercise program is intended to provide members of the spill response team with the basic knowledge, skills and practical experience necessary to perform safe and effective spill response operations in accordance with the plan.

The Company exercise program is designed to be consistent with the exercise requirements as outlined in the National Preparedness for Response Exercise Program (PREP) Guidelines developed by the U.S. Coast Guard in conjunction with the Pipeline Hazardous Materials Safety Administration (PHMSA) and the U.S. Environmental Protection Agency (EPA). Participation in this program ensures that the Company meets all federal exercise requirements mandated by OPA '90.

The primary elements of the Company exercise program are notification exercises, tabletop exercises, facility-owned equipment deployment exercises, contractor exercises, unannounced exercises by government agencies and area-wide exercises conducted by industry and government agencies. The exercise year for all Company facilities will be from January 1 to December 31. The Facility Manager is responsible for implementing the exercise program.

All exercises and actual release event responses will be critiqued. If appropriate, the information derived from the post-exercise or post-event evaluation will be incorporated into the Emergency Response Plan. The IC will cause the facility plan to be updated as necessary and updates will be forwarded to Company Emergency Response & Security Group.

Sec. III-4.1 Exercise Format and Procedures

Exercises serve to evaluate the thoroughness and effectiveness of the emergency response component of the Emergency Response Plan by testing under simulated conditions. Exercises will be conducted in consistence with the PREP Guideline to maintain maximum effectiveness of the plan.

The following is a list of suggested organizations that should be invited to table top and equipment deployment exercises:	
•	Federal Agencies having jurisdictional responsibility during a spill or emergency (i.e. USCG, EPA, DOT).
•	State agencies having jurisdictional responsibility during a spill or emergency.
•	Local agencies having jurisdictional reasonability during a spill or emergency (i.e. Local Fire Department, LEPC, Law Enforcement, Health Department).
•	Other interested entities that may play a critical role during a spill or fire (i.e. Local Utilities).

Sec. III-4.2 Coordination with Local Emergency Services

During an event meetings should be conducted with all local emergency services departments. If possible, a single source of contacts with these departments should be appointed. Lines of communication to this source must be determined to allow quick contact. If the situation is expected to be of longer duration, off-duty police or security personnel may be required to assist. These people will be very useful in traffic control including ingress and egress from the site, and preventing unauthorized personnel from entering the area.

To ensure coordination between Fire, Police, and other appropriate Public Officials is possible during an emergency, the Area Supervisors are responsible for establishing liaisons with public officials to learn their responsibilities and resources for responding to an emergency. Field Operations are encouraged to involve local officials in drills/training programs, where appropriate.

Company personnel will coordinate with local emergency service officials as necessary to:	
•	Provide the officials with current information on all Company facilities within their jurisdiction
•	Exchange information about responsibilities and resources (both for Company and the officials) available for responding to hazardous liquid pipeline emergencies, and to discuss (preplan) possible responses to be made during potential emergency situations
•	Ensure that the names, addresses, and telephone numbers for the officials are current

Sec. III-4.3 Company Terminal Requirements

The program is on a 3-year cycle with different scenario requirements for the exercises throughout the cycle.

Each year a terminal will be required to conduct the following exercises:	
•	Four Notification Exercises which can be exercised in conjunction with a Tabletop and/or Equipment Deployment or separately.
•	One Tabletop Exercise (TTX) [1] which can be exercised alone or in conjunction with an Equipment Deployment.
•	Two Facility Equipment Deployments (EDX)[1] (if there is facility-owned spill response equipment on site). If the facility relies upon the pipeline area response equipment, that equipment should follow the pipeline response plan and equipment exercise program.
•	An Agency unannounced exercise, if initiated by jurisdictional agency.
•	An area exercise, if required by jurisdictional agency.
•	Document that primary OSRO contractors listed in the OPA '90 plan have conducted training consistent with the PREP guidelines.
•	Self-certification and documentation. (Credit may be taken for responses to actual events, as long as it is properly documented.

[1] *Annually, one exercise, either TTX or EDX must be unannounced.*

Sec. III.4.4 Company Pipeline Requirements

The program is also on a 3-year cycle with different scenario requirements for the exercises throughout the cycle.

Each year a pipeline response area will be required to conduct the following exercises:	
•	Four Notification Exercises which can be exercised in conjunction with a Tabletop and/or Equipment Deployment or separately.
•	One Tabletop Exercise (TTX) [1] which can be exercised alone or in conjunction with an Equipment Deployment.
•	One Pipeline Equipment Deployment (EDX)[1] (if the pipeline area has pipeline-owned spill response equipment.
•	An Agency unannounced exercise, if initiated by Jurisdictional agency.
•	Document that primary OSRO contractors listed in the OPA '90 plan have conducted training consistent with the PREP guidelines.
•	Self-certification and documentation. (Credit may be taken for responses to actual events, as long as it is properly documented.

Sec. III-4.5 Guiding Principles

Internal Exercises

Internal exercises are those that are conducted wholly within the Company. The internal exercises test the various components of the response plan to ensure the plan adequately meets the OPA '90 requirements for spill response.

The internal exercises include:	
•	Incident Commander (IC) Notification Exercises (Terminals)*
•	Internal Notification Exercises (Maintenance Groups)*
•	Spill Management Team Tabletop Exercises
•	Equipment Deployment Exercises (Facility-Owned Equipment)
•	Equipment Deployment Exercises (Response Contractors)
•	Government Initiated Unannounced Exercises

All of the internal exercises, with the exception of the government initiated unannounced exercises, will be self-evaluated and self-certified.

*The Qualified Individual is the Incident Commander for the Company. Refer to the job positions identified in the QI Delegation of Authority Letter located in the Introduction section of this plan that may serve as Incident Commander. Other delegated personnel in a supervisory position (i.e. a pump station supervisor, may act as the Incident Commander should a spill occur at his pump station). For the purposes of exercises, generally, the Terminal Supervisor or the Area Supervisor should be the contact person.

External Exercises

The external exercises go outside the Company to test the interaction of the Company with the response community. The external exercises will test the Company's entire plan and the coordination with members of the response community necessary to conduct an effective response to a pollution incident.

The external exercise includes: Area Exercises

An area exercise is conducted by EPA, the Coast Guard, DOT and industry working in cooperation to exercise the area contingency plan. This is a large-scale exercise that is planned and evaluated by all parties involved.

Sec. III-4.6 Triennial Cycle of Exercising the Entire Response Plan

Every three years all components of the entire response plan must be exercised. The purpose of this requirement is to ensure that all components of the plan function adequately for response to an oil or hazardous substance spill. By complying with the PREP Guidelines as set forth in this section, the Company meets this requirement.

Sec. III-4.7 Credit for Conducting an Exercise

When lesser-included exercises occur as part of larger exercises or a real event, the Company facility will receive credit for that lesser included exercise or real event when properly documented. For example, if a terminal responds to an actual spill, the activities involved in the spill response (i.e., the IC notification, the equipment deployment, etc.) will satisfy the requirements of these two exercises, provided the actual response activities meet the objectives of the exercises and are properly documented.

Credit for an Area Exercise will be given to the Company facility or facilities for an actual response to a spill in the Area if the plan was utilized for response to the spill and the objectives of the Area Exercise were met, properly documented and certified. The caveat to this statement is that if a The Company facility plan was scheduled for an Area Exercise and an actual spill occurred in the Area for which the facility's plan was not used (i.e., another company's plan was used or an agency plan was used), then the Company facility would not receive credit for the spill response.

Sec. III-4.8 Proper Documentation

Proper documentation includes documentation, which lists the exercise conducted, the objectives met and the results of the exercise evaluation. This documentation must be in writing and signed by an individual having responsibility for the asset conducting the exercise. All spill response exercise documentation records should be maintained on file at the facility for a minimum of five years.* This Section describes the proper exercise ICS/UCS documentation forms that should be used to document the corresponding exercises. All ICS forms in this section may be utilized to document exercises as well as assisting with actual response. Forms are found in the following locations:

- Section IV of this plan contains Company Forms.
- ERAP contains Initial Response Forms
- Company Website contains all Company and ICS Forms

*Note: Electronic documentation may be located on the Company Emergency Response website.

Sec. III-4.9 Certification Process

The Incident Commander or Exercise Facilitator certifies the response exercise.

Following an exercise or actual event, the responders should complete a critique of their response. The evaluation form located in this section should include the Company facility name, exercise date, type of exercise conducted, response plan or zone exercised and participants. This form is to be signed by the Incident Commander or Exercise Facilitator; then filed and retained for a minimum of five years at the facility.

Sec. III-4.10 EPA

EPA Regulated Facilities	
QI Notification Exercises	
Applicability	Facility
Frequency	Quarterly
Initiating Authority	Company policy
Participating Elements	Facility personnel and qualified individual
Scope	Exercise communications between facility personnel and qualified individual
Objectives	Contact must be made with a qualified individual or designee, as designated in the response plan.
Certification	Self-certification.
Verification	Environmental Protection Agency (EPA)
Records	
Retention	5 years
Location	Records to be kept at the facility
Evaluation	Self-evaluation.
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Sec. III-4.10 EPA (Cont'd)

EPA Regulated Facilities	
Spill Management Team Tabletop Exercises	
Applicability	Facility spill management team
Frequency	Annually
Initiating Authority	Company policy
Participating Elements	Spill management team as established in the response plan.
Scope	Exercise the spill management team's organization, communication, and decision-making in managing a spill response.
Objectives	Exercise the spill management team in a review of" • Knowledge of the response plan; • Proper notifications • Communications system • Ability access an OSRO; • Coordination of internal organization personnel with responsibility for spill response; • An annual review of the transition from a local team to a regional, national and international team, as appropriate • Ability to effectively coordinate spill response activity with the National Response System (NRS) infrastructure. (If personnel from the NRS are not participating in the exercise, the spill management team should demonstrate knowledge of response coordination with the NRS.) • Ability to access information in Area Contingency Plan for location of sensitive areas, resources available within the area, unique conditions of area, etc. At least one spill management team tabletop exercise in a triennial cycle would involve simulation of a worst-case discharge scenario.
Certification	Self-certification.
Verification	Environmental Protection Agency (EPA)
Records	
Retention	5 years
Location	At each facility
Evaluation	Self-evaluation.
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Sec. III-4.10 EPA (Cont'd)

EPA Regulated Facilities	
Equipment Deployment Exercises	
Applicability	Facilities with facility owned and operated response equipment.
Frequency	Semi-annually
Initiating Authority	Company policy
Participating Elements	Facility Personnel
Scope	Deploy and operate facility owned and operated response equipment identified in the response plan. The equipment to be deployed would be either (1) the minimum amount of equipment for deployment as described in "Guiding Principles", or (2) the equipment necessary to respond to a small discharge at the facility, whichever is less. All of the facility personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the facility equipment must be included in a comprehensive maintenance program. Credit should be taken for deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturers' recommendations and best commercial practices. All inspection and maintenance must be documented by the owner.
Objectives	Demonstrate ability of facility personnel to deploy and operate equipment. Ensure equipment is in proper working order.
Certification	Self-certification.
Verification	Environmental Protection Agency (EPA)
Records	
Retention	5 years
Location	At each facility
Evaluation	Self-evaluation.
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Note: If a facility with facility owned and operated equipment also identified OSRO equipment in its response plan, the OSRO equipment must also be deployed and operated in accordance with the equipment deployment requirements for OSRO owned equipment.

Sec. III-4.10 EPA (Cont'd)

EPA Regulated Facilities	
Equipment Deployment Exercises	
Applicability	Facilities with OSRO response equipment cited in their response plan.
Frequency	Annually
Initiating Authority	Company policy
Participating Elements	Facility owner or operator and OSRO.
Scope	Deploy and operate response equipment identified in the response plan. The equipment to be deployed would be the minimum amount of equipment for deployment as described in "Guiding Principles." All of the OSRO personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the OSRO equipment must be included in a comprehensive maintenance program. Credit should be taken for equipment deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. The facility owner or operator must ensure that inspection and maintenance by the OSRO is documented. The OSRO must provide inspection and maintenance information to the owner or operator. Plan holders must ensure that when a regional OSRO is identified in the response plan, the OSRO conducts annual equipment deployment exercises in each operating environment for each CG or EPA Contingency Planning Area, or EPA sub-area (where identified).
Objectives	Demonstrate the ability of the personnel to deploy and operate response equipment. Ensure the response equipment is in proper working order.
Certification	The facility owner or operator should ensure that the OSRO identified in the response plan provides adequate documentation that the requirements for this exercise have been met.
Verification	Environmental Protection Agency (EPA)
Records	
Retention	5 years, kept at the facility.
Evaluation	Self-evaluation.
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Note: If a facility with facility owned and operated equipment also identified OSRO equipment in its response plan, the OSRO equipment must also be deployed and operated in accordance with the equipment deployment requirements for OSRO owned equipment.

Sec. III-4.10 EPA (Cont'd)

EPA Regulated Facilities	
Government-Initiated Unannounced Exercises	
Applicability	EPA-regulated facility response plan holders within the region.
Frequency	Triennially, if successfully completed. A facility deemed by the CG/EPA not to have successfully completed the exercise may be required to participate in another government initiated unannounced exercise at the discretion of the exercising agency. (Plan holders who have successfully completed a PREP government-initiated unannounced exercise will not be required to participate in another one for at least 36 months from the date of the exercise).
Initiating Authority	EPA
Particip. Elements	EPA-regulated facility response plan holders.
Scope	Unannounced exercises are limited to a maximum of 10% of response plan holders per EPA region per year. Exercises are limited to approximately 4 hours in duration. Exercises should involve response to a small discharge scenario (assume 2,100 gallons outside secondary containment and discharged into or on navigable waters and adjoining shorelines.) Exercise would involve deployment of response equipment identified in the facility response plan to respond to spill scenario. PHMSA and MMS will cover unannounced exercises for pipelines and offshore facilities not a part of a complex in their exercise programs.
Objectives	Conduct proper notifications to respond to unannounced scenario of a small discharge. Demonstrate that the response is: • Timely as defined in Section 1 of these Guidelines; • Conducted with adequate amount of equipment for scenario; and • Properly conducted.
Certification	EPA
Verification	EPA
Records	
Retention	5 years, kept at the facility.
Evaluation	Evaluation to be conducted by initiating agency.
Credit	Credit may be granted by the initiating authority for an actual spill response when the PREP objectives are met, the response is evaluated by the initiating authority and a proper record is generated. Plan holders participating in this exercise may take credit for notification and equipment deployment exercises, if criteria for those exercises are met, the response is evaluated by the plan holder and a proper record is generated.

Sec. III-4.11 Coast Guard

Coast Guard Marine Transportation-Related (MTR) Facilities	
QI Notification Exercises	
Applicability	Facility
Frequency	Quarterly
Initiating Authority	Company policy.
Participating Elements	Facility personnel, qualified individual
Scope	Exercise communication between facility personnel and qualified individual.
Objectives	Contact must be made with a qualified individual or designee, as designated in the response plan.
Certification	Self-certification.
Verification	U.S. Coast Guard
Records	
Retention	3 years
Location	Records to be kept at the facility.
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated. For plan holders handling both oil and hazardous substances, a single QI notification will satisfy exercise requirements for both plans, if both plans rely on the same QI. If the plan holder uses two different QIs, the plan holder is required to exercise both separately.

Sec. III-4.11 Coast Guard (Cont'd)

Coast Guard Marine Transportation-Related (MTR) Facilities	
Emergency Procedures Exercises (Optional)	
Applicability	Facility
Frequency	Quarterly
Initiating Authority	Facility owner or operator.
Particp. Elements	Facility personnel
Scope	Exercise the emergency procedures for the facility to mitigate or prevent any discharge or a substantial threat of such discharge or oil/HAZSUB resulting from facility operational activities associated with oil transfers.
Objectives	Conduct an exercise of the facility's emergency procedures to ensure personnel knowledge of actions to be taken to mitigate a spill. This exercise may be a walk-through of the emergency procedures. Exercise should involve one or more of the sections of the emergency procedures for spill mitigation. For example, the exercise should involved a simulation of a response to an oil spill. The facility should ensure that spill mitigation procedures for all contingencies at the facility are addressed at some time.
Certification	Self-certification.
Verification	U.S. Coast Guard
Records	
Retention	3 years
Location	Records to be kept at the facility.
Evaluation	Self-evaluation
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated. **This section describes an option exercise to provide facilities with an exercise that may be conducted <u>unannounced</u> to fulfill the internal unannounced exercise requirement.** At facilities covered by both oil and hazardous substance plans, separate oil and hazardous substance exercises are not required. However, the shipboard personnel should alternate oil and hazardous substance scenarios each quarter.

Sec. III-4.11 Coast Guard (Cont'd)

Coast Guard Marine Transportation-Related (MTR) Facilities	
Spill Management Team Tabletop Exercise	
Applicability	Facility spill management team
Frequency	Annually
Initiating Authority	Company policy
Participating Elements	Spill management team as established in the response plan.
Scope	Exercise the spill management team's organization, communication, and decision-making in managing a spill response.
Objectives	Exercise the spill management team in a review of: • Knowledge of the response plan; • Proper notifications; • Communications system; • Ability to access an OSRO/HSRO; • Coordination of internal organization personnel with responsibility for spill response; • An annual review of the transition from a local team to a regional, national, and international team, as appropriate; • Ability to effectively coordinate spill response activity with the National Response System (NRS) infrastructure. (If personnel from the NRS are not participating in the exercise, the spill management team should demonstrate knowledge of response coordination with the NRS); • Ability to access information in the Area Contingency Plan for location of sensitive areas, resources available within the area, unique conditions of area, etc. • At least one spill management team tabletop exercise in a triennial cycle would involve simulation of a worst-case discharge scenario.
Certification	Self-certification.
Verification	U.S. Coast Guard
Records	
Retention	3 years
Location	Records to be kept at the facility.
Evaluation	Self-evaluation
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated. Plan holders are responsible for ensuring that SMTs are familiar with Area Committees/Regional Response Teams (*RRTs) and Area Contingency Plans in every area in which the plan holder operates. While it is not practicable to require an SMT to exercise in every area/region in which they offer cover each year, each SMT is expected to review ACPs annually and the make-up of Area Committees/RRTs in all areas in which they offer coverage. Self-certification for exercise credit should include SMT certification that the SMT has completed annual review and is familiar with the ACPs and Area Committees in all areas in which the plan holder operates.

Sec. III-4.11 Coast Guard (Cont'd)

Coast Guard Marine Transportation-Related (MTR) Facilities	
Equipment Deployment Exercises	
Applicability	Facilities with facility owned and operated response equipment.
Frequency	Semiannually
Initiating Authority	Company policy
Particp. Elements	Facility personnel
Scope	Deploy and operate facility owned and operated response equipment identified in the response plan. The equipment to be deployed would be either (1) the minimum amount of equipment for deployment as described in "Guiding Principles", or (2) the equipment necessary to response to an average most probably discharge at the facility, whichever is less. All of the facility's personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the facility's equipment must be included in a comprehensive maintenance program. Credit should be taken for deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. All inspection and maintenance must be documented by the owner.
Objectives	Demonstrate ability of facility personnel to deploy and operate equipment. Ensure equipment is in proper working order. Deployment should also include testing ACP containment, protection and diversion strategies.
Certification	Self-certification.
Verification	U.S. Coast Guard
Records	
Retention	3 years
Location	Records to be kept at the facility.
Evaluation	Self-evaluation
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated. **Note: If a facility with facility owned and operated equipment also identifies OSRO equipment in its response plan, the OSRO equipment must also be deployed and operated in accordance with the equipment deployment requirements for OSRO owned equipment.**

Sec. III-4.11 Coast Guard (Cont'd)

Coast Guard Marine Transportation-Related (MTR) Facilities	
Equipment Deployment Exercises	
Applicability	Facilities with OSRO/HSRO response equipment cited in their response plan.
Frequency	Annually
Initiating Authority	Company policy
Participating Elements	Facility owner or operator and OSRO/HSRO.
Scope	Deploy and operate response equipment identified in the response plan. The equipment to be deployed would be the minimum amount of equipment as described in "Guiding Principles." All of the OSRO/HSRO personnel involved in equipment deployment operations must be included in a comprehensive training program. All of the OSRO/HSRO equipment must be included in a comprehensive maintenance program. Credit should be taken for equipment deployment conducted during training. The maintenance program must ensure that the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. The facility owner or operator must ensure that inspection and maintenance by the OSRO/HSRO is documented. The OSRO/HSRO must provide inspection and maintenance information to the owner or operator. Plan holders must ensure that when a regional OSRO/HSRO is identified in the response plan, the OSRO/HSRO conducts annual equipment deployment exercises in each operating environment for each CG Contingency Planning Area.
Objectives	Demonstrate ability of personnel to deploy and operate equipment. Ensure the response equipment is in proper working order. Whenever feasible, equipment deployment should also include ACP containment, protection and diversion strategies.
Certification	The facility owner or operator should ensure that the OSRO/HSRO identified in the response plan provides adequate documentation that the requirements for this exercise have been met.
Verification	U.S. Coast Guard
Records	
Retention	3 years
Location	Records to be kept at the facility.
Evaluation	Self-evaluation
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Sec. III-4.11 Coast Guard (Cont'd)

Coast Guard Marine Transportation-Related (MTR) Facilities	
Government-Initiated Unannounced Exercises	
Applicability	Vessel and MTR facility response plan holders within the area.
Frequency	Triennially, if successfully completed. A facility deemed by the CG/EPA not to have successfully completed the exercise may be required to participate in another government initiated unannounced exercise at the discretion of the exercising agency. (Plan holders who have successfully completed a PREP government-initiated unannounced exercise will not be required to participate in another one for at least 36 months from the date of the exercise.)
Initiating Authority	U.S. Coast Guard
Participating Elements	Vessel and MTR facility response plan holders.
Scope	Unannounced exercises are limited to a maximum of four exercises per area per year. Exercises are limited to approximately 4 hours in duration. Exercises must involved response to an average AMD scenario. PHMSA and MMS would cover unannounced exercises for pipelines and offshore facilities not part of a complex in their exercise program.
Objectives	Conduct proper notifications to response to unannounced scenario of an average most probable discharge. Demonstrate response is: • Timely – As a general rule, the regulatory planning standard is containment equipment (e.g., booms) on scene within one hour of notification and recovery equipment (skimmers and temporary storage) on scene within two hours. Therefore in a government-initiated unannounced exercise, plan holder should be able to initiate simulated clean up within approximately two hours of exercise commencement. • Conducted with adequate amount of equipment for scenario; • Properly conducted. Whenever feasible, equipment deployment should also include testing ACP containment, protection and diversion strategies.
Certification	U.S. Coast Guard
Verification	U.S. Coast Guard
Records	
Retention	3 years
Location	For facilities, at the facility. For vessels, in accordance with 33 CFR 155.1060(e)(2)
Evaluation	Evaluation to be conducted by initiating agency.
Credit	Credit may be granted by the initiating authority for an actual spill response when the PREP objectives are met, the response is evaluated by the initiating authority and a proper record is generated. Plan holders participating in this exercise may take credit for notification & equipment deployment exercises, if criteria for those exercises are met, the response is evaluated by the plan holder and a proper record is generated.

Sec. III-4.12 DOT (PHMSA)

Onshore Transportation Related Pipelines	
Owner or Operator Internal Notification Exercises	
Applicability	Pipeline owner or operator
Frequency	As indicated by the response plan and, at a minimum, consistent with the triennial cycle (quarterly)
Party Initiating Exercise	As indicated in the response plan
Participants	Facility response personnel and the facility's qualified individual
Scope	Exercise notification process between key facility personnel and the qualified individual to demonstrate the accessibility of the qualified individual
Objectives	Contact by telephone, radio, message-pager, or facsimile and confirmation established as indicated in response plan
Format	As indicated in response plan
Certification	Self-certification as indicated in response plan. Each plan should have a written description of the company's certification process.
Verification	Verification conducted by Pipeline and Hazardous Materials Safety Administration (PHMSA) during regular inspections* or PHMSA tabletop exercises. *Verification will not be done by inspections in the near term.
Records	
Retention	3 years
Location	Owner or operator shall retain records as indicated in response plan. PHMSA to retain verification records.
Credit	Plan holder should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Sec. III-4.12 DOT (PHMSA)[Cont'd]

Onshore Transportation Related Pipelines	
Internal Tabletop Exercises	
Applicability	Pipeline owner or operator
Frequency	As indicated by the response plan and, at a minimum, consistent with the triennial cycle (quarterly)
Party Initiating Exercise	As indicated in the response plan
Participants	Designated spill emergency response team members.
Scope	Demonstration of the response team's ability to organize, communicate, and make strategic decisions regarding population and environmental protection during a spill event.
Objectives	Designated emergency response team members should demonstrate: • Knowledge of facility response plan; • Ability to organize team members to effectively interface with a unified command; • Communication capability; and • Coordinate for response capability as outlined in response plan.
Format	Internal tabletop exercise as outlined in response plan.
Certification	Self-certification as indicated in response plan or as defined in the "Guiding Principles" section of this document, whichever is more stringent. Each plan should have a written description of the company's certification process.
Verification	Verification conducted by PHMSA during regular inspections* or PHMSA tabletop exercises. *Verification will not be done by inspections in the near term.
Records	
Retention	3 years
Location	Owner or operator shall retain records as indicated in response plan. PHMSA to retain verification records.
Credit	Plan holders should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Sec. III-4.12 DOT (PHMSA)[Cont'd]

Onshore Transportation Related Pipelines	
Owner/Operator Equipment Deployment Exercises	
Applicability	Pipeline owner or operator
Frequency	As indicated by the response plan and, at a minimum, consistent with the triennial cycle (quarterly). *The number of equipment deployment exercises should be such that equipment and personnel assigned to each response zone are exercised at least once per year. If the same personnel and equipment respond to multiple zones, they need only exercise once per year. If different personnel and equipment respond to various response zones, each must participate in an annual equipment deployment exercise.
Party Initiating Exercise	As indicated in the response plan
Participants	Designated spill emergency response team members.
Scope	Demonstrate ability to deploy spill response equipment* identified in the FRP. *May consist entirely of operator owned equipment, or a combination of OSRO and operator equipment.
Objectives	Designated emergency response personnel should demonstrate: • Ability to organize, and; • Ability to deploy and operate representative types of key response equipment as described in response plan.
Format	Announced deployment exercise indicated in response plan.
Certification	Self-certification as indicated in response plan. Each plan should have a written description of the company's certification process.
Verification	Verification conducted by PHMSA during regular inspections* or PHMSA tabletop exercises. *Verification will not be done by inspections in the near term.
Records	
Retention	3 years
Location	Owner or operator shall retain records as indicated in response plan. PHMSA to retain verification records.
Credit	Plan holders should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Sec. III-4.12 DOT (PHMSA)[Cont'd]

Onshore Transportation Related Pipelines	
Unannounced Exercises	
Applicability	Pipeline owner or operator
Frequency	Maximum of 20 unannounced PHMSA exercises conducted annually for the pipeline industry as a whole. A single owner or operator will not be required to participate in a PHMSA- initiated unannounced exercise, if they have already participated in one within the previous 36 months.
Party Initiating Exercise	PHMSA
Participants	Designated spill emergency response team members. Operations staff. On-Scene Coordinator (optional). State and local government (optional).
Scope	Demonstrate ability to respond to a worst-case discharge spill event.
Objectives	Designated emergency response team members should demonstrate adequate knowledge of their facility response plan and the ability to organize, communicate, coordinate, and respond in accordance with that plan.
Format	Unannounced tabletop exercise to discuss strategic issues.
Certification	Certification can be effectuated by PHMSA personnel conducting the exercise. PHMSA will provide written certification of the exercise date, participants, and response zone exercised.
Verification	Verification can be made by PHMSA personnel conducting the exercise.
Records	
Retention	3 years
Location	Owner or operator shall retain records as indicated in response plan. PHMSA to retain verification records.
Credit	Plan holders should take credit for this exercise when conducted in conjunction with other exercises as long as all objectives are met, the exercise is evaluated, and a proper record is generated. Credit should be taken for an actual spill response when these objectives are met, the response is evaluated, and a proper record is generated.

Section IV – Table of Contents

Sec. IV-1 Company Forms

Spill Response Equipment Inspection

If the facility lists response equipment in this plan, then the equipment shall be inspected on an annual basis. Equipment found to be defective would be repaired or replaced. Documentation of equipment inspection/maintenance records is available at the facility. An example of the response equipment inspection log has been included below:

FACILITY-OWNED EQUIPMENT INSPECTION LOG				
Equipment Location:			**Response Time**	
Inspected By:	**Print**		**Sign**	
Inspection Date:				
Recovery Capacity (EDRC):	Ex: 7,645 bpd x 20% daily recovery rate = 1,529 bpd EDRC (based on a 20% efficiency)			
Equipment Type	**Description - Model, Style, Size, Capacity, Shelf Life**	**Qty**	**Operational Status**	**Last Deployment Date**
EXAMPLE: Boom	*50' Acme 6x6 booms*	*100'*	*Good*	*7/01/11*

Retention: 5 years
Inspection Frequency: DOT/PHMSA: Annual

Aboveground Atmospheric Storage Tank
Monthly Routine In-Service Inspection

GPL-199

Rev 4 2011-05-13

Ref: 49CFR195.432 or 40 CFR112.1.8.1(f)(FRP), 112.7(e)(SPCC) and API-653

Also Use this Form for Annual Inspection of Small Storage Tanks Sized 10,000 gallons or less

Tank No: _____ Location: _____

Service: ☐ Break-Out ☐ Storage

Corrective action is required for any adverse condition noted (visible leaks or any notation on columns 4-9)

NOTE: Access onto a floating roof is not required by this form

(1) Employee Initials	(2) Date	(3) Visible Leaks (Yes/No)	(4) Shell Distortion	(5) Pressure/ Vaccum Relief Valves	(6) Corrosion (Handrails, Sketchplates, Attachments, Stairs, etc.)	(7) Tank Foundation Tank Pipe Supports Tank Dikes	(8) Coating Insulation Condition	(9) Nozzles, Tank Valves, Roof Drains & Tank Piping

Comments: Address all unsatisfactiory conditions above and corrective actions (SAP WO Number)

Date	Comments

NOTE: Any deficiencies noted during the inspection shall be reported to immediate company supervision and the TIG.

ANY LEAKS DISCOVERED DURING INSPECTION NEED TO BE REPORTED IMMEDIATELY.

Official Document Location: Livelink 34509973

Form: ADM090 MAX 12Y

Completed Form Retention: HSE405 3Y (required by EPA 40CFR 112.7(e) (SPCC Plan)

HSE480 5Y (required by facility emergency response plan 40 CFR 112.1.8.1(f) or if facility operates under a Title V Air Permit)

Doc. No.: GPL-205
Rev.: 2

Transportation - Pipelines and Terminals

PI Form - GPL-205 - Annual Tank Inspection Report

1. **TERMINAL/FACILITY:** _____
2. **TANK #:** _____
3. **INSPECTOR:** _____
4. **SERVICE:** _____

TANK TYPE: ____ External ____ Internal ____ Cone Roof ____ Spheroid ____ Sphere ____ Other

DATE: _____

5. **CAPACITY:** _____

(CHECK APPROPRIATE ANSWER OR MARK THROUGH THE QUESTION IF IT DOES NOT APPLY.)

TANK APPURTENANCES (ATMOSPHERIC STORAGE)

	YES	NO
6. Are the relief valve vent screens clean?	☐	☐
7. Do the combination pressure/vacuum pallets move freely to an open or closed position?	☐	☐
8. Are the liquid thermal relief valves on tank piping properly mounted to prevent piping overpressure?	☐	☐
9. Is a flame arrestor on the tank (see Std. 26.01-18)?	☐	☐
A. Do state regulations or local ordinance require it?	☐	☐
B. Can it be removed by applying a design hazard review or a Management of Change (MOC)?	☐	☐
10. Is tank gauge in satisfactory condition?	☐	☐
11. Is water drain valve in satisfactory condi ion?	☐	☐
12. Is roof drain apparently in sa isfactory condition? (i.e., no staining at the base exit of he roof drain piping)	☐	☐

FILL IN ITEMS 14 THRU 27 FOR FIXED OR EXTERNAL FLOATING ROOFS

	YES	NO
13. Is the external roof resting on the surface of the stored liquid?	☐	☐
14. Is gauge hatch in satisfactory condition?	☐	☐
15. Is roof paint in satisfactory condition?	☐	☐
16. Is check valve mounted in roof sump, is it free of debris, and does the internal "clapper" operate freely?	☐	☐
17. Is roof leak-free? Any patches or epoxy-type repairs noted?	☐	☐
18. Are pontoon compartments free of hydrocarbon liquids?	☐	☐
19. Does floating roof deck area drain accumulated water well?	☐	☐
20. Is roof travel apparently free at all shell height posi ions?	☐	☐
21. Are roof drain sump(s) clear of debris?	☐	☐
22. Does roof have large quantities of accumulated dirt on deck area?	☐	☐
23. Is primary/secondary seal in satisfactory condition?	☐	☐
If not, how much is bad (in linear footage)?	ft	
24. Is seal fabric compa ible for intended product service?	☐	☐
25. Are "grounding" shunts installed and spaced accordingly?	☐	☐
26. Are "pinholes" spotted on floating decks area? Accumulated liquid?	☐	☐

27. Additional comments: _____

FILL IN ITEM 28 FOR INTERNAL FLOATING ROOFS

28. Through manholes or roof hatches on the fixed roof, visually inspect the internal floa ing roof and primary seal or the secondary seal (if one is in service) for he following:

	YES	NO
(A) Is the internal floating roof not res ing on he surface of the liquid inside the storage tank?	☐	☐
(B) Is there any liquid accumulated on top of the roof?	☐	☐
(C) Is the seal detached?	☐	☐
(D) Are there holes or tears in the seal fabric?	☐	☐
(E) Are there any defects in he floating roof?	☐	☐
(F) IFR to shell bonding issues (cables or shunts, etc)?	☐	☐

*If the answer to any of the above questions is yes, note corrective actions and date taken. _____

NOTE: Documentation is required to ensure that repairs are made within 45 days of identifying a defect. If a defect is found that cannot be repaired in 45 days, notify the area environmental coordinator.

FILL IN ITEMS 29 THRU 31 FOR LIFTER ROOF TANKS ONLY

A "Lifter Roof" is a fixed roof that moves and collects vapors.

	YES	NO
29. Is the relief valve opening mechanism in satisfactory condition?	☐	☐
30. Are the fixed roof stops in satisfactory condition?	☐	☐
31. Is roof travel apparently free at all positions?	☐	☐
32. For liquid seal, is the Launder apparently leak free?	☐	☐
33. Is liquid seal (i e., diesel fuel) retaining specific gravity over time?	☐	☐

34 Additional comments: _____

SHELL

	YES	NO
35. Is the shell free of leaks?	☐	☐
36. Any flat or visible dents on tank shell?	☐	☐
37. Full appearance of girth welds/rivet joints on the vertical/horizontal weld/rivet seams?	☐	☐
38. Is external "sketchplate or chime" experiencing corrosion?	☐	☐
39. Is the wind girder satisfactorily guarded from corrosion or water accumulation?	☐	☐
40. Is the general condition of paint satisfactory?	☐	☐

41. Additional comments: _____

TANK BOTTOM/FOUNDATION AREA

	YES	NO
42. Is the edge tank bottom perimeter free of visible leaks?	☐	☐
43. Is tank berm properly sloped to divert storm water?	☐	☐
44. Are there any physical deformities caused by severe edge settlement?	☐	☐
45. Does he tank have a concrete ringwall?	☐	☐
If YES, please answer the following subparts:		
A. Are any sections of ringwall missing?	☐	☐
B. Are cracks wider han 1/8" in diameter visible around the tank perimeter?	☐	☐
C. Is there evidence of water migra ion into ringwall cracks?	☐	☐
46. If tank is on earthen foundation, are here any locations where tank is unsupported from soil?	☐	☐
47. If tank has leak detec ion system, checked & no leaks found?*	☐	☐

48. Additional comments: _____

* Be sure to seal tank double containment area after checking leak detection ports

FIRE PROTECTION - If Applicable to Storage Tank

	YES	NO
49. Are foam line(s) and connections braced sa isfactorily?	☐	☐
50. Do foam chambers appear clean and unobstructed?	☐	☐
51. Does tank dike area drain sa isfactorily?	☐	☐
52. Is the foam bladder vessel filled to 95% capacity?	☐	☐
53. Are adequate portable fire extinguishers located at the base of the tank stairway or inside the tank farm?	☐	☐
54. Have he internal glass membrane plates remained unbroken in he side-mounted enclosed-shell foam chambers?	☐	☐
55. Is dike capacity maintained to original design capacity?	☐	☐
56. Are adequate "No Smoking" and "Hot Work Permit" signs posted at tank dike entranceway?	☐	☐

57. Additional comments: _____

Distribution: Orig - Facility
Ref. Copy - Region Office (R) Regional Equipment Inspector

Retain inspection report for 2-year period if required by DOT 49CFR 195.404; or EPA 40 CFR 60.115b (NSPS)

Retain inspection report for 3-year period if required by EPA 40CFR 112.7(e) (SPCC Plan)

Retain inspection report for 5 years if required by facility emergency response plan 40 CFR 112.1.8.1(f) or if facility operates under a Title V Air Permit

TRANSPORTATION – PIPELINES & TERMINALS
EPR&S PREP - COMPANY TRAINING ROSTER/LOG

TRAINING DATE(S): _____ (YYYY-MM-DD) **START TIME:** _____ **END TIME:** _____

LOCATION: _____

_____

COMPANY CONTACT: _____ **PHONE:** _____

Roster/Log Instructions: Check all training that was successfully completed by participants in attendance. The Course description is associated with the Learning Management System (LMS) Course Express Number.

TRAINING COURSE TITLE/ LEARNING MANAGEMENT SYSTEM COURSE EXPRESS NUMBER:

- ☐ Incident Command System / TPTER000012
- ☐ OPA '90 Plan Review / TPTER000023
- ☐ Unannounced Tabletop Exercise / TPTER000021 (1/Y)
- ☐ Tabletop Exercise / TPTER000015
- ☐ Unannounced Equipment Deployment Exercise / TPTER000019
- ☐ Equipment Deployment Exercise / TPTER000013
- ☐ Unannounced Agency Drill / TPTER000018
- ☐ Spill Response Participation in an Actual OPA 90 Event / TPTER000022
- ☐ Security – Site Personnel / TPTER000030
- ☐ Security - Annual Exercise / TPTER000025
- ☐ Security - Marine FSO / TPTER000031
- ☐ Security - Marine Quarterly Drill / PTER000026
- ☐ Spill Prevention Briefing and SPCC Review / TPTHSE000323
- ☐ Other: _____

All classes listed above may be applied towards HAZWOPER Refresher Training.

- ☐ Hazwoper, 4-hr Refresher / TPTERHAZWOPER4
- ☐ Hazwoper, 8-hr Refresher (WA ONLY) / TPTERHAZWOPER8
- ☐ Certification-24 Hour HAZWOPER Technician Level / TPTER000003
- ☐ HAZWOPER QI-IC / TPTHSE000212
- ☐ HAZWOPER Supervisor Certification / TPTER000024
- ☐ Other: _____

☐ **Company Contact:** Send a copy of the completed Training Roster to an EPR&S Coordinator via Company Global Scan or Fax: 918-662-6807. Retain the original copy in the facility files.

► *For EPR&S and LMS use only:* ☐ *Review/Submit to LMS Training Administrator* *Initials:* _____ *Date:* _____

☐ *LMS Entry Completed* *Initials:* *Date:*

LIST OF ATTENDEES TRAINED / COMPLETED SUCCESSFULLY
(* = Did not complete)

LAST NAME, FIRST NAME (PRINT)	EMPLOYEE ID NO. *OR* COMPANY NAME	JOB TITLE & LOCATION	SIGNATURE
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
LAST NAME, FIRST NAME (PRINT)	EMPLOYEE ID NO. *OR* COMPANY NAME	JOB TITLE & LOCATION	SIGNATURE

TRANSPORTATION – PIPELINES & TERMINALS
EPR&S PREP - COMPANY TRAINING ROSTER/LOG

TRAINING DATE(S): _____ (YYYY-MM-DD) **START TIME:** _____ **END TIME:** _____

LOCATION: _____

COMPANY CONTACT: _____ **PHONE:** _____

15.			
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42.			
43.			
44.			

QUALIFIED INDIVIDUAL - NOTIFICATION EXERCISE

Facility Name: _____ **Date:** _____

☐ **Exercise** ☐ **Actual Response** **Quarter:** ☐ **1st** ☐ **2nd** ☐ **3rd** ☐ **4th**

Conducted After Normal Working Hours ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No

(One of the quarterly QI Notification Exercises must be conducted after normal working hours.)

Exercise Initiated by ☐ **Terminal** ☐ **Pipeline** **Person Initiating Contact:** _____
(Name/Position)

Person Notified: _____
(Name/Position)

Is this person identified in your response plan as qualified individual; or designee? ☐ Yes ☐ No

Time Initiated: _____ **Number(s) Called** _____

Initiation Communication used: ☐ Telephone ☐ Radio ☐ Pager ☐ Other: _____

Call Complete: ☐ Yes ☐ No **Message Left:** _____

Time in which QI or designee responded: _____ **Number Called:** _____

Response Communication used: ☐ Telephone ☐ Radio ☐ Pager ☐ Other: _____

Other Notification: _____
(Name/Position)

Type of Communication used: ☐ Telephone ☐ Radio ☐ Pager ☐ Other: _____

Time Called: _____ **Number(s) Called** _____

Notification Complete: ☐ Yes ☐ No **Message Left:** _____

Response Time: _____ **Response Number Called:** _____

Emergency Scenario: _____

_____

_____

_____

_____

Changes to be implemented: _____

_____

_____

Time Table for Implementation: _____

Corrective Follow-up assignment _____

Facility Supervisor Signature: _____ **Date:** _____

SPILL MANAGEMENT TEAM (SMT) - TABLE TOP EXERCISE

Plan Name: _____ **Date:** _____

☐ **Announced Exercise** ☐ **Unannounced Exercise** ☐ **Actual Response**

Location: _____

Start time: _____ ☐ AM ☐ PM **Stop time:** _____ ☐ AM ☐ PM

Response Plan Scenario Used:
- ☐ Small Spill / Average Most Probable Discharge
- ☐ Medium Spill / Maximum Most Probable Discharge
- ☐ "Worst-Case" Discharge (WCD)

Product: _____ **Amount:** _____ bbls

1. **Did the Spill Management Team (SMT) utilize the ERP during the exercise?** ☐ Yes ☐ No
2. **Were internal and external notifications completed per the ERP?** ☐ Yes ☐ No
3. **Were communication systems adequate?** ☐ Yes ☐ No
4. **Were the Company Oil Spill Removal Organizations (OSRO) notified?** ☐ Yes ☐ No
5. **Was there good coordination with On-Scene Coordinator, State and applicable agencies?** ☐ Yes ☐ No
6. **Were sensitive site and resource information in the ERP accessed as needed?** ☐ Yes ☐ No
7. **Select which of the 15 PREP core components were employed during this particular exercise:**
   - ☐ Notifications
   - ☐ Staff mobilization
   - ☐ Operate within Response Management System
   - ☐ Discharge control
   - ☐ Assessment of discharge
   - ☐ Containment of discharge
   - ☐ Recovery of spilled material
   - ☐ Protection of sensitive areas
   - ☐ Disposal of recovered material & contaminated debris
   - ☐ Communications
   - ☐ Transportation
   - ☐ Personnel support
   - ☐ Equipment maintenance & support
   - ☐ Procurement
   - ☐ Documentation
8. **Evaluation:** Refer to the attached Exercise Critique for this information.
9. **Changes to be Implemented and person responsible for follow-up of corrective action:**

   _____

   _____

   _____
10. **Time Table for Implementation:**

    _____

    _____

    _____
11. **Self Certifying Signature:** _____

    Print Name / Position: _____

EQUIPMENT DEPLOYMENT EXERCISE (PREP-EDX)

PLAN NAME: _____ **DATE:** _____

EXERCISE TYPE: ☐ **Announced** ☐ **Unannounced** **or** ☐ **Actual Response**

DEPLOYMENT LOCATION: _____

TIME STARTED: _____ ☐ AM ☐ PM **TIME OSRO CALLED:** _____ ☐ AM ☐ PM ☐ N/A

TIME ON-SCENE: _____ ☐ AM ☐ PM **TIME BOOM DEPLOYED:** _____ ☐ AM ☐ PM ☐ N/A

TIME OSRO/RECOVERY EQUIPMENT ARRIVES ON-SCENE FOR DEPLOYMENT: _____ ☐ AM ☐ PM ☐ N/A

TIME COMPLETED EXERCISE: _____ ☐ AM ☐ PM

EQUIPMENT DEPLOYED:

☐ Company-Owned ☐ Co-op Equipment
☐ OSRO/Contractor owned ☐ Both Company & Co-op Equipment
☐ Both Company, OSRO/Contractor ☐ Company, OSRO/Contractor & Co-op

Name of participating OSRO, Co-op and/or Contractor: _____

DESCRIBE THE GOALS OF THE EQUIPMENT DEPLOYMENT AND LIST ANY AREA CONTINGENCY PLAN (ACP) STRATEGIES TESTED. (Refer to the ICS 201-1 form for sketch of equipment deployment location(s) and booming strategies.)

EXERCISE EVALUATION:

1. DEPLOYMENT OF FACILITY-OWNED EQUIPMENT:

a. List type & amount of all equipment deployed (e.g., boom & skimmers) and number of support personnel employed.

Refer to the attached ICS Forms: 211-E (for a list of equipment deployed), 211-P (for personnel employed) or the 201-4 (Resource Summary).

b. All facility/pipeline personnel that are responsible for response operations are involved in a comprehensive training program? ☐ Yes ☐ No

If so, describe: _____

c. All pollution response equipment involved in a comprehensive maintenance program? ☐ Yes ☐ No

If so, describe the program: _____

d. Date of last equipment inspection: _____

e. Was the amount of equipment deployed at least the amount necessary to respond to the pipeline's/ facility's average most probable spill? ☐ Yes ☐ No

If not, describe why: _____

f. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? ☐ Yes ☐ No

If not, describe why: _____

g. Was the equipment deployed in its intended operating environment? ☐ Yes ☐ No

If not, explain why: _____

h. Was all deployed equipment operational? ☐ Yes ☐ No

If not, explain why: _____

2. DEPLOYMENT OF OSRO AND/OR COOP-OWNED EQUIPMENT:

a. List type & amount of all equipment deployed (e.g., boom & skimmers) and number of support personnel employed.
Refer to the attached ICS Forms: 211-E (for a list of equipment deployed), 211-P (for personnel employed) or 201-4 (Resource Summary).

b. All response organization personnel that are responsible response operations involved in a comprehensive training program? ☐ Yes ☐ No
If so, describe the program: _____

c. All pollution response equipment involved in a comprehensive maintenance program? ☐ Yes ☐ No
If so, describe the program: _____

d. Date of last equipment inspection: _____

e. Was a representative sample (at least 1,000 ft. of each boom type and one of each skimmer type) deployed? ☐ Yes ☐ No
If not, describe why: _____

f. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? ☐ Yes ☐ No
If not, describe why: _____

g. Was the equipment deployed in its intended operating environment? ☐ Yes ☐ No
If not, describe why: _____

h. Was all deployed equipment operational? ☐ Yes ☐ No
If not, explain why: _____

3. Select which of the 15 core components of the response plan were employed during this exercise:

- ☐ Notifications
- ☐ Staff mobilization
- ☐ Operate within Response Management System
- ☐ Discharge control
- ☐ Assessment of discharge
- ☐ Containment of discharge
- ☐ Recovery of spilled material
- ☐ Protection of sensitive areas
- ☐ Disposal of recovered material & contaminated debris
- ☐ Communications
- ☐ Transportation
- ☐ Personnel support
- ☐ Equipment maintenance & support
- ☐ Procurement
- ☐ Documentation

4. EDX CRITIQUE

(Description of lessons learned, procedures and schedule for implementation, and person(s) responsible for follow-up of corrective actions.

a. What went well?

_____

_____

_____

b. Areas for improvement?

_____

c. Corrective actions	d. Implementation schedule	e. Person responsible for follow up of corrective actions

5. SELF-CERTIFYING SIGNATURE: _____ DATE: _____

Print Name/Position: _____

Sec. IV-2 Industry Forms

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)				
15 PREP COMPONENTS EVALUATION WORKSHEET				
Incident/Drill Name:		**Prepared by:**	**at:**	
Period: to		**Company Name:**		
ORGANIZATION DESIGN				
1) Notifications				
Components	**ICS/UCS Position Responsible**	**Completed (Y/N)**	**Date/Time Completed**	**Comments**
1a. Test the notifications procedures identified in the Area Contingency Plan and the associated Responsible Party Response Plan.				
2) Staff mobilization				
Components	**ICS/UCS Position Responsible**	**Completed (Y/N)**	**Date/Time Completed**	**Comments**
2a. Demonstrate the ability to assemble the spill response organization identified in the Area Contingency Plan and associated Responsible Party Response Plan.				
3) Ability to operate within the response management system described in the plan				
Components	**ICS/UCS Position Responsible**	**Completed (Y/N)**	**Date/Time Completed**	**Comments**
3.1 Unified Command: Demonstrate the ability of the spill response organization to work within a unified command.				
3.1.1 Federal Representation: Demonstrate the ability to consolidate the concerns and interests of the other members of the unified command into a unified strategic plan with tactical operations.				
3.1.2 State Representation: Demonstrate the ability to function within the unified command structure.				
3.1.3 Local Representation: Demonstrate the ability to within the unified command structure.				
Page 1 of 8				

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)

15 PREP COMPONENTS EVALUATION WORKSHEET (Cont'd)

3) Ability to operate within the response management system described in the plan (Cont'd)

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
3.1.4 Responsible Party Representation: Demonstrated to function within the unified command structure organization to control and stop the discharge at the source.				
3.2. **Response Management System:** Demonstrate the ability of the response organization to operate within the framework of the response management system identified in their respective plans.				
3.2.1 Operations: Demonstrate the ability to coordinate or direct operations related to the implementation of action plans contained in the respective response and contingency plans developed by the unified command.				
3.2.2 Planning: Demonstrate the ability to consolidate the various concerns of the members of the unified command into joint planning recommendations and specific long-range strategic plans. Demonstrate the ability to develop short-range tactical plans for the operations division.				
3.2.3 Logistics: Demonstrate the ability to provide the necessary support of both the short-term and long-term action plans.				
3.2.4 Finance: Demonstrate the ability to document the daily expenditures of the organization and provide cost estimates for continuing operations.				
3.2.5 Public Affairs: Demonstrate the ability to form a joint information center and provide the necessary interface between the unified command and the media.				
3.2.6 Safety Affairs: Demonstrate the ability to monitor all field operations and ensure compliance with safety standards.				
3.2.7 Legal Affairs: Demonstrate the ability to provide the unified command with suitable legal advice and assistance.				

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)

15 PREP COMPONENTS EVALUATION WORKSHEET (Cont'd)

4) Discharge control

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
4. Demonstrate the ability of the spill response organization to control and stop the discharge at the source.				
4.1 Salvage: Demonstrate the ability to assemble and deploy salvage resources identified in the response plan.				
4.2 Firefighting: Demonstrate the ability to assemble and deploy the firefighting resources identified in the response plan.				
4.3 Lightering: Demonstrate the ability to assemble and deploy the lightering resources identified in the response plan.				
4.4 Other salvage equipment and devices: (electrical and manual controls and barriers to control the source) Demonstrate the ability to assemble and deploy the other salvage devices identified in the response plan.				

5) Assessment of discharge

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
5. Demonstrate the ability of the spill response organization to provide an initial assessment of the discharge and provide continuing assessments of the effectiveness of the tactical operations plan for use.				

6) Containment of discharge

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
6. Demonstrate the ability of the spill response organization to contain the discharge at the source or In various locations for recovery operations.				

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)

15 PREP COMPONENTS EVALUATION WORKSHEET (Cont'd)

7) Recovery of spilled material

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
7. Demonstrate the ability of the spill response organization to recover, mitigate, and remove the discharged product. Includes mitigation and removal activities, e.g. dispersant use, ISB use, and bioremediation use.				
7.1 On-Water Recovery: Demonstrate the ability to assemble and deploy the on-water response resources identified In the response plans.				
7.2 Shore-Based Recovery: Demonstrate the ability to assemble and deploy the shoreside response resources identified in the response plans.				

8) Protection of sensitive areas

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
8. Demonstrate the ability of the spill response organization to protect the environmentally and economically sensitive areas identified in the Area Contingency Plan and the respective industry response plan.				
8.1 Protective Booming: Demonstrate the ability to assemble and deploy sufficient resources to implement the protection strategies contained in the Area Contingency Plan and the respective industry response plan.				
8.2 Water Intake Protection: Demonstrate the ability to quickly identify water intakes and implement the proper protection procedures from the Area Contingency Plan or develop a plan for use.				
8.3 Wildlife Recovery and Rehabilitation: Demonstrate the ability to quickly identify these resources at risk and implement the proper protection procedures from the Area Contingency Plan to develop a plan for use.				

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)

15 PREP COMPONENTS EVALUATION WORKSHEET (Cont'd)

8) Protection of sensitive areas (Cont'd)

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
8.4 Population Protection (Protect Public Health and Safety): Demonstrate the ability to quickly identify health hazards associated with the discharged product and the population at risk from these hazards, and to implement the proper protection procedures from the Area Contingency Plan or develop a plan for use.				

9) Disposal of recovered material and contaminated debris

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
9. Demonstrate the ability of the spill response organization to dispose of the recovered material and contaminated debris.				

10) Communications

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
10. Demonstrate the ability to establish an effective communications system for the spill response organization.				
10.1 Internal Communications: Demonstrate the ability to establish an intra-organization communications system. This encompasses communications at the command post and between the command post and deployed resources.				
10.2 External Communications: Demonstrate the ability to establish communications both within the response organization and other entities (e.g., RRT, claimants, media, regional or HQ agency offices, non-governmental organizations, etc.).				

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)

15 PREP COMPONENTS EVALUATION WORKSHEET (Cont'd)

11) Transportation

Components	ICS/UCS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
11. Demonstrate the ability to provide effective multi-mode transportation both for execution of the discharge and support functions.				
11.1 Land Transportation: Demonstrate the ability to provide effective land transportation for all elements of the response.				
11.2 Waterborne Transportation: Demonstrate the ability to provide effective waterborne transportation for all elements of the response.				
11.3 Airborne Transportation: Demonstrate the ability to provide the necessary support of all personnel associated with the response.				

12) Personnel support

Components	ICS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
12. Demonstrate the ability to provide the necessary support of all personnel associated with the response.				
12.1 Management: Demonstrate the ability to provide administrative management of all personnel involved in the response. This requirement includes the ability to move personnel into or out of the response organization with established procedures.				
12.2 Berthing: Demonstrate the ability to provide overnight accommodations on a continuing basis for a sustained response.				
12.3 Messing: Demonstrate the ability to provide suitable feeding arrangements for personnel involved with the management of the response.				
12.4 Operational and Administrative Spaces: Demonstrate the ability to provide suitable operational and administrative spaces for personnel involved with the management of the response.				

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)

15 PREP COMPONENTS EVALUATION WORKSHEET (Cont'd)

12) Personnel support (Cont'd)

Components	ICS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
12.5 Emergency Procedures: Demonstrate the ability to provide emergency services for personnel involved in the incident.				

13) Equipment maintenance and support

Components	ICS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
13. Demonstrate the ability to maintain and support all equipment associated with the response.				
13.1 Response Equipment: Demonstrate the ability to provide effective maintenance and support for all response equipment. Provide effective waterborne transportation for all elements of the response.				
13.2 Response Equipment: Demonstrate the ability to provide effective maintenance and support for all equipment that supports the response. This requirement includes communications equipment, transportation equipment, administrative equipment, etc.				

14) Procurement

Components	ICS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
14. Demonstrate the ability to establish an effective procurement system.				
14.1 Personnel: Demonstrate the ability to procure sufficient personnel to mount and sustain an organized response. This requirement includes insuring that all personnel have qualifications and training required for their position within the response organization.				
14.2 Response Equipment: Demonstrate the ability to procure sufficient response equipment to mount and sustain an organized response.				
14.3 Support Equipment: Demonstrate the ability to procure sufficient support equipment to support and sustain an organized response.				

NATIONAL PREPAREDNESS FOR RESPONSE EXERCISE PROGRAM (PREP)

15 PREP COMPONENTS EVALUATION WORKSHEET (Cont'd)

15) Documentation

Components	ICS Position Responsible	Completed (Y/N)	Date/Time Completed	Comments
15. Demonstrate the ability of the spill response organization to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.				

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Annex – Table of Contents

Annex 1 – Table of Contents

Sec. 1.0 Information Summary

Sec. 1.0.1 Facility Information

Refined products are received via marine tank vessels and the Olympic Pipeline. Shipments occur via barge, truck/trailer and Kinder-Morgan Pipeline. Base oil and additives used to produce motor oils and industrial lubricants are received via ocean-going tanker, barges, truck/trailer or rail tank car. Shipments of finished products are by truck/trailer, rail tank car or barge. Heavy fuel oils are received by tank vessel, and are shipped via the same method.

General Information	
Facility Name/Description:	Portland Terminal / Bulk storage & distribution facility
Facility Address:	5528 NW Doane Avenue Portland, OR 97210
Facility Phone Number/Fax Number:	503-248-1565 / 503-248-1522
County	Multnomah County
Latitude and Longitude: River Mile:	(b) (7)(F) [redacted]
Wellhead Protection Area	No
Owner of Facility:	Phillips 66 Company
Owner Address	600 North Dairy Ashford, TA-2136 Houston, TX 77079
Owner Phone	281-293-3891
Owner County	Harris
Operator of Facility:	Phillips 66 Company
Dun and Bradstreet Number:	Phillips 66: 07-837-8508
North American Industry Classification System (NAICS) Code:	424710 (Petroleum Bulk Stations and Terminals and 324191 (Petroleum Lubricating Oil and Grease Manufacturing)
Largest Aboveground Oil Storage Tank Capacity:	(b) (7)(F) [redacted]
Maximum Oil Storage Capacity:	
Number of Aboveground Oil Storage Tanks:	119
Worst Case Discharge Amount:	(b) (7)(F) [redacted]
Facility Distance to Navigable Waters:	0 to ¼ mile
Products Handled:	Distillates, gasoline, motor oil, industrial lubricants, and heavy fuel oils
Products Transported in Pipeline:	Distillates and gasoline
Date of Oil Storage Startup:	1908
Average Daily Throughput:	1,260,000 gallons of bulk petroleum products and packaged lubricants
Date(s) and Type(s) of Substantial Expansion:	1951 - Tank farm rebuilt 1959 - Dock rebuilt
Basis for Significant and Substantial Harm:	See Certificate of Substantial Harm form in this Section.
Date Prepared:	May 1999

Sec. 1.0.2 Oregon DEQ Submittal Agreement

The following submittal agreement has been prepared as required under Oregon Administrative Rule (OAR) Chapter 340, Division 141 Oil Spill Contingency Planning and Fees.

General Information	
Facility Name:	Portland Terminal
Address:	5528 NW Doane Avenue Portland, OR 97210
Location:	Northwest of the city of Portland
County:	Multnomah
Latitude/Longitude:	(b) (7)(F)
River Mile:	8
Operation Start Date:	Oil storage commenced in 1908. The tank farm was rebuilt in 1951 and the dock was rebuilt in 1959.
Type of Facility:	North American Industry Classification System (NAICS) Codes 42710 (Petroleum Bulk Stations & Terminals) and 324191 (Petroleum Lubricating Oil and Grease Manufacturing). This facility is attended 24-hours. It receives refined product via pipeline, truck, rail and marine. Product delivery is via truck, pipeline and marine.
Products Handled:	Products handled include distillates, gasoline, motor oil, industrial lubricants, and heavy fuel oils.
Maximum Oil Storage Capacity:	(b) (7)(F)
Owner/Operator:	ConocoPhillips Company
Address:	600 North Dairy Ashford; TA-2136 Houston, TX 77079

Management Commitment:

Company Management approves this Spill Response Plan (SRP) for implementation. Appropriate manpower, equipment, materials and financial resources will be provided as required to execute plan provisions.

Submitting Party:

Name: Tom Lyons

Title: Portland Terminal Supervisor

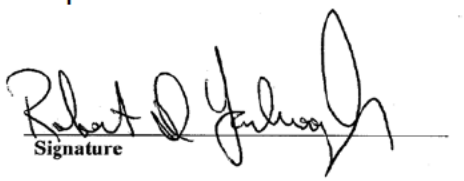
Signature: _____ **Date:** _____

Sec. 1.0.3 Certification of Significant and Substantial Harm - EPA

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate and complete.

Applicability of Substantial Harm Criteria	
Does the facility transfer oil over-water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Yes
Does the facility have a total oil storage capacity of greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?	No
Does the facility have a total oil storage capacity of greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?	Yes
Does the facility have a total oil storage capacity of greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake?	No
Does the facility have a total oil storage capacity of greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?	No

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate and complete.



Signature

Rob Yarbrough
Name

5/12
Date

CERTIFICATION OF SUBSTANTIAL HARM FORM FOR DOT-REGULATED PORTIONS OF THE FACILITY AS DETAILED IN APPENDIX A

Facility Name: Portland Terminal
Facility Address: ConocoPhillips
5528 MW Doane Avenue
Portland, OR 97210

1. Is the pipeline greater than 6 and 5/8 inches in outside diameter?
Yes X No _____

2. Is the pipeline greater than 10 miles in length?
Yes _____ No X

3. Has the line section experienced a release greater than 1,000 barrels with the previous five years?
Yes _____ No X

4. Has the line section experienced at least two reportable releases, as defined in Part 195.50, within the previous five years?
Yes _____ No X

5. Does the line contain any electric resistance-welded pipe, manufactured prior to 1970, operates at a maximum operating pressure established under Part 195.406 that corresponds to a stress level greater than 50 percent of the specified minimum yield strength of the pipe as defined in Rule 40 CFR 194?
Yes X No _____

6. Is the line section located within a five-mile radius of potentially affected public drinking water intakes and could reasonably be expected to reach public drinking water intakes?
Yes X No _____

7. Is the line section located within a one-mile radius of potentially affected environmentally sensitive areas and could reasonably be expected to reach public drinking water intakes?
Yes X No _____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature: _____
Name (please type or print): Tom Lyons
Title: Facility Supervisor
Date: _____

Sec. 1.0.4 Relationship to other Contingency Plans

This plan has been prepared in accordance with the Northwest Area Contingency Plan (ACP) including the applicable Geographical Response Plans (GRPs), National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and other local contingency plans where applicable. It is designed to cover the Company's response to spills originating from the Terminal. The relationship to the various plans is depicted in this Section.

The above mentioned federal and state contingency plans are designed primarily to describe how the particular agency or agencies will respond to a spill from an unknown source, or a party that does not provide an acceptable response. The plans also provide guidelines for the agencies to monitor a response initiated by the responsible party.

The local emergency response plans ensure that local governments and agencies are prepared for responses to large oil and hazardous material spills and other significant emergencies. They also ensure local coordination with federal and state response efforts. The plans are required by the NCP and developed by local emergency planning committees (LEPCs) or county emergency management departments.

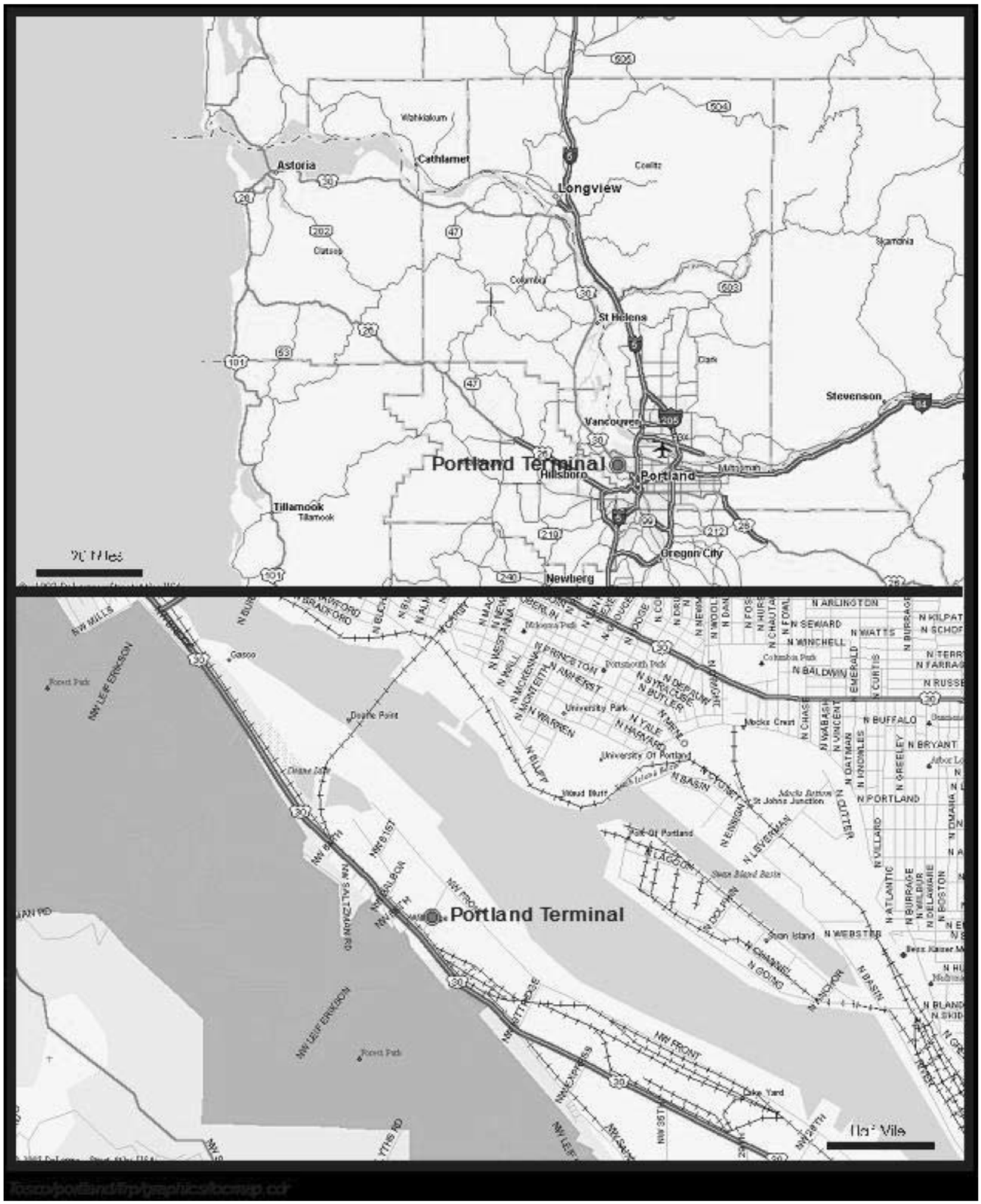
To ensure consistency with these other plans, the Company's spill response organization will use the Incident Command System (ICS) nomenclature to the extent possible.

Sec. 1.0.5 IC Notification Exercises

This exercise is to be completed on a quarterly basis. The exercise must be completed and documented by March 31, June 30, September 30 and December 31.

Certification by Facility Incident Commander.

Area Map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Longview
St Helens
Stevenson
Vancouver
Portland Terminal
Portland
Hillsboro
Tillamook
Oregon City
Newberg
Portland Terminal
N PORTLAND
N BUFFALO
N BRYANT
N ARLINGTON
N SEWARD
N MITCHELL
N BALDWIN
N WATTS
N KILPATRICK
N SCHOFIELD
N TERRY
N FARRAGUT
N RUSSELL
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Oregon DEQ Approval Certificate

The Facility Oil Spill Contingency Plan For

Conoco Phillips
5528 N.W. Doane Road
Portland, Oregon 97207

Has been APPROVED pursuant to Oregon
Revised Statutes 468B.300 - .500
And
Oregon Administrative Rules 340-141
By the
Oregon Department of Environmental Quality

DEQ
State of Oregon
Department of
Environmental
Quality

Charles W. Donaldson, Manager Emergency Response

June 26, 2005	June 26, 2010
Date of Approval	Valid Until

U.S. EPA Approval Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

MAY 05 2008

Reply to
Attn of: ECL-116

Vito DeBellis
ConocoPhillips-Portland Terminal
5528 Doane Avenue
Portland, Oregon 97210

RE: ***ConocoPhillips-Portland Terminal, Portland, Oregon,*** Facility Response Plan Review and Re-Approval, FRP-OR-0019

Dear Mr. DeBellis:

The U.S. Environmental Protection Agency's Seattle Regional Office received a copy, dated March 2007, of the ***ConocoPhillips-Portland Terminal*** Facility Response Plan (FRP) in April 2007. The FRP was submitted for review under the EPA's 40 CFR Part 112.20 regulations. Based on the information provided, the FRP for this facility is **re-approved for five years until January 2, 2013.**

Please continue to provide the EPA with routine revisions as they arise. Any material facility change must be reflected by revisions to the FRP within 60 days of that change. These revisions must be submitted to this office within that same time frame **(40 C.F.R. §112.20(d)(1), (2) and (3))**. In addition, be aware that the Oil Pollution Prevention regulations have been revised and require regulated facilities to amend their SPCC and Facility Response Plans, if necessary, to bring them into compliance with the revised regulations.

Prior to the expiration of the approval date above, and with advance notification, the EPA may conduct a facility inspection. Based on inspection results or any other pertinent information that may become available to the EPA indicating that the facility is not in compliance with 40 C.F.R. §112 regulations, the EPA reserves the right to require plan revisions or revoke the FRP approval status.

U.S. EPA Approval Letter (Continued)

Your organization's efforts in the preparation and implementation of the above-mentioned Facility Response Plan are appreciated. If you have any questions regarding this matter, you may call Michael Sibley in Seattle at (206) 553-1886.

Sincerely,

Chris Field, Unit Manager
Emergency Response Unit
Office of Environmental Cleanup
U.S. Environmental Protection Agency
Region X, Seattle, WA

cc:

Ms. Mary Matthews
US EPA/ECL-116
Seattle, WA

Facility Inspection Division
Captain of the Port-Sector Portland, OR
United States Coast Guard
6787 N. Basin Avenue
Portland, OR 97217-3992

Michael Zollitsch, ER Coordinator
Emergency Response Section,
Land Quality Division
Oregon Dept. of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390

U.S. Coast Guard Approval Letter

U.S. Department of Homeland Security
United States Coast Guard

Captain of the Port
U.S. Coast Guard
Sector Portland, Oregon

6767 N. Basin Avenue
Portland, OR 97217-3992
Port Security Branch
Phone: (503) 240-9333
Fax: (503) 240-2586

16600
October 13, 2005

Mrs. Jennifer Nedens
ConocoPhillips
2330 5th Avenue South
Billings, MT 59101

Dear Mrs. Nedens,

The U.S. Coast Guard has completed the updates to your ConocoPhillips Portland Terminal Emergency Response Plan, which was submitted on November 12, 2003 to meet the requirements of the Oil Pollution Act of 1990 (OPA 90). No significant deficiencies have been noted and your plan is hereby approved. Approval of your plan will remain valid until *five years from the date of this letter*. You must resubmit the plan to the Coast Guard for re-approval six months before the end of the approval period as required by 33 Code of Federal Regulations 154.1065.

Changes, updates, or revisions, as appropriate, shall be submitted whenever a significant change occurs at the facility that would have an impact on the facilities contingency plan. All such changes, updates, or revisions must be consistent with the National Contingency Plan, as well as the Area Contingency Plan in effect within six months of the date the facility contingency plan is resubmitted.

If you need any additional information or have any questions, please feel free to contact the Facility Inspection Division (503) 240-9333.

Sincerely,

T. BLAINE HOOVER
MSTC, U.S. Coast Guard
Chief Facility and Waterways Division
By direction

DOT Approval Letter

U.S. Department of Transportation

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

Pipeline and Hazardous Materials Safety Administration

received July 6, 2006

June 28, 2006

Certified Mail – 7006 0100 0005 2787 2489 Return Receipt Requested

Mr. Jack Williams
ConocoPhillips Transportation Company
600 North Dairy Ashford
2138 Tarkington Building
Houston, TX 77079

Re: OPS Sequence Number 1611 (Portland Terminal)

Dear Mr. Williams,

The Pipeline and Hazardous Materials Safety Administration (PHMSA) reviewed the March 2006 revisions of the "substantial harm" Facility Response Plan (FRP) referenced above. Your revisions address satisfactorily the previous finding in PHMSA's November 1, 2005 letter and does not impair the completeness of your plan with respect to the applicable response planning elements required by 49 CFR 194, *Response Plans for Onshore Transportation-Related Oil Pipelines*; we will insert the changes as requested. As a reminder, the next 5-year resubmission of your plan will be due on August 1, 2008.

Please refer to the "OPS Plan Sequence Number" listed above in all plan-related correspondence, including e-mails. E-mail is the preferred method for submitting inquiries, questions and comments to PHMSA at phmsa.frp@dot.gov. You can also telephone PHMSA at (202) 366-4595 or fax to (202) 366-4566. Thank you for your cooperation.

Sincerely,

L. E. Herrick
Response Plans Officer

Enclosure

Sec. 1.0.6 Qualified Individual (QI)

It is the Qualified Individual's responsibility to first make the appropriate notifications, then to initiate response operations. This individual has absolute authority to obligate any funds necessary to carry out all required and/or directed response activities. This individual will also act as liaison with city, county, state and federal agencies and serve as the On-Scene Incident Commander. The Facility QI and Alternate are identified in Annex 2:

The following checklist (the checklist is not all inclusive) serves as a guide to the On-Scene Incident Commander/Qualified Individual.

The minimum duties required of the QI / PIC include:	
✓	Notify all response personnel, as needed
✓	Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification
✓	Notify and provide necessary information to appropriate Federal, State, and local authorities with the designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Commission
✓	Assess the possible hazards to human health and the environment due as a result of the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any hazardous surface waters runoffs from water or chemical agents used to control fire and heat-induced explosion)
✓	Assess and implement prompt removal actions to contain and then remove the substance released
✓	Coordinate rescue and response action as previously arranged with all response personnel
✓	Use authority to immediately access company funding to initiate response, mitigation and clean-up activities
✓	Direct clean-up activities until properly relieved of this responsibility

Phillips 66 Company
600 North Dairy Ashford
Houston, TX 77079-1175
Phone: (281) 293-1000

May 1, 2012

I hereby delegate the authority to act as Qualified Individual (QI), as stated in the Company Emergency Response Plans, to the following positions:

- Division Pipeline Managers,
- Pipeline Area/Facility/Terminal Supervisors and designated Operators,
- Terminal Supervisors/Superintendents and designated Operators,
- HSE Manager,
- Emergency Preparedness, Response & Security Director and Coordinators,
- Health & Safety Director and Coordinators, and
- Environmental Director and Coordinators.

Listed below is a summary of the responsibilities and authority of the QI:

- Activate internal alarms and hazard communication systems,
- Activate personnel and equipment maintained by the operator,
- Identify character, exact source, amount, and extent of the release,
- Notify and provide information to appropriate Federal, State and Local authorities,
- Assess interaction of spilled substance with water and/or other substances stored at facility and notify on-scene response personnel,
- Assess possible hazards to human health and the environment,
- Assess and implement prompt removal actions,
- Coordinate rescue and response actions,
- Direct cleanup activities activating and contracting with required oil spill removal organizations,
- Act as a liaison with the On-Scene Coordinator, and
- Obligate any funds required to carry out all required and directed oil spill response activities.

Deborah G. Adams
President, Transportation
600 North Dairy Ashford, TA-2034
Houston, TX 77079-1175

Sec. 1.1 Facility and Locality Information

Sec. 1.1.1 Terminal Specifics

The terminal is located at 5528 Northwest Doane Avenue, in the city of Portland and county of Multnomah, Oregon. The facility is situated in the northwest portion of the city of Portland, on the west bank of the Willamette River and south of the St. John's Bridge. The facility and dock are situated at river mile 7.8 with a (b) (7)(F) north, respectively.

The terminal is a bulk storage and distribution facility for finished petroleum products and lube oil. Oil storage at the location commenced in 1908. The tank farms were rebuilt in 1951 and the marine dock was rebuilt in 1959. Several minor changes have been made to the facility since 1959 to improve operations and incorporate best practices for spill prevention.

Facility Components

The facility consists of the following main components:

- Terminal office and lube oil blending warehouse
- Boiler house
- Maintenance garage
- Tank truck loading racks (3)
- Truck off-loading stations (4)
- Railcar loading/unloading rack
- Aboveground refined product, black oil, and additive tank farms (3)
- Aboveground lube oil storage tank farms/lube cells (3)
- Barge/ship loading and off-loading dock
- Floating dock for spill response boat and equipment storage
- Dock warehouse for spill response and equipment storage
- Interconnecting pipelines between dock, loading/unloading facilities and tank farms

In addition, the terminal is equipped with process water and storm water collection and treatment systems, including a series of catch basins and connecting piping, three storm oil/water separators, and a process oil/water separator and hydrocleaner. There are no surface impoundments at the terminal.

MANAGEMENT APPROVAL, MANPOWER AUTHORIZATION AND CERTIFICATION

NATIONAL CONTINGENCY PLAN CONSISTENCE

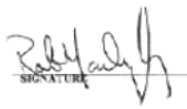
The Company has reviewed the National Contingency Plan and the applicable Regional Integrated Contingency Plan (RCIP), formerly known as the Area Contingency Plan (ACP). The Company certifies to the best of its knowledge and belief and in accordance with 40 CFR 112.21(G)-(I)(g)(2) and 49 CFR 194.121(a) that the following Emergency Response Plan is consistent with the applicable EPA Regional RICP and the NCP.

This plan is approved for implementation as herein described. Manpower, equipment and materials will be provided as required in accordance with this Plan. The Company is dedicated to protection of the environment and commits to implement the necessary measures, as specific in the Plan, as necessary in a spill response emergency.

PERSONNEL AND EQUIPMENT CERTIFICATION

In addition to any OSRO and non-company resources listed in this Plan, the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times.

CERTIFICATION SIGNATURE:



SIGNATURE

Rob Yarbrough
PRINTED NAME

Director, Emergency Preparedness, Response & Security
TITLE

April 1, 2009
DATE

Sec. 1.1.2 Company Response Equipment

Type	Quantity	Purchase Date	Location	Capacity/Specifications (Name Plate/Derated)	Maintenance Interval	Remarks
Containment – Boom						
Boom	1,900 feet	N/A	Dock Float	Kepner, 8 x 12”	As Needed	Calm water
Boom	300 feet	N/A	Asphalt Shed	Kepner, 8 x 12:	As Needed	Calm water
Boom	900 feet	N/A	In Water at Outfall	Kepner, 8 x 12:	As Needed	Calm water
Boom Towing	4	N/A	Dock Float	Bridles	As Needed	With tow line
Anchors	3	N/A	Dock Float	Danforth	As Needed	26 lb
Light bouys	6	N/A	Dock Float	Lighted bouys for night booming	As Needed	Can also be used for spill tracking
Total	3,300 feet					
Recovery						
Double Diaphragm Pumps	4	Various	Maintenance and Terminal	1.5” - 2.0” pneumatic	As Needed	Effective rate of 28 gallons per minute (each)
Total	4					
Boats						
Work Boat	1	N/A	Dock Float	20 ft Alumaweld w/200 hp O.B.	Annual	Boom deployment
Skiff	1	N/A	Dock Float	14 ft Aluminum w/9.6 hp O.B.	Annual	Boom deployment
Total	2					

Company Response Equipment (Cont'd)

Type	Quantity	Purchase Date	Location	Capacity/Specifications (Name Plate/Derated)	Maintenance Interval	Remarks
Sorbents						
Sorbent Rolls – Sausage Boom (4" dia x 20' long)	Min. – 5 Max. – 10	Various	Asphalt Shed	38" x 144' continuous	Reordered when minimum is reached	Used for oil recovery
Sorbent Rolls – Sausage Boom (2" dia x 4' long)	Min. – 15 Max. – 25	Various	Asphalt Shed	38" x 144' continuous	Reordered when minimum is reached	Used for oil recovery
Sorbent Pads (bales)	Min. – 15 Max. – 30	Various	Asphalt Shed	17" x 19" pads - 100 per bale	Reordered when minimum is reached	Used for oil recovery
Average Total	42					

Company Response Equipment (Cont'd)

Type	Quantity	Purchase Date	Location	Capacity/Specifications (Name Plate/Derated)	Maintenance Interval	Remarks
Storage						
Terminal Tankage (bbls)	6	Various	Tank Farms	Various storage tanks and ethanol pit	Various per API 653	Normal available capacity - can be used for oil storage in emergencies
Portable Storage	2	Various	Maintenance	500 gallon trailer tanks with air pump	Each Use	Oil storage
Drums	50	Various	Terminal Wide	55 gallon	N/A	Oil storage
Overdrums	2	Various	Asphalt Shed	65 gallon	N/A	Damaged drum containment
Total	60					
Personal Protective Equipment (PPE)						
Various	Various	Various	Boiler Room & Supply Room	Gloves, Tyvex coveralls, boots, safety glasses, hard hats, respirators, hearing protection	As needed	Can be used for spill response
Total	Various					
Air Monitoring Equipment						
Decon Equipment						
Miscellaneous	1 lot	N/A	Maintenance	Pools, brushes, buckets, TSP, sprayers, etc.	Each Use	Inventory checked periodically

Company Response Equipment (Cont'd)

Type	Quantity	Purchase Date	Location	Capacity/Specifications (Name Plate/Derated)	Maintenance Interval	Remarks
Personnel						
Primary Response Team	12	N/A	Portland	24-hour trained	N/A	Minimum of 5 responders available during business hours. Others generally available within 10 to 60 minutes.
Area Response Team	10	N/A	Northwest Terminals, Corp. Office	Management	N/A	Response management and support personnel. Generally available within 1 hour.
Total	22					

(b) (7)(F)

Sec. 1.1.3 Fire Fighting Equipment

The terminal fire fighting equipment consists of fixed fire water supply system with hydrants located throughout the terminal. Portable fire extinguishers are also located throughout the terminal. Fixed water deluge and foam application systems are installed at the refined products loading rack. Foam systems are also installed at each of the gasoline storage tanks and the ethanol, and transmix tanks in Tank Farm 2.

The dock is equipped with a deluge system that applies water to the underside of the dock. This equipment is listed in this Section.

The foam and deluge systems at the refined products truck rack and the deluge system at the dock are activated automatically via heat sensors or manually via strategically located emergency switches. For tank fires, the foam system must be activated manually. The foam system controls are situated at the refined products unloading area.

Fire Response Equipment List

Location	Type	Quantity
Computer Room	Fixed Halon System	1
Allen Bradley Control Room	Halon Extinguisher	1
Equipment Room - Office	Halon Extinguisher	1
Lube Blender Control Room	Halon Extinguisher	1
Boiler Room	Halon Extinguisher	1
Shop	Halon Extinguisher	1
Throughout Terminal	Dry Chemical Extinguishers	Approx. 90
Throughout Terminal	CO2 Extinguishers	17
HES Office, Acetylene Cart, Spare	Ammonium Phosphate Extinguishers	3
Refined Product Truck Rack	Fire Monitors	4
Refined Product Truck Rack	Deluge/Foam System	1
Refined Product Truck Rack	250 lb Dry Chemical Extinguisher	1
Lube Truck Rack	Deluge System	

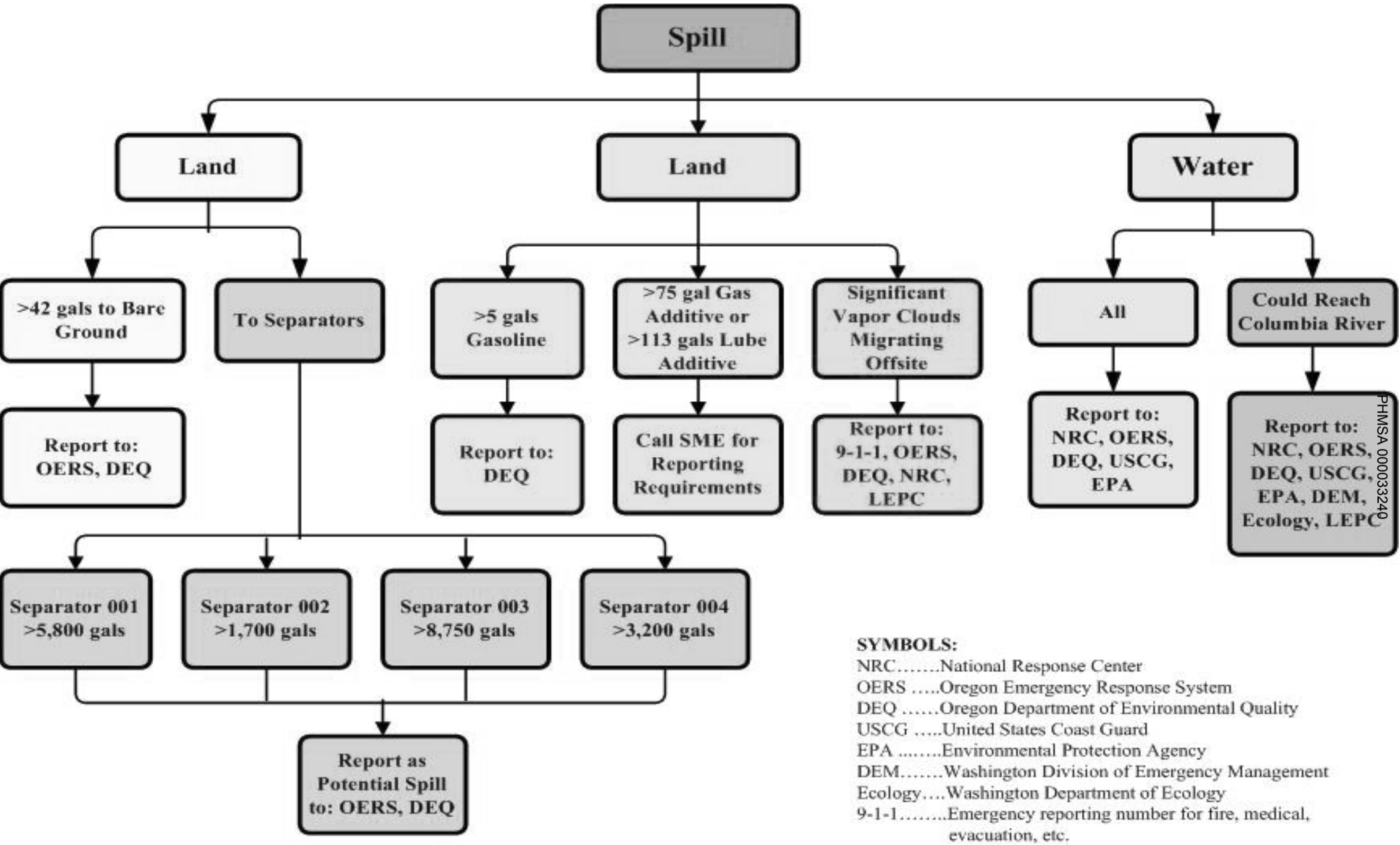
Fire Response Equipment List (Cont'd)

Location	Type	Quantity
Dock	Fire Monitors	5
Dock (Underside)	Deluge System	1
Dock	Hose Reels	3
Warehouse/Office	Hose Cabinets	6
Main Fire System Storage Tank	AFFF-ATC Foam (gals)	1,500
Tank Farm 2 (internal floating roof tanks)	Foam Injection Systems	8

(b) (7)(F)

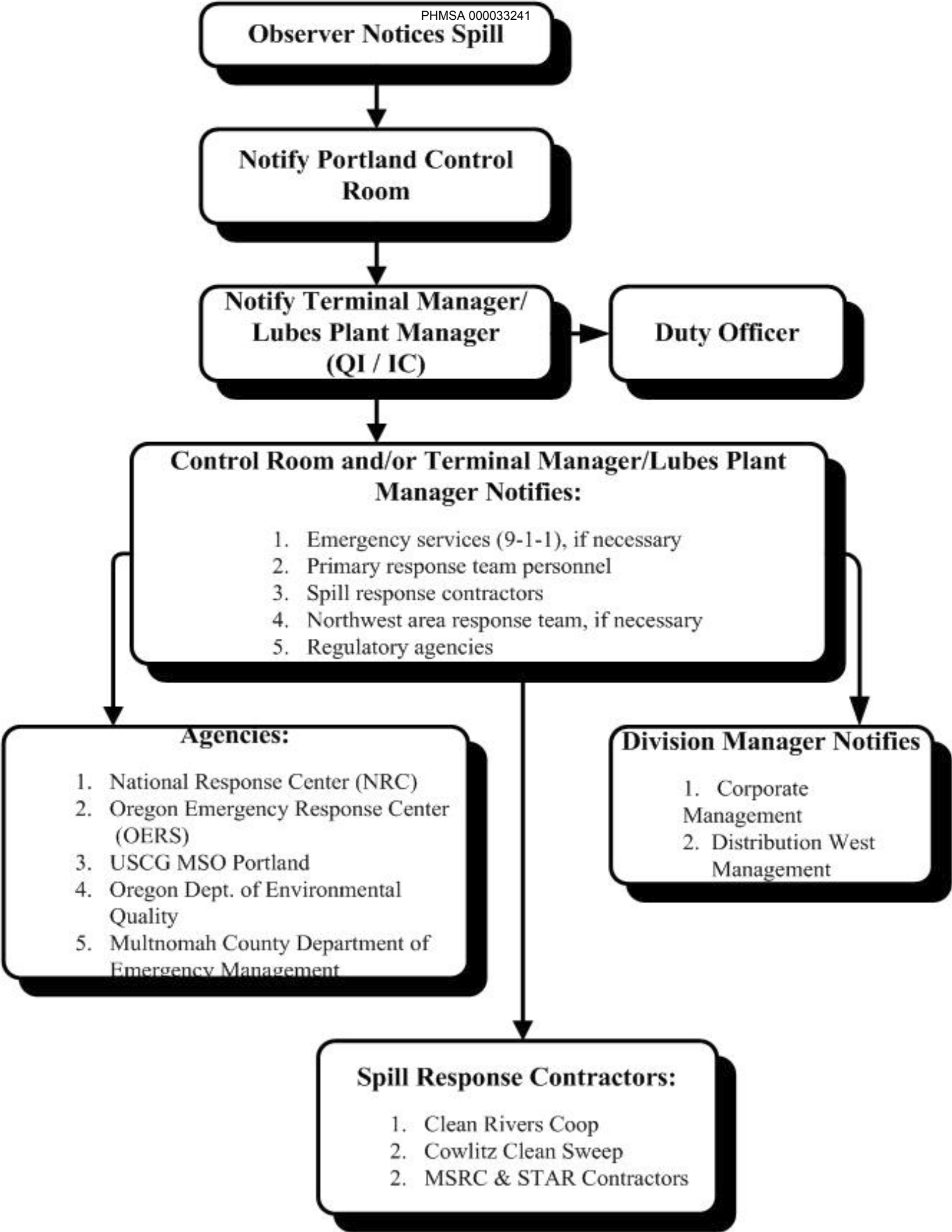
(b) (7)(F)

[redacted]



SYMBOLS:

NRC…….National Response Center
OERS …..Oregon Emergency Response System
DEQ ……Oregon Department of Environmental Quality
USCG …..United States Coast Guard
EPA ……..Environmental Protection Agency
DEM…….Washington Division of Emergency Management
Ecology….Washington Department of Ecology
9-1-1……..Emergency reporting number for fire, medical, evacuation, etc.
LEPC…….Local Emergency Planning Committee, Multnomah County
SME……..Company Subject Matter Expert


Observer Notices Spill
Notify Portland Control Room
Notify Terminal Manager/ Lubes Plant Manager (QI / IC)
Duty Officer
Control Room and/or Terminal Manager/Lubes Plant Manager Notifies:
1. Emergency services (9-1-1), if necessary
2. Primary response team personnel
3. Spill response contractors
4. Northwest area response team, if necessary
5. Regulatory agencies
Agencies:
1. National Response Center (NRC)
2. Oregon Emergency Response Center (OERS)
3. USCG MSO Portland
4. Oregon Dept. of Environmental Quality
5. Multnomah County Department of Emergency Management
Division Manager Notifies
1. Corporate Management
2. Distribution West Management
Spill Response Contractors:
1. Clean Rivers Coop
2. Cowlitz Clean Sweep
2. MSRC & STAR Contractors

Sec. 1.2 Facility Hazard Analysis

Sec. 1.2.1 Facility Vulnerability Specifics

This Section identifies and characterizes areas or components of the terminal where spills have the greatest probability of occurring. It also identifies the potential effects of a spill on human health, property and the environment. This section contains:

- Descriptions of key oil storage and handling procedures that pose the greatest spill risk (hazard)
- A list of the potential spill sources and an evaluation of the likely spill sizes
- An oil spill risk analysis
- Descriptions of historical significant spills at the terminal

Hazard Identification

The oil storage and transfer activities at the Company terminal that pose the greatest risk of oil spills include the:

- Oil storage tanks
- Tank receipts from the Olympic Pipeline and Tank Vessels
- Transfers to tank or towing vessels
- Transfers at the tank truck racks
- Miscellaneous maintenance and repair activities

A summary of typical spill sources and the associated volumes for the Terminal are provided in this Plan.

Storage tanks generally present the greatest potential hazard with regard to spill size, although the consequences of such spills would be minimized by the location of the tanks within secondary containment systems. There have been no storage tank failures at the terminal since it began operation. A plot plan of the terminal showing tank locations and a table with information on each tank including tank type, maximum and working capacities and identifying number are provided in this Section. Secondary containment capacities and product stored for storage tanks are also provided in this Section.

Product receipts from the Olympic Pipeline and Tank Vessels occur frequently. Multiple tanks may be filled at the same time from the pipeline or drained at the same time to the loading racks or dock. Because these tank transfer frequencies and volumes are not easily quantifiable, they will not be addressed herein. Total terminal throughput averages around 35,000 bbl per day.

Fluctuations in terminal throughput have a direct effect on the number of tank truck transfers, pipeline receipts, and, to some degree, the hazards posed by these transfers. The terminal typically operates at a level that is close to maximum demand in the region and, therefore, any increases in throughput and the associated hazards would be minimal. In the unlikely event of a significant decrease in throughput, the hazards associated with tank truck transfers would decrease accordingly. Changes in throughput would not be expected to affect the hazards associated with other storage and transfer operations at the terminal.

The terminal's daily throughput is approximately 35,000 barrels of petroleum products that is loaded into railcars, tank trucks and barges for distribution, fueled to tugs and transferred by pipeline.

On average, product is received from the Olympic Pipeline six times per week, via the inter-company pipeline from Chevron or the Kinder Morgan Terminal three times per week, and by vessel ten times per month. In addition, additives, base oils and black oil are received by railcar daily and by tank truck twenty five times per week. Shipments of refined products from the terminal average three per week via the Kinder-Morgan Pipeline, seven barges per week and 70 trucks per day. Shipments of bulk lube products average 26 trucks and 1.5 tank cars per week. The average daily throughput for each type of product and the total quantities handled by the terminal is provided in this Section.

Facility Operations

The majority of the refined products are received by pipeline with the balance received by vessel. Other products are received by tank truck or by railcar. The Olympic Pipeline Company owns and operates two 14-inch pipelines that supply the majority of gasoline and diesel to the terminal. Similarly, two 10-inch inter-company pipelines running from Company to Chevron and Kinder Morgan Terminal supply additional petroleum distillates and gasoline to the facility. One 10-inch inter-company pipeline between McCall and the Company supply black oil to the terminal. Gasoline, diesel, black oil, cutter stock, lube oil base stocks and other refined products are also received by barge and by tanker. Lube oil base stocks are received by rail car, as are lube oil additives. Lube oil additives and ethanol are also received by tank truck. Lube oil base stocks are received by barge.

Shipments of gasoline, diesel, and blended lube oils from the terminal, are conducted primarily by tank truck at the loading racks; however, a significant portion is also loaded onto barges. Gasoline and distillates are also shipped from the terminal through two 8-inch pipelines that are owned and operated by Kinder-Morgan or through two 10-inch inter-company pipelines running from the Company to Chevron and the Company to Kinder Morgan Terminal. Black oil is loaded into barges and tank trucks; blended lube oils are also shipped by railcar.

A summary of the petroleum products handled at the terminal and their key physical and chemical characteristics is shown in this Section. The Material Safety Data Sheets (MSDS's) for all products stored at the terminal are maintained outside the quality control laboratory or in the Control Room and are easily accessible to personnel at all times.

Summary of Product Throughput[1]

Oil/Product Type	Total Annual Volume (bbl)
87 Unleaded Gasoline	2,730,862
84 Unleaded Gasoline	3,098,743
92 Unleaded Gasoline	986,097
Diesel #2	4,731,184
Diesel #1	90,915
Biodiesel	17,000
Ethanol	425,979
Black Oil[2]	577,377
Lube Oil[3]	421,853
1 - Volume based on 2007 throughput	
2 - Black oil products include marine diesel, cutter stock, residual fuel oil, marine fuel oil, and industrial fuel oils	
3 - Lube oils include all finished products	

Products Handled at Terminal

The following is a list of products handled at the terminal. As mentioned in this Section, the Material Safety Data Sheets (MSDS's) for all products stored at the terminal are maintained outside the quality control laboratory in the Control Room and are easily accessible to personnel at all times.

Gasoline
#2 Diesel
#1 Diesel
Biodiesel
Ethanol
Gasoline Additive
Mid-Distillate Fuel Oil
Residual Fuel
Lubricant Additives
Base Oil
Engine Oil
Industrial Oil
Transmission Oil
Gear Oil
Grease

Sec. 1.2.2 Equipment Under Department of Transportation Jurisdiction

Selected equipment at the Portland Terminal has been determined to be under the jurisdiction of the Department of Transportation (DOT), Office of Pipeline Safety, Research and Special Projects Administration (PHMSA) due to their ability to receive product from one DOT jurisdictional pipeline and transfer to another DOT jurisdictional pipeline (i.e., from the Olympic Pipeline to the Kinder Morgan Pipeline). Gasoline Tanks 2915 and 3408 and the interconnecting piping between the Olympic and Kinder Morgan pipeline manifolds have this ability and meet the definition of breakout storage under 49 CFR 195. Consequently, that equipment is also regulated by the spill response planning requirements in 49 CFR 194.

Pursuant to the requirements in 49 CFR 195 and 194 the following actions have been taken at the terminal:

- Cathodic protection has been installed on Tanks 2915 and 3408 and the interconnecting pipelines to the Olympic and Kinder Morgan pipeline manifolds
- Local operating procedures (LOP) specific to jurisdictional assets have been created.
- This SRP has incorporated the applicable requirement of 49 CFR 194 and the emergency response requirements of 49 CFR 195

Approximately 90 percent of the pipeline under DOT jurisdiction is aboveground. This Section illustrates the equipment that is currently under DOT jurisdiction. This Section give detailed descriptions of the tanks and pipelines that are DOT jurisdiction.

Note: Please reference the Front of Book Section of this ERP to locate the Certification of Substantial Harm Form for DOT –Regulated Portions of the Facility.

Equipment Under U.S. Coast Guard Jurisdiction

The Portland terminal also contains equipment under U.S. Coast Guard jurisdiction. The shore valves are currently not located within secondary containment; therefore, the pipelines under U.S. Coast Guard jurisdiction extend to the first valve completely enclosed within a secondary containment structure. In some cases, the first valve is located directly within the containment wall of Tank Farm 2, at the Olympic Pipeline Manifold. In other cases, the first valve located within a secondary containment structure extends to a pump area or crossover point where a dock pipeline is connected to other intra-facility pipelines. The location of the extent of the U.S. Coast Guard jurisdiction is illustrated in this Section. Detailed descriptions of the pipelines that are utilized for marine transfer operations are provided in this Section.


MATCHLINE – SEE ABOVE
DOCK

Sec. 1.2.3 Tank Data (Above Ground)

Tank Number	Product Stored	Diameter	Height	Type of Construction	Safe Fill Capacity (gal)	Year of Construction
Tank Farm 1						
36	Slop Oil	14'-6"	16'	Riveted Steel	(b) (7)(F)	1907
1471	Hydraulic Tractor Fluid	10'-9"	28'-8½"	Riveted Steel		1921
2561	Marine Fuel Oil	78'-0"	46'-7"	Riveted Steel		1929
2579	Hydraulic Tractor Fluid	10'-9"	29'-8"	Welded Steel		1929
2669	Marine Diesel	48'-0"	35'-3"	Riveted Steel		1931
2713	Unax AW 46	24'-0"	35'-0"	Welded Steel		1937
2714	Guardol 15W/40	24'-0"	35'-0"	Welded Steel		1937
2783	Decant Oil	60'-0"	46'-7"	Riveted Steel		1937
2784	Diesel #2	78'-0"	40'-10"	Riveted Steel		1937
2917	RLOP 220 N	48'-0"	48'-0"	Welded Steel		1938
3623	HiTec 6576	10'-9"	30'-0"	Welded Steel		1950
3639	SUP SYN BL 5W/30	25'-0"	36'-0"	Welded Steel		1951
4369	RLOP 220N	10'-9"	30'-0"	Welded Steel		1979
4441	Octel 9056	10'-9"	30'-0"	Welded Steel		1993
Tank Farm 2						
2915*	Unleaded Gasoline	120'-0"	42'-0"	Welded Steel		1938
2916	Diesel #2	78'-0"	48'-0"	Welded Steel		1938
2982	Diesel #1	48'-0"	36'-0"	Welded Steel		1941
2983	RLOP 220 N	36'-0"	42'-0"	Welded Steel		1941
3407	Unleaded Gasoline	120'-0"	40'-0"	Welded Steel		1949
3408*	Unleaded Gasoline	90'-0"	40'-0"	Welded Steel		1949
3409	Unleaded Gasoline	70'-0"	40'-0"	Welded Steel		1949
3410	Ethanol	35'-0"	42'-0"	Welded Steel		1949
3411	Unleaded Gasoline	35'-0"	42'-0"	Welded Steel		1949
3412	Diesel #1	35'-0"	42'-0"	Welded Steel		1949
3413	Unleaded Gasoline	35'-0"	42'-0"	Welded Steel		1949
4223	Slop Oil	10'-9"	30'-0"	Welded Steel		1968
4259	Transmix	35'-0"	32'-0"	Welded Steel		1968
4327	Gasoline Slops	8'-6"	24'-0"	Welded Steel		1974

* Indicates tank is under the jurisdiction of the Department of Tr

Tank Data (Above Ground)

Tank Farm 3					(b) (7)(F)	
3414	RLOP 220 N	30'-0"	42'-0"	Welded Steel		1949
3415	SUN 525	30'-0"	42'-0"	Welded Steel		1949
3416	RLOP 100N	30'-0"	42'-0"	Welded Steel		1949
3417	ULTRA S-4	30'-0"	42'-0"	Welded Steel		1949
3579	Industrial Fuel Oil	120'-0"	40'-0"	Welded Steel		1950
3739	SUN 150 B/S	30'-0"	42'-0"	Welded Steel		1954
3740	RLOP 600 N	35'-0"	42'-0"	Welded Steel		1954
3761	Diesel #2	120'-0"	40'-0"	Welded Steel		1954
4244	Mohawk 450	10'-9"	30'-0"	Welded Steel		1968
4245	SUN 525	10'-9"	30'-0"	Welded Steel		1968
4252	Residual Fuel Oil	50'-0"	32'-0"	Welded Steel		1968
4253	Residual Fuel Oil	50'-0"	32'-0"	Welded Steel		1968
4254	PS 300	50'-0"	32'-0"	Welded Steel		1968
4255	Biodiesel	50'-0"	32'-0"	Welded Steel		1968
4256	Out of Service	35'-0"	32'-0"	Welded Steel		1968
4257	Out of Service	25'-0"	16'-0"	Welded Steel		1968
4258	Line Clippings	10'-9"	30'-0"	Welded Steel		1968
4266	Flush	10'-9"	30'-0"	Welded Steel		1968
4302	RLOP 600N	10'-9"	30'-0"	Welded Steel		1971
4303	RLOP 100N	10'-9"	30'-0"	Welded Steel		1971
4305	Out of Service	8'-6"	24'-0"	Welded Steel		1971
4306	RLOP 100N	30'-0"	42'-2½"	Welded Steel		1971
4318	Diesel #2	80'-0"	43'-3"	Welded Steel		1973
4320	Sup Syn BL 10W/30	15'-0"	32'-2½"	Welded Steel		1973
4321	Uniguide II 100	15'-0"	32'-2½"	Welded Steel		1973
4322	T5X HD 15W/40	15'-0"	32'-2½"	Welded Steel		1973
4323	Super ATF	15'-0"	32'-2½"	Welded Steel		1973
F103	UTRA 58	12'-6"	32'-0"	Welded Steel		1973
F104	UTRA 58	10'-9"	32'-0"	Welded Steel		1973
F-Tank Farm						
4335	Utility	10'-9"	30'-0"	Welded Steel		1973
4336	Utility	10'-9"	30'-0"	Welded Steel		1973
4337	Utility	10'-9"	30'-0"	Welded Steel		1973
4436	Unax AW 32	10'-9"	30'-0"	Welded Steel		1990
4437	Unax AW WR 32	10'-9"	30'-0"	Welded Steel		1990
F10	Utility	10'-9"	10'-0"	Welded Steel		1954
F11	Utility	10'-9"	10'-0"	Welded Steel		1954
F12	Utility	10'-9"	10'-0"	Welded Steel		1954

Tank Data (Above Ground)

Upper Lube Cell					(b) (7)(F)	
3741	Ramar CLF 17E	10'-9"	30'-0"	Welded Steel		1954
3742	MP Gear Lube 80/90	10'-9"	30'-0"	Welded Steel		1954
3743	Utility	10'-9"	30'-0"	Welded Steel		1954
3744	HYNAP N100	10'-9"	30'-0"	Welded Steel		1954
3745	HITEC 5751	10'-9"	30'-0"	Welded Steel		1954
3746	Lubrizol 4998C	10'-9"	30'-0"	Welded Steel		1954
3747	Lubrizol 4990CH	10'-9"	30'-0"	Welded Steel		1954
3757	HITEC 1193	10'-9"	30'-0"	Welded Steel		1954
3760	Raffene 750L	10'-9"	30'-0"	Welded Steel		1954
4191	Lubrizol 48254	10'-9"	30'-0"	Welded Steel		1964
4192	Lubrizol 7075F	10'-9"	30'-0"	Welded Steel		1964
4241	UNAX AW 68	10'-9"	30'-0"	Welded Steel		1968
4242	UNAX AW 68	10'-9"	30'-0"	Welded Steel		1968
4243	HT4/10W	10'-9"	30'-0"	Welded Steel		1968
4281	Versa Tran ATF	10'-9"	30'-0"	Welded Steel		1969
4332	Super ATF	10'-9"	30'-0"	Welded Steel		1973
4333	Point Premier 10W/30	10'-9"	30'-0"	Welded Steel		1973
4334	Super 5W/20	10'-9"	30'-0"	Welded Steel		1973
Lower Lube Cell						
4300	Ramar CLF 17E	12'-6"	32'-0"	Welded Steel		1969
4331	Ethyl HITEC 6888E	12'-6"	32'-0"	Welded Steel		1973
4388	Utility	9'-4"	23'-9"	Welded Steel		1984
4389	Utility	9'-4"	23'-9"	Welded Steel		1984
4390	Bar & Chain 150	9'-4"	23'-9"	Welded Steel		1985
4391	Utility	9'-4"	23'-9"	Welded Steel		1985
4392	Utility	9'-4"	23'-9"	Welded Steel		1985
4393	Utility	9'-4"	23'-9"	Welded Steel		1985
4394	Utility	9'-4"	23'-9"	Welded Steel		1985
4395	Utility	9'-4"	23'-9"	Welded Steel		1985
4397	Lubrizol 9692A	9'-4"	23'-9"	Welded Steel		1985
4398	HITEC 1193A	9'-4"	23'-9"	Welded Steel		1985
4399	Firebird 15W/40	9'-4"	23'-9"	Welded Steel		1985
4400	Guardol 30	9'-4"	23'-9"	Welded Steel		1985
4401	Mohawk 150	9'-4"	23'-9"	Welded Steel		1985
4402	TSX HD10	9'-4"	23'-9"	Welded Steel		1985
4403	HT4/30W	9'-4"	23'-9"	Welded Steel		1985
4404	Fleet Sup EC 15W/40	9'-4"	23'-9"	Welded Steel		1985
4405	HITEC 3472	9'-4"	23'-9"	Welded Steel		1987
4406	Lubrizol 9990A	9'-4"	23'-9"	Welded Steel		1987
4407	Ethyl HITEC 388	9'-4"	23'-9"	Welded Steel		1987
4408	Ethyl HITEC 5756	9'-4"	23'-9"	Welded Steel		1987

Tank Data (Above Ground)

Lube Blending Warehouse					(b) (7)(F)	
4338	Conoco AN 801	3'-6"	14'-0"	Welded Steel		1974
4339	Ethyl HITEC 534	3'-6"	14'-0"	Welded Steel		1974
4340	Ethyl HITEC 385	3'-6"	14'-0"	Welded Steel		1974
4341	Utility	3'-6"	14'-0"	Welded Steel		1974
4342	HITEC 008	3'-6"	14'-0"	Welded Steel		1974
4343	Viscoplex 1-302	3'-6"	14'-0"	Welded Steel		1974
4344	Oleic Acid/Emersol 213	3'-6"	14'-0"	Welded Steel		1974
4345	Lubrizol 8790	3'-6"	14'-0"	Welded Steel		1974
4346	Utility	3'-6"	14'-0"	Welded Steel		1974
4347	Utility	3'-6"	14'-0"	Welded Steel		1974
F-14	Flush - Under Lab	5'-3"	30'-0"	Welded Steel		1981
F-8	Utility			Welded Steel		1968
F-9	Line Clippings			Welded Steel		1954
F-13	Slops - Under Lab	5'-3"	30'-0"	Welded Steel		1981

Sec. 1.2.4 General Pipeline Specifications

Product/Pipeline	Diameter (in)	Approximate Length (ft)	Approximate Static Capacity (bbl)	Typical Pumping Rate (bbl/hr)
Marine Pipelines				
Subgrade Unleaded Gasoline	8	1,058[1]	66	6,000[3] 2,357[4]
	12	261	35	6,000[3] 2,357[4]
Regular Unleaded Gasoline	12	1,098[1]	153	6,000[3] 2,357[4]
	12	673	94	6,500[7]
Super Unleaded Gasoline	10	1,045[1]	102	6,000[3] 3,143[4]
	10	224	22	6,500[7]
	12	75	10	6,500[7]
Diesel #1	6	40	1	4,500[3] 1,029[4]
	10	1,534[1]	149	4,500[3] 1,029[4]
	10	107	10	4,500[3] 1,029[4]
Diesel #2	4	2,012	31	500[6]
	6	557	22	500[6]
	10	1,094[1]	106	4,500[3] 2,200[4]
	10	2,135	207	4,500[3] 5,500[7]
	12	33	5	500[6]
Transmix	6	1,360[1]	49	Idle
Industrial Fuel Oil	6	700[1]	25	4,500[3]
	10	625[1]	61	4,500[3]
	10	705	69	3,000[4]
	10	1,536	150	1,000[5]
	12	2,012[1]	281	3,000[4]
	12	1,052	147	3,000[4]
Marine Fuel Oil	10	2,110[1]	206	3,000[4]
RLOP 100/150 Neutral (Base Oil)	6	2,362[1]	83	1,000[3]
	6	50	2	1,000[3]
RLOP 220 Neutral (Base Oil)	6	1,409[1]	49	1,000[3]
	6	45	2	1,000[3]
RLOP 600 Neutral (Base Oil)	6	1,940[1]	68	1,000[3]
	6	719	25	1,000[3]
150 Bright Stock (Base Oil)	6	2,384[1]	85	Out of Service

General Pipeline Specifications

Inter-Company Pipeline				
Gasoline (all grades)	10	2,100	200	2,000[8] 3,500[7]
Diesel and Kersoene	10	2,100	200	2,000[8] 3,500[7]
Aviation Fuel	6	710	25	Out of Service
Black Oil	14	710	135	2,000[8] 3,500[7]
	12			Out of Service
Kinder-Morgan Pipeline[2]				
Gasoline (all grades)	8	880	123	2,000[8]
Diesel	8	970	136	2,000[8]

1 - Pipeline is under U.S. Coast Guard Jurisdiction
2 - Pipeline is under Department of Transportation Jurisdiction
3 - Receiving rate
4 - Loading rate
5 - Recirculation rate
6 - Tug fueling rate
7 - Pipeline receipt rate
8 - Pipeline delivery rate

Oil Handling and Transfer Operations

Material handling operations primarily consist of receiving petroleum products via the Olympic Pipeline, inter-company pipelines, railcar, tank truck, or from unloading ships and barges over water. These products are then stored in aboveground tanks and drums, pumped and transferred through in-plant process operations, and distributed via the Kinder-Morgan Pipeline or inter-company pipelines, bulk loaded into tank trucks or railcars at the loading racks or vessels at the dock, and fueled to tugs at the dock.

All transfers of oil/product to or from vessels are conducted using flexible cargo hoses between the vessels and the piping risers or fuel/lube oil dispensers on the dock. Marine transfers occur on both sides of the dock. Two 4-boom derricks are situated at the dock to facilitate handling of the flex hoses.

Tank trucks at the refined product truck loading rack are bottom-loaded, whereas the railcar rack and lube oil/black oil truck racks are top-loaded. Unloading of tank trucks is conducted at the truck unloading station and additive unloading stations when trucks either return to the terminal with a partial load of gasoline or diesel or when tank trucks deliver ethanol or additives.

Approximately 90 percent of transfer pipelines at the terminal are aboveground, except where they pass under NW Front Street between the dock and Tank Farm 2, or between the various tank farms.

Sec. 1.2.5 Major Facility Equipment

Bulk Storage Tanks

The terminal's petroleum product storage consists of 119 above ground storage tanks situated in six tank farms; three refined product/additive and three lube oil tank farms. Tanks are welded and riveted steel construction and contain different grades of gasoline, diesel, black oil, lube oil and lube blend/base stocks, reprocessed fuel oil (RFO), additives, ethanol, slops, and transmix. The total capacity of the tanks is (b) (7)(F)) with the capacity of the largest tank being (b) (7)(F) s). All aboveground tanks are designed in accordance with API standards. The tanks are constructed of steel with welded or riveted seams. This material and type of construction minimizes the potential for tank failure or leakage. Tanks and fittings meet or exceed API 650 specifications. There are no records or knowledge of any structural failures to any of the tanks at the terminal.

The terminal also has two underground storage tanks (UST's), each having a storage capacity of (b) (7)(F) . Several other UST's were removed from the terminal in 1997 and 1998. A summary of the UST's is provided below:

Tank	Product	(b) (7)(F)	Location
6	Flush Oil		Under Laboratory
7	Slop Oil		Under Laboratory

General descriptions of each tank farm are provided in the following sections. A complete list of tanks and their respective contents is provided in this Section.

Tank Farm 1

Tank Farm 1 is located adjacent to Doane Avenue between the Refined Products Loading Rack and the Main Office/Warehouse Building. The tank farm contains 14 storage tanks of various sizes; the contents range from industrial and reprocessed fuel oils (RFO), diesel, cutter stock, lube oils, slop oils, gasoline additives and black (decant) oil.

Tank Farm 2

Tank Farm 2 is located at the corner or Doane Avenue and Front Street and contains 14 tanks of various sizes; the contents are primarily gasoline, diesel, heating oil, transmix, ethanol, lube oil, slops and additives.

Tank Farm 3

Tank Farm 3 is located at the west side of the terminal and contains 29 tanks of various sizes; the contents consist primarily of lube oils, diesel, marine fuel oil, RFO, black oil, flush oil and a few empty tanks. Tanks containing heavier oils are insulated and heated to prevent the oil from solidifying or becoming too viscous to pump.

Lower and Upper Lube Cells (Tank Farms 4 and 5)

The Lower and Upper Lube Cells are adjoining and located next to the southwest corner of the Main Office/Warehouse Building. The lube cells contain a total of 40 small lube oil base stock, additive, and finished product storage tanks and their associated pumps and interconnecting above ground piping.

F-Tank Farm (Tank Farm 6)

The F-Tank Farm is located between Tank Farm 3 and the lube cells. It consists of 8 relatively small tanks containing lube oil base stocks and additives and their associated pumps and above ground piping.

Blending Warehouse

The lubes blending warehouse contains 14 tanks containing various lube oil base stock and additive storage tanks and their associated pumps and interconnecting above ground piping.

Pipelines

Transfer and distribution pipelines are routed throughout the Portland Terminal between the Olympic, Kinder-Morgan, and inter-company pipelines, the terminal storage tanks, railcar unloading/loading rack, marine dock, truck loading racks, and unloading stations. Pipes and valves are constructed of steel and meet the ANSI 150 pound classification. The majority of piping at the Portland Terminal is located above ground within the diked tank farm areas although the piping between tank farms and between Tank Farm 2 and the dock are situated underground.

The product lines that receive or ship product to and from the marine dock or to and from external pipelines are summarized in this Section. Due to the number, complexity, and various pumping rates of inter-facility pipelines, those pipelines running between tanks and between tanks and the various unloading stations and the loading racks have been excluded from this Section.

Marine Dock

The Portland Terminal dock is located on the Willamette River just northeast of Tank Farm 2 across Front Street. It is approximately 750 ft. long and is equipped with Vessel Loading/Unloading and Tug Fueling Stations as well as a float that is used to store 1,900 ft. of containment boom and moor the Terminal response boat. The vessel stations are located near the center of the dock and used to load and unload gasoline, diesel, black oil, and lube oils from barges or tankers. Vessels calling at the dock are primarily barges although transfers from ships are conducted. The Tug Fueling Station is located near the end of the dock and is used to fuel tugs with diesel and to supply tugs with lube oils.

Vessels can be loaded or unloaded from either side of the dock although tankers are almost always positioned on the downstream (west) side of the dock and barges on the upstream (east) side. Barges are, however, also positioned on the downstream side if the upstream side is occupied or other circumstances render the downstream side more suitable. Tug fueling is conducted on both sides of the dock.

The dock can accommodate two vessels simultaneously, which may be two barges or a tanker and a barge. Although possible, it is unlikely two tankers would ever be moored at the dock at the same time. The length of the largest tankers and barges routinely calling on the dock are 650 feet and 400 feet, respectively. The capacities of the tankers calling at the dock average (b) (7)(F) [redacted]

All transfers are conducted using flexible hoses between the vessels and the piping risers at the loading/unloading station. The risers are connected to the storage tanks within the tank farms through a combination of above and below ground piping. Flexible hoses on reels with dispenser nozzles are used to transfer diesel and lube oil at the fueling station. Transfers to the terminal are conducted using pumps on board the tanker or barge whereas transfers to barges are conducted using pumps at the terminal.

General descriptions of the various transfer facilities located at the Portland Terminal are provided in the following sections.

Refined Product Loading Rack

The Refined Product Loading Rack has three lanes for filling tank trucks; it is situated on the west side of the terminal adjacent to Tank Farm 1. Each lane is supplied with gasoline or diesel primarily from Tank Farm 2; however, selected tanks in Tank Farms 1 and 3 also supply diesel. The storage tanks are connected to the rack by above and below ground piping within the diked tank farms and the loading rack. Transfers to the tank trucks are conducted entirely within the loading rack containment area. The loading rack utilizes bottom loading equipment only and is equipped with a vapor recovery system.

Lube Oil Tank Truck Loading Rack

The Lube Oil Tank Truck Loading Rack is situated on the east side of Tank Farm 1 and consists of only one lane or station. The rack is supplied with lube oil from Tank Farms 1, 3 and/or the lube cells through above ground piping. The loading rack is fitted with top loading equipment; oil transfers are monitored by weight instead of volume via a certified truck scale beneath the rack.

Black Oil/RFO Loading Rack

The Black Oil/RFO Loading Rack is located adjacent to the lube oil loading rack and has two loading lanes, one on either side. The rack is supplied with black oil and RFO from Tank Farm 3 through piping situated in a below grade pipe trench. The rack is fitted with top loading equipment; oil transfers are monitored by weight rather than by volume by weighing the truck before and after the transfer.

Lube Oil/RFO Tank Truck Unloading Station

The primary Lube Oil/RFO Unloading Station is located on the west side of Tank Farm 3 adjacent to the Black Oil/RFO Loading Rack and consists of only one lane or station. The lube oil, lube oil additives or RFO are unloaded from tank trucks through flexible hoses via gravity flow to manifolds adjacent to the station and are then pumped to the appropriate tank. A second RFO unloading station is located at the northeast end of the Lube Oil Loading Rack where tank trucks are unloaded in the same manner as described above. Diesel can also be unloaded from tank trucks at this station.

Lube Oil Additive Unloading Station

The Lube Oil Additive Unloading Station consists of a paved area along the east side of the F-Tank Farm. Additives are unloaded via gravity flow from tank trucks through flexible hoses connected to pump manifolds at the base of each tank; the additives are then pumped into the tanks. The transfer pumps and pump hose connections are located within the tank farm containment system.

Railcar Loading/Unloading Rack

Railcar unloading of black oil, lube oil additives and lube oil base stocks and the loading of finished lube oils are conducted at the Railcar Loading/Unloading Rack adjacent to the F-Tank Farm and southeast of the lube cells. The rack can accommodate up to four railcars with two stations on either side of the rack. The railcars are unloaded using flexible hoses attached to the bottom of the cars and top-loaded through pivoting arms and flexible hoses. The rack area is situated within a natural topographic depression with an asphalt berm at the west end to provide secondary containment. Each transfer station is also equipped with a dished concrete apron and catch basin under the loading point on the railcar to collect potential spillage.

Tank Truck Unloading Station

There are two Tank Truck Unloading Stations at the facility. One is located at the northeast end of the maintenance garage and consists of two dished concrete slabs adjacent to the product manifolds and pumps. The second is located at the west side of Tank Farm #3. Refined products and ethanol are unloaded via gravity flow from the trucks through flexible hoses to one or more of the various hose connections. The material is then pumped through a series of pipelines to the appropriate tank.

Gasoline & Diesel Additive Unloading Station

The Gasoline & Diesel Additive Unloading Station consists of the paved area along the east side of Tank Farm 1, directly north of the Refined Product Loading Rack. Additives are unloaded from tank trucks through flexible hoses connected to a pipeline adjacent to the station and then pumped to Tanks 4441 and 3623, in Tank Farm 1.

Lube Blending/Packaging Area and Warehouse

The Lube Oil Blending/Packaging Area and Warehouse is situated on the first floor of the main office/warehouse building. The east end of the warehouse contains a blending facility with a multitude of piping and pumps used to blend various lube oil base stocks and additives to produce finished lube products. The blending area also contains 10 small tanks used to store lube oil additives and some base stocks. The finished products are stored in above ground tanks in the lube cells or F-Tank Farm. These finished products are either shipped in bulk or pumped back into the warehouse to the packaging area where they are placed in drums, totes or pails. Packaged lube products are temporarily stored in other parts of the warehouse prior to being shipped off-site.

Maintenance Garage

The Maintenance Garage is situated along Doane Avenue adjacent to Tank Farm 2 and is used to conduct maintenance work on the terminal's tank trucks and miscellaneous equipment. Insignificant quantities of virgin and used lubricating oils, solvents, antifreeze, etc., are stored at the garage in association with the normal maintenance and repair operations. The used oil and spend solvents are stored in an aboveground storage tank and antifreeze is stored in drums. The used oil, spent solvents and antifreeze are periodically transported to approved recycling facilities. Standard precautions are taken to prevent these liquids from spilling and escaping their immediate storage areas.

Other Facilities

In addition to those facilities described above, other facilities include a facility drainage system and several buildings including the main office/warehouse, boiler house, asphalt shed (dock warehouse), dock office and office trailer. The hazardous waste storage area is located adjacent to Tank Farm Three between the rail spur and the tank farm. The storage area is covered and fenced.

Containment and Drainage Control

The petroleum product storage and transfer facilities at the terminal are equipped with a variety of spill containment and drainage control devices. Storage and transfers of products are conducted in areas contained by walls, curbs or other means of containment and most areas within the terminal drain to either storm water or process water collection systems that are equipped with oil/water separators. Details on the specific containment and drainage control systems are provided in this Plan.

Sec. 1.2.6 FACILITY SPILL PREVENTION

General

A number of procedures are in place at the terminal to minimize the potential for and rapidly detect a spill. The terminal is equipped with various secondary containment and diversionary structures and procedures provided to prevent oil discharges from reaching navigable waters. Additional spill prevention information for the Portland Terminal is provided in the Terminal SPCC Plan, Storm Water Pollution Control Plan (SWPCP) and the U.S. Coast Guard Marine Terminal Operations Manual. Additional spill prevention information is provided in the terminal's Local Operating Procedures (LOP).

In general, process water, storm water runoff, and/or spills from the facility's storage and transfer areas are routed through a series of catch basins and underground drain lines to four oil/water separators located in the tank farms. The discharge valves from the storm water separators to the municipal storm water system are normally kept closed except during storm events when they are opened as necessary to drain water accumulations from the separators. The condition of the water in the final boxes of the separators is visually monitored; any evidence of oil or other contamination is removed prior to discharge. The discharge valves are equipped with position indicators that can be monitored by operators in the control room to determine if the valves are closed or open. The discharge valves are pneumatic and designed to fail close automatically upon activation of the terminal's emergency shutdown system, loss of air pressure or power failure. A manual override is built into the valve actuator to provide emergency operation.

The Terminal is manned 24 hrs per day, 365 days per year and during normal business hours there are generally 30 to 40 personnel at the Terminal. During off-hours, the number of personnel varies depending on the day and time but there are usually at least 2 personnel on duty. Additional personnel are present during off-hour vessel loading and unloading operations at the dock.

During normal business hours, Terminal personnel are continually conducting activities at various locations and would quickly detect a spill from the storage tanks, piping, loading racks or dock. At least one Terminal operator is present during all pipeline receipts and physically gauges the tanks before and after each batch of product is received. During evenings and weekends, operators are required to visually inspect the tank farms and transfer areas at least once every 12 hours for leaks, spills or other abnormal conditions.

To minimize the potential for spills or leaks, personnel adhere to the following Terminal operating procedures:

- **Written Work Procedures** - Written procedures help minimize the potential for spills and leaks by providing clear directions for performing job tasks.
- **Shift Turnover Log - This log is used to communicate Terminal activities to the next work shift and minimizes the potential for operator error resulting in a spill or leak**
- **General Work Permits** - These permits are assigned to personnel who may be performing work other than that which is part of normal operations. The work permit defines conditions under which that work may occur.
- **Hot Work Permit** - A hot work permit is assigned to personnel performing work with equipment that may act as an ignition source.

Sec.1.2.7 Spill History

The state or federal reportable spills that have occurred at the terminal in the last 20 years are listed in the following table.

Date	Cause	Product	Size of Spill	Corrective Actions/ Prevention Measures
07/19/82	The 10" product line	Unleaded	800 gals.	Pipeline has been replaced. Lines are tested annually. Spill was visually detected during the testing, contained and cleaned up manually
07/04/90	Leaking gasket on abandoned asphalt line on the dock	Asphalt	<1 gals.	Replaced gasket, emptied line and blind fanged at shore valve. Spill was visually detected, contained and manually cleaned up.
09/04/93	Vessel rossi at dock. Unknown source of discharge	Unleaded	80 gals.	Investigations by the Coast Guard were unable to determine where the product came from.
06/20/94	Leaking gasket on dock header	Asphalt	2 gals.	New gaskets will be used on each receipt of product.
02/22/97	Tank overflow	Gasoline	11,700 gals.	Revised tank to tank transfer procedures. Installed independent High Level Alarm.
12/19/97	Flexible pump coupling failure due to improper mounting	Lube Oil	2,000 gals.	Pump mounting has been redesigned.
12/24/98	Idle 8" gasoline dock line ruptured due to water in line freezing	Gasoline	3 gals.	New procedures implemented to ensure water is drained from all lines after hydro testing.
6/15/00	Sample valve on kerosene line in Tank Farm 2 vibrated open	Kerosene	6,538 gals.	All product line sampling valves have been capped and chains with locks installed to prevent accidental opening
12/21/00	Corrosion pinhole discovered in bottom of Tank 2669 during routine cleaning. Soil samples taken beneath tank confirmed release.	Marine Diesel Oil	55 gals.	Plate has been welded over hole and an epoxy coating has been installed on the tank bottom to prevent
1/31/01	Fitting on new auto sampler installed on dock line leaked and dripped product to river	Cutter Stock	0.5 gals.	Auto sampler was removed and replaced with a plug and the line pressure tested. Modifications will be made to sampler following results of an investigation.
6/20/01	Failed weld in buried pipe	Marine Diesel Oil	Unknown, est. 5000 gals.	All buried lines in this area of the terminal were exposed, inspected and coated.
10/16/02	Failed "O" ring and boot seal	Black Oil	½ gallon	Replaced "O" ring; tightened boot seal, inspected all boot seals on the dock, placed boot seals on regular inspection cycle

Storage Tanks

To minimize the potential for oil spills and to detect a release, tanks have been equipped with various leak detection devices, in addition to implementing operating and maintenance procedures to detect actual and potential spills from the product storage tanks. The storage tanks are equipped with the following discharge detection systems:

- Each tank is equipped with an automatic tank gauge at the base of the tank that can be monitored visually by personnel.
- Tanks are equipped with high level alarms that are indicated on a computerized gauging system monitor in the bulk handling or lube oil control rooms. When the tank reaches a preset level, the system will activate a visual high level alarm in the lube control room and both a visual and an audible high level alarm in the bulk handling control room.
- Tanks that receive product via pipeline or marine vessel are also equipped with redundant high level alarms set to activate approximately 20 minutes before the tank overflows at its maximum fill rate. The redundant high level alarms activate an audible alarm in the bulk handling control room and dock office, as well as emergency horns strategically located throughout the terminal.
- All gasoline, diesel, ethanol, transmix and` black oil tanks are connected to a remote tank gauging system. This allows terminal personnel to monitor activity in all tanks simultaneously.

To minimize the potential for spills, personnel strictly adhere to the following product storage tank operating and maintenance procedures:

- Hand gauge tanks before receiving pipeline or vessel receipts to ensure sufficient capacity exists in the tank to prevent tank overfill.
- Pre-confirm and calculate product delivery with pipeline operator or vessel person-in-charge to ensure the tank will not be filled beyond the tank's safe fill level or volume.
- Monitor automatic tank gauging system regularly throughout transfer to ensure appropriate transfer rate is maintained, provide an indication of leakage and prevent overfills.
- Lock tank water draws and close cargo/service line valves when not in use.
- Reconcile physical inventory per levels provided by the tank' gauging system five days per week. This procedure would detect a moderate size release from a tank.
- Test high level alarms monthly.
- Verify tank gauging system during each receipt when tanks are manually sounded and monthly to ensure gauges are reading correctly within a 1/8 inch detection limit. If detection limits have drifted more than 1/4 inch, calibrate the gauges.
- Perform a daily inspection of tanks and appurtenances for leaks.
-

Pipelines

The Portland Terminal has implemented operating and maintenance procedures to detect actual and potential spills from the Terminal pipelines. Most product transfer piping at the Terminal is located aboveground, except between Tank Farm 1 and the Refined Products Loading Rack, between Tank Farm 2 and the dock, and between tank farms. The piping systems are designed and operated to minimize potential spills in the following ways:

- Valve indicators illustrate the position of the valve, minimizing the potential for inadvertently opening or closing a valve to the wrong tank.
- Pipelines in vehicle access areas are located on overhead racks or protected by guardrails to help prevent pipeline breaks due to impact by a vehicle.
- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction of the pipeline.
- Pipeline supports are fabricated from steel pipe and designed to minimize abrasion and corrosion and to allow for expansion and contraction.
- Whenever possible, pipelines are situated aboveground to enable facility personnel to periodically check the pipelines' condition and physical characteristics.
- Pipelines, valves and manifolds are labeled to identify product contents and flow directions. Identifying product contents helps to minimize the potential of misaligning a product delivery path, which could result in over pressuring a pipeline or overfilling a tank.

To minimize the potential for spills, personnel strictly adhere to the following pipeline operating and maintenance procedures:

Correctly align and verify all valves before beginning transfer operations. This minimizes the potential for pressure buildup during pump start and for a spill or overfill should product be pumped into the wrong tank.

Maintain continuous communications among personnel conducting an operation. This minimizes the potential for error that might produce a spill.

- Cap or blank flange and mark pipeline terminal connections if the pipeline is not in service, or in extended standby service. Blind-flange pipelines or tanks when there is a possibility of leaks through closed valves.
- Monitor pipeline pressure during transfer operations. This ensures that pipelines are not operated above their specified pressure rating and that a leak or spill is immediately detected.
-

Tank Truck Loading Racks

All tank truck loading and unloading procedures and equipment meet the minimum requirements and regulations of the Department of Transportation. The facilities are also designed to meet SPCC requirements for containment as well as industry standards for spill prevention as described below.

Refined Products Loading Rack

Gasoline and distillate loading is conducted at the refined products truck loading rack by the driver and by using preset meters. Meters are set with the amount of product to be loaded. Loading is automatically terminated by the meter set/stop valve when the amount is reached. Each truck compartment is equipped with a fiber-optic overfill sensor to automatically close the meter set/stop valve before an overflow can occur. To prevent premature vehicle departure, the gasoline/distillate loading rack has an air switch on the hose connection to the truck that locks the truck's brakes until the hose is disconnected. Drivers check to ensure that all truck compartment drain valves are closed and that the vehicle is properly grounded to protect against static electricity charges. Loading operations are not conducted if an ignition source exists nearby. Drains and outlets on tank trucks are also checked for leakage before loading and before departure.

(b) (7)(F)

[redacted]

Lube and Black Oil Loading Racks

The loading of bulk lubricants into tank trucks at the lube truck rack is done by weight instead of volume. The trucks are situated on a scale and the total weight of the truck and oil is monitored as the truck is filled. The rack is also equipped with a “deadman’ type valve that requires constant pressure from the operator to continue loading operations. Therefore, the loading of lube products must be continually manned and monitored. Loading operations at the adjacent black oil truck rack are similar in that a “deadman” type valve is used but there is no scale so monitoring is strictly visual. Like the refined products rack, the lube and black oil truck drivers are instructed to inspect their trucks and drain valves after filling and prior to departure.

Railcar Loading/Unloading Racks

Railcars are loaded and unloaded under constant, direct supervision of plant operators, ensuring that overfills, spills, or leaks are rapidly detected. Railcar loading procedures are also designed to meet the U.S. Department of Transportation's minimum requirements and regulations. Warning signs are installed at the rack to minimize the potential for railcar departure before disconnecting the loading arms. Operators are also instructed to check all drain valves, outlets and the railcar itself for leakage before loading and departure. In addition, all railcar rack operators are thoroughly trained in procedures to operate the equipment.

Vessel Loading/Unloading and Tug Fueling Dock

Transfer operations involving tanker/barge loading and unloading and tug fueling operations at the dock are conducted under the continual supervision of terminal and vessel personnel. All transfers of product between barge/ship and storage tanks are done in accordance with Coast Guard regulations 33 CFR 154 and 156. Pre-transfer meetings are held and checklists are completed to establish the procedures to be followed and ensure that enough capacity is available in the designated storage tank(s) or vessel compartment(s) to handle the quantity to be transferred. Terminal personnel remain in constant communications with the person in charge of the vessel during the transfer operation and frequently inspect the transfer hoses, piping, valves and appurtenances. After each use, the product/fuel transfer hoses are back-flushed (drained) and blind flanges installed when not in use to ensure hoses remain empty.

Sec. 1.2.8 Containment Systems

Storage Tanks

Secondary containment for the tank farms and lube cells is provided by concrete block, cast-in-place concrete walls or asphalt covered earthen berms on all sides. The bases of Tank Farms 1, 2 and 3 consist primarily of silty, sandy fill overlain by gravel whereas the lube cells and F-Tank Farm are equipped with concrete liners.

The containment capacity for Tank Farm 1, 2 and 3 are designed to meet SPCC and NFPA 30 requirements including the volume of the largest tank plus precipitation from the maximum 25 year storm of 24-hour duration and water from 20 minutes discharge from the fixed fire suppression (foam or sprinkler) system and/or 20 minutes of water flow from two fire hoses.

The secondary containment systems for the Upper Lube Cell, Lower Lube Cell and F-Tank Farm (Tank Farms 4, 5 and 6) also meet SPCC and generally NFPA requirements. The exception is the F-Tank Farm which will contain the contents of the largest tank in each group, plus precipitation from the maximum 25-year, 24-hour storm but does not have sufficient capacity to also contain 20 minutes of water flow from two fire hoses. The tank farm is, however, equipped with drains connected to the Terminal process water treatment system that are left open at all times. Therefore, liquids within the tank farms will continually drain to the process system as fire suppression water is added to the area minimizing the possibility of the containment dikes being breached during an incident.

Additional secondary containment capacity can be made available to F Tank Farm by closing a post indicator valve located in the corner of the farm. When closed, the valve diverts flow from the process system into a [redacted]. Containment capacities for each tank farm are provided in this Section, whereas the actual calculations are contained in the Terminal's SPCC plan.

Hazardous Waste Storage Area

The hazardous waste storage area is between Tank Farm 3 and the rail spur on a sloped concrete pad. The concrete pad is equipped with a centrally located catch basin that drains to the process water system. The drums are periodically inspected and any leaking drums will be emptied and the contents placed in an undamaged drum for storage prior to removal and subsequent disposal by a licensed hauler. The storage area is fenced and covered.

Pipelines

Pipelines at the Terminal are not equipped with secondary containment except where they are located within the tank farms. Piping within the tank farms represents the vast majority of pipelines at the terminal.

Tank Truck Loading Racks

The tank truck loading racks are surrounded by dished concrete slabs and/or perimeter curbing, which contain and direct spillage and runoff to nearby process system drains. The largest compartment of a truck loaded at the facility [redacted] epresenting the maximum anticipated

spill volume. Secondary containment at the tank truck transfer areas is more than sufficient to contain this volume.

Gasoline & Diesel Additive Unloading Station

Gasoline additives are unloaded into nearby storage tanks at the unloading station. The station is paved but not equipped with a dedicated containment system. Spills or leaks will primarily drain to the south into the Refined Product Loading Rack containment area. Larger spills could also drain to the west to a catch basin connected to the storm water system and oil/water Separator #002. Terminal operating procedures require the operators to place a magnetic cover over the catch basin during additive transfers. This will prevent spills from entering the storm water system and cause them to collect in the area surrounding the catch basin and/or drain to the loading rack containment area. The combination of the pavement grading and loading rack containment system provides more than adequate containment to prevent potential spills from escaping the area.

Tank Farm	Largest Tank	Maximum Tank Capacity (bbl)	Maximum Tank Capacity plus Precipitation from 25-Year, 24-Hour Storm and 30 min. Fire Protection[1] (bbl)	Tank Containment Capacity
1	Tank 2561	(b) (7)(F)	[redacted]	
2	Tank 2915			
3	Tank 3579			
Lower Lube Cell (4)	Tank 4300			
Upper Lube Cell (5)	Tank 3743			
F-Tank Farm Row (6)	Tank 4335			

1. Precipitation from the maximum 25-year, 24-hour storm event for Portland, OR is 3.7 inches. Source: National Weather Service, Portland, OR
2. Volume shown includes water from 20 minutes discharge of 2 fire hoses (at 250 gpm).
3. Volume shown includes water from 20 minutes discharge of fixed fire suppression system (at 1,000 gpm) and 2 fire hoses (at 250 gpm).
4. Tank Farms equipped with open catch basins connected to 6-inch process water collection pipelines and a treatment system, which will significantly increase the effective containment capacity of the tank farm.
5. Volume shown is maximum tank capacity plus 10 percent.

Lube Oil Additive Unloading Station

The lube additive unloading station is used to transfer additives from tank trucks to storage tanks in the F-Tank Farm. The transfers are made via flexible hoses connected between the tank truck and the storage tanks. The area is paved but not equipped with a dedicated containment system. Terminal procedures require the operators to place a magnetic cover over the nearby storm water catch basin during additive transfers. This will prevent spills from entering the storm water system and cause them to continue flowing down-gradient into the process water catch basin beneath the laboratory. The pavement and grading around the process drain provide more than adequate containment capacity to prevent foreseeable spills from escaping the area.

Tank Truck Unloading Stations

Gasoline, diesel and heating oil from tank trucks returning to the terminal with a partial or full load, or trucks bringing in ethanol, are unloaded at the tank truck unloading station. The unloading station is surrounded by dished concrete slabs and 4-inch asphalt containment berms. The slabs drain to central catch basins connected to the process water system. This secondary containment can contain a spill at the unloading station of at least 4,000 gallons, the maximum size of one tank truck compartment.

Railcar Loading/Unloading Rack

The railcar loading/unloading rack is surrounded by a dished gravel area and 9-inch asphalt containment berm along the northwest edge. Small dished concrete slabs are positioned under the four transfer stations at the rack, and are equipped with catch basins that drain to the process water system. The combination of the concrete slabs, catch basins and asphalt berms provide a containment area of at least 30,000 gallons, which is the maximum size of one railcar compartment.

Primary Lube Oil Warehouse

The lube oil warehouse's process area is equipped with concrete slab floors which slope to centralized sumps which, in turn, drain to the 5,000-gallon underground lube slop tank at the east end of the building and to the process water system. The remainder of the warehouse is used primarily for packaged lube product storage with a small section adjacent to the process area that contains several small additive tanks.

The entire warehouse has a concrete floor that generally slopes towards the center to provide containment for spills from packaged products. Curbing has been installed along the north side and the northeast corner of the warehouse to prevent potential spills from packaged products along that side or the additive tanks in the northeast corner from leaving the building.

Storage Lube Oil Warehouse

A second lube oil warehouse is located on the SE corner of the facility. The floor slopes toward the center to provide containment for spills from packaged products. Additionally, curbing has been installed along the walls

Hot Boxes

Hot boxes used at the terminal are equipped with an approximately 20-foot by 25-foot concrete pad surrounded by a 9-inch concrete berm, which can contain the maximum anticipated spill volume of approximately 55 gallons.

Lube Oil Additive Drum Storage Area

The lube oil additive drum storage area is equipped with a 20-foot by 3-foot covered concrete pad. Drums stored in this area are placed in overpack containers that can contain the maximum anticipated spill volume of approximately 55 gallons. The flammable materials storage locker also situated in this area is used to store containers of up to 5 gallons of flammable materials and is equipped with secondary containment with a capacity of 5.2 gallons. This will contain the maximum anticipated spill of 5 gallons.

Dock Loading, Unloading and Fueling Operations

In the unlikely event of a spill at the dock, terminal personnel will deploy a floating spill boom to encircle and contain the spill. The product would generally be contained between the boom and the vessel. Containment of gasoline spills is rarely, if ever, recommended due to the extreme fire and explosion hazard.

The dock risers are located on a dished concrete pad to contain spills during transfer operations. The containment area drains to a 2,000-gallon holding tank beneath the dock that is equipped with level-control activated pumps that pump water and any spilled oil/product to the process water system in the terminal. The tug fueling and lube oil dispensing area at the dock is covered and equipped with a concrete and bermed containment system that also drains to the holding tank.

Thermal Pressure Relief

All appropriate facility piping between the incoming Olympic Pipeline manifold and the storage tanks, and between the storage tanks and the truck loading rack, vapor recovery system and Kinder-Morgan Pipeline manifold are fitted with thermal pressure relief valves.

Pumps, Valves and Controls

Valves at the Olympic Pipeline delivery manifolds are manually operated. The pipeline companies instruct the Terminal Operator to open and close these valves during delivery operations to ensure accurate deliveries at the appropriate times. The valves' opening and closing speeds are appropriate for their service. Automatically closing valves are used on tank lines to the refined products loading rack. Check valves secure outward flow through tank receipt lines. Most other valves at the terminal are also manually operated with the exception of the valves associated with product supply to the loading rack.

An automated system controls pumps and control valves used to transfer products from the storage tanks to the products loading rack. This system consists of a variety of equipment including:

- Pumps
- Pre-set meters
- Control valves
- Grounding systems
- Truck compartment high-level sensors
- Deadman switches

The truck driver uses an electronic cardlock control system to access the automated system. Once the driver has connected the truck to the load rack (product bottom load arm, vapor return line, grounding system, and high-level sensors) the automated system controls transfer pump start and stop, control valve opening and closing, flow rates, and metering the pre-set product volumes.

Rapid Shutdown of Pumps and Valves

Terminal personnel involved with the storage and transfer of petroleum products are required to receive training on the various tasks that they will be responsible for in their daily activities. Included in this training are the procedures that must be followed when performing an emergency or rapid shutdown of pumps and valves. When the rack emergency shutdown system is activated, the product pumps are deactivated and a solenoid valve, located at the rack, is closed. The operators will then manually close the valves to the product tanks. The dock emergency shutdown switch will deactivate all the pumps that supply the dock. Once the emergency shutdown system is activated, the operators will close the shore valves in order to isolate the dock lines from the rest of the terminal.

Emergency Shutdown

The Terminal has clearly identified emergency shutdown switches located in the Control Room, at the Load Rack and on the Marine Dock.

When the emergency shutdown switch is activated:

- An audible alarm sounds,
- All product transfer pumps are deactivated, and
- Water and foam deluge systems may be activated (products load rack only

Minimization of Post-Shutdown Residual Drainout

Minimization of post-shutdown residual drainout from pipeline spills are minimized by providing valves at various points throughout the entire length of the pipeline. This will enable the isolation of small sections of a pipeline that may be damaged. In the event that a leak is detected, operators can drain the line at its low point or pump out the product from the effected section of line.

Criteria for Suspension of Operations

There are no specific criteria for suspension of operations at the terminal other than for power failures or unsafe conditions following unforeseen circumstances. However, transfers at the terminal will be terminated in the event of lightning or flooding.

Corrosion Protection

Facilities are protected from external corrosion through the proper application and inspection of protective coatings. Cathodic protection systems have been installed to protect selected tanks and piping.

Sec.1.2.9 Inspections

Aboveground storage tanks, pipelines, appurtenances (i.e., valves, flanges, valve locks, catch pans, pipeline supports, locking of valves, gauges, etc.) and containment systems are visually inspected daily during the normal course of operations. These inspections are informal and undocumented but terminal personnel are instructed to look for evidence of leaks or spills including drip marks, droplets, puddles, discoloration or structural integrity problems such as cracks and corrosion while conducting their daily activities. Any deficiencies noted during the inspections are repaired promptly. Additional information on the daily and periodic inspections is provided below. Terminal management will also conduct more detailed inspections.

Storage Tanks

The daily visual inspections of storage tanks include an overall assessment of tank integrity and the following:

1. Check tank exteriors for leaks and indications of leaks including the following:

- Drip marks
- Discoloration of tanks
- Puddles containing stored material
- Corrosion
- Cracks
- Localized dead vegetation

2. Check tank foundations for the following:
- Cracks
- Discoloration
- Damage caused by vegetation roots
- Puddles containing stored material
- Settling
- Gaps between the tank and foundation

Periodically, the tanks are emptied and inspected internally and externally as required by API 653. This process involves inspecting the tank for rust and pitting. If rust and pitting are observed, ultrasonic tests are performed on representative sections of the metal. Only experienced, licensed inspectors perform tank inspections using up to date procedures and methods. A comprehensive external inspection is also conducted on a periodic basis.

API 653 establishes a recommended minimum thickness to determine when a portion of the tank shell or bottom should be repaired or replaced. The ultrasonic readings will determine the amount of pitting and the shell thickness per steel panel; readings from multiple inspections will establish the corrosion rate for the panel. Records of all inspections are retained on file for the life of the tank.

Pipelines

Pipelines are inspected daily during the normal course of operations. Visual pipeline inspections involve checking for evidence of leakage or comprised structural integrity, including the following:

- Droplets of stored material
- Discoloration of piping or under or overlying earthen materials
- Corrosion
- Dead vegetation
- Bowing of piping between supports
- Evidence of stored material seepage on valves or seals

The pipelines extending from the marine dock to the first valve within secondary containment are pressure-tested annually to ensure that there are no leaks. The lines are filled with water or product, depending on its product service, and pressurized. The lines are constantly monitored during the pressure test to ensure that there are no leaks.

Whenever a pipeline is repaired, it is hydro tested to ensure that there are no leaks. Records of all maintenance are retained on file for a period of at least 5 years from the date repair and/or testing.

Containment Systems

The daily visual facility inspections also includes the secondary containment dikes and walls at the tank farms, the concrete slabs and perimeter berms at the loading/unloading racks and stations, and the drainage systems and sump pump collection areas.

Specifically these inspections will involve the following if applicable:

1. Dike or berm system
- Level of precipitation in dike/available capacity
- Operational status of drainage valves
- Dike or berm impermeability
- Debris accumulations
- Erosion
- Permeability of the earthen floor of the diked area
- Location/status of pipes, inlets, etc.

2. Secondary containment
- Presence of stored material (standing liquid)
- Dead vegetation
- Valve conditions

3. Concrete containment floor of diked area
- Cracks
- Discoloration
- Presence of stored material (standing liquid)
- Large accumulations of oil or debris
- Corrosion
- Valve conditions
- Available capacity

Damage Criteria for Repair or Replacement

There are no specific damage criteria for equipment repair or replacement. Equipment that is not fit for purpose is repaired and any equipment that cannot be repaired is replaced.

Training

Terminal operators are trained on written facility procedures upon their employment with the Company. Each operator attends spill prevention training sessions conducted as part of the Terminal's monthly safety meetings. The Terminal also conducts periodic emergency response exercises. These exercises help validate emergency plans and communication capabilities, and provide valuable experience for response personnel.

Further details on the Company spill response training program are included in this Plan.

Material Compatibility

Materials stored at the terminal are either fuel oils, gasoline, lube oils or fuel and lube additives. All of these materials are compatible with the facilities and equipment used to store and handle them.

These materials are flammable or combustible, and may be hazardous if inhaled or brought into prolonged contact with the skin. Material Safety Data Sheets (MSDS) for these materials are maintained at the terminal.

- **Drainage System**

Rainfall within the majority of the terminal is collected and treated by one of three API oil/water separators prior to being discharged to the Willamette River under the state's General NPDES permit. The storm water is monitored for the presence of oil prior to discharge to the municipal storm sewers and periodically during periods of heavy precipitation when the separator discharge valves are left open. Drainage from the product transfer areas are collected and treated by the process water system, which consists of an API oil/water separator and a DAF-type hydrocleaner before being discharged to the municipal sanitary sewer system and the local publicly-owned treatment works (POTW), under a Wastewater Discharge Permit. A drainage system flow diagram is provided in this Plan. The three storm water and one process water separators and their discharge points are described as follows:

TRUE NORTH

Sec. 1.3 Planning Calculations/Spill Scenarios

Sec. 1.3.1 General

The scenarios in this appendix are prepared in compliance with state and federal regulations including OAR 340-47-150 (4) (DEQ), 40 CFR 112.20(h)(5) (EPA), and 33 CFR 154.1035(b)(3)(iv) (Coast Guard). These regulations require that the facility describe the typical actions taken and equipment used to respond to a variety of spill situations. The EPA and USCG regulations require only general descriptions of response procedures and equipment for each scenario, whereas DEQ requires very detailed descriptions that must also be accompanied by spill trajectories. The various scenario descriptions and associated spill volumes required by each agency are as follows:

EPA

The EPA defines the worst case discharge (WCD) as the volume of the largest tank at the facility and the small and medium spills as the lessor of one percent of the WCD or 50 bbl and the lessor of (b) (7)(F) , respectively. The planning volumes are based on the WCD but make allowances for evaporation, dissolution, grounding onshore, etc. The various discharge and planning volumes that apply to the terminal are listed or referenced below:

Small Spill = 50 bbl
Medium Spill = 857 bbl
(b) (7)(F)

Coast Guard

When calculating the worst case discharge (WCD) for the portion of a facility under Coast Guard jurisdiction (i.e., from the dock to the first valves inside secondary containment), the facility must assume that all dock pipelines that could be in service simultaneously are in service and are pumping at their maximum rates. They must also assume that all lines, in service or not, are severed at the same time and that once the pipelines are shut down and isolated, the entire contents of each line drains out into the water.

There are a number of scenarios for the Portland Terminal that would result in different WCD volumes including a tanker simultaneously offloading four different base stocks while a barge on the other side of the dock is being loaded with diesel and a tug is being refueled. That scenario would result in the largest number of lines being in service at once but because the lube oil lines are only 6-inch diameter and pump at a relatively low rate (1,000 bph), it would not result in the largest WCD.

Therefore, a similar scenario where a tanker unloading marine fuel oil (MFO) through a 10-inch line is used in place of the lube tanker. In this case the assumptions are as follows:

- Tanker offloading MFO at 6,000 bph
- Barge loading Diesel at 4,000 bph
- Tug being fueled with diesel at 430 bph
- Five minutes required for detection, transfer shutdown and onshore valve closure

Line diameters, lengths (dock header to shore valve) and line fill volumes are:

- 100/150 Neutral - 6-in x 600 ft = 21 bbls
- 220 Neutral - 6-in x 600 ft = 21 bbls
- 600 Neutral - 6-in x 600 ft = 21 bbls
- 150 Bright Stock - 6-in x 600 ft = 21 bbls
- Av Gas - 6-in x 630 ft (out of service and purged)
- Heating Oil - 10-in x 625 ft = 61 bbls
- Diesel #2 - 10-in x 625 ft = 61 bbls
- Leaded Gas - 8-in x 625 ft (out of service and purged)
- Unleaded Regular - 12-in x 645 ft = 89 bbls
- Super Unleaded - 10-in x 625 ft = 61 bbls
- IFO/MFO - 12-in x 625 ft = 87 bbls
- IFO/Cutter Recirc. - 10-in x 625 ft = 61 bbls
- MDO - 10-in x 625 ft = 61 bbls
- Diesel Tug Fueling - 4-in x 720 ft = 11 bbls

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

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

EPA Discharge Scenario Calculations

Calculation		Group 1 Oil1	Group 3 Oil2	Group 4 Oil3
Areas Impacted: Nearshore and Inland				
Worst Case Discharge (WCD=100% of tank volume) (bbl)		(b) (7)(F)		
Small Case Discharge (Lesser of 1% of WCD or 50 bbl) (bbl)		50	50	50
Medium Case Discharge (Lesser of 10% of WCD or 857 bbl) (bbl)		857	857	857
On-Water Recovery Volume (OWRV=Percent oil on-water x WCD) (bbl)		(b) (7)(F)		
On-Shore Recovery Volume (OSRV=Percent oil on-shore x WCD) (bbl)				
Emulsification Factor (EF)		1.0	2.0	1.4
On-Water Clean-Up Planning Volume (OWPV=OWRV x EF) (bbl/day)		16,432	15,894	22,449
Shoreline Clean-Up Planning Volume (SPV=OSRV x EF) (bbl/day)		8,216	7,946	11,225
On-Water Recovery Capacity4 (OWRC=OWPV x Resource Mobilization Factor) (bbl/day)	Tier 1	0.15 x 16,432 = 2,465	0.15 x 15,894 = 2,384	0.15 x 22,449 = 3,367
	Tier 2	0.25 x 16,432 = 4,108	0.25 x 15,894 = 3,974	0.25 x 22,449 = 5,612
	Tier 3	0.40 x 16,432 = 6,573	0.40 x 15,894 = 6,358	0.40 x 22,449 = 8,980
On-Water Recovery Response Caps (OWRRC) (bbl/day)	Tier 1	10,000	10,000	10,000
	Tier 2	20,000	20,000	20,000
	Tier 3	40,000	40,000	40,000
Amount needed to be identified, but not contracted for (OWRC - OWRRC) (bbl/day)	Tier 1	< 0	< 0	< 0
	Tier 2	< 0	< 0	< 0
	Tier 3	< 0	< 0	< 0
(b) (7)(F)				

USCG Planning Volume Calculations

Calculation		Group 1 Oil (Non-Persistent)	Group 4 Oil (Persistent)	Totals
Areas Impacted: Nearshore and Inland				
Pipeline Contents: Group 1 – Diesel, Gasoline, Heating Oil Group 4 – Marine/Industrial Fuel Oil, Marine Diesel, Lubricants		Various	Various	Various
Total Pumping Rate: (bbl/hr)		4,430	6,000	10,430
Total Pumping Loss: (L = Pumping rate x 5 min.) (bbl/hr)		369	500	869
Total Static Pipe Volume: (V = Pipe volume between dock and 1st non-MTR valve) (bbl)		283	293	576
Adjustment Factor: (AF)		1.0	1.0	1.0
Worst Case Discharge: (WCD = V x AF + L) (bbl)		(b) (7)(F)		
Average Most Probable: (AMP = Lesser of 1% WCD or 50 bbl) (bbl)		7	8	15
Maximum Most Probable Discharge: (MMP = Lesser of 10% WCD or 1,200 bbl) (bbl)		65	80	145
On-Water Recovery Factor (OWRF)		0.2	0.5	N/A
On-Shore Recovery Volume (OSRF)		0.1	0.7	N/A
Emulsification Factor (EF)		1.0	1.4	N/A
On-Water Clean-Up Planning Volume (OWRV = WCD x OWRF x EF) (bbl/day)		(b) (7)(F)		
Shoreline Clean-Up Planning Volume (OSRV = WCD x OSRF x EF) (bbl/day)				
On-Water Recovery Capacity (OWRC = OSRV x Resource Mobilization Factor) (bbl/day)	Tier 1			
	Tier 2			
	Tier 3			
On-Water Recovery Response Caps (OWRRC) (bbl/day)	Tier 1	10,000	10,000	10,000
	Tier 2	20,000	20,000	20,000
	Tier 3	40,000	40,000	40,000
Amount needed to be identified, but not contracted for (OWRC – OWRRC) (bbl/day)	Tier 1	< 0	< 0	<0
	Tier 2	< 0	< 0	<0
	Tier 3	< 0	< 0	<0

DOT

The equipment within the Portland Terminal that fall under DOT jurisdiction include Tanks 2915 (gasoline) and 3408 (diesel) and the pipelines that connect the tanks to the Olympic Pipeline (receiving) and Kinder-Morgan Pipeline (shipping). The tanks are within the Tank Farm #2 secondary containment system that will contain considerably more that 100 percent of the either tank that precludes using the tank volumes in calculating the worst case discharge. Similarly, the receiving pipelines are all above ground and within the same secondary containment system which, following the same logic, also precludes their use in calculating the worst case discharge. The two shipping lines are partially above ground within the same secondary containment system but then exit Tank Farm #2 underground and resurface in Tank Farm #1 where they connect to the Kinder-Morgan Pipeline. Because these pipelines are outside a secondary system for a portion of their length, they were chosen to calculate the worst case discharge.

The shipping pipelines from Tanks 2915 and 3408 are both 12-inch diameter and although the line from Tank 3408 is slightly longer, the pumping rate is considerably higher for the Tank 2915 line. Consequently, the latter line was used in the calculation. The specifics for that line include an approximate length of 110 ft, a diameter of 12-in, and a maximum pumping rate of 3,500 bph.

Dot Worst Case Discharge Calculations

Calculation	Group 1 Oil (Non-Persistent)
Pipeline Contents:	Diesel and Gasoline
Pumping Rate: (bbl/hr)	3,500
Duration: (D = Detection and shutdown time) (min)	10
Total Pumping Loss: (L = Pumping rate x D) (bbl/hr)	(b) (7)(F)
Total Static Pipe Volume: (V = Pipe volume between block valves) (bbl)	
Worst Case Discharge: (WCD = V + L) (bbl)	(b) (7)

Information on all pipeline volumes at the terminal is provided in this Section.

DEQ

The DEQ defines the WCD as the volume of the largest tank at the facility and the small spill as less than 500 gallons. Similar to the planning volumes for the EPA and Coast Guard, DEQ has established response benchmarks that are based on specified percentages of the WCD. The discharge and planning volumes that apply to the terminal are listed or referenced below:

Small Spill = 12 bbl
(b) (7)(F)
Planning volume (benchmark) calculations are provided in this Section.

Calculations for each of these scenario volumes as well as the required spill planning volumes for Coast Guard, DOT and EPA are provided in this Section. Performance information for the equipment that will be used to respond to each of these scenarios is summarized in this Section. Spill trajectories have been included in this Plan.

Sec. 1.3.2 Oil Spill Scenarios

As fulfillment of the need to provide response scenarios to demonstrate response strategies, the Company has provided a scenario for the Average Most Probable/Small, Maximum Most Probable/Medium and Worst Case Discharges. These scenarios are hypothetical spill responses for planning purposes only. They illustrate what might happen under a given set of conditions. Actual response procedures will be dictated by the spill incident. The options presented herein are to demonstrate that the Terminal and its contractors can respond to spills in a manner that meets the various federal and state planning standards. The Company makes no commitments whatsoever that these options will be followed in the response to a real spill.

Average Most Probable/Small Spill Scenarios (USCG/EPA)

The spill scenarios included below describe the general response actions and equipment that are likely to be used for responding to 50 bbl terrestrial and aquatic spills. These scenarios best represent the types of incidents that will most likely occur at the terminal. The scenarios are intended to satisfy the EPA and Coast Guard requirements for average most probable (AMP)/small spills.

Aquatic Spill

This scenario involves a transfer hose rupture and 50 bbl diesel spill at the dock during the loading of a barge. The weather conditions are a light rain with 10-knot winds from the north. Upon observation of the spill, the Terminal Operator at the dock immediately activates the emergency shutdown switch to terminate the transfer and closes the valves to isolate the transfer hose.

The Terminal Superintendent is notified and the Primary Response Team is activated immediately. Response team personnel are able to launch the terminal spill boat and containment boom within 30 minutes from the initial spill observation. The Terminal Superintendent begins notification procedures.

Response crews deploy 1,500 to 2,000-feet of boom from the boat float on the upstream side of the dock, around the end of the dock, and along the downstream side back to the boat float to completely encircle and contain the spilled diesel. The spill is entirely contained within the boom and the Company site personnel, in conjunction with Clean Rivers personnel who were requested to respond, have mobilized to the dock and deployed two Skim Pak 4200 skimmers to recover the majority of the diesel. The Skim Paks have a total derated recovery capacity of 550 bpd. Sorbents are then applied by response personnel to recover the remaining oil. In the event that the oil did escape the boom, Cowlitz Clean Sweep (CCS) would also be requested to respond to the site.

The recovered oil and water is pumped to portable interim storage facilities at the dock or to fixed storage facilities in the terminal for subsequent treatment.

Terrestrial Spill

This scenario involves a valve seal failure at a diesel storage tank in the terminal tank farm. The oil drains to a storm water catch basin near the tank in the middle of the containment area. A Terminal Operator working in the area notices diesel seeping from the valve and notifies the Head Operator and Terminal Supervisor. The Operator then closes the valve at the nearby lift station to isolate the spill in the storm drain collection system. The Primary Response Team is activated and one of the Terminal's diaphragm pumps is used to recover the diesel from the catch basin and lift station. The pump has a derated recovery capacity of 411 bpd. Sorbent materials are used to pick up any remaining free oil and contaminated soils are excavated and taken to TPS for thermal treatment and recycling. The storm drain system is then flushed with water to remove any residual diesel that may be in the piping.

Sec.1.3.3 DEQ Worst Case Discharge/Benchmark Calculations

Category	Boom Requirements	Recovery Requirements	Storage Requirements
Type of Terminal: River Vessel Terminal			
Worst Case Discharge = 82,157 bbl - Group 1 Non-Persistent Oil (Gasoline) from Tank 2915			
1-hour benchmark	Boom at or near dock = 4 x length of largest vessel (680 ft) = **2,720 ft**	None	None
2-hour benchmark	Complete deployment of above 2,720 ft of boom and an additional 2,720 ft of boom onsite = **5,440 ft**	None	None
6-hour benchmark	None	(b) (7)(F) [redacted]	
12-hour benchmark	Greater of 30,000 ft or amount needed to protect priority shorelines (17,500 ft) = **30,000 ft**		
24-hour benchmark	Amount needed to protect sensitive areas (33,000 ft) = **33,000 ft**		
48-hour benchmark	Amount needed to protect sensitive areas (49,600 ft) = **49,600 ft**		

Sec. 1.3.4 Scenario for a Small Spill (DEQ)

This scenario outlines a fictitious incident which illustrates how the terminal response team could be expected to respond to a small (i.e., 500 gal) oil spill and is provided to satisfy the requirements of OAR 340 47 150(31). In this scenario, a barge is offloading a cargo of diesel at the terminal dock. The weather is cool and clear. Winds are blowing from the south at approximately 7 knots. Spill trajectories are provided in this Plan.

Time	Action
	Day 1
10:00 am	During diesel loading operations, the terminal Operator notices that a flange on one of the loading hoses has failed and diesel is being discharged into the Willamette River. The operator immediately: • Activates the emergency shutdown switch to terminate the transfer • Isolate the product hose by closing the valve on the dock • Radios the Terminal Operations Supervisor who notifies the Terminal Superintendent • Assesses spill hazards and evacuates personnel from immediate area as required
10:05 am	Transfer has been terminated and all valves are closed. The Terminal Operator estimates that 500 gal. of diesel were discharged and there are no significant health and safety hazards present. The Operator communicates this information to the Terminal Superintendent who assumes the role of Incident Commander (IC) and: • Activates the Primary and Area Response Teams and directs Terminal Maintenance to secure traffic • Establishes Command Post (CP) at the Terminal Office • Initiates implementation of response plan • Mobilizes to the CP
10:12 am	The IC arrives at the CP and receives an update from the Terminal Operator on spill status and movements, potential hazards, and environmental conditions. The IC directs the Operator to establish initial "hot zone" boundaries and identifies the appropriate PPE.
10:20 am	The Primary and most of the Area Response team personnel arrive at the CP and the IC: • Initiates the internal notifications as necessary • Communicates spill, MSDS, and PPE requirement information to response team members • Assigns continuing monitoring responsibility to a qualified team member • Activates primary response contractors (Clean Rivers and CCS)·Directs the Safety Officer to prepare a site safety plan The IC designates the Documentation Coordinator to notify the below listed parties and agencies about the incident and initiate documentation procedures:

	• National Response Center (NRC) • OERS • Coast Guard's Portland Marine Safety Office (MSO) • Northwest DEQ office • EPA • Nearby parties potentially at risk
10:50 am	The IC initiates an initial Incident Action Plan (IAP). The Company response boat is deployed along with 2,000 feet of boom from the dock float. Clean Rivers mobilizes to the CP. The IC directs Company and contractor personnel to: • Attempt to contain oil using Company boom deployed at either end of the barge, recover oil using Clean Rivers Skim Pak skimmers, and transfer recovered oil and water to process system drain at the dock for separation and treatment by the Terminal process treatment system • Use Clean Rivers FRVs at Chevron dock to deploy boom in front of Chevron dock to contain oil escaping from the primary boom and to place a Skim Pak skimmer in the boomed area to recover the oil • Establish decon station at dock Total On-site Equipment: Boom = 3,400 feet Recovery Capacity = 5,706 bpd Storage Capacity = 34,4000 bbl
11:30 am	The skimmers are deployed within the barge and secondary containment booms and are recovering the oil. Only approximately 50 gal. have escaped the two booms and have formed an elongated sheen in the river. The IC instructs the Clean Rivers and Company boat crews to redeploy the boom in front of the Chevron dock in a catenary configuration in front of the sheen's leading edge to contain it. Sorbents are then used to recover as much of the sheen as possible.
12:15 pm	Most of the spill has been contained although surveillance from the boats and the dock reports that small spots of sheen are migrating downstream but do not appear to be an environmental threat and a decision is made to let them dissipate naturally.
1:15 pm	The DEQ and Coast Guard representatives have arrived on-site and meet with the IC for a briefing on the spill incident and response status and strategies. Local media representatives have also arrived on-site and after agency briefings, a press conference is held with Company, DEQ, and Coast Guard representatives in attendance. The Company IC then issues a press release.
2:45 pm	Skimming has been terminated within the boom and the response team is recovering the remaining oil with sorbents. No oiled birds or wildlife were observed.
4:00 pm	All recovery operations have been completed and, with concurrence from the state and federal representatives, the IC demobilizes the Clean Rivers SRVs, booms, and skimmers and the Company response boat and boom. The recovered oil and water are transferred into the process drains at the dock and pumped to the process oil/water separator and treatment system in the Terminal. All equipment is decontaminated and returned to storage. Personnel also conduct decon activities prior to leaving the dock area. A total of 700 gal. of oil and water have been recovered through skimming operations and an additional 50 gal. of oil has been recovered using sorbents.
4:30 pm	The Incident Commander contacts all agencies and parties previously notified and advises them that Company response operations have been completed and all oil has been recovered.
5:00 pm	No further response actions are taken due to impending darkness although aerial and shoreline reconnaissance activities are planned for the following morning to ensure that no oil remains on the water or has contacted the shoreline.
6:30 pm	The IC completes documentation of the incident.

Sec. 1.3.5 Maximum Most Probable/Medium Spill Scenario (USCG/EPA)

The general response actions and equipment that will be used for the maximum most probable (MMP)/medium spill scenario at the Terminal are summarized below. This scenario is intended to satisfy the requirements for both the MMP and medium spill scenarios, and because they involve somewhat different spill volumes (53 bbl vs. 857 bbl, respectively), the larger of the two was used.

For this scenario, it is assumed that a tankerman on the vessel fails to monitor the barge tank levels during the loading of diesel resulting in a tank overfilling and an 857-bbl spill. The winds are out of the northwest at 5 mph and the skies are overcast. Even though it is the vessel's responsibility, the terminal provides the response. Both the Company Primary and Area Response Teams are activated. The Primary Response Team personnel respond to the dock and begin boom deployment whereas the Area Response Team responds to the terminal office and establishes the Command Post. Selected Area Team personnel then proceed to the dock to assess the situation. Clean Rivers and CCS is called immediately to provide assistance.

The wind is keeping most of the oil near the barge that is moored on the downstream side of the dock. 2,000-feet of boom is deployed around the dock and barge using the Company spill boat to encircle the barge and spill. It is sufficient to contain most of the spill although some product has escaped and is drifting downriver.

The Coast Guard closes the area to marine traffic. Members of the response team are directed to deploy an additional 500-feet of terminal containment boom in a diversionary mode downstream at GRP location SWR-17 to divert oil to the shoreline for recovery. A vacuum truck with a derated recovery capacity of 581 bpd has been ordered from CCS and will arrive on scene within 30 minutes to begin recovery operations at SWR-17. Clean Rivers also arrives and site and launches their two FRVs with a combined derated recovery capacity of 1,592 bpd stationed at the Chevron dock to begin skimming the uncontained diesel. In addition, Clean Rivers deploys two 18000 Skim Paks with a combined derated recovery capacity of 4,114 bpd to recover oil within the boomed area around the barge.

Clean Rivers and CCS resources are utilized for additional boom, sorbents, storage tanks/containers and manpower. The barge company uses the attending tug to assist the recovery operation by utilizing prop wash, and water cannon in the herding of oil towards the booms. Clean Rivers deploys an additional 1,000-feet of boom in the diversionary mode at the GRP site SWR-18 downstream at the railroad bridge as a precautionary measure. Skimming operations and tightening of containment boom continue until the oil is contained and recovered. The oily water mixture recovered by the vacuum truck and two FRVs is taken to the terminal for interim storage and initial separation in Tank 31 that has a (b) (7)(F) [redacted]. The separated oil is then transferred to the Terminal slops tank and the water is discharged to the process water collection system for additional oil/water separation and treatment.

The combined derated recovery rates of the vacuum truck and skimmer is 6,287 bbl/day each), the Company containment boom (3,400 feet), and the containment boom available for use from Clean Rivers (2,000 feet) is more than adequate to respond to a 857 bbl spill at the terminal dock.

(b) (7)(F)

The Response Group
Emergency Response | Pre-Planning & Support
281-980-5000

Scale: 1:31,476

EPASA 0000332927

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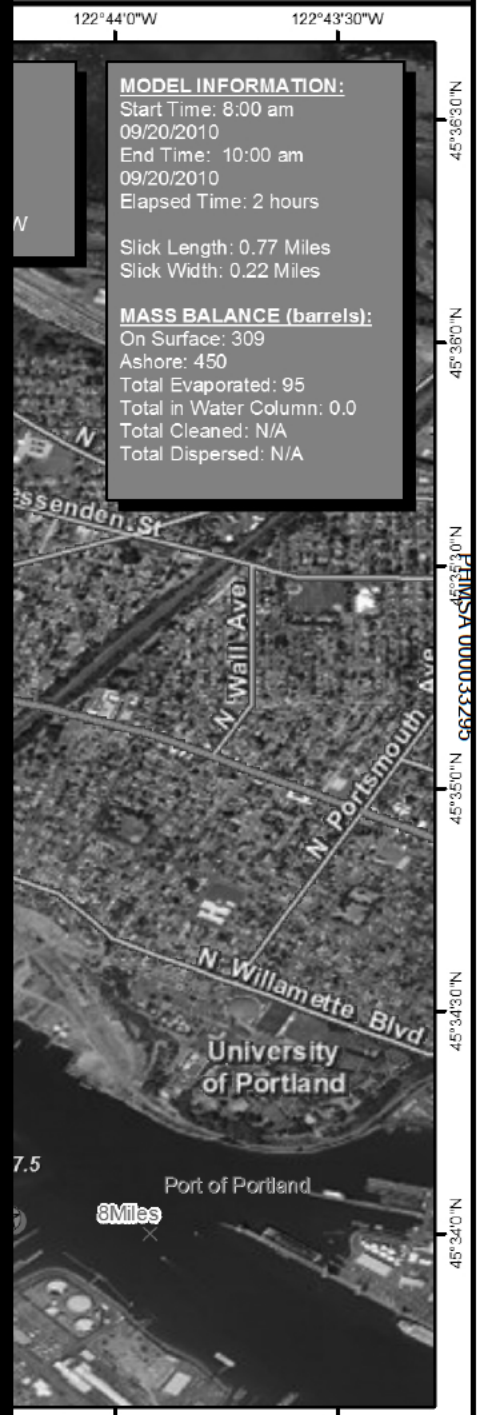
The Response Group
Emergency Response | Pre-Planning & Support
281-980-5000

Scale: 1:31,476



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Sec. 1.3.6 Worst Case Scenario (USCG/EPA/DEQ)

This section outlines a fictitious incident involving a worst case discharge scenario that illustrates how the terminal could be expected to respond to a major gasoline spill. It must be noted that, due to the number of spill containment devices and features in place, and the fact that most areas within the terminal are monitored on a 24 hour basis, this scenario is extremely unlikely to occur and should be viewed only as a very hypothetical situation.

The weather is cool and very foggy with limited visibility. Winds are calm and river currents range between 0.5 and 1 knot, depending on location. A volume of gasoline equal to the terminal's largest storage tank, (b) (7)(F) spilled into the Willamette River from an unknown source.

Typically, a general trajectory for a Worst Case Discharge is run for 72 hours. However, because the product in this WCD scenario is gasoline, and not diesel, the evaporation rate is significantly higher. Due to the warm weather in May, this trajectory was run out for 12 hours and the product evaporated at a quicker rate than it would in September. The September trajectory was run out for 13 hours to account for the lower ambient temperatures. In addition, the product released in this scenario would travel down a somewhat narrow river causing the product to migrate ashore much faster. According to the models, which factored in ambient weather, product characteristics and river/shoreline geography, after 12 – 13 hours, the product was either ashore or evaporated and nothing remained on the surface of the water.

Although the WCD for this facility is gasoline, a release of diesel would require a longer-term response. Additionally, the product characteristics of diesel are such that it has a lower evaporation rate and is more persistent. Therefore, a trajectory analysis has been completed for the largest diesel tank on the property, for both May and September and those maps are included as well.

The following scenario describes the hypothetical response to a worst case gasoline spill from the terminal:

Time	Action
	Day 1
7:01 am	The dock is out of service for maintenance and is not continually manned although a tanker is moored but is not engaged in transfer operations. The Terminal Operator is making his regular check of the dock area and notices a strong hydrocarbon odor. After further investigation, he notices that gasoline is covering the entire surface of the water around the dock although it is still dark and visibility is limited. The Terminal Operator immediately notifies the Terminal Superintendent who assumes the position of Incident Commander (IC) and initiates implementation of the terminal oil spill response plan. The IC then: • Activates the Primary Response Team and directs them to secure the dock area and establish Command Post (CP) at Terminal Office • Activates the Area Response Team and calls 911 to request assistance from the fire and police departments to cordon off and evacuate the area • Notifies neighboring facilities and advises them to evacuate • Requests a check status of tanks and pipelines for losses • Responds to the CP
7:12 am	The IC arrives at the CP and receives an update on the spill status. A systems status check has been completed and the IC is advised that no leaks are indicated. Although the spill origin is unknown, the IC conservatively assumes that the Company is responsible and continues to implement a response. The IC then performs an initial assessment of the health and safety hazards and reviews the MSDS for gasoline and determines the appropriate PPE. Due to the fire, explosion and vapor hazard posed by the spill, the IC delays implementation of response actions until the hydrocarbon vapors disperse.
7:20 am	The on site response personnel arrive at the CP and the IC: • Delegates site security and evacuation responsibilities to fire and police departments as they arrive • Communicates spill, MSDS, and potential PPE information to response team members • Assigns continuing hazard monitoring responsibility to qualified team members • Activates Clean Rivers (CRC), CCS, Olympus and ERST response contractors and alerts corporate management • Directs response team members to begin staging equipment at CP • Requests security-services from a local security company to secure terminal and limit access to response personnel only • Reviews the site safety plan • Dispatches personnel to shoreline access/viewing points to assess spill movements

Time	Action
7:25 am	The Incident Commander designates the Documentation Coordinator to notify the below listed parties and agencies about the incident and initiate documentation procedures: • Company management • National Response Center (NRC) • OERS • NW DEQ office • Coast Guard's Portland Marine Safety Office (MSO) • Multnomah County LEPC • Downstream parties at risk (i.e., Certain Teed Roofing, Atofina, Burlington Northern, Port of Portland, etc.) • WA Division of Emergency Management (DEM) Downstream parties at risk are advised to evacuate immediately and the Coast Guard is requested to close the Columbia and Willamette rivers to marine traffic and restrict air space in the area. The International Bird Rescue Research Center is also alerted. The IC decides that no recovery operations will be attempted unless the flammability hazard drops below a safe point. The response team will only be directed to place boom to protect sensitive areas ahead of the spill and monitor its movement while waiting for it to evaporate. The IC also requests Company management to contact other oil spill response experts in the company as well as senior company officials and dispatch them to the terminal.
7:45 am	The CP has been established at the Terminal Office and key personnel have arrived to staff the various positions. Additional response personnel are en route to the terminal from California, Connecticut and New Jersey. The IC directs the Logistics Section begin establishing a communications system. The terminal radio system is used initially for all response activities and will switch over to the CRC communication systems for offshore operations once they arrive on site. Any available cellular phones are issued to key response personnel and local radio suppliers are contacted to provide additional VHF radios for offshore and remote shoreline operations. The response team monitoring personnel indicate that the spill has moved away from the dock and vapor concentrations in the area have decreased. However, due to a potential explosion hazard, no response will be mounted in the spill area but response team personnel will boom sensitive area locations for protection only and wait until the gasoline evaporates. Level D PPE is required although contractors are advised to carry respirators.
	The response team establishes hot zones at the dock area and the IC directs the Safety Specialist to continually reassess the optimal hot zone location at the dock and establish other hot zones at remote response locations. The spill is considerably larger than originally assumed, although dense fog has prevented a thorough evaluation. The IC then: • Directs the response team to begin mobilizing Company and CRC response equipment to downstream locations for protection measures • Directs the Logistics Section to arrange for a helicopter for aerial surveillance at first opportunity • Initiates the preparation of a Incident Action Plan

Time	Action
8:00 am	Surveillance personnel downriver estimate that the center of the spill is located at the railroad bridge, although visibility is still very poor. This would indicate that the spill was undetected for approximately 3 hours before the Operator initiated the notification procedure. Company response personnel, in conjunction with CRC are en route to deploy boom across the Multnomah Channel entrance (GRP SMC-1) to exclude gasoline from the channel. CRC is also directed to deploy exclusion boom across the Columbia Slough (GRP SWR-21). The Portland Fire Department begins knocking down vapors along the shoreline with foam and water sprays to allow access to more of the Company's response equipment. Total Available Equipment: Boom = 5,900 ft, Recovery = 411 bpd
8:20 am	Shoreline protection operations are underway. The fog is still too dense to adequately assess the extent of the spill or permit aerial reconnaissance. CCS and Olympus personnel begin to arrive on site and are dispatched to CRC offices at the Mobil Terminal to assist in downstream sensitive area protection.
9:00 am	CRC response boats are directed to deploy 500 feet of exclusion boom in front of the Port of Vancouver water intake (W-1) at Mathews Point. Staff at the Port of Vancouver facility is instructed by the IC to prepare to shut down the intake. CRC reports the leading edge of the spill is passing the Mobil Terminal. CRC personnel and equipment are dispatched by the IC to establish a staging area at Bachelor Point. Total Available Equipment: Boom = 18,400 feet, Recovery = 42,847 bbl/day, Storage = 41,348 bbl
11:45 am	Company management personnel and spill response experts begin to arrive on site and provide support to Incident Command personnel. The slick is still moving downstream and the center point is offshore of Trumbull Oil. CRC boom and other equipment begins to arrive from Astoria, Cathlamet and Tongue Point. CRC crews and equipment are dispatched to Bachelor Point to prepare for exclusion booming operations along the Columbia River on an as needed basis. DEQ, Coast Guard, EPA, Multnomah County and other agency personnel have arrived on site and are briefed on the status of the spill and response operations by the IC. The DEQ and Coast Guard OSCs confer with the IC on the intended response strategies and assume positions at the CP. Consistent with the Unified Command System, the OSCs and other state and federal agency ICS members begin to work with their Company counterparts in an advisory role. The local police and fire departments and LEPC begin coordinating with their downstream counterparts to assist in evacuating and controlling access to the shoreline areas.

Time	Action
11:50 am	The IC directs the Logistics Section to make immediate arrangements for housing, food, protective clothing, decontamination facilities and cleanup supplies. The Logistics Section is also directed to establish equipment staging areas at the terminal and Bachelor Point. The Logistics Section establishes procedures for purchasing equipment and supplies and tracking deliveries and inventories. Buses and additional helicopters are contracted to provide transportation support for equipment, supplies and personnel. The IC also directs the Environmental Coordinator and Logistics Section to begin establishing interim waste storage sites at the designated areas of the Terminal and at suitable downstream locations for interim storage of oily debris and other waste materials once cleanup begins. All CRC and CCS oil recovery vessels in the area are requested to standby in case they are required to respond.
12:00 n	The fog abates sufficiently for flight operations and the IC, Operations Section and Planning Section conduct a brief overflight to assess the extent of the spill. The spill is approaching the Multnomah Channel and considerably larger than anticipated and estimated to be in the 80,000 bbl range. Several crews staged at Bachelor Point are directed to begin booming operations for the sensitive areas in their vicinity (GRPs SLC 21 – 25 and WI-2 and WI-3).
1:00 pm	Supplies and equipment continue to arrive as operations continue. Total Available Equipment: Boom = 56,000 ft, Recovery = 69,065 bpd, Storage = 208,971 bbl
1:30 pm	Aerial surveillance reports the slick has moved past the Multnomah Channel and is moving north towards the Columbia River. A number of media representatives have arrived and are given a briefing and tour by the Public Affairs Representative prior to a news conference with the Incident Commander and regulatory agency representatives.
2:00 pm	Additional CRC crews, equipment and response vessels are deployed to set up another staging area at Kalama to prepare for sensitive area protection operations in that area.
2:30 pm	The slick center is continuing to move north and is now entering the Columbia River. CRC personnel and equipment from Astoria are requested by the IC to respond and initiate a central field operations base at the Port of Longview.
3:30 pm	The CRC crews arrived at the Kalama staging area and initiate protection booming activities at GRPs SLC-26 – 31 and WI-4 and WI-5.
4:30 pm	Kalama Chemical and Trojan Nuclear Power are notified of the impending slick and alerted to prepare to shut down their intakes.
5:00 pm	Portable lighting obtained from contractors and rental yards is set up at the shoreline protection locations to enable operations to continue through the night. CRC response crews are dispatched to deploy exclusion boom around the Longview Fibre and Weyerhaeuser water intakes (WI-6 and WI-7). These facilities are also notified of the impending hazard.
5:30 pm	Operations in most areas are scaled back approximately 50 percent because of darkness. A press conference is held involving the Incident Commander, Public Affairs Staff and agency representatives to summarize the status of the spill and response operations.

Time	Action
7:00 pm	The Logistics, Operations and Planning personnel along with CRC and agency representatives begin to develop a plan for the following day's activities. Winds are monitored continually and spill trajectories are updated every 2 hours. Total Available Equipment: Boom = 59,200 feet, Recovery = 74,476 bpd, Storage = 211,963 bbl
5:00 am	CRC crews continue full-scale booming operations of the GRPs and water intakes along the Columbia River west of Longview.
7:00 am	Morning fog has resumed preventing direct aerial surveillance. Visual observations indicate that the center of the slick appears to be just off Longview although much of the gasoline has evaporated. At the end of the first 24 hours the following gasoline quantity distribution applies: Initial volume 82,157 bbl Less volume evaporated 55,240 bbl Less volume stranded on shoreline 5,000 bbl Volume remaining on water 31,826 bbl A meeting is held between the Incident Commander, Operations Manager, and agency representatives to discuss the planned response activities including evacuation of waterfront areas, continued shoreline protection operations, additional protection actions, and the initiation of shoreline cleanup operations at upstream locations. Total Available Equipment: Boom = 59,200 ft, Recovery = 74,476 bpd, Storage = 211,963 bbl
8:00 am	Extra boom and spill response vessels are deployed to staging areas in Westport, Cathlamet, and Skamokawa and protection booming of downstream GRPs and water intakes continues.
11:00 am	The Company Public Information Officer issues a press release describing what has occurred and what actions are being taken to protect sensitive areas while waiting for the spill to completely evaporate. The spill has now reached the southern tip of Crimms Island. Because gasoline continues to sheen from impacted upstream shorelines, the protection booms at all locations are left in place even though there is minimal gasoline on the water at locations closer to the Terminal.
1:30 pm	Fog lifts sufficiently to launch flight operations. Aerial reconnaissance reports that the center of the spill is approaching off Wallace Island. Damaged birds are encountered and arrangements are made with the IBRRC to establish a bird cleaning and rehabilitation center. These activities are coordinated with the Department of Wildlife.
3:30 pm	Aerial surveillance reports the slick is centered off Wallace Island.
4:00 pm	Two response crews are dispatched from the Skamokawa Marina to deploy protection booms for the GRPs and water intakes in the area. Land based crews also deploy exclusion boom at some easily accessible locations.

Time	Action
6:00 pm	The last aerial flight for the day indicates that the spill is off of Puget Island. Operations are reduced with the onset of darkness. A press conference is held involving the IC, Public Affairs staff and agency representatives to summarize the status of the spill and response operations. Operations, Logistics, Planning and CRC personnel work into the night to develop a response strategy and plan for the following day. Spill trajectories are updated every two hours.
	Day 3
7:00 am	The center of the spill is now impacted the Lewis and Clark Wildlife Refuge. At the end of this second 24 hour period the following distribution applies: Initial volume remaining 31,826 bbl Less volume evaporated 17,823 bbl Less volume stranded on shoreline 2,500 bbl Remaining on water 11,503 bbl A meeting is held between the Incident Commander, Operations and Planning Sections, and agency representatives to discuss the planned response activities. Total Available Equipment: Boom = 59,200 ft, Recovery = 74,476 bpd, Storage = 211,963 bbl
8:00 am	The Company Public Information Officer issues a press release describing what has occurred and what actions are being taken to clean up the spill and restore the environment.
12:00 pm	CRC response crews stationed in Astoria are alerted to standby and prepare for deployment of deflection, diversion and exclusion boom on an as needed basis.
6:00 pm	The leading edge of the spill has reached Astoria. However, the speed with which the slick is moving is dramatically reduced due to tidal influences. Operations, Logistics, Planning and CRC personnel work into the night to develop a response strategy and plan for the following day. Spill trajectories are updated every two hours.
	Day 4
7:00 am	At the end of 72 hours, the following distribution applies: Initial volume remaining 11,503 bbl Less volume evaporated 5,752 bbl Less volume stranded on shoreline 2,500 bbl Remaining on water 3,251 bbl
	Day 5 and Beyond
7:00 am	Aerial surveillance indicates that all of the gasoline has evaporated. All ORVs remaining on standby in the area are demobilized. All protection boom is removed by CRC and other contractors with the exception of those downstream of isolated areas of significant shoreline sheening. Cleanup of impacted shorelines is conducted by flushing the gasoline back into the water within boomed areas and recovered with skimmers or sorbents or allowed to evaporate. Upon completion of operations, the USCG, DEQ and the resource trustee agencies authorize demobilization. The Company continues to monitor the area affected by the spill. The Documentation Coordinator completes documentation of the incident.

Sec. 1.3.7 Response Strategy

Initial Response Actions

Upon detection of a spill by any Company or contractor personnel, the observer will immediately notify the terminal office and the Terminal Supervisor who will activate the Primary Response Team personnel and make the necessary notifications as dictated by the nature of the incident. If the Terminal Supervisor is unavailable, the Terminal Operator (off-hours) will assume this responsibility. Notification procedures are described in this section. The initial response and notification actions that should be taken following the discovery of an oil spill are depicted in this section.

Initial Response Action Sequence. The Terminal Supervisor, or designee, will become the Incident Commander and conduct the following activities:

Call 911 and request assistance if personnel are seriously injured, a significant fire hazard exists, or the spill area must be cordoned off.

Quickly assess the spill and the associated health and safety hazards and evacuate if required.

Activate the Primary Response Team (PRT) to shut down the source of the spill and initiate containment and recovery operations, if safe to do so.

Notify the Area Response Team (ART), Company Management and the appropriate regulatory agencies.

Reassess the spill situation and effectiveness of response measures and activate response contractor(s) and the Area Response Team as required.

Notify potentially threatened sensitive area owners/managers, as required.

Update the agency representatives and Company management periodically.

Prepare written spill and notification reports as required.

Response Checklist. A Spill Response Checklist incorporating a list of the major actions to be taken in a spill response, as well as a place for recording who implemented the actions and when, is provided in this section.

Note: Refer to Company Emergency Response web site for a link to the Tank Fire Pre-Plans.

Spill Response Checklist

The following response activities represent suggested actions during a response to a spill, however, Company personnel should follow the USCG Incident Management Handbook (IMH) as the primary source of direction for spill response.

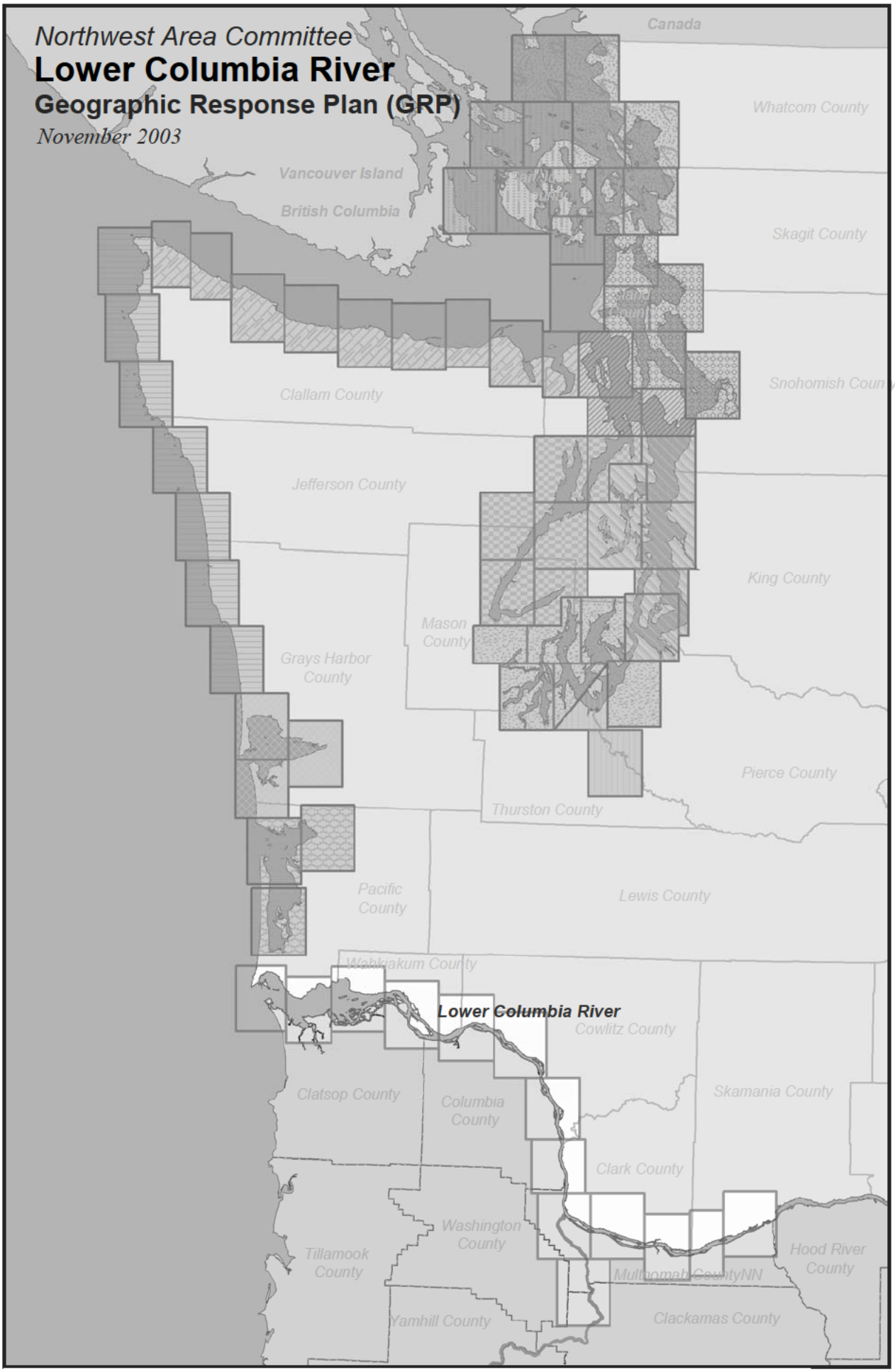
Response Action	Person Taking Action (Initials)	Date/Time Action Taken
First Person To Discover Spill		
1. IMMEDIATELY NOTIFY TERMINAL SUPERVISOR OR ALT.		
Primary Response Actions (Incident Commander or Designee)		
2. ENSURE PERSONNEL SAFETY - Sound alarm, evacuate if necessary, account for all personnel, explain hazards, require appropriate PPE, and secure spill area		
3. ELIMINATE IGNITION SOURCES - Shut off motors, electrical pumps, electrical power, open flames, etc. in spill area		
4. QUICKLY ASSESS SPILL AND SAFETY HAZARD – Spill size, rate, type, cause, movements, fire/explosion hazard, and health risk		
5. ACTIVATE PRIMARY RESPONSE TEAM – Utilize onsite personnel to extent possible and supplement with off-duty personnel		
6. IF SAFE, CONTROL SPILL SOURCE – Shut down pumps, close valves, transfer oil from leaking tank, etc.		
7. INITIATE FACILITY SPILL CONTROL – Block storm drains and close dike drain valves (if necessary), construct containment/diversion berms, apply sorbents, etc. Deploy predefined booming strategies at dock area. Refer to Section 7 for detailed tactical plans.		
8. REASSESS SPILL PARAMETERS AND RESPONSE – Estimate spill volume/rate, cause, type/classification, effectiveness of source/spill control operations, spill movements, safety/environmental concerns, weather/hydrographic conditions, etc.		
9. Initiate Off-site Spill Control – For spill to creek, initiate aquatic spill control and Sensitive Area Protection		
Notification/Documentation (Incident Commander) (Duty Officer may assist with these calls.)		
10. NOTIFY APPROPRIATE COMPANY PERSONNEL - Primary Response Team Members, Qualified Individual, Company Management, Area Response Team, Duty Officer, Appropriate HSE Coordinators		
11. NOTIFY/ACTIVATE RESPONSE CONTRACTORS (As required)		
12. NOTIFY APPROPRIATE REGULATORY AGENCIES – Federal NRC, State EMD, Regional DEQ office, and others, such as LEPC, as necessary		
13. NOTIFY THREATENED NEARBY PARTIES/SENSITIVE AREA MANAGERS (Uncontained Spills or vapor clouds, Only)		
14. NOTIFY/ACTIVATE OTHER RESPONSE CONTRACTORS OR SUPPORT SERVICES (As Required)		
15. INITIATE DOCUMENTATION PROCEDURES – Document all response actions taken previously and all subsequent response actions including notifications, agency/media meetings, equipment/personnel deployments, recovery and disposal of oil and oily waste, extent and degree of area impacted, etc.		

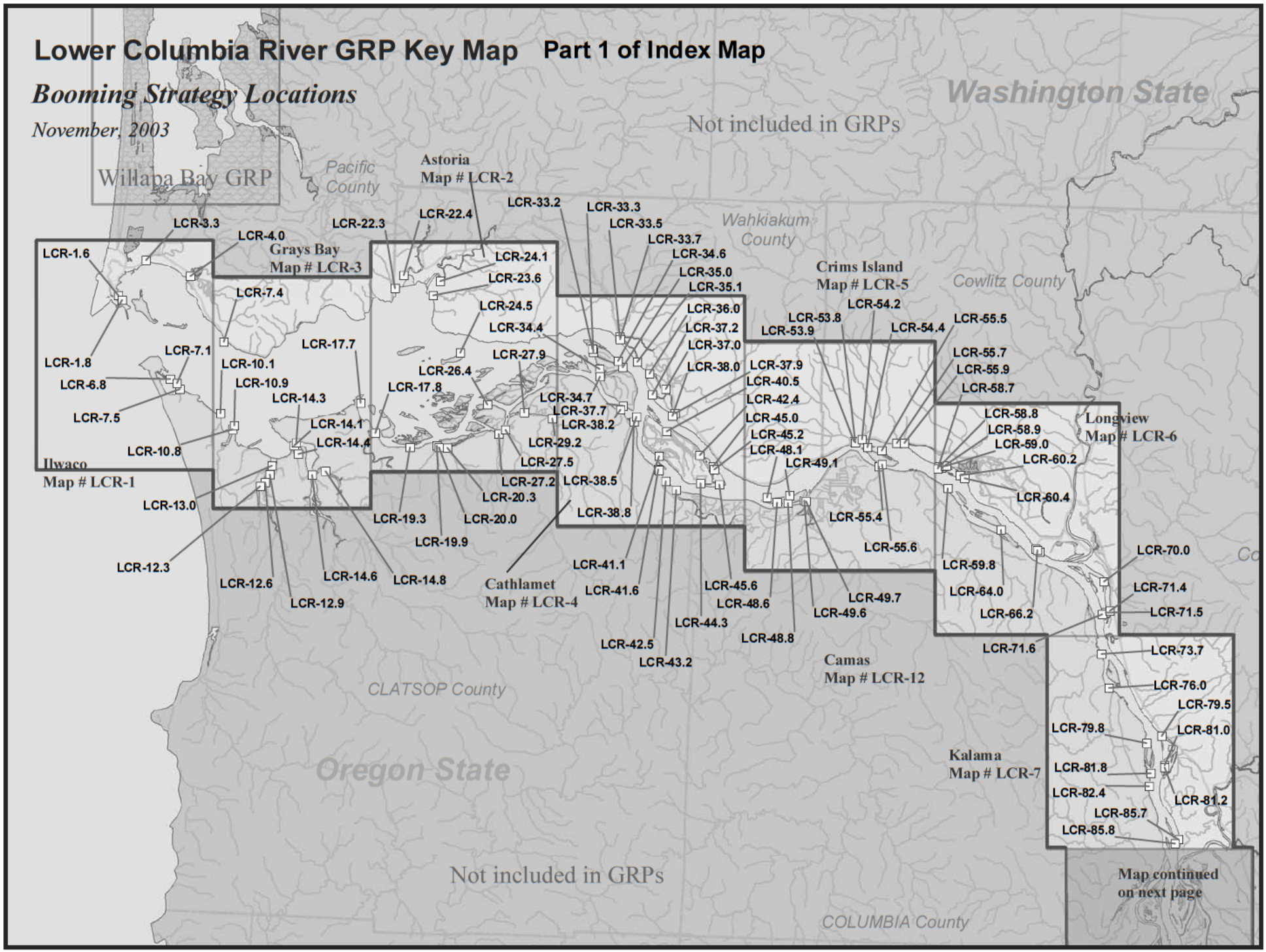
Spill Response Checklist (Continued)

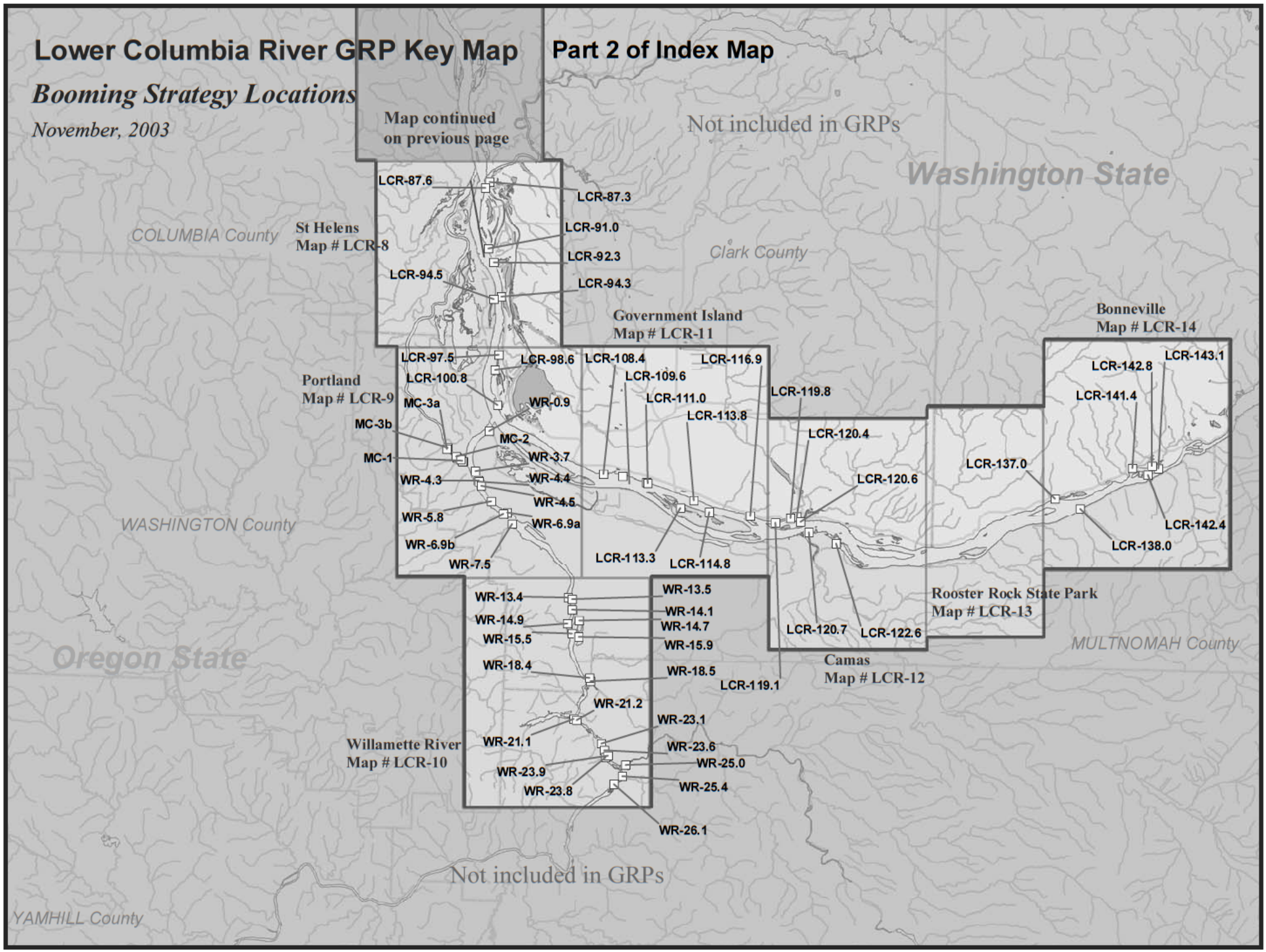
Secondary Response Actions (Primarily for Uncontained Spills)		
16. ESTABLISH COMMAND POST/COMMUNICATIONS CENTER - Terminal Office. The Montgomery Park building located at 2701 Northwest Vaughn Street; Portland, OR 97210 may be utilized as an alternate location. If unavailable, The Company may utilized one of the preferred hotels.		
17. INITIATE SPILL TRACKING AND SURVEILLANCE OPERATIONS - Helicopters, fixed-wing aircraft, vehicle (if safe)		
18. IDENTIFY THREATENED SENSITIVE AREAS AND PRIORITIZE - Parks, wildlife/fish habitats, marinas, etc.		
19. DEVELOP OVERALL RESPONSE OBJECTIVE AND 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		
20. IDENTIFY EQUIPMENT, PERSONNEL, AND LOGISTICAL SUPPORT REQUIREMENTS FOR SECONDARY SPILL RESPONSE OPERATIONS – Containment, protection, recovery, and cleanup		
21. IMPLEMENT APPROVED INCIDENT ACTION PLAN - In order of priority		
22. ESTIMATE WASTE HANDLING AND INTERIM STORAGE REQUIREMENTS - Based on quantity spilled, recovery capacity, areas affected, degree of impact, etc.		
23. ARRANGE FOR INTERIM SOLID AND LIQUID WASTE HANDLING AND STORAGE - Pumps, barges, portable tanks, available tankage at facility, debris boxes, lined storage cells, heavy equipment, permits, etc.		
24. INITIATE LOGISTICAL SUPPORT FOR RESPONSE OPERATIONS – Transportation, lodging, meals, supplies, portable toilets, communications equipment, additional office space, etc.		
25. ARRANGE FOR TRANSPORTATION, TREATMENT, AND/OR DISPOSAL OF RECOVERED OIL AND OILY WASTES - Determine characterization, packaging and transportation requirements for the candidate treatment/disposal facilities.		
26. COMPLETE CLEANUP OPERATIONS AND OBTAIN CLEARANCE FROM REGULATORY AGENCIES - Obtain written agency clearance for each section of shoreline as cleanup is completed.		

(b) (7)(F)

Washington State Department of Ecology Publication No. 95-258 (Revised 11-03)







Sec. 1.3.8 Evacuation

The purpose of this Section is to provide guidance in the event that shutdown and evacuation are necessary. This Section contains:

- A description of evacuation issues and procedures
- A checklist containing evacuation considerations
- An evacuation diagram (See front of plan)

Facility evacuation will occur if/when the Incident Commander (Terminal Superintendent or designee) deems necessary. The decision to evacuate the facility will be made utilizing information gathered as defined in this section or in the Site Safety and Health Plan. An evacuation checklist is provided in this Section. The facility contains no critical equipment that requires employees to continue to operate after the evacuation notification is made.

Evacuation Considerations.

- Be aware of potential hazards along the evacuation route, such as downed power lines, ruptured gas lines, vapor clouds and other barriers.
- Monitor wind direction by looking at flags, or other indicators.
- Move upwind of the emergency to prevent potential exposure to released vapors, gases, or particulates. If it is not possible to move upwind, move at a 90 degree angle away from the emergency.
- Authorization for employees to return to their work areas will be given by the Incident Commander or his/her designee by radio.

Evacuation Routes and Designated Assembly Areas

Evacuation routes and assembly areas are shown in this Section. There are three designated assembly areas at the Terminal. The following table indicates the personnel or departments associated with each assembly area:

Assembly Area	Personnel Affected	Group Leader
1. Area West of the boiler room	Lab, Lube blending and packaging	Lab Supervisor Lab Tech (Alternate)
	Drivers (fuel/lube oil racks; lube unloading areas)	
	HSE personnel	
Note: Bulk Handling reports to Area 1 Group Leader. Report in person or by radio.		
2. Length of Doane Avenue	Refined and Lubes Offices Van loaders and drivers	Office Manager H.R. Rep
	Mechanics	
	Non-essential dock personnel	
	Company Drivers	
Note: Maintenance reports to Area 2 Group Leader. Report in person or by radio.		
3. Doane Avenue/Front Street	Drivers with trucks are to assemble in Area 3, if safe to do so.	

Evacuation Procedures and Assignments

Incident Commander (Terminal Superintendent or Designee)

- Alert personnel of need to evacuate if alarms have not been activated; obtain a radio.
- Make a sweep of the facility to ensure that all personnel have been evacuated from the office, tank farm and other parts of the facility.
- Assume control of the incident and coordinate with local emergency services, if necessary.
- Identify all personnel who cannot be accounted for and determine whether rescue efforts will be required by local emergency services (fire, police or medical) or terminal response personnel.
- Call 911, if emergency assistance is required.
- Contact required personnel and agencies.

Group Leader (Operations Supervisor)

- Obtain employee lists, visitor log sheets, and portable radio.
- Report to assembly area and account for terminal personnel, visitors, and contractors.
- Request medical assistance, if needed.
- Check off personnel leaving the facility from employee/visitor lists.
- Maintain all roll call lists/logs throughout and following an evacuation.

Visitors, Contractors and Other Personnel

- Report to assembly area and identify yourself to the Group Leader.
- Do not leave unless instructed to do so.
- Accounting for Personnel

Conduct a roll call of personnel in each assembly area to assure that all personnel have been evacuated safely using the following procedures:

Personnel	Tasks/Procedures
All personnel without specific assignment	Report to nearest assembly area and to immediate supervisor or area Group Leader; do not leave unless instructed to do so.
Visitors, contractors	Report to nearest assembly area and to Company contact if he/she is in the assembly area, otherwise report to the Group Leader and identify yourself and Company contact.
Personnel responsible for contractors/visitors	Account for visitors and contractors under your direction; check immediate assembly area and ask Group Leader to radio other assembly areas to locate personnel if needed.
Group Leaders	Obtain employee evacuation lists and/or visitor log; account for personnel in your assembly area; assist other Group Leaders via radio; request medical assistance if needed. Maintain all roll call lists/logs throughout and following evacuation.
Terminal Supt./Lube Plant Manager	Coordinate personnel accounting with Group Leaders/Incident Commander; check personnel off employee/visitor lists if they leave facility.
Incident Commander	If personnel are unaccounted for, determine if search and rescue efforts will be required (by emergency agencies or Company personnel).

Off-Hour Procedures

During off-hours, the Terminal Operator takes charge of the emergency, and ensures the following procedures are implemented:

- Evacuate to the nearest assembly area or the command post.
- Account for all personnel using roll call lists and sign-in logs and check-off names from the list(s).
- Identify missing or injured personnel and if medical assistance is required.
- Call 911 if emergency assistance is or may be needed from the fire department, police or emergency medical services.
- Make emergency contacts as listed in this section.
- Remain in the assembly areas or if unsafe, retreat to a safe area upwind and uphill.
- Await further instructions from the Head Operator and/or responding emergency personnel.

Wind and Weather Conditions

The prevailing winds for this facility are generally from the northwest during summer months and from the east/southeast during winter months. Evacuation route should be evaluated at the time, since wind direction varies.

Additional Facility Evacuation Route Considerations

Fires, explosions and liquid releases may occur such that wind direction is not the only criteria for determining the safest evacuation from the facility. Other considerations must be evaluated during facility evacuation. These may include potential exposure to toxins and carcinogens such as benzene and TPH (total petroleum hydrocarbons), intense heat, potential for further explosion or fire and blockage of planned route by fire, debris or released liquid.

Municipal Evacuation

The facility is located in an area primarily developed with light industrial facilities. A spill from this facility is not likely to create a need for evacuation outside the facility boundaries. However, in the event evacuation of neighbors is required, the evacuation would be accomplished utilizing the county sheriff and fire departments in coordination with the Company Incident Commander or his/her designee.

Rescue Operations

It is Company policy that confined space or hazardous atmosphere rescues will not be conducted by Company personnel. Company will instead rely on the local fire department or other emergency response organization to perform rescue operations. The fire department or other emergency response organization can be contacted by calling 911 or the fire department directly.

Spill Mitigation and Source Control

This section provides guidance for spill mitigation (limitation or reduction of the size and impact of a spill) and limited immediate response actions that are to be taken concurrently with, or immediately following initiation of the more extensive spill response procedures outlined in this Section.

In the event of a spill, actions should be taken immediately to stop the flow of oil and control the spill at the source. These actions include those to protect human health and safety, to control and limit the extent of the spill and to prevent harm to the local environment.

Specific step-by-step spill mitigation procedures to be undertaken by the first responder are listed in this Section. This table covers several spill scenarios that could occur at the terminal.

In addition to the above site specific mitigation procedures, there are several other procedures that could be implemented by terminal personnel using on-site equipment to control, contain, and recover small operational spills. A number of hand tools and miscellaneous supplies are maintained at the terminal. A list of this equipment is contained in this Plan.

Storage Tanks

- Flange or valve leak: Stop the transfer of oil and tighten the leaking valve or flange. If release continues, transfer tank contents to other available tankage and repair or replace the leaky valve or flange.
- Tank leak: Attempt to temporarily plug the leak with temporary plugs or patches and begin transferring tank contents to other available tankage. Repair the leaky tank after its contents have been removed.
- Tank overfill: Stop the transfer of oil into the tank, and begin transferring its contents to other available tankage to reduce product level in tank to the normal maximum capacity.

Truck Loading Racks

- Hose leak or rupture: Shut off transfer pumps using the emergency shutdown switch at the loading racks and drain the remaining contents of the hose into the tank truck. Flush spilled oil into loading rack drains with water.
- Truck tank or valve leak: Stop the transfer operation and attempt to close the leaky valve or repair the leak. Offload the leaking tank compartment. Flush spilled oil into loading rack drains with water.

Terminal Pipeline

- Pipeline leak or rupture: Stop the transfer operation and isolate the leaking section of pipeline. If possible, place a container beneath the leak and attempt to temporarily plug the hole with temporary plugs or patches. Evacuate the contents of the line with a suction pump or flush it with water to remove remaining oil.

Marine Dock

- Flange or valve leak: Shut down the associated transfer pump or, if necessary, all transfer pumps using the emergency shutdown switch at the dock. Close associated riser valve and valves at vessel manifold to isolate leak. Tighten the leaking valve or flange. If leak continues, depressurize line/hose, evacuate contents and remove, repair or replace valve or flange.
- Hose/pipeline leak or rupture: Shut down transfer pumps using emergency shutdown switch at dock (transfers to a vessel) or notifying vessel to terminate pumping (transfers from a vessel). If spill involves gasoline, evacuate non-essential personnel and eliminate ignition sources. Close riser valve on dock and manifold valves on vessel. Depressurize offending line and evacuate contents.
- In addition to the above site specific mitigation procedure, there are several other procedures that could be implemented by terminal personnel using on-site equipment to control, contain, and recover small operational spills. A number of hand tools and miscellaneous supplies are maintained in the spill response trailer at the terminal. The trailer and its contents are designed primarily for use in off-site tanker truck spills and rollovers but can also be used for similar sized spills at the terminal.

Annex 2 – Table of Contents

Sec. 2.0 Notifications

Immediate actions are required at the onset of an emergency response to mitigate the extent of a release, minimize the potential hazard to human health and the environment, and implement an effective response. It is also important to act decisively and in so doing, create a professional working atmosphere among Company and regulatory authority personnel and public officials. This section is intended to provide the contact information to address an incident at the facility:

PORTLAND PRODUCT TERMINAL

Emergency Notification Contact List

Emergency Response Numbers

Group/Function	Telephone	Other Telephone/Fax
Duty Officer	800-231-2551	Fax: 918-662-0179
Control Center Emergency Hotline	877-267-2290	800-231-2566
Company "Meet Me" Number	866-836-3169	Pass Code: 157528
Employee Hotline (Natural Disaster)	866-397-3822	
Axiom Medical Monitoring	281-419-7063	

Qualified Individual / Incident Commander (QI / IC) Contact List

Name / Job Title	Office Phone	Home Phone	Cell Phone	Resp. Time
QI/IC Tom Lyons, Facility Supervisor	(503) 248-1558	(b) (6)	(503) 849-9604	1 hr
Office: 5528 NW Doane Ave, Portland, OR 97210		(b) (6)		
Alt. QI/IC Gary LeFebvre, Lube Plant Manager	(503) 248-1533	(b) (6)	(503) 849-9812	1 hr
Office: 5528 NW Doane Ave, Portland, OR 97210		(b) (6)		

Incident Support Team

Position	Name	Office Phone	(b) (6)	Mobile Phone
EPR&S Contact	Rob Yarbrough	(281) 293-3891		(281) 627-3177
Environmental Contact	Jim Phelan	(281) 293-3715		(580) 761-3233
DOT Contact	Todd Tullio	(832) 379-6255		(281) 685-3646
Health & Safety Contact	Brad A. Hendrix	(918) 661-0140		(918) 977-0137
Manager, Division	Gabe Munoz	(562) 290-1528		(562) 714-7155
Manager, HSE	Travis J. Wilke	(281) 293-2515		(580) 401-0047
Manager, Engineering & Projects	Dave J Barney	(281) 293-4385		(281) 467-4732
Manager, Logistics	Doug B. Sauer	(918) 661-0271		(832) 274-8478
Lubes, Alt. QI/IC	David Hauck	(503) 248-1542		(503) 849-9813
Lubes, Ops & Logistics Manager	Karen L. Shorten	(832) 486-2818		(610) 636-3066
Lubes, S&OH Director	Joanne Phillips	(281) 293-3916		(832) 420-4631

Transportation Tier 1 Responders

Name	Office Phone	(b) (6)	Mobile Number	Resp. Time
Forbes, Chris - Operator	(503) 248-1565			1 hr
Gross, Rob - Operator	(503) 248-1565		(503) 704-7884	1 hr
Janke, Andrew - Operator	(503) 248-1565		(503) 849-9605	1 hr
Teske, Jim - Operator	(503) 248-1565		(503) 849-9605	1 hr
Vogel, Chris - Operator	(503) 248-1559		(503) 756-1286	1 hr
Adams, Steve - Maintenance Coordinator	(503) 248-1507			1 hr
Baugher, David (Dave) - Lubes Responder	(503) 248-1541		(509) 936-4691	1 hr
Burke, William (Todd) - Lubes HSEQ Coordinator	(503) 248-1570		(503) 849-4456	1 hr
Catlow, Mark - Lubes Responder	(503) 248-1541		(360) 907-7988	1 hr
Eaton, Michael - Lubes Responder	(503) 248-1533		(___) ___-____	1 hr
Hubert, Lester Lynn (Les) - Operator	(503) 248-1565		(___) ___-____	1 hr
Paul, Mathew D. - Operator	(503) 248-1565		(___) ___-____	1 hr
Taylor, Dave - Lubes Responder	(503) 248-1560		(503) 849-4252	1 hr
Howard, Cory S. - Lubes Responder	(503) 248-1520		(503) 853-6359	1 hr
Hamilton, Wade - Lubes Responder	(503) 248-1541		(___) ___-____	1 hr
Fossum, Jeff E. - Maintenance Technician	(503) 248-1558		(503) 867-0728	1 hr
Taylor, Russell - Maintenance Coordinator	(503) 248-1508		(503) 777-5121	1 hr
Keafer, Jane - Analyst	(503) 248-1531		(___) ___-____	1 hr
Hester, Linda G. - Lubes, Legal Support	(281) 293-2851		(713) 628-1922	1 hr
Henderson, Pat - Lubes Responder	(503) 248-1541		(503) 522-8517	1 hr
Caldwell, Jeff J. - Operator	(503) 248-1565		(503) 849-9605	1 hr
Forbes, Scott A. - Operator	(503) 248-1565		(503) 849-9605	1 hr

Emergency Response Contractors

Name	Phone	Alt. Phone	Resp. Time
Contract			
Cowlitz Clean Sweep	(888) 423-6316	(360) 957-2018	1 hr
MSRC & STAR Contractors	(800) 645-7745	(800) 259-6772	1 hr
Co-op			
Clean Rivers Cooperative, Inc.	(503) 220-2040		1 hr
Other			
Entrix, Inc. (NRDA/SCAT)	(800) 476-5886	(206) 269-0104	1 hr
International Bird Rescue & Rehab. Ctr.	(510) 841-9086		1 hr
Polaris Applied Sciences, Inc.(NRDA/SCAT	(800)759-7243	(425) 823-4841	1 hr

Agency/Other Telephone Numbers

Agency/Group	Telephone	Other Telephone/Fax
Federal		
National Response Center	(800) 424-8802	(202) 267-2675
EPA Region 10	(800) 424-8802	(206) 553-1263
National Marine Fisheries Service	(206) 526-6150	
National Weather Service - NOAA	www.weather.gov	(206) 526-6317
NOAA, Scientific Coord./Hazmat Response	(800) 424-8802	(206) 526-6317
U.S. Fish & Wildlife Service (USFWS)	(206)764-3463	
USCG Marine Safety Office (Portland, OR)	(503) 240-9301	Fax: (503) 240-9369
State		
OR Department of Energy	(503) 370-3500;Duty Offic	(503) 932-4428
OR Dept. of Fish and Wildlife	(503) 872-5260	
OR DEQ - Air (D.P. Kauth. PE)	(503) 667-8414 x55003	
OR DEQ - Headquarters	(503) 229-5696	(800) 452-4011
OR Emergency Response System (OERS)	(800) 452-0311	(503) 378-6377
OR State Fire Marshall (SERC)	(503) 378-3473	(800) 452-0311
OR State Police, Multnomah	911	(503) 731-3030
WA Dept. F/G; Wildlife Rescue Coalition	(360) 534-8233	(360) 902-2200
Washington Department of Ecology (Lg. River Spills)	(360) 407-6300	(360) 407-6375
Washington Division of Emergency Management (DEM)	(800) 258-5990	(253) 912-4901
Local		
Control Room, Portland	(503) 248-1565	
Fire Dept., Multnomah County	911	(503) 760-6911
Ambulance, Emmanuel Life Fligh	911	(503) 413-1006
Police Dept., Portland	911	(503) 655-8211
Hospital, American Medical	911 or (503) 231-630	
Hospital, Good Samaritian ER	(503) 494-7551	
Media - KGW TV Channel 8	(503) 226-5111	
Media - KPDX Fox 49	(503) 239-4949	
Media - KXL Radio 750 AM, 95.5	(503) 417-7630	
Weather	(503) 243-7575	
City of Portland-Mayor's Office	(503) 823-4120	
LEPC: Multnomah County	(503) 988-4233	(503) 988-6700, #1 (24/7)
Neighbors		
Columbia River Water Intake: James River Wauna Mil	(503) 834-8465	
Columbia River Water Intake: Kalama Chemical	(306) 673-2550 x237	
Columbia River Water Intake: Longview Fibre	(360) 557-5503	
Columbia River Water Intake: PGE, Environmental De	(503) 464-8970	
Columbia River Water Intake: Port of Vancouver	(360) 693-3611	
Columbia River Water Intake: Weyerhaeuser	(360) 425-2150 x5296	
Columbia River Water Intake: Willow Grove Beach Pa	(360) 577-3030	
Downstream: Burlington Northern Railroad	(503) 261-6300	
Downstream: Certainteed	(503) 222-1307	
Downstream: Chevron Prod. Co./USA Asphalt	(503) 221-7866	(503) 221-7714
Downstream: Great Western Chemical	(503) 242-0200	
Downstream: Kinder Morgan, Willbridge	(503) 220-1246	
Downstream: Liquid Air	(503) 224-4351	
Downstream: McCall Oil Marine Terminal	(503) 221-5755	
Downstream: Merchants Exchange (Faciliy/Vessel Not	(503) 228-4361	(503) 916-8397
Downstream: Olympic Pipeline - Operations Controll	(206) 226-8880	(206) 226-8882
Downstream: Waste Transfer Station	(503) 222-9330	

PORTLAND LUBES

Emergency Notification Contact List

Emergency Response Numbers

Group/Function	Telephone	Other Telephone/Fax
Duty Officer	800-231-2551	Fax: 918-662-0179
Control Center Emergency Hotline	877-267-2290	800-231-2566
Company "Meet Me" Number	866-836-3169	Pass Code: 157528
Employee Hotline (Natural Disaster)	866-397-3822	
Axiom Medical Monitoring	281-419-7063	

Qualified Individual / Incident Commander (QI / IC) Contact List

Name / Job Title	Office Phone	Home Phone	Cell Phone	Resp. Time
QI/IC				
Office:		**Home:**		
Alt. QI/IC				
Office:		**Home:**		

Incident Support Team

Position	Name	Office Phone	(b) (6)	Mobile Phone
EPR&S Contact	Rob Yarbrough	(281) 293-3891	[redacted]	(281) 627-3177
Environmental Contact	Jim Phelan	(281) 293-3715		(580) 761-3233
DOT Contact	Todd Tullio	(832) 379-6255		(405) 371-1477
Health & Safety Contact	Brad A. Hendrix	(918) 661-0140		(918) 977-0137
Manager, Division				
Manager, HSE	Travis J. Wilke	(281) 293-2515		(580) 401-0047
Manager, Engineering & Projects	Dave J Barney	(281) 293-4385		(281) 467-4732
Manager, Logistics	Doug B. Sauer	(918) 661-0271		(832) 274-8478

Transportation Tier 1 Responders

Name	Office Phone	(b) (6)	Mobile Number	Resp. Time
Phillips, Joanne - Lubes HSE Director	(281) 293-3916	[redacted]	(832) 420-4631	<Unknown>
Shorten, Karen L. - Lubes Ops. & Logistics Manag	(832) 486-2818		(610) 636-3066	<Unknown>
Liberti, Tom - Lubes General Manager	(832) 486-3360		(281) 468-3212	<Unknown>

Emergency Response Contractors

Name	Phone	Alt. Phone	Resp. Time

Agency/Other Telephone Numbers

Agency/Group	Telephone	Other Telephone/Fax
State		
State Police		
Local		
Fire		
Ambulance		
Police		
Hospital		
Media		

Sec. 2.1 Oil Spill Removal Organizations

2.1.1 Response Contractor Capabilities

The Company has obtained letters of agreement from several Oil Spill Removal Organizations (OSROs) to provide Company with emergency spill control and clean up services. Copies of the letters of agreement follow this page.

The following US Coast Guard-approved OSROs provide services for this area:

- Marine Spill Response Corporation (MSRC)
- Clean Rivers Cooperative, INC
- Cowlitz Clean Sweep

Sec. 2.1.2 Marine Spill Response Corporation (MSRC)

MARINE SPILL RESPONSE CORPORATION SERVICE AGREEMENT

STANDARD FORM OF SERVICE AGREEMENT

amended and restated as of September 27, 1996

between

the COMPANY

and

MARINE SPILL RESPONSE CORPORATION

a Tennessee nonprofit corporation

10. 03. Continued Performance. Each party will continue to perform its obligations under this Agreement without deduction, set-off, or any other charges of any nature whatsoever and without prejudice to its position in any pending dispute. Each party will retain its rights to terminate or suspend the provision of Resources under this Agreement.

10. 04. Jurisdiction. Any judicial action or proceeding between the **COMPANY** and **MSRC** directly or indirectly connected with and permitted under this Agreement will be brought in the United States District Court for the Southern District of New York if that court has subject matter jurisdiction, and in all other cases in the Supreme Court of the State of New York, County of New York. The **COMPANY** and **MSRC** each consent to process being served in any manner permitted by law.

10. 05. Enforceable Award. Any award in an arbitration may be enforced against the parties to the arbitration or their assets, wherever found. Judgment upon an arbitration award may be entered in the United States District Court for the Southern District of New York.

10. 06. Requirements for All Persons. Indemnification under Section 9.03 is contingent on the Indemnitee abiding by the provisions of this Article X.

ARTICLE XI. TERM AND AMENDMENT OF AGREEMENT

11. 01. Full Termination by MSRC.

11. 01(a). Events of Default. If any of the following events occurs and is continuing, it is an "Event of Default":

(i) Any of the **COMPANY** representations and warranties in Section 8.01 prove to be untrue or incorrect in any material respect;

(ii) Any **COMPANY** Insolvency Event occurs;

(iii) The **COMPANY** fails to satisfy any of this Agreement's payment obligations (including the obligations in Article VII) in an aggregate amount in excess of $100,000, fails to pay any disputed **MSRC** invoices in an aggregate amount **MSRC** reasonably considers to be a problem for the funding of **MSRC**'s operations or readiness, or fails to provide security for payment in accordance with Section 7.01;

(iv) The **COMPANY** or a Covered Entity engages in a pervasive pattern of illegal or knowingly unsafe practices in directing Response Activities performed or provided under this Agreement; or

(v) The **COMPANY** breaches its material obligations under this Agreement, other than the obligations under (i), (iii), and (iv) above, and that breach is not cured within thirty (30) days after written notice from **MSRC** specifying that breach.

11. 01(b) MSRC Termination of Resources. Upon an Event of Default **MSRC** may terminate Resources to the Covered Entity with at least twenty-four (24) hours (or 48 hours if the Event of Default is a failure to pay under Section 11.01(a)(iii)) prior notice to the Covered Entity and, if applicable, the FOSC. **MSRC** may withdraw all Resources from the Spill Event when the notice period expires. **MSRC** also may terminate Resources without any notice if any of the **COMPANY**'s representations or warranties in Section 8.01(e) or (f) prove to be materially untrue or incorrect or if it has an Insolvency Event (Section 11.01(a)(ii)).

The Covered Entity must pay **MSRC** costs incurred after termination only for demobilizing, on a reasonable schedule, **MSRC** Response Personnel, **MSRC** Response Equipment, and any (unassigned) MSRC Subcontractor from the Spill Event, and for any cleaning, repair, or maintenance of MSRC Response Equipment required under Section 7.02.

11. 01(c). Reinstatement Option. **MSRC** may, in its discretion after an Insolvency Event (Section 11.01(a)(ii)) reinstate Resources, upon the Covered Entity's compliance with MSRC's request for payment security under Section 7.01(c).

11. 02. Covered Entity Termination of Resources. The Covered Entity may terminate, in whole or in part at any time, Resources being provided under this Agreement by written notice to **MSRC**.

11. 03. Term of the Agreement.

11. 03(a). Term. This Agreement is effective on or after October 15, 1996, and it will continue until December 31, 1997, or until the earlier termination pursuant to the provisions of Sections 11.03(b) or 11.03(c). This Agreement will continue automatically for successive periods of three (3) years unless either party gives the other party notice of termination at least ninety (90) days before the date of expiration of the term.

11. 03(b). MSRC Termination of Agreement. If any Event of Default occurs and continues **MSRC** may, in addition to its right to terminate Resources pursuant to Section 11.01(b) and any other rights and remedies under this Agreement and at law or in equity, terminate this Agreement in its entirety by providing the **COMPANY** with at least ninety (90) days prior written notice.

MSRC is also entitled to terminate this Agreement upon thirty (30) days notice if

(i) **MSRC** has liquidated assets to pay Claims against **MSRC** and therefore cannot provide the contemplated level of Resources, or

(ii) **MSRC** has not received the required payments at the times required under the Directors and Officers Indemnification Grant and Security Agreement, as amended (dated as of July 16, 1993 by and between **MSRC** and MPA concerning the indemnification of the executive officers and directors of **MSRC**); the **COMPANY** or a **COMPANY** affiliate has not made the payments at the times required under the

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT

STANDARD FORM OF AGREEMENT

Parties and Background

This is a **SERVICE AGREEMENT** with attached signature pages (the "Agreement") between the **COMPANY** and **MARINE SPILL RESPONSE CORPORATION**, a nonprofit corporation organized under the laws of Tennessee **("MSRC").**

For convenience and simplicity, as between the **COMPANY** and Covered Entity (if any), references to the party for performance are made to a "Covered Entity," but the **COMPANY** can exercise the rights and will guarantee the performance of a Covered Entity as set forth more fully in this Agreement.

In consideration of the promises and the mutual covenants of this Agreement, **MSRC** and the **COMPANY** agree as follows:

Articles

ARTICLE I CALLOUT

1.01. Call-Out of Resources

1.01(a). Alert. A Covered Entity may alert **MSRC** of the possibility of a call-out under this Agreement. Upon receipt of an alert **MSRC** will review its readiness to respond in the event of a call-out under Section 1.01(b). Such alert does not (i) obligate the Covered Entity to pay **MSRC**'s rates or any costs incurred by **MSRC**, (ii) obligate **MSRC** to Mobilize any Resources, or (iii) give the Covered Entity any rights to obtain any particular Resources, unless and until **MSRC** is called out in accordance with this Agreement.

1.01(b). Call Out Process. An Authorized Representative, or an individual **MSRC** reasonably believes is acting on behalf of a Covered Entity, may obtain and **MSRC** will provide any of the Resources available under this Agreement by calling an **MSRC** response manager through one of the telephone call-out numbers provided by MSRC from time to time by notice to the **COMPANY**. This Initial Callout Notice shall consist of a specific request for desired Resources to be provided from the list on Schedule 3 (or as otherwise made available by **MSRC** at the time of callout), in consultation with one of **MSRC**'s response managers. The Authorized Representative or the Incident Commander of a Covered Entity may add to or discontinue use of any Resources, in consultation with **MSRC**'s response manager, at any time. The Covered Entity and **MSRC** will document the Resources requested and provided. If MSRC Subcontractors are required to provide the requested Resources, **MSRC** will call out and supervise those MSRC Subcontractors, unless and until other arrangements are made as described in Section 3.04. Part II of

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT

EXECUTION INSTRUMENT

The MSRC SERVICE AGREEEMENT attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement amended and restated as of September 27, 1996, is hereby entered into by and between

ConocoPhillips
[Name of COMPANY]

a _____
[Type of entity and place of organization]

with its principal offices located at 600 North Dairy, Ashford, Houston TX 77079 (the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. GOMPA 189 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of Feb. 18, 2005.

ConocoPhillips Co. [COMPANY]

By: _____ [signature]

ANTONIO J. VALDES [print name]

Title: GENERAL MANAGER

Address: 600 North Dairy
Ashford, Houston TX 77079

Telephone: 281-293-1000 Fax: _____

MARINE SPILL RESPONSE CORPORATION:

By: Judith R. Norell
Judith R. Norell
Marketing & Customer Service Manager
220 Spring Street, Suite 500
Herndon, VA 20170
(703) 326-5617; Fax: (703) 326-5660

MSRC 24-HOUR EMERGENCY NUMBERS

TELEPHONE:

1-800-OIL SPIL (1-800-645-7745)

1-800-259-6772

1-732-417-0175 (COMMERCIAL)

FACSIMILE:

1-800-635-6772

1-732-417-0097 (COMMERCIAL)

ALTERNATE NUMBER:

1-703-326-5609

Sect. 2.1.3 Clean Rivers Cooperative, INC

CLEAN RIVERS
COOPERATIVE, INC.

200 S.W. Market Street
Suite 190
Portland, Oregon 97201
Phone: 503-220-2040
Fax: 503-295-3660

www.cleanriverscooperative.com

January 15, 2010

Tom Lyons
ConocoPhillips Petroleum Company
5528 NW Doane Avenue
Portland, OR 97207

RE: Letter of Intent 2010

Dear Tom:

The purpose of this letter is to confirm that ConocoPhillips Petroleum Company is a member of Clean Rivers Cooperative, Inc., and that the cooperative will provide oil containment and recovery services as a qualified Oil Spill Removal Organization (OSRO) according to the terms and conditions outlined in the Membership Bylaws.

This letter encompasses OSRO coverage for the 2010 calendar year for the purposes of meeting the requirements set forth in 33 CFR 154.1028, and shall be renewed each calendar year upon request. However, as a member of Clean Rivers Cooperative, there is no "end date" to your coverage under the Bylaws. Coverage is terminated upon member request or at the discretion of the Clean Rivers Board of Directors and membership. For specific terms of coverage and effective periods, please reference the Bylaws.

If you have any questions or concerns please feel free to contact me by telephone at (503) 220-2087 or by e-mail at quesada@pdxmex.com.

Sincerely,
Clean Rivers Cooperative, Inc.

Ernie Quesada
General Manager

MC

Certificate of Membership

CLEAN RIVERS
COOPERATIVE, INC.

Issued to:

ConocoPhillips Petroleum

5528 NW Doane Avenue ·Portland, OR 97207

This is to certify that the above named company is a member in good standing of Clean Rivers Cooperative, Inc. and is therefore entitled to all the rights and privileges thereof.

January 15, 2010
Date

Ernie Quesada, General Manager
Clean Rivers Cooperative, Inc.
Portland, Oregon

Sect. 2.1.4 Cowlitz Clean Sweep

Master Services Agreement

Master Service Agreement

Between

ConocoPhillips Pipe Line Company And ConocoPhillips Company

And

COWLITZ CLEAN SWEEP

Effective 12/01/2005

MASTER SERVICE AGREEMENT
Revised: 19 January 2005 (General, U.S. Operations) **Agreement No.**
20446.0-MSA-PT

This Agreement is effective on 12/01/2005 (mm, dd, yyyy), by and between ConocoPhillips Company, (hereinafter called "Company") and COWLITZ CLEAN SWEEP (hereinafter called "Contractor").

WHEREAS, Company may from time to time desire Contractor to perform work and/or provide items of equipment, machinery, materials or supplies in the conduct of Company's operations; and

WHEREAS, Company and Contractor desire to establish certain general terms and conditions, which shall apply to and become part of each and every contract, whether written or oral, entered into between the parties.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree that this Agreement shall consist of this signature document and the following Sections attached hereto and made a part hereof:

SECTION I – STATEMENT OF WORK
SECTION II – COMPENSATION, INVOICING AND PAYMENTS
SECTION III – TERMS AND CONDITIONS, PART 1
SECTION IV - TERMS AND CONDITIONS, PART 2
SECTION V - EXHIBITS

ENTIRE AGREEMENT AND OTHER CONDITIONS

This Agreement reflects the entire agreement between the parties with respect to its subject matter. Except for any secrecy or other nondisclosure agreements between the parties, all other oral or written agreements, contracts, understandings, conditions, or representations with respect to the subject matter of this Agreement are superseded by this Agreement.

General or special conditions in any of Contractor's price lists, invoices, tickets, receipts or other documents presented to Company relating to the work hereunder are null and void, regardless of whether signed by an employee of Company.

SIGNATURES:

ConocoPhillips Company	COWLITZ CLEAN SWEEP
Signature: Teresa Bell	Signature:
Name: Teresa Bell	Name: Scott Gelfillan
Title: Contract Specialist	Title: Division Manager
Date: 12.06.05	Date: 12-1-05

7. NOTICES

Unless otherwise specifically provided, all notices and other communications provided for in this Services Order shall be in writing and shall be effective upon receipt. Such notices and communications shall be given either: (i) by hand delivery to an authorized representative of the party to whom directed, or (ii) by United States mail, postage prepaid, or (iii) by courier service guaranteeing delivery within two days or less, charges prepaid, or (iv) by facsimile to the following addresses for matters relating to this Agreement:

	Company	Contractor
Name	ConocoPhillips Pipe Line Company And ConocoPhillips Company	Cowlitz Clean Sweep
Address	1000 S. Pine	9420 NW St. Helens Road
	PO Box 1267	Portland, OR 97231
	Ponca City, OK 74602	
Attention:	Teresa Bell	Scott Gilfillan
Telephone No:	580.767.6641	503.247.9466
Facsimile No:	580.767.5348	503.247.1002
Email:	teresa.bell@conocophillips.com	scottgcc@ccs-pnecorp.com

Any notice, other than a force majeure notice under Article 14, delivered after normal business hours at the receiving party's place of business shall not be deemed delivered until the receiving party's following business day. Either party may at any time change its address, facsimile number or attention recipient upon written notice to the other party.

8. TERMINATION OF AGREEMENT AND CONTRACTS

This Agreement shall continue in full force and effect for a term of one (1) year from the date this Agreement is made and from month to month thereafter unless terminated at any time during the term of this Agreement by thirty (30) days written notice by one party hereto to the other party, except, regardless of whether notice is given, this Agreement shall not terminate with respect to contracts which have not yet been completed or paid for.

Company may terminate any contract entered into under this Agreement immediately upon notice with or without cause. If Company terminates such a contract in the absence of a material breach by Contractor, Company shall owe Contractor only the compensation earned to the time of notice of termination plus any demobilization fee provided for in such contract. In the event the termination was due to a material breach by Contractor, Company shall owe Contractor only the compensation earned to time of notice of termination plus any demobilization fee provided for in such contract less any additional costs and expenses incurred by Company by reason of such breach including additional costs incurred by having to obtain a replacement contractor. Such termination and deduction for additional costs and expenses shall be without prejudice to the other legal or equitable remedies which may be available to Company.

Section 3 – Table of Contents

Sec. 3.0 Sensitive Area General Response Strategies

A vulnerability analysis was performed to address the potential effects of an oil spill on a variety of common vulnerable areas or sensitive receptors. The size of the area analyzed is that which could potentially be impacted by a spill from the terminal within 48 hours. This area extends from the terminal down the Willamette River to the Columbia River and then downstream as far as Astoria near the Columbia River mouth.

The human populations near the terminal are minimal, particularly during non-business hours, due to the industrial nature of the area. There are no heavily populated areas nearby that could be impacted by spill to the river. The downstream areas beyond the local industrial zone are generally rural and lightly populated with the exception of a few smaller towns such as St. Helens, Kalama, Ranier and Cathlamet. St. Helens is the closest town and located approximately 25 miles downstream. In addition, two small cities, Longview, Washington and Astoria, Oregon, are located downstream along the Columbia River.

Sec. 3.0.1 Areas and Receptors Analyzed

The specific areas and receptors analyzed and summaries of the results are provided below:

- **Water Intakes** – No water intake were identified near the terminal although several are present further downstream along the Columbia River.
- **Schools** – No schools were identified near the terminal.
- **Medical Facilities** – No medical facilities were identified near the terminal.
- **Residential Areas** – No residences are located in the immediate vicinity of the terminal and although a few are located west of terminal across Highway 30, they would not likely be impacted by a spill.
- **Businesses** – The surrounding area is very industrial with other petroleum terminals, an asphalt refinery, a rail switching yard, chemical plants and other industrial and commercial operations dominating the local businesses. The areas downstream of the terminal along the Willamette River are also primarily industrial and commercial.
- **Wetlands/Sensitive Areas** – The closest wetlands are along the Multnomah Channel approximately 5 miles downstream and the Columbia Slough approximately 7 miles downstream. Other wetlands/sensitive areas are identified in this ERP.
- **Fish and Wildlife** – There are a number of fish and wildlife that could be impacted by a spill including the 1) endangered chinook, chum, steelhead, and sockeye salmon, 2) great blue heron, osprey, bald eagle, cormorant, merganser, kingfisher and peregrine falcon birds, and 3) river otter, nutria, raccoons, and other small mammals.
- **Endangered Flora and Fauna** – No endangered flora or fauna were identified in the area of the terminal.
- **Recreational Areas** – The Willamette River is used for various water recreation activities including boating and fishing. Cathedral Park is located approximately 2 miles downstream at the base of the St. Johns Bridge. Other key recreational areas are identified in this Plan.

- **Transportation Routes** – The Willamette and Columbia Rivers are key shipping corridors. The St. Johns bridge and a railroad bridge across the Willamette River just downstream from the terminal and the Rainier Bridge across the Columbia River at the city of Longview, Washington are the only major rail and auto transportation routes that could be directly impacted by a spill.
- **Utilities** – Various submerged pipelines, elevated power lines and other utilities cross the Willamette and Columbia Rivers but should not be impacted by a spill.

This Hazard Analysis (HA) for this Plan has been prepared to comply with the requirements of 40 CFR 112.20 (f)(4), Hazard Evaluations and OAR 340-47-160(3)(i).

The objectives of the HA contained herein are to (1) identify potential sources of oil spills from the facility into navigable waters; and (2) establish a matrix to estimate oil spill risk for each potential source. This risk analysis is prepared as a working document based on the readily available information regarding the Company's facility and operation; the analysis is performed and documented in such a way that it can be updated as new information is required or becomes available.

The scope of the Hazard Analysis (HA) focuses specifically on the equipment within the Company's petroleum transfer and storage operations that could initiate a release of petroleum to navigable waters. Hazards associated with vapor releases or worker safety were only considered to the extent that they may contribute to a release of petroleum to the water.

The equipment and systems considered during the HazOp include the following:

- Ship Unloading
- Barge Loading
- Tank Truck Loading
- Used Oil Drum Pump-Outs
- Lubricant Barrel Filling
- Boat Fueling

The evaluation of oil spill sources was performed by following a formal and rigorous procedure titled a Hazard & Operability Study (HazOp). The main objective of the HazOp was to qualitatively determine oil spill sources associated with facility operations. The study was conducted in accordance with Guidelines for Hazard Evaluation Procedures, Second Edition, 1992, American Institute of Chemical Engineers and included the following steps:

- Data gathering and evaluation
- HazOp team training
- HazOp evaluation session
- Compilation of HazOp results
- Follow up questions and clarifications
- Preparation of HazOp documentation

The HazOp focused on potential hazards associated with the operation of the facility, potential equipment failure, potential operator or human errors, and external events and factors that may result in a spill. The HazOp was conducted by using the "what-if" technique, in combination with guide-words such as "high", "low", "more", "less", "none", and "misdirection". Using this methodology, the temperature, flow, pressure, current, etc. for the system components that are included in the HazOp were evaluated.

Sec. 3.0.2 Risk Estimation Study

The oil spill scenarios identified during the HazOp were evaluated to identify the Relative Risk for each of the scenarios. The Relative Risk was defined in terms of both Severity and Frequency by use of a matrix analysis. A matrix titled the Severity and Frequency Matrix (S&FM) was created that enabled the evaluators to separate the Relative Risk into four categories.

The Company does not have historical failure mode data to properly perform a quantitative estimation of risk. The analysis presented herein is offered as a reasonable identification of the risks at the facility. The following sections describe the parameters and rationale used to estimate Severity, Frequency and Relative Risk as a part of performing the Risk Estimation. The methodology and procedures used for this Risk Estimation was adopted from Guidelines for Hazard Evaluation Procedures, Second Edition, 1992, American Institute of Chemical Engineers, with appropriate modifications that consider the site-specific operation conditions at the facility.

Severity

The Severity axis on the S&FM was divided into three levels of spill severity. The magnitude of each level of spill severity is as follows:

A. High: Greater than 500 barrels (21,000 gallons)

B. Medium: Between 50 barrels (2,100 gallons) and 500 barrels (21,000 gallons)

C. Low: Less than 50 barrels (2,100 gallons)

The Severity of each spill scenario identified in the HazOp was based on an estimate of the flow rates for each case and of a conservative probable response time by Company personnel. These severity estimates were reviewed with Terminal Management, along with the oil spill scenarios identified during the HazOp.

Estimating the conservative probable response time was based on a simultaneous occurrence of two faults that could cause a spill. The faults were either human error and equipment malfunction, a combination of two human errors, or a combination of two equipment malfunctions. The Study team discussed the particular combinations during the HazOp session and the worst case combination for each scenario was used in estimating the spill Severity.

Frequency

The Frequency axis on the S&FM was divided into three levels of spill frequency:

A. Frequent: Every 6 months (4 x 103 hours)

B. Possible: Every 10 years (1 x 105 hours)

C. Remote: Every 100 years (1 x 106 hours)

The Frequency of each spill scenario identified in the HazOp was estimated based on the type of anticipated failure. Human failures were estimated to be Frequent, moving machinery failures (i.e. pumps, hoses, seals, sensors) were estimated to be Possible, and gross tank and piping failures were estimated to be Remote.

The approach to estimating the frequency of failure combinations was based on common sense and the engineering judgment of the evaluators. We attempted to maintain a conservative approach when estimating failure combinations. For example, a spill scenario that requires two simultaneous human errors were estimated to be Frequent and a scenario that required a combination of human error and equipment failure would be considered possible. These frequency estimates were presented to Terminal Management, along with the oil spill scenarios identified during the HazOp.

Severity and Frequency Matrix

The Severity and Frequency categories were assembled in a 3 x 3 matrix. The resultant of Severity and Frequency combinations is the Relative Risk, which was separated into four categories. This approach is suggested in the Guidelines for Hazard Evaluation Procedures, Second Edition, 1992, American Institute of Chemical Engineers. The Severity and Frequency Matrix used in this evaluation is as follows:

	Severity		
Frequency of Occurrence	(A) High (>500 bbl)	(B) Medium (500>bbl>50)	(C) Low (<50 bbl)
(A) Frequent (every 6 months)	Risk Level 1	Risk Level 2	Risk Level 3
(B) Possible (every 10 years)	Risk Level 2	Risk Level 3	Risk Level 4
(C) Remote (every 100 years)	Risk Level 3	Risk Level 4	Risk Level 4

Sec. 3.0.3 Relative Risk

The resultant Relative Risk categories identified in the Severity and Frequency Matrix and associated Recommended Actions were suggested by *Guidelines for Hazard Evaluation Procedures, Second Edition, 1992, American Institute of Chemical Engineers*. The Relative Risk Levels designated for each oil spill scenario identified during the HazOp were presented to Terminal Management.

The following is the description of Recommended Actions for the Relative Risk Levels specified during this analysis:

Relative Risk Level	Description	Recommended Actions
Risk Level 1	Unacceptable Risk	Should be mitigated with engineering controls to a risk ranking of 3 or less
Risk Level 2	Undesirable	Should be mitigated with engineering and/or additional administrative controls to a risk ranking of 3 or less
Risk Level 3	Acceptable with Controls	Procedures and controls should be verified periodically
Risk Level 4	Acceptable As Is	No Mitigation Required

Sec. 3.0.4 Hazard Analysis Results

This section presents the results of the Hazard Evaluation (HA) performed for the Portland Terminal. A technique called a Hazard and Operability Study (HazOp) was used to identify sources of oil spills from the facility into navigable waters. These potential oil spill source were then evaluated by a Risk Estimation (RE) technique to identify the most likely sources of oil spills. The combination of these two techniques comprise the scope of the HA.

No scenarios identified by the HazOp resulted in an Unacceptable Relative Risk (Risk Level 1). This is primarily due to the extensive safety systems and good operating procedures at the facility. Therefore, no significant changes to the facility design of operations is recommended as a result of this evaluation.

There were three scenarios identified by the HazOp that resulted in an Undesirable Relative Risk (Risk Level 2). These related to potential overfills of storage tanks during transfer from ships or barges. The storage tank containment areas drain into three API gravity separators (#001, #002, and #004) that discharge into the Willamette River. Although the outlet to each separator can be manually closed, a release could go undetected due to the lack of oil sensors on API separators #001, #002, and #004 at the present time; an undetected release would spill directly into the river. In the event that both sets of level gages fail, there is the potential that an overfill could occur until the hourly visual inspection of the storage tank. Potentially 5,000 barrels (210,000 gallons) of oil could spill into the containment area, a portion of which would reach the river, via API separators, before being noticed by dock operators, resulting in an Undesirable Relative Risk.

The HA recommended that the installation of an oil sensing alarm on all API separator outlets be considered. Hydrocarbon sensors were installed in the separator outfalls but their accuracy was very inconsistent and after numerous attempts to remedy the problem by both the Company and the manufactures, their use was discontinued.

There were 45 scenarios identified by the HazOp that resulted in an Acceptable Risk, With Controls (Risk Level 3). These scenarios generally included a combination of human error and equipment failure. Either fast detection or redundant safety designs were common in most of these scenarios. Most of these scenarios presumed hose or pipeline breaks or tank overfills during low flow rate transfers. It is recommended that each of these scenarios every three years (to coincide with the review of the SPCC Plan), or when changing practices or operations, to confirm that design features that result in an Acceptable Risk are still in place and adequate.

There were 29 scenarios identified by the HazOp that resulted in an Acceptable Risk (Risk Level 4). These scenarios generally are remote; would not result in a release; the release would be small and can be prevented by several levels of safety designs and/or practices; or the operating parameters of the equipment would preclude the scenario from occurring. These scenarios include product contamination, freezing product, loss of power, low storage tank levels, or misdirection of gravity flow into up-hill tanks that is not possible. These scenarios would not result a spill potential.

State Classification

To ensure consistency in spill reporting and response criteria, the State of Oregon has developed a spill classification system that, for inland waters, is summarized below:

- **Minor Spill** – A spill or discharge of oil of less than 4.5 bbl (100 gallons). Depending on their degree of impact, minor spills may be upgraded to moderate or major spills if they 1) occur in or endanger critical water areas; 2) generate critical public concern; 3) become the focus of an enforcement action; or 4) pose a threat to public health or welfare.
- **Moderate Spill** – A spill or discharge of oil of 4.5 bbl (100 gallons) to 240 bbl (10,000 gallons) or a discharge of any material in any quantity that poses a threat to human health or welfare.
- **Major Spill** – A spill or discharge of oil of more than 240 bbl (10,000 gallons) or a discharge of any material in any quantity that poses a substantial threat to human health or welfare.
    Catastrophic Spill – A spill or discharge of oil of more than 24,000 bbl (1,000,000 gallons).

Climatic and Hydrographic Conditions

The prevailing climatic and hydrographic conditions at the time of a spill can influence a variety of response factors and should be quantified to the extent practical and as soon as possible following the discovery of a spill. A summary of the local climatic and hydrographic conditions is provided in this Section.

Climatic Conditions

Wind speed and direction can influence a spill response in a number of ways including aquatic spill trajectories, vapor plume dispersions, boom deployment, vessel and aircraft safety and others. Wind speed and direction can be determined from the weather station readout in the dock office or by calling the National Weather Service. In general, the wind averages approximately 7.1 mph out of the northwest during the spring and summer months and 8.7 out of the east-southeast during the fall and winter.

Visibility is determined by visual estimates concerning both the horizontal and vertical distances within which objects are clearly visible. The vertical visibility, or ceiling, is typically limited by low cloud cover or overcast conditions but can also be dramatically reduced by heavy fog. Lateral visibility is influenced by fog or heavy rain. In general, normal aircraft operations are restricted to ceilings greater than a 500 feet and horizontal visibility in excess of 0.5 mile.

Temperature can be determined using an outdoor thermometer or by calling the weather service or airport. The phone number for the National Weather Service is provided in the Notifications Section of this Plan. Only temperatures below freezing or above 80 to 90 degrees are of concern to oil spill response operations. Temperatures above or below that range can adversely affect productivity and the health and safety of response personnel.

Hydrographic Conditions

Only limited data is available on current speeds in the Willamette River from the terminal to the confluence with the Columbia River. The currents in this area are generally low due to the widening of the river just upstream of the terminal and the generally greater flows in the Columbia River. The results of a study done in 1989 found the following current speeds in the lower Willamette River:

- **High Flow** – Currents averaged 0.20 kts during a flow of 62,200 cfs in April of 1989.
- **Low Flow** - Currents averaged 0.12 kts during a flow of 9,900 cfs in June of 1989.

This portion of the Willamette River is tidally influenced but only minimally. The influence is only apparent during summer low flow conditions when minor water level fluctuations occur but no current reversals have been reported. In general, river levels are highest in May and June during peak snowmelt periods and during extreme storm events that typically occur in December and January. The lowest river levels generally occur in September and October just before the rainy season.

Climatic Information – Portland, OR

Parameter	Unit	Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yr
Temp[1]	°F	Mean Daily Max	44	50	55	60	67	73	80	79	74	64	52	46	62
	°F	Mean Daily Min	34	36	37	41	46	52	56	56	51	45	39	35	44
Visibility[1]	Mean Number of Days	Heavy Fog Visibility ($^1/_2$ mile or less)	4.2	3.7	2.3	1.1	0.1	0.1	0.1	0.2	2.8	7.6	6.1	4.9	33.2
Precipitation[1]	Inches	Mean	6.16	3.93	3.61	2.31	2.08	1.47	0.46	1.13	1.61	3.05	5.17	6.41	37.39
Wind[1]	MPH	Mean Speed	9.9	9.1	8.3	7.3	7.1	7.2	7.6	7.1	6.5	6.5	8.6	9.5	7.9
		Prevailing Direction	ESE	ESE	ESE	NW	NW	NW	NE	NW	NW	ESE	ESE	ESE	ESE
Daylight[2]	Average Time	Sunrise	07:50	07:15	06:25	06:25	05:39	05:20	05:35	06:11	06:49	07:28	07:12	07:47	
		Sunset	16:53	17:38	18:17	19:59	20:37	21:04	20:59	20:21	19:23	18:26	16:40	16:26	
Current[3]	Average	Speed (kt)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9
		Direction	343°E	343° E	343°E	343°E	343° E	343°E	343°E	343°E	343°E	343°E	343° E	343° E	343° E

1 – Source: 1990 Local Climatological Data Annual Summary with Comparative Data, National Oceanic and Atmospheric Administration
2 – Source: Tide and Current Prediction Software, 1994, Micronautics.
3 – Average current speed measured at Kalama, WA 1994.

Spill Movements And Trajectories

The Response Group provided trajectory and fates analyses to identify the worst case impact from potential petroleum spills at the Terminal. (b) (7)(F) [redacted]s was used to evaluate the greatest potential impact on the shoreline. Materials included evaluation of both diesel and gasoline discharges.

The spill was considered to be instantaneous and at the terminal location. The model calculation time step was 60 minutes, with a dispersion factor of .5 m2/sec. The simulations were run until all the product was fully dissipated from evaporation, dissolution and/or on-shore grounding over a period of 72 hours (3 days).

Trajectory and fates modeling runs were completed with this spill volume with different seasonal wind data and at varying times in the tidal cycle. The trajectories considered both summer and winter conditions were used to determine effects of seasonal wind trends on the potential impacted areas.

(b) (7)(F)

(b) (7)(F)

TOC LOWER COLUMBIA RIVER GRP

4.2.1 Lower Columbia River Priority Tables

Map # 1 - Ilwaco	
Priority	Strategy Number
1	LCR-7.1
2	LCR-6.8
3	LCR-7.5
4	LCR-4.0
5	LCR-3.3
6	LCR-1.8
7	LCR-1.6

Map # 2 - Astoria	
Priority	Strategy Number
1	LCR-17.7
2	LCR-14.1
3	LCR-13.0
4	LCR-10.8
5	LCR-14.6
6	LCR-14.8
7	LCR-14.3
8	LCR-12.9
9	LCR-12.6
10	LCR-12.3

Map # 3 – Grays Bay	
Priority	Strategy Number
1	LCR-26.4
2	LCR-24.1
3	LCR-22.4
4	LCR-22.3
5	LCR-23.6
6	LCR-17.8
7	LCR-27.5
8	LCR-27.2
9	LCR-20.3
10	LCR-20.0
11	LCR-19.9
12	LCR-19.3

Map # 4 - Cathlamet	
Priority	Strategy Number
1	LCR-37.9
2	LCR-37.2
3	LCR-36.0
4	LCR-35.0
5	LCR-34.6
6	LCR-34.7
7	LCR-34.4
8	LCR-33.3
9	LCR-32.2
10	LCR-38.8
11	LCR-38.5

Map # 5 – Crims Island	
Priority	Strategy Number
1	LCR-55.5
2	LCR-54.4
3	LCR-55.9
4	LCR-55.7
5	LCR-54.2
6	LCR-53.9
7	LCR-49.1
8	LCR-48.1
9	LCR-55.6
10	LCR-55.4
11	LCR-48.8
12	LCR-48.6
13	LCR-49.4

Map # 6 – Longview	
Priority	Strategy Number
1	LCR-64.0
2	LCR-71.4
3	LCR-70.0
4	LCR-58.7
5	LCR-58.9
6	LCR-60.2

TOC LOWER COLUMBIA RIVER GRP

4.2.1 Lower Columbia River Priority Tables

Map # 7 – Kalama	
Priority	Strategy Number
1	LCR-81.2
2	LCR-81.0
3	LCR-81.8
4	LCR-82.4
5	LCR-79.5
6	LCR-79.8
7	LCR-76.0
8	LCR-73.7

Map # 8 – St. Helens	
Priority	Strategy Number
1	LCR-94.3
2	LCR-92.3
3	LCR-91.0
4	LCR-87.6
5	LCR-94.5
6	LCR-87.3

Map # 9 – Portland	
Priority	Strategy Number
1	LCR-100.8
2	LCR-98.6
3	LCR-97.5
4	WR-0.9

Map # 11 – Government Island	
Priority	Strategy Number
1	LCR-114.8
2	LCR-113.3

Map # 12 – Camas	
Priority	Strategy Number
1	LCR-120.6
2	LCR-122.6
3	LCR-120.7
4	LCR-119.1

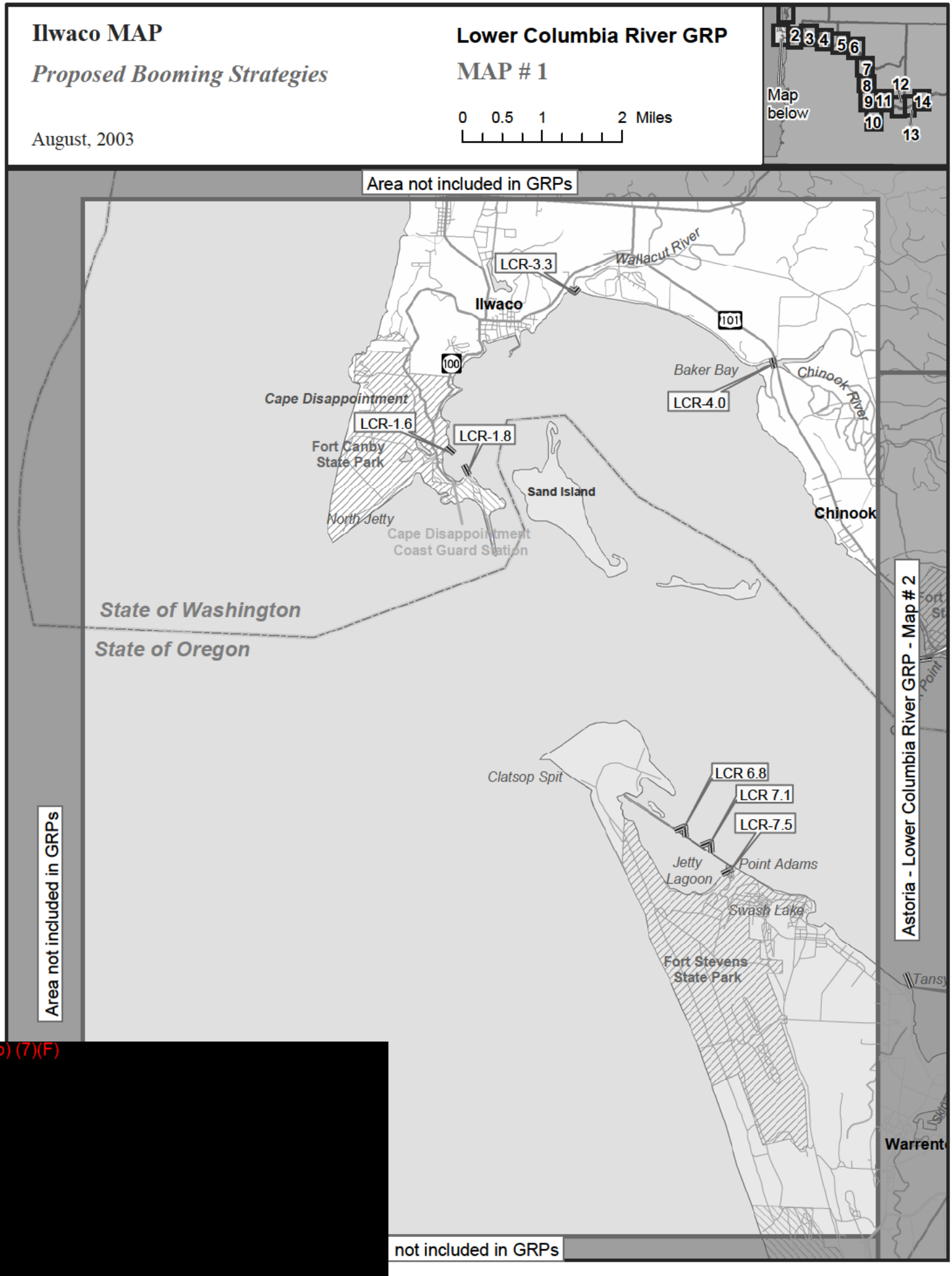
Map # 14 – Bonneville	
Priority	Strategy Number
1	LCR-142.8
2	LCR-141.4
3	LCR-137.0
4	LCR-143.1
5	LCR-142.4

TOC LOWER COLUMBIA RIVER GRP

4.2.2 Willamette River/ Multnomah Channel Priority Tables

Map # 9 – Portland	
Priority	Strategy Number
1	MC-2
2	MC-1
3	WR-0.9
4	WR-7.5
5	WR-6.9a & b
6	WR-5.8
7	MC-3a & b
8	WR-4.5
9	WR-3.7

Map # 10 – Willamette River	
Priority	Strategy Number
1	WR-26.1
2	WR-25.4
3	WR-25.0
4	WR-23.9
5	WR-23.8
6	WR-23.6
7	WR-23.1
8	WR-21.2
9	WR-18.5
10	WR-18.4


Ilwaco MAP
Proposed Booming Strategies
August, 2003
Lower Columbia River GRP
MAP # 1
0 0.5 1 2 Miles
Map below
2 3 4 5 6 7 8 9 10 11 12 13 14
Area not included in GRPs
LCR-3.3
Wallacut River
Ilwaco
101
100
Baker Bay
Chinook River
LCR-4.0
Cape Disappointment
LCR-1.6
LCR-1.8
Fort Canby State Park
Sand Island
Chinook
North Jetty
Cape Disappointment Coast Guard Station
State of Washington
State of Oregon
Astoria - Lower Columbia River GRP - Map # 2
Clatsop Spit
LCR 6.8
LCR 7.1
LCR-7.5
Jetty Lagoon
Point Adams
Swash Lake
Fort Stevens State Park
Area not included in GRPs
(b) (7)(F)
not included in GRPs

Astoria MAP

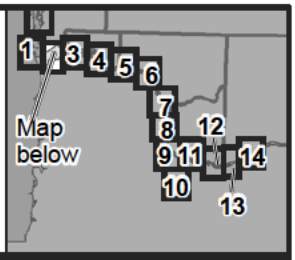
Proposed Booming Strategies

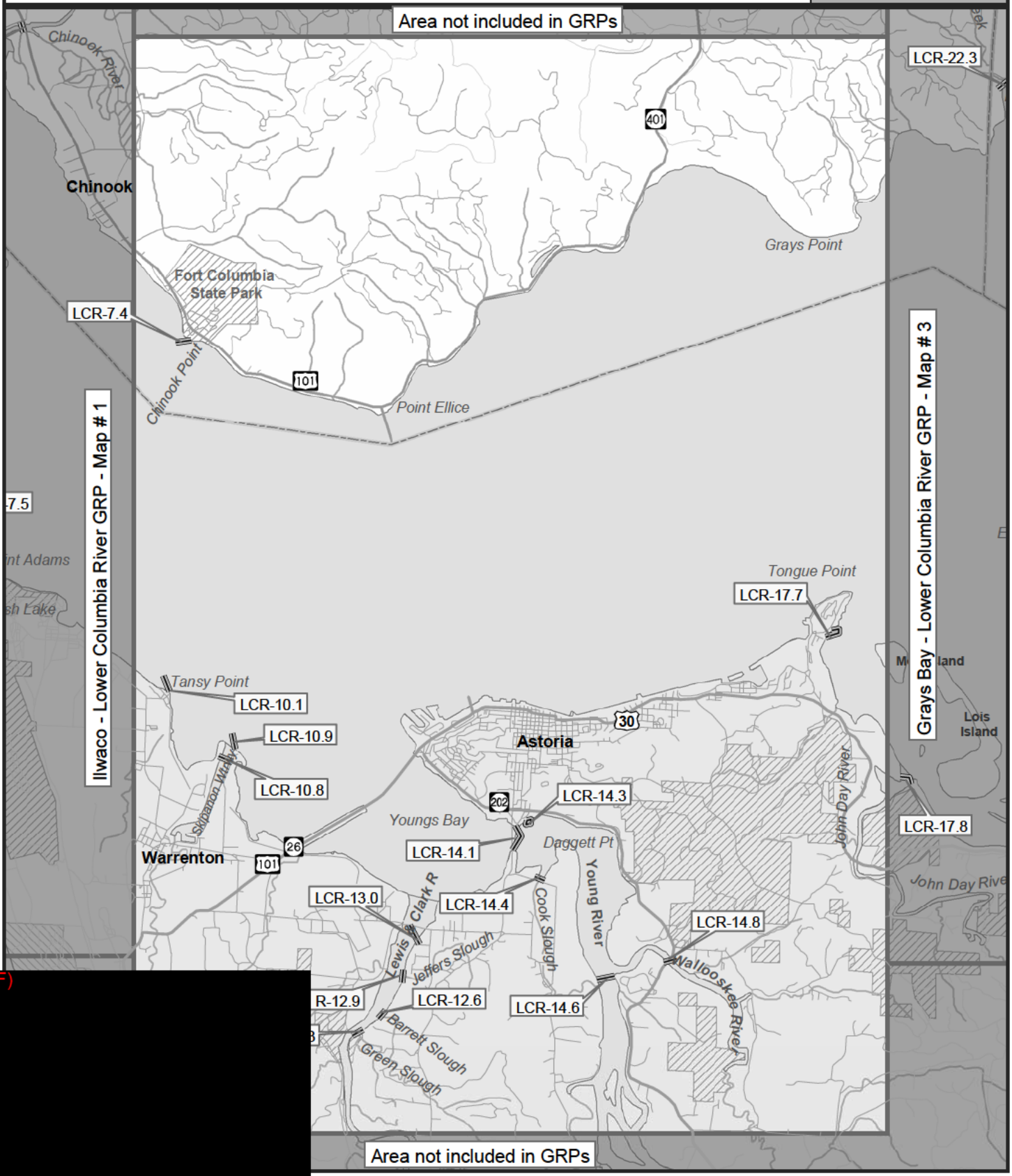
August, 2003

Lower Columbia River GRP

MAP # 2

0 0.5 1 2 Miles





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Grays Bay MAP

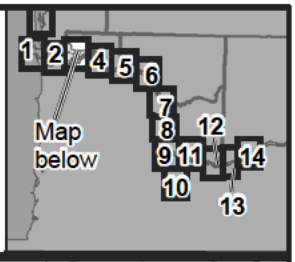
Proposed Booming Strategies

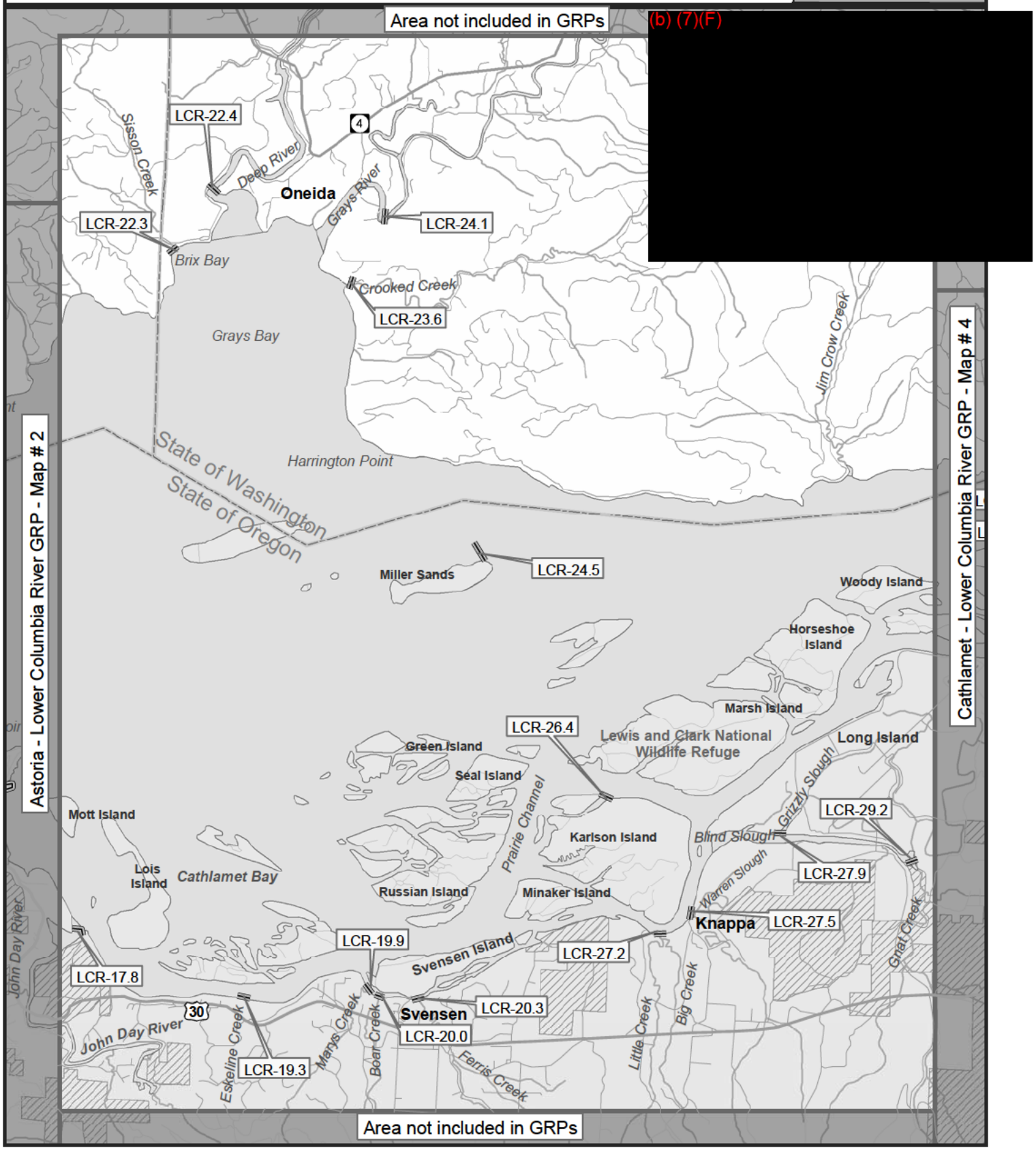
August, 2003

Lower Columbia River GRP

MAP # 3

0 0.5 1 2 Miles





Cathlamet MAP

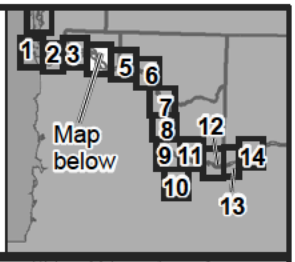
Proposed Booming Strategies

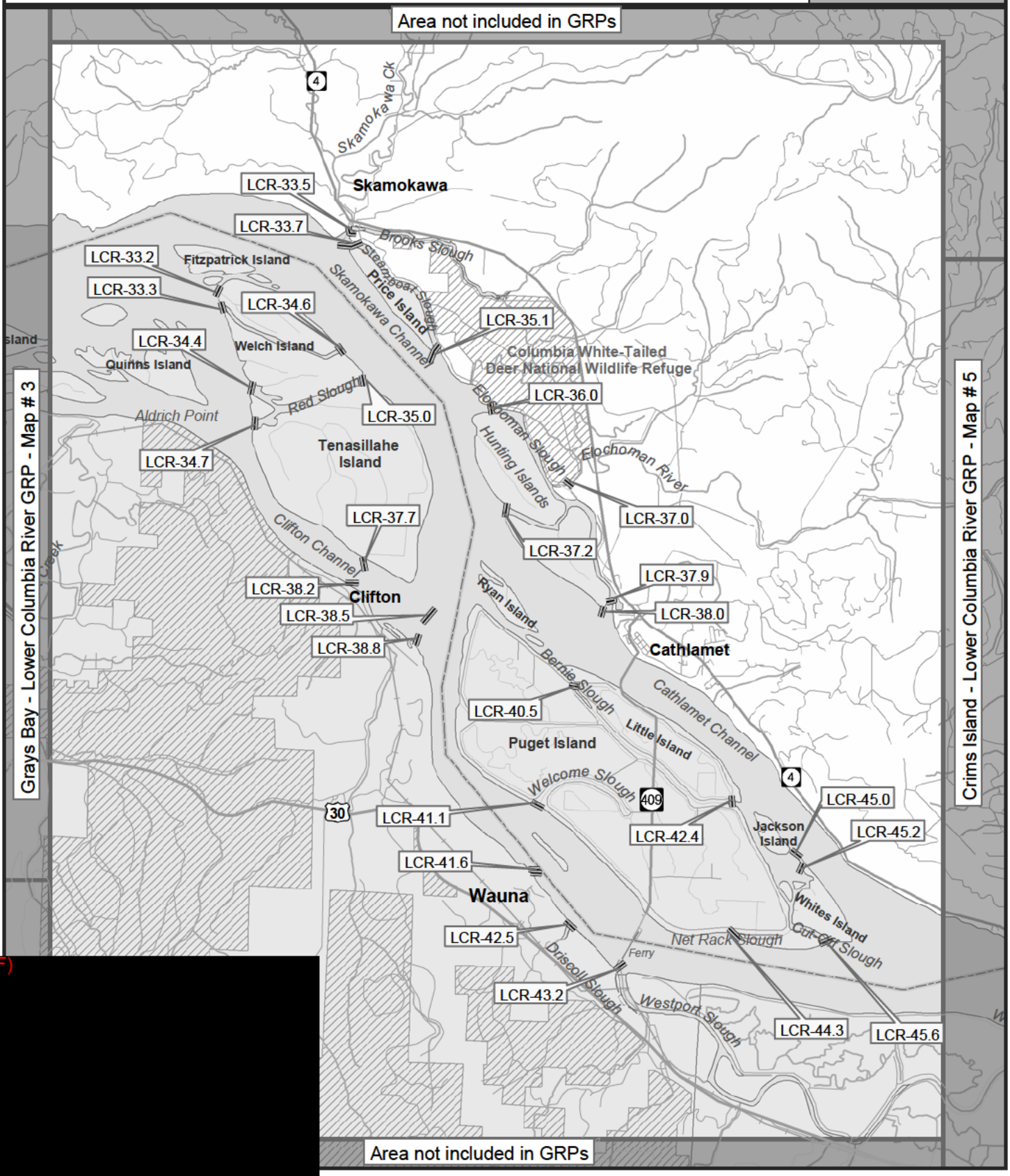
August, 2003

Lower Columbia River GRP

MAP # 4

0 0.5 1 2 Miles





(b) (7)(F)

Crims Island MAP

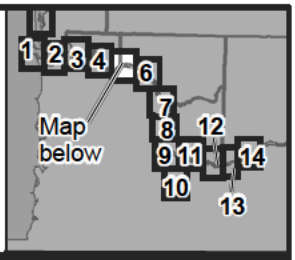
Proposed Booming Strategies

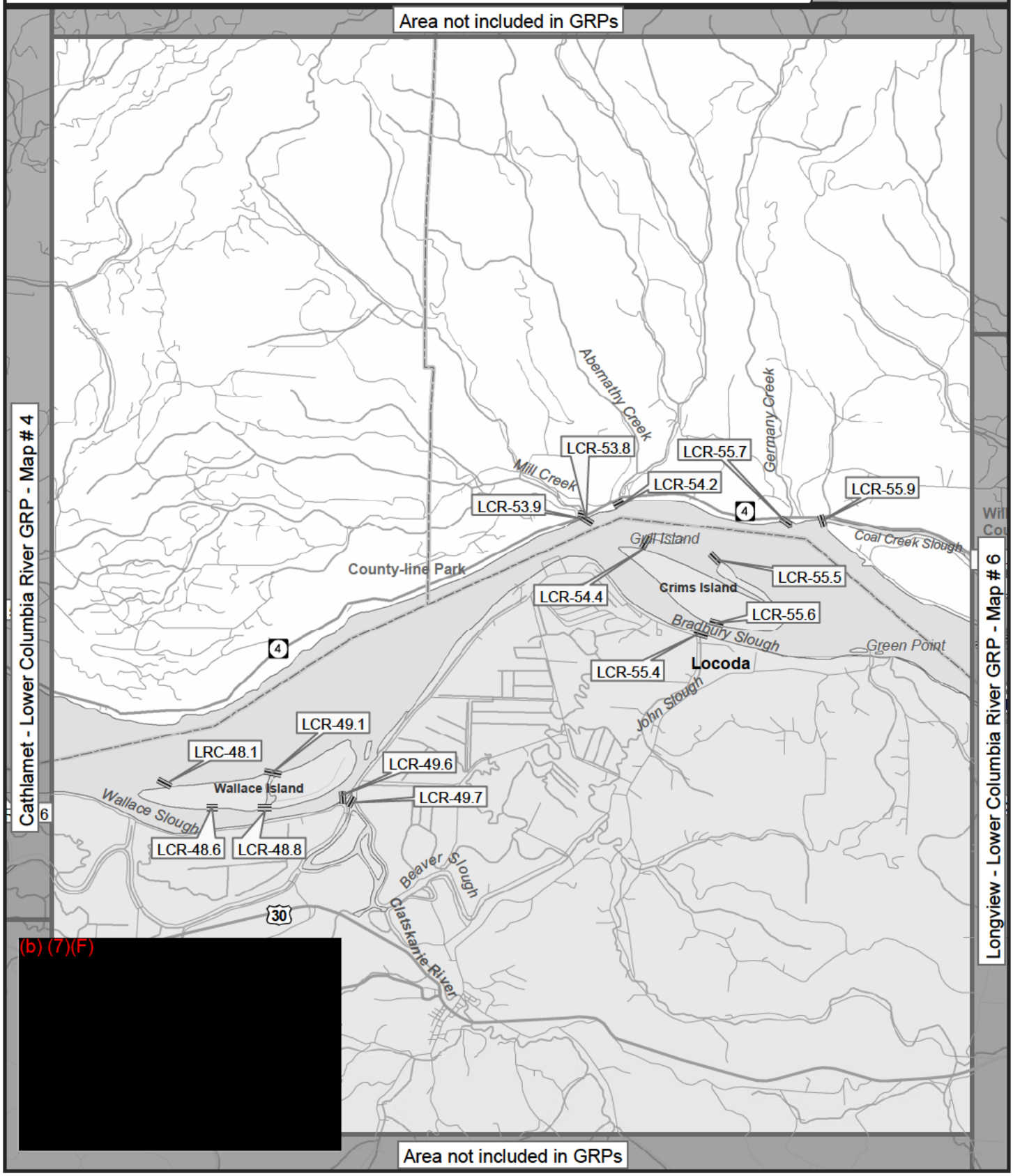
August, 2003

Lower Columbia River GRP

MAP # 5

0 0.5 1 2 Miles





Longview MAP

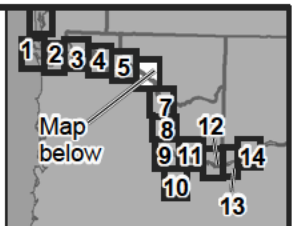
Proposed Booming Strategies

August, 2003

Lower Columbia River GRP

MAP # 6

0 0.5 1 2 Miles



Area not included in GRPs

Crims Island - Lower Columbia River GRP - Map # 5

Area not included in GRPs

Willow Grove County Park

Coal Creek

Cut-Off Slough

LCR-58.8

LCR-58.9

LCR-59.0

LCR-60.2

LCR-60.4

Fisher's Slough

Fisher Island

Hump Island

LCR-58.7

LCR-59.8

Walker Island

Barlow Point

4

432

City of Longview

Kelso

411

Lord Island

LCR-64.0

Slaughters Dike

433

Port of Longview

LCR-66.2

30

Cowlitz River

5

Rainier

Carrolls Channel

LCR-70.0

(b) (7)(F)

Cottonwood Island

LCR-71.4

LCR-71.6

LCR-71.5

Prescott

Kalama River

Area not included in GRPs

Kalama - Lower Columbia River GRP - Map # 7

Kalama MAP

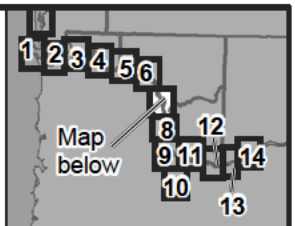
Proposed Booming Strategies

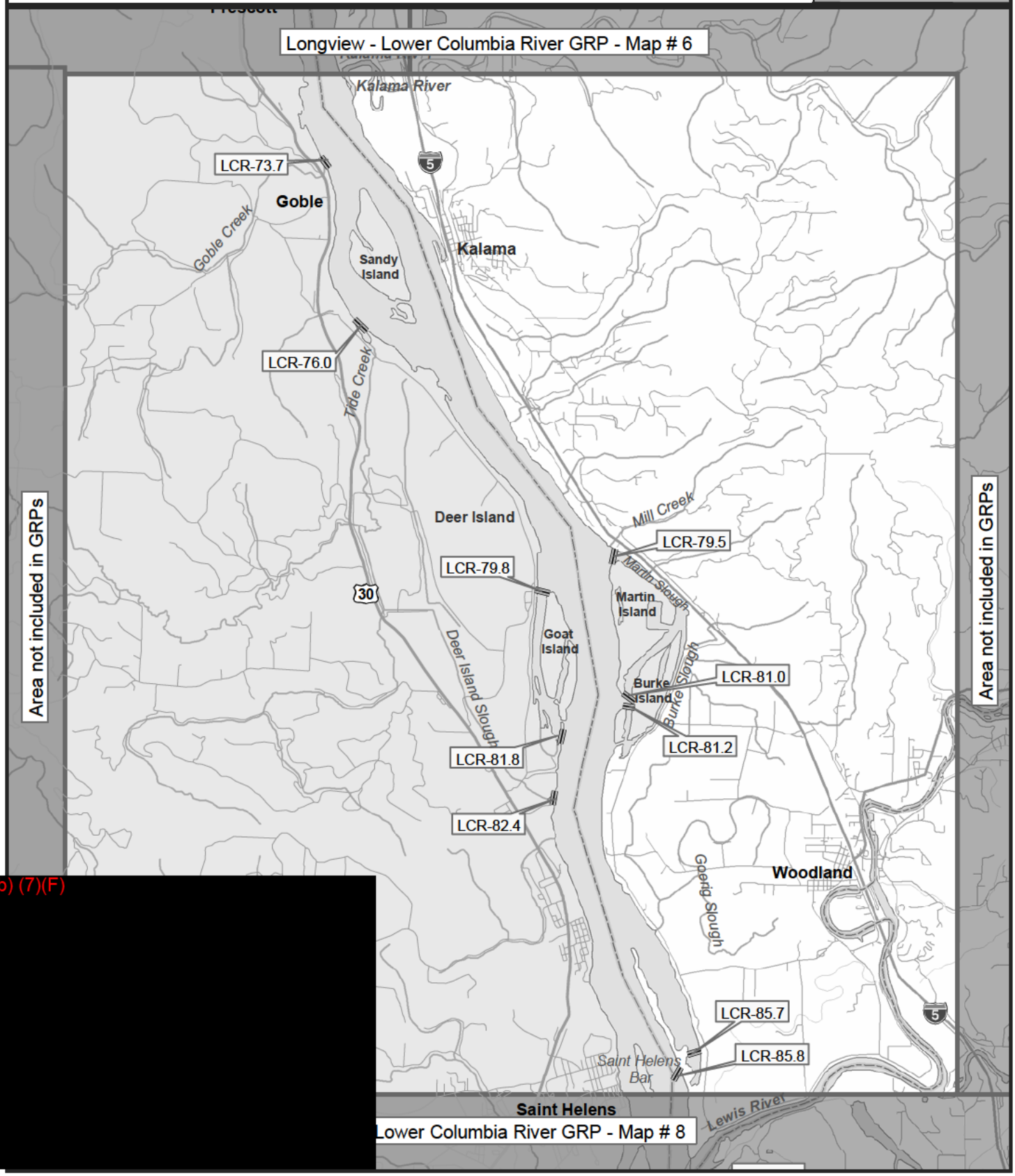
August, 2003

Lower Columbia River GRP

MAP # 7

0 0.5 1 2 Miles





(b) (7)(F)

St Helens MAP

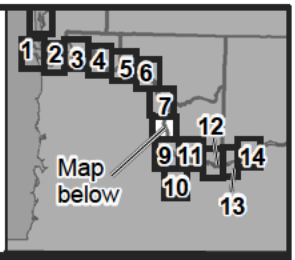
Proposed Booming Strategies

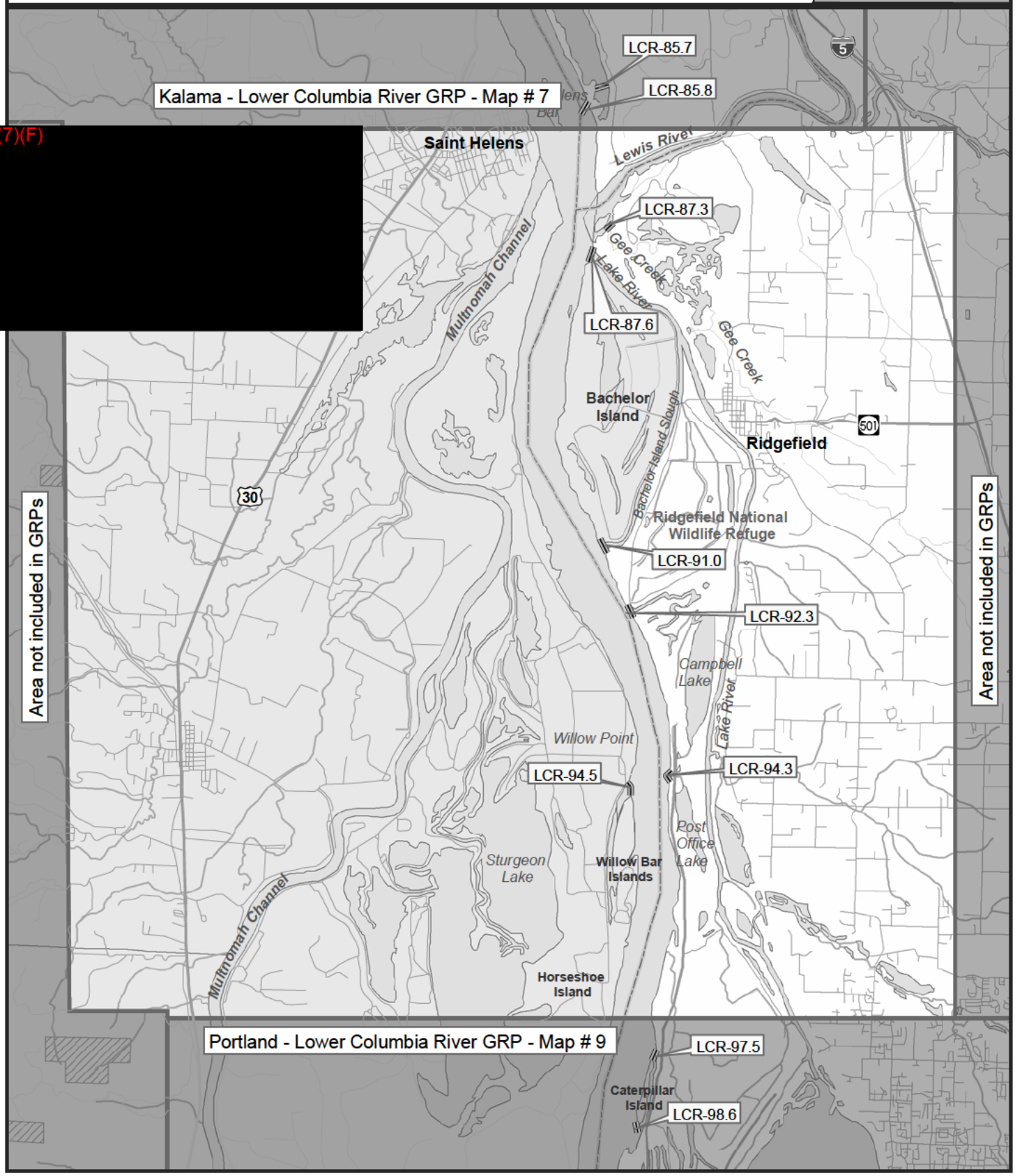
August, 2003

Lower Columbia River GRP

MAP # 8

0 0.5 1 2 Miles





Portland MAP

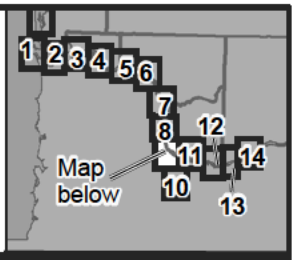
Proposed Booming Strategies

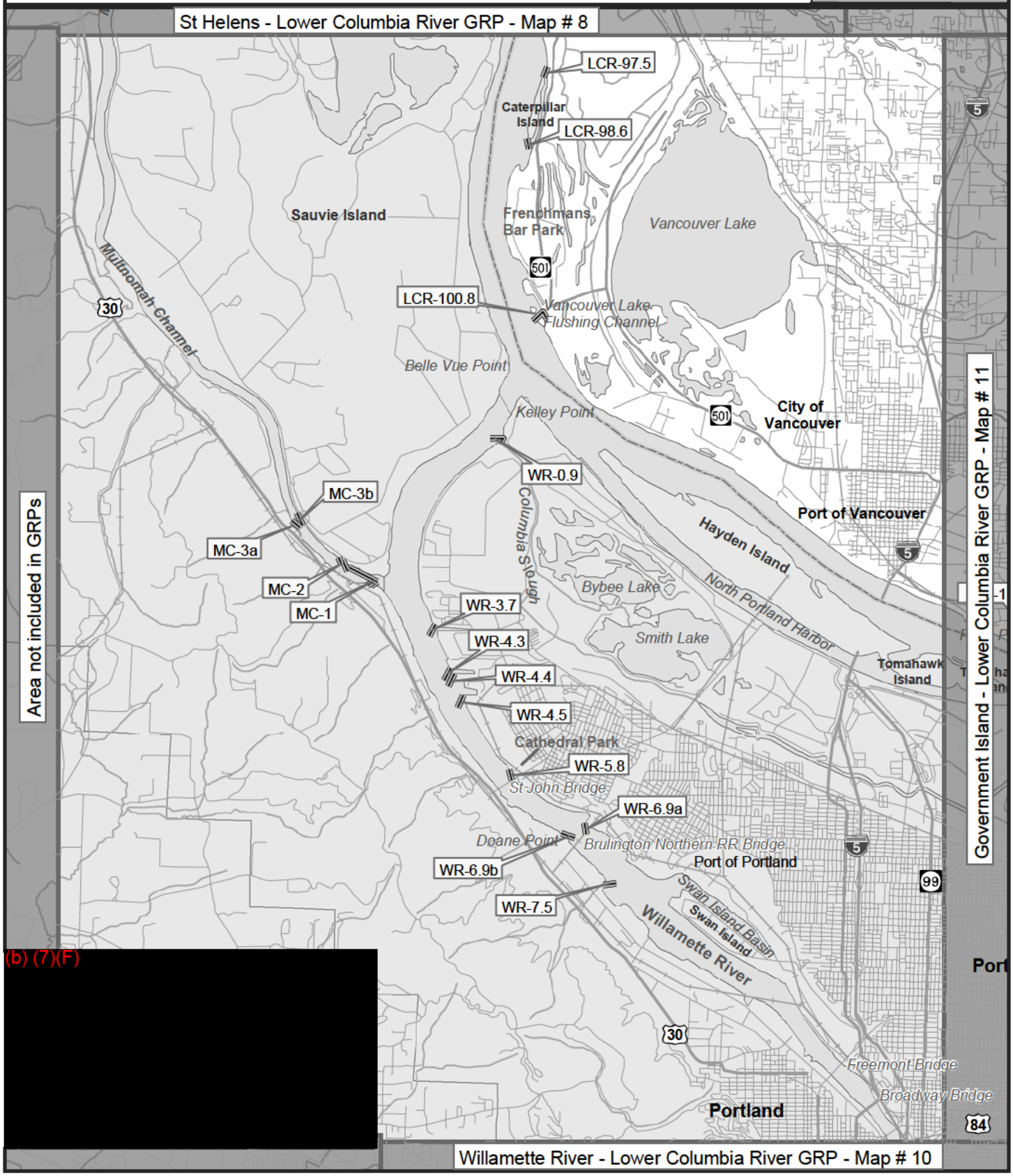
August, 2003

Lower Columbia River GRP

MAP # 9

0 0.5 1 2 Miles





Willamette River MAP

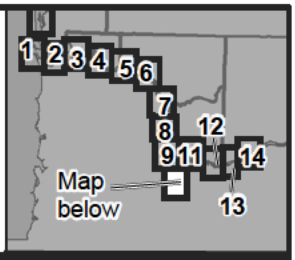
Proposed Booming Strategies

August, 2003

Lower Columbia River GRP

MAP # 10

0 0.5 1 2 Miles



Portland - Lower Columbia River GRP - Map # 9

Burnside Bridge
405
Morrison Bridge
Hawthorne Bridge
26
WR-13.4
OMSI
WR-13.5
Portland
Ross Island Bridge
WR-14.1
26
WR-14.9
Ross Island
WR-14.7
WR-15.5
Hardtack Island
10
WR-15.9
Stevens Point
The Oaks
99
Sellwood Bridge
Johnson Creek
5
Milwaukie
WR-18.4
WR-18.5
Kellogg Lake
Area not included in GRPs
WR-21.1
WR-21.2
Oswego Creek
George Waters Park
Hog Island
WR-23.1
Cedar Island
WR-23.6
WR-23.9
205
WR-23.8
99
Clackamas River
Meldrum Slough
WR-25.0
Clackamas Rapids
205
WR-25.4
Abernethy Creek
WR-26.1
Oregon City
Willamette Falls
Area not included in GRPs
Area not included in GRPs
Johnson Creek

(b) (7)(F)

Government Island MAP

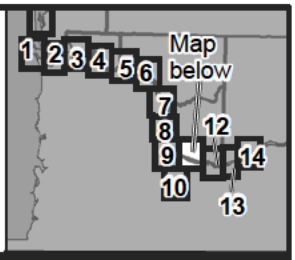
Proposed Booming Strategies

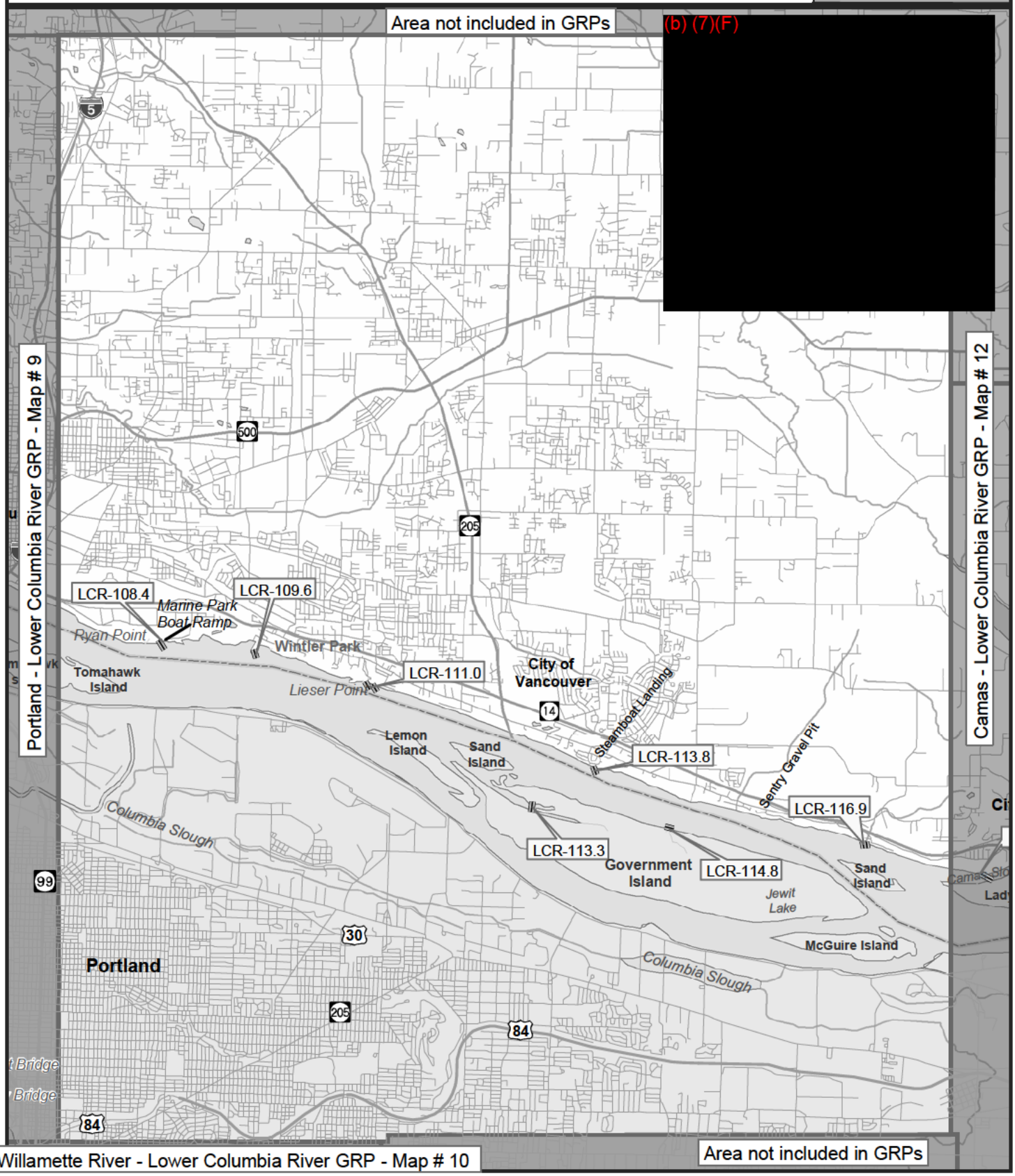
August, 2003

Lower Columbia River GRP

MAP # 11

0 0.5 1 2 Miles





Camas MAP

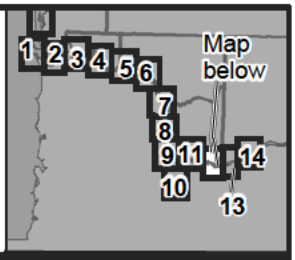
Proposed Booming Strategies

August, 2003

Lower Columbia River GRP

MAP # 12

0 0.5 1 2 Miles



Area not included in GRPs

Government Island - Lower Columbia River GRP - Map # 11

Rooster Rock State Park - Lower Columbia River GRP - Map # 13

500

City of Camas

City of Washougal

Washougal River

LCR-120.4

LCR-119.8

LCR-120.6

Port of Camas-Washougal

Lady Island

Sand Island

-116.9

LCR-119.1

Guire Island

14

Lawton Creek

Sandy River

LCR-120.7

LCR-122.6

Gary Island

Point Vancouver

Reed Island

30

84

Lewis and Clark State Park

(b) (7)(F)

Area not included in GRPs

Rooster Rock State Park MAP

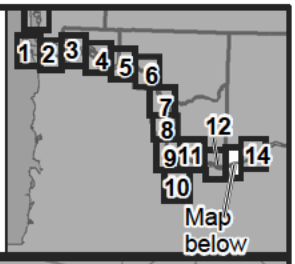
Proposed Booming Strategies

August, 2003

Lower Columbia River GRP

MAP # 13

0 0.5 1 2 Miles



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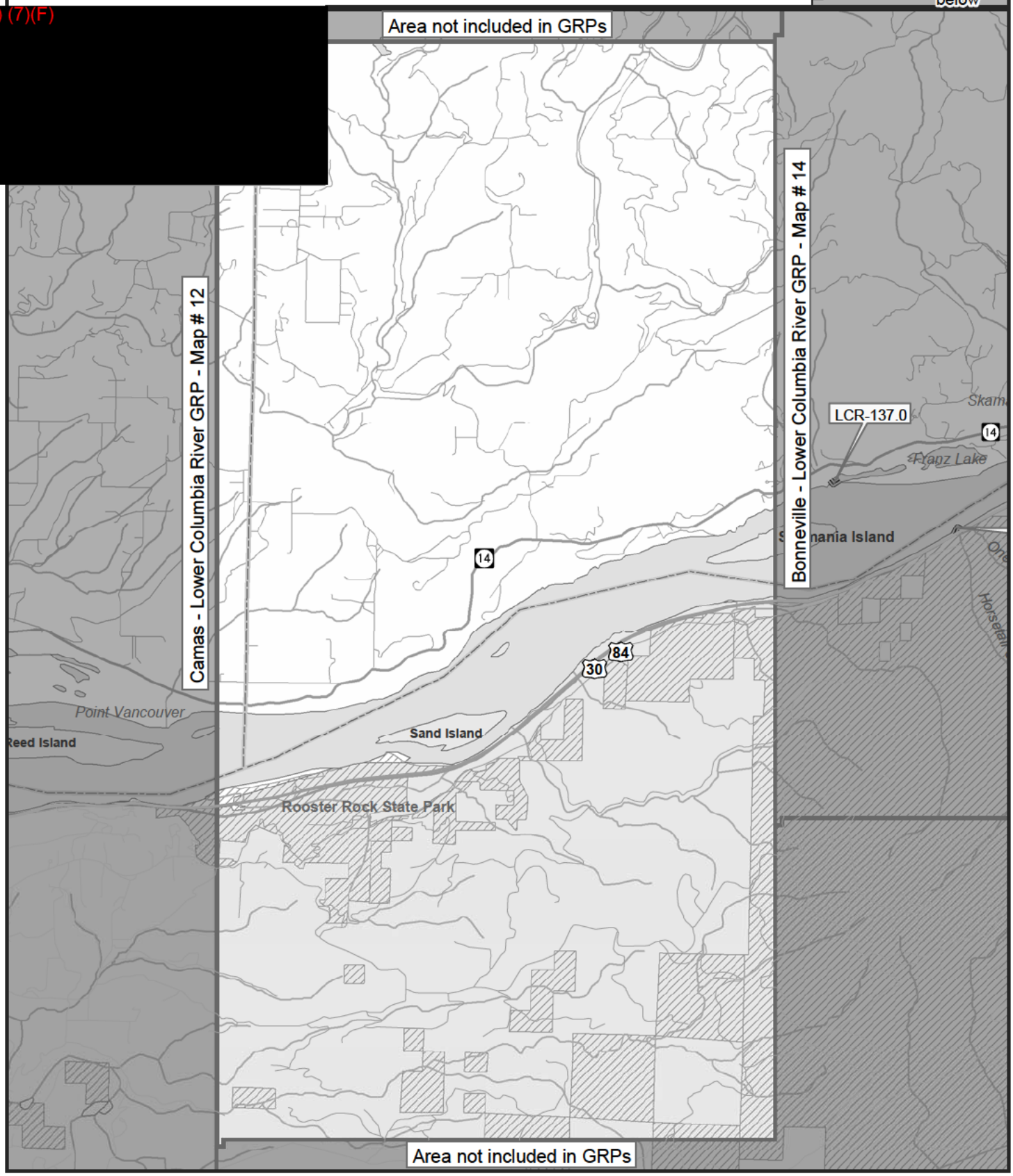


Bonneville MAP

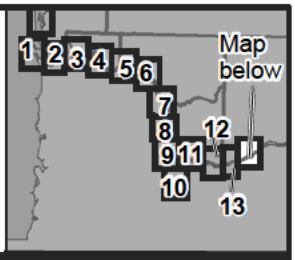
Proposed Booming Strategies

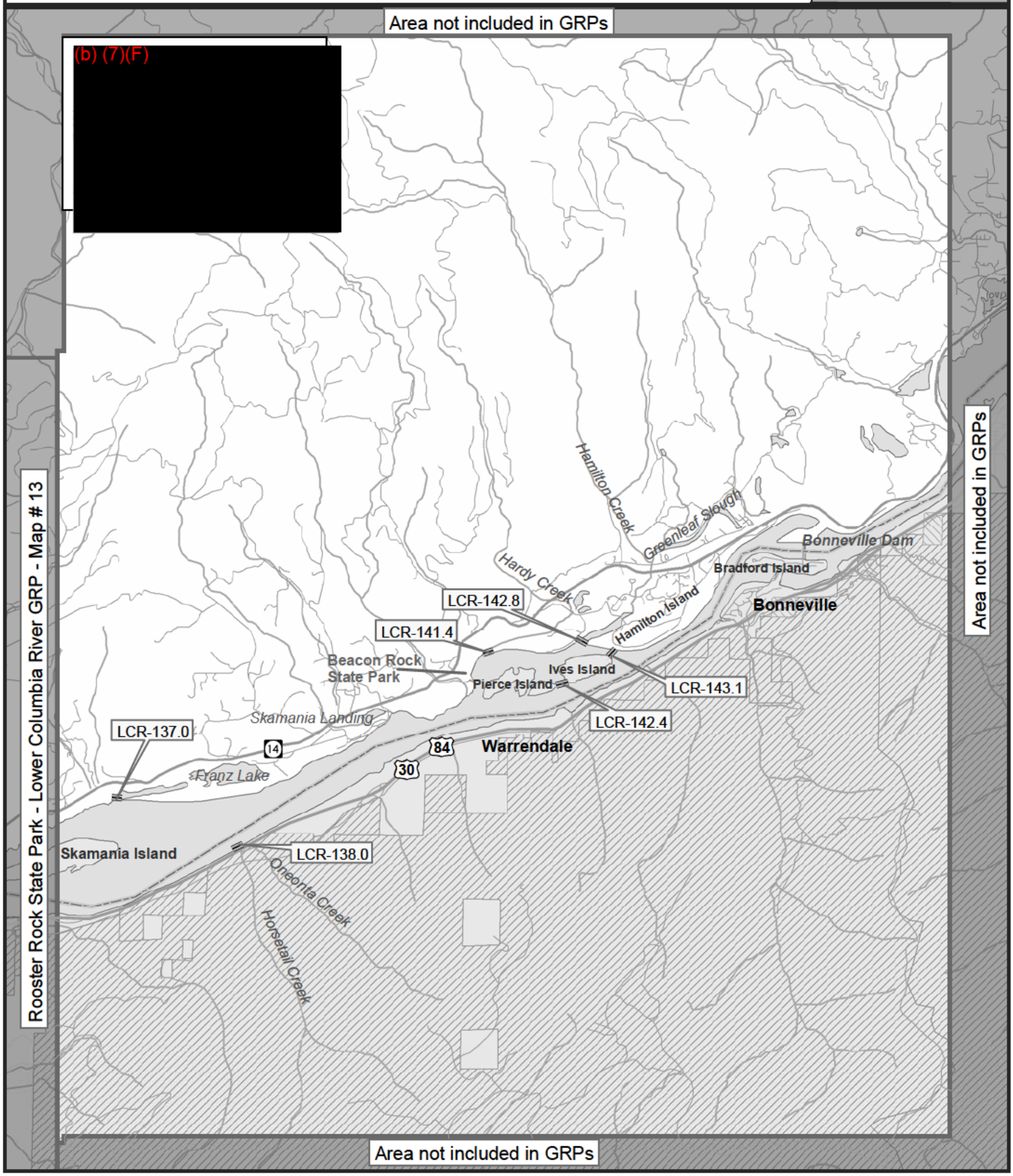
August, 2003

Lower Columbia River GRP

MAP # 14

0 0.5 1 2 Miles





The following are only example of potential strategies that could be used if an incident impacts a sensitive area. These strategies are not a guarantee of what will occur or the equipment/resource deployment that will be used. Strategic planning will be tailored to meet the need of the actual circumstance

Sec. 3.1 Historical/Archaeological Sites

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to a historical / archaeological site. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

Historical / Archaeological Sites are areas such as battlefields, homes of historically or culturally significantly individuals, and prehistoric dwellings and burial grounds designated by federal, State and local governments for preservation. Historical / Archaeological Sites may be either remote from, or close to, human habitation. Historical / Archaeological Sites are generally identified and marked as such on maps and at public access points.

1. Public Health and Safety Concerns

   Immediate evacuation of the public from the affected area, and their subsequent health and safety are a major concern. The danger zone for the public will generally be downwind of the point of discharge and the resulting plume.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. Response team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel and Company representatives and the regulatory agency's representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbon, heat stress and cold exposure, and contact with, or bites from, poisonous plants, insects, snakes, rodents and large wildlife indigenous to the Natural area.

Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area, and upwind of the exclusion zone wherever possible. The response contractor will exercise due care to avoid damage to the historical/archaeological site.

3. Property and Environmental Impact

   Property impact of a spill in a historical / archeological site will be a major concern. Major historical / archaeological sites sometimes have considerable commercial value due to tourism. A spill may have adversely affect the commercial value of adjacent public and private property, as well as the historical / archeological site itself.

   Environmental impact on a historical / archeological site will vary depending on the size of undeveloped land and water affected by the spill. Petroleum hydrocarbons may have an adverse impact on most forms of plant and animal life, and can destroy the exposed natural portion of a historical/archaeological site.

4. Potential Logistical Problems

   Logistic support at historical/archaeological sites will vary from site to site. Historical sites typically have good transportation and utility service. Archeological sites are frequently in remote areas lacking both transportation and utilities. It may be necessary to set up support areas, lay-down areas, etc., outside the site itself, in order to minimize disturbance of the site.

   Transportation of personnel, equipment and materials into and out of the area should not require specialized vehicles. Temporary utilities, including potable water, fuel and electricity may be available locally.

Initial Response Strategies

1. The Company Incident Commander will:

   - Initiate evacuation of the public from the immediate area of the spill and from the area toward which the plume is moving,
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product.
   - Order immediate deployment of the response contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal, State and Local regulatory agencies. A Local, State and Federal agency notification is listed in this FRP.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response contractor's supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone. The response contractor's supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the problem, noting any special considerations that may affect selection of resources required to complete the response action.

3. The response contractor's program manager should mobilize the Tier 1 response team while the response contractor's supervisor is en route to the site. The Tier 1 response team should be capable of removing 1,500 BBL of product per day, should be enroute within 2 hours of notification, and should arrive on-site within 12 hours of notification. This response team may consist of:

   - 8 HAZWOPER-trained personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,
   - 1 van,
   - 2 work boats, if needed
   - 2,000 ft of containment boom,
   - one foam trailer with applicator and foam to cover 90,000 square feet,
   - a seven (7)-day supply of PPE,
   - 12 sets of air bottles,
   - lights,
   - 2 skimmers,
   - 1 generator,
   - 1 air compressor,
   - PID/LEL,
   - detector tube specific for benzene (not affected by other hydrocarbons)
   - 4 radios, and
   - expendable supplies (absorbent booms & pads, PPE)

   The Tier 1 team should immediately report to the response contractor's supervisor for a briefing on the response action, a tailgate health and safety meeting, and a briefing by appropriate authorities concerning care to be taken to avoid damage to the historical/archaeological site. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response teams once the Tier 1 team is enroute to the site.

   The Tier 2 response team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and may consist of the Tier 1 response team, plus:
   - 12 HAZWOPER-trained personnel,
   - 4 work boats,
   - 4,000 feet of containment boom,
   - 2 skimmers,
   - 2 vans,

- 2 pick-up trucks,
- 2 vacuum trucks,
- 1 skid unit (1,500 gallon capacity),
- 8 radios, and
- 24 air bottles

The Tier 3 response team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response teams, plus:

- 23 men,
- 2 pick-up trucks,
- 4 vans,
- 1 supply trailer,
- 4 work boats,
- 6,000 feet of containment boom,
- 3 vacuum trucks,
- 3 skimmers,
- 12 radios, and
- 48 air bottles

5. The first task of the Tier 1 response team should be to minimize the spread of the hydrocarbon on the water and ground surface in order to protect the public, the historical / archeological site features and environmentally sensitive areas downstream of the spill. The team should place a containment boom on water or construct earthen berms of imported clay on land as close as possible to the point of origin of the spill to minimize the area of most severe contamination. The placement of the containment boom/ berm will also be based on personnel safety considerations for the personnel setting up the containment boom / berm. The team may then place one or more secondary booms / berms farther away, in the path(s) of the plumes deemed by the Company Incident Commander and the response supervisor to be the most dangerous to the public or to the environment.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the Site Safety Plan Appendix. The Site Safety Officer will complete a Site-Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

   As soon as possible after the SSO completes his initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public or wildlife.

8. Contingency Planning

   The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

   The Company Incident Commander and the response contractor's supervisor will jointly review the maps provided in this FRP, inspect the affected area(s) and assess:

   - The nature of the spilled liquid -
   - Source of the spill,
   - Direction(s) of spill migration,
   - Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
   - Overhead and buried utility lines, pipelines, etc.,
   - Nearby population, property or environmental features that might be affected by the contained spill, or by an uncontained spill.

   The Tiers 1, 2, and 3 response team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.

   If the Company Incident Commander determines that additional resources are required, the IC will request additional resources for the Tier 2 and 3 response teams from the response contractor's program manager if deemed necessary by the assessment. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials, foam and imported clay for berms.

10. Delineation of Exclusion and Support Zones

    The Site Safety Officer (SSO) will mark the limits of the exclusion zone with red plastic tape, using existing trees to support the tape where possible. The support zone will be marked with green plastic tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

    Company's Incident Commander, the response contractor's supervisor and SSO will inspect the boom / berm system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms / berms or relocation of existing booms / berms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

   The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, small and large animals affected by the spill, for transportation by the appropriate wildlife agencies to treatment facilities.

2. Recovery and Transfer of Free Product

   Construction of the free product temporary storage area as close as practical to, but outside of, the historical / archeological site will start after the containment booms / berms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials or imported clay.

   The contractor's response team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

   The contractor's response team may construct a siphon dam to contain the spilled product if contaminated surface water is flowing. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipes.

4. Debris Removal

   Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response team. Debris will be inspected by appropriate agency experts for historically or archaeologically important artifacts or other material prior to its disposal.

   Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

   Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit on-site burning of timber and vegetation under some circumstances.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section and historically or archaeologically important buildings or other structures.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - Special measures to avoid damage to historical/archaeological features, materials and artifacts,
   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing
   .

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies Historical/Archaeological Sites

1. Access on or Through Historical/Archaeological Sites

   Because of the potential for irrecoverable damage to historical/archaeological sites, vehicle and equipment access will be strictly controlled and coordinated with the appropriate government entities and/or custodians. When equipment is permitted to enter or cross a historical/archaeological site. Access routes will be clearly marked and the response crews will be thoroughly briefed on where and where not, they may place and utilize equipment. On this type of site, the probability is high that the amount of laborers will dramatically increase to compensate for equipment not being permitted on the site or equipment usage being limited.

2. Protection of Historical/Archaeological Sites

   Once human health and safety concerns have been addressed, priority will be given to protecting historical/archaeological sites from contamination or to limiting further contamination. Whenever the release is waterborne, booms will typically be deployed as the isolating/protecting mechanism. Because of potential access restrictions, boats used to deploy the boom may have to be landed at some distance from the site and floated to the scene. The first responder should identify potential boat launch sites and communicate this to the response crew prior to their arrival.

   If the release is overland, then protection and isolation of historical/archaeological sites becomes more difficult. Typically, overland releases are contained by digging berms and trenches downstream of the spill. However, in the event that the spill occurs on or near historical/archaeological areas, it is possible that digging of berms and trenches will be severely curtailed or prohibited. Therefore, berms will be constructed either from sorbent materials or from imported fill.

3. Recovery of Product from Water and Treatment of Contaminated Water

   Typically, product is recovered from surface water (i.e., rivers, lakes, and ponds) by a combination of mechanical skimming, vacuum recovery, and the use of sorbent materials. As mentioned above, access of equipment through or near historical/archaeological sites may be restricted or prohibited altogether. It may become necessary for recovery equipment to be launched some distance from the release site. This may have an impact on response time and will be factored accordingly. Temporary storage of recovered product may be accomplished by the use of small barges or other containers.

   The treatment of contaminated water will have several challenges under this scenario. It will most likely not be feasible to store contaminated water in traditional storage containers such as tanks, at least in close proximity to the site. This could be overcome by pumping across or around the site to a place where adequate storage can be staged. The Company Incident Commander or the first responder will have to assess the situation quickly and communicate with the response crew in order to ensure that sufficient quantities of the correct equipment are deployed.

   Once the contained waters have been stored, treatment options can be explored. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies.

4. Cleaning of Affected Structures

   Traditional methods of cleaning structures affected by released product include wiping, hot water, low or high-pressure wash-down, and/or the use of surfactants, emulsifiers, or other agents. Because of the potential for irrecoverable damage to historical/archaeological structures, the method of choice for cleaning structures will be wiping with sorbent pads. Alternative methods will be discussed with the appropriate authorities and used only with their concurrence.

5. Solids Handling/Removal

   Removal of product-laden soils will be conducted only with the concurrence and at the direction of the cognizant authorities.

   Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition.

   Because of the nature of historical/archaeological sites, contaminated debris will be removed only with the concurrence and at the direction of the cognizant authorities.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

   Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements.

2. Rebuild/Reconstruct Affected Structures/Areas

   Historical / archaeological site restoration activities will be site-specific and may entail major efforts by a combination of Company and multiple regulatory and preservation agencies. As early as possible, Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications and costs can be prepared.

3. Final Report

   The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

Sec. 3.2 Natural Areas

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to a natural area. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment, and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

Natural areas are areas designated by federal, State and local governments to remain in their undeveloped condition. A natural area may include any type of terrain, including sea shore, deserts, streams, lakes, swamps, forests, and mountainous areas. Natural areas are usually remote from human habitation, and are not developed for residential or commercial use. Natural areas are generally identified and marked as such on maps.

1. Public Health and Safety Concerns

   Since natural areas are by definition uninhabited and tourism is not encouraged, the immediate evacuation is not expected to require a major effort. The danger zone for the public will generally be downwind of the point of discharge and the resulting plume.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. The response team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel and Company representatives and the regulatory agencies' representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbons, heat stress and cold exposure, and contact with, or bites from, poisonous plants, insects, snakes, rodents and large wildlife indigenous to the natural area.

   Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area, and upwind of the exclusion zone wherever possible.

3. Property and Environmental Impact

   Natural areas are not developed and have little commercial value. Environmental impact on a natural area can be immediate and extensive. Petroleum hydrocarbons may have an adverse Environmental impact on a natural area can be immediate and extensive.

Petroleum hydrocarbons may have an adverse impact on most forms of plant and animal life, and can destroy the exposed portion of a natural area. Major natural areas provide habitats and food supplies for wildlife and are sources of oxygen for the atmosphere.

4. Potential Logistical Problems

   Very little logistic support can be expected in natural areas. There will be few if any roads into and through such areas, and probably no utilities in the area. Support areas, lay-down areas, etc will be established in available clearings, or land will be cleared for the purpose.

   Transportation of personnel, equipment and materials into and out of the area may require specialized vehicles such as UTVs, swamp buggies, airboats or barges. The response contractor should possess, or have ready access to, the minimum required equipment.

   Temporary utilities, including potable water, fuel and electricity will probably be absent and must be brought in by the response contractor's team.

Initial Response Strategies

1. The Company Incident Commander or designee will:

   - Initiate evacuation of the public from the affected areas and from the area toward which the plume is moving,
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product,
   - Order immediate deployment of the response contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal State, and local regulatory agencies. Local, State and Federal agency notification is listed in this FRP.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone. The response supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the problem, noting any special considerations that may affect selection of resources required to complete the response action, particularly the contaminated media; i.e., soil, water, or both.

3. The response contractor's program manager should mobilize the Tier 1 response team while the response supervisor is en route to the site. The Tier 1 response team should be capable of removing 1,500 BBL of product per day, should be enroute within 2 hours of notification, and should arrive on-site within 12 hours of notification. A response team may consist of:

   - 8 HAZWOPER-trained personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,

- 1 van,
- 2 work boats,
- 2,000 ft of containment boom,
- one foam trailer with applicator and foam to cover 90,000 square feet,
- a seven (7)-day supply of PPE,
- 12 sets of air bottles,
- lights,
- 2 skimmers,
- 1 generator,
- 1 air compressor,
- PID/LEL,
- detector tube specific for benzene (not affected by other hydrocarbons)
- 4 radios, and
- expendable supplies (absorbent booms & pads, PPE)

The Tier 1 team should immediately report to the response contractor's supervisor for a briefing on the response action and a tailgate health and safety meeting. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response teams once the Tier 1 team is enroute to the site.

   The Tier 2 response team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and should consist of the Tier 1 response team, plus:

   - 12 HAZWOPER-trained personnel,
   - 4 work boats,
   - 4,000 feet of containment boom,
   - 2 skimmers,
   - 2 vans,
   - 2 pick-up trucks,
   - 2 vacuum trucks,
   - 1 skid unit (1,500 gallon capacity),
   - 8 radios, and
   - 24 air bottles

The Tier 3 response team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response teams, plus:

- 23 HAZWOPER-trained personnel,
- 2 pick-up trucks,
- 4 vans,
- 1 supply trailer,
- 4 work boats,
- 6,000 feet of containment boom,
- 3 vacuum trucks,
- 3 skimmers,
- 12 radios, and
- 48 air bottles

5. The first task of the Tier 1 response team should minimize the spread of the product on water and ground surface in order to protect the public and environmentally sensitive areas downstream of the spill. The team should place a containment boom on water or construct earthen berms on land as close as possible to the point of origin of the spill to minimize the area of most severe contamination. The placement of the containment boom / berm will also be based on personnel safety considerations for the personnel setting up the containment boom / berm. The team may then place one or more secondary booms / berms farther away, in the path(s) of the plumes deemed by the Company Incident Commander and the response supervisor to be the most dangerous to the public or to the environment.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the Site Safety Plan Appendix. The Site Safety Officer will complete a Site Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

   As soon as possible after the SSO completes initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public or wildlife
   .

8. Contingency Planning

The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

The Company Incident Commander and the response contractor's supervisor will jointly review the maps and inspect the affected area(s) and assess:

- The nature of the spilled liquid,
- Source of the spill,
- Direction(s) of spill migration,
- Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
- Overhead and buried utility lines, pipelines, etc.,
- Nearby population, property or environmental features that might be affected by the contained spill or by an uncontained spill.

The Tiers 1, 2, and 3 response team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.

If the Company Incident Commander determines that additional resources are required, the IC will request additional resources for the Tier 2 and 3 response teams from the response contractor's program manager. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials, foam and imported clay for berms.

10. Delineation of Exclusion and Support Zones

The Site Safety Officer (SSO) should mark the limits of the exclusion zone with red tape, using existing trees to support the tape where possible. The support zone will be marked with green tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

    Company's Incident Commander, the response contractor's supervisor, and SSO will inspect the boom / berm system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms / berms or relocation of existing booms / berms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

   The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, small and large animals affected by the spill, for transportation by the appropriate wildlife agencies to treatment facilities.

2. Recovery and Transfer of Free Product

   Construction of the free product temporary storage area will start after the containment booms / berms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials or imported clay. Construction may require some cleaning of trees and shrubs.

   The response team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

   The response team may construct a siphon dam to contain the spilled product if contaminated surface water is flowing. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipes.

4. Debris Removal

   Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response team. Contaminated trees and shrubs are anticipated to make up the majority of the debris.

   Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit on-site burning of timber and vegetation under some circumstances.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing.

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies for Natural Areas

1. Access on or Through Natural Areas

   Natural areas will probably have few, if any, existing roads. Use of overland or waterborne access will require the approval of the cognizant authorities. The Company Incident Commander will request the cognizant authorities to mark the approved routes and work areas for the use of the response contractor. If overland transportation routes are practical and acceptable to the appropriate authorities, the response contractor may construct temporary roads into the spill area, and construct such staging and laydown areas. The response contractor will minimize the size and number of vehicles used in the response.

   Water-borne transportation may be a practical alternative to roads, in some instances. In such cases, the response contractor may use workboats and/or barges to mobilize the response equipment to the site. Equipment sizes may be limited by the capacity of available watercraft and possible restrictions on the use of powered boats. The response contractor may have to construct a temporary landing to tie up the watercraft and offload the equipment.

   The terrain in some natural area may be so rugged that land and water transportation is impractical. In such cases, the response contractor may have to use helicopters to lift personnel and equipment to the site. Since heavy equipment is not readily air-transportable, most of the response work may have to be done using labor and hand tools, with a limited amount of lightweight equipment. Helicopter landing zones will be located, and if necessary cleared, at the direction of Company and the appropriate government agencies.

   Roads, staging areas, watercraft landings and helicopter landing zones will be restored to their pre-spill conditions as described in SITE RESTORATION below.

2. Protection of Natural Areas

   Once human health and safety issues have been addressed, the next priority will be given to limiting the spread of spilled product and further contamination of plant and animal life. This is usually accomplished primarily with containment booms and berms. The Company Incident Commander and the first responder will identify the land areas and/or water bodies threatened by the spill, and select the boom and berm locations. The Company Incident Commander will communicate special or additional equipment and material needs to the contractor's response team.

   Where a body of water is affected or threatened by the spill, the response contractor will usually deploy containment booms as close downstream of the spill site as may be safe and practical. If the impacted area includes rough water, such as rapids and falls, the boom may have to be installed at a distance downstream, where the water is calm enough for the boom

to be effective. This may increase the volume of contaminated water to be collected and treated. If use of the nearest effective deployment site is denied by the cognizant authorities, or if lack of roads, cliffs, heavy forests etc. make its use impractical, it may be necessary to deploy the boom at another site even further downstream.

Containment of an overland spill is normally done with ditches and berms, but only with the concurrence at the direction of the cognizant authorities. The response contractor may dig ditches and build berms downslope of the spill site to stop the overland flow of the spilled product. In some cases it may be possible to use this ditch/berm system to divert the product to a collection point downslope of the spill. If the soil dug from the ditches is clay, it may be used to build the berms. Sandy or gravelly soils do not make good barrier berm material. If importing clay from offsite is impractical and no clay is available onsite, the response contractor may have to use sorbent materials, i.e., sorbent booms and pads, to construct the berm.

3. Recovery of Product from Water and Treatment of Contaminated Water.

Product is typically recovered from water bodies such as lakes, ponds and rivers by a combination of mechanical skimming, vacuum recovery, and sorbent materials. The point of recovery may be some distance downstream of the spill site, if access to a closer location is denied or is impractical. This may increase the response time, the amount of contaminated water, and the length of shoreline to be cleaned and restored. The size and capacity of skimming equipment, pumps, piping, and tankage may be limited by access restrictions, as described above.

Product spilled onto the ground is usually recovered by excavating the product-laden soils. Other methods such as by soil/vapor extraction, or pumping from recovery wells may be considered as part of the long-term plan. Porous soils, such as sands and gravels may permit the product to soak in to a depth of several feet or more, usually until it is stopped by a layer of clay, solid rock or a water table. Soils contaminated with product will be excavated only with the concurrence of and as directed by, the appropriate government agencies. Clay soils usually retain the product at or near the surface, and require less excavation than sandy/gravelly soils.

The methods of temporary storage of the contaminated water will be site-specific, and will be highly dependent on site access. Barges may be practical where contaminated waters are navigable. Tank trailers or frac tanks may be used if roads are accessible or constructible. Rubber bladder tanks may be used, but require cleared, relatively smooth laydown areas.

The decision to treat contaminated water onsite or transport it offsite for treatment may be made by Company and the cognizant authorities with consideration of factors such as availability of utilities, suitable land area, and a comparison of the difficulties of getting the treatment equipment to the site versus the difficulties of getting the contaminated water to an offsite treatment facility. The urgency of completing the response and restoration of the spill area may also affect this decision. Once the contained waters have been stored, treatment options can be explored. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies.

4. Cleaning of Affected Structures

   Man-made structures can be cleaned by traditional methods that include wiping, hot water, low or high-pressure washdown and use of surfactants, emulsifiers or other agents. The use of surfactants, emulsifiers and other agents may be prohibited in, or adjacent to, rough water due to the difficulty of recovery of the wash water.

   Affected natural structures may include large rocks and boulders, which can usually be cleaned by the same methods as man-made structures. Cleaning rocky shorelines along rapids and near waterfalls, and rocky cliffs, may require special safety precautions and special equipment such as safety lines.

   Cleaning methods and materials to be used at a spill will be discussed with the appropriate authorities and used only with their concurrence.

   Washdown water and other liquids from cleaning activities should be contained by the boom or ditch/berm system, then collected and treated with the contaminated ground and surface waters.

5. Solids Handling and Removal

   Removal of product-laden soils will be conducted only with the concurrence and at the direction of the appropriate authorities. The extent of excavation will probably be limited, since excavation will mar the natural state of the affected area.

   Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition. The response contractor will take particular care to remove all his site-generated wastes from the area, and will conduct a final walking inspection of the entire area with the Company Incident Commander to confirm that this has been done prior to departure.

   Contaminated soils and other solids will be removed from the site unless the cognizant authorities direct differently. Solids will probably be removed from the site by truck where roads are available or by barges where navigable waterways are reasonably close. In areas so remote that the only access is by aircraft, removal of solids from the site may be impractical. In this event, the Company Incident Commander and the appropriate authorities will determine if onsite containment or disposal is acceptable, and if it is, the best methods of doing so consistent with protection of the environment and the public health and safety.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

   Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements.

2. Rebuild/Reconstruct Affected Structures/Areas

   Natural area restoration activities will vary considerably from site to site and may entail major efforts by a combination of Company and multiple regulatory and other government agencies. Typical efforts may include seeding and mulching with wild grasses, and the planting of shrubs and seedling trees. New seeding and plantings will be similar to those removed during the response. Temporary access roads, shoreline landings, helicopter landing zones and staging/laydown areas will be regraded and returned to a natural state.

   As early as possible, Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications, and costs can be prepared.

3. Final Report

   The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

Sec. 3.3 National, State and Local Parks

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to a national, State or local park. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment, and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

National, State and local parks are areas designated by various government agencies for the benefit of the general public. The larger public parks may have a general office with a recreational area and/or a camping ground. Much of a major park may be relatively undeveloped. The smaller public parks could be limited to combination general buildings, rest rooms, recreation areas, playgrounds, swimming pools, camping areas, hiking paths, or undeveloped terrain. A public park maybe located in almost any type of terrain, including shorelines, forests, deserts, and mountainous areas. Parks are usually, but not always, populated by administrative personnel, campers and hikers, with a variety of mammals, reptiles, birds, fish and insects. Public parks are identified and marked as such on maps and sometimes along their boundaries.

1. Public Health and Safety Concerns

   Many National, State and local parks are close to centers of human habitation, where a spill is likely to have a major, direct effect on public safety and health. A major priority will be evacuation of the public in the affected area. The danger zone for the public will generally be downwind of the point of discharge and the resulting plume.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. The response contractor's team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response contractor's team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel and Company representatives and the regulatory agencies' representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbon, and heat stress and cold exposure. Contact with, or bites from, poisonous plants, insects, snakes, rodents and large wildlife will be a concern in some remote parks.

Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area, and upwind of the exclusion zone wherever possible.

3. Property and Environmental Impact

   Property impact of a spill on a public park will depend on the extent to which it has been improved or developed. Public parks are frequently well developed and have considerable commercial value; a spill may have a serious impact on the commercial value of public property.

   Environmental impact on a public park will vary depending on the size of undeveloped land and water affected by the spill. Petroleum hydrocarbons may have an adverse impact on most forms of plant and animal life, and can destroy the exposed natural portion of a public park.

4. Potential Logistical Problems

   Availability of roads and utilities are site-specific and may vary from place to place within a single large park. It may be necessary to close existing public and private roads for the duration of the response activities. There may be insufficient solid level ground or a wide enough clearing in which to set up support areas, lay-down areas, etc.

   Transportation of personnel, equipment and materials into and out of some parks may require specialized vehicles such as UTVs, swamp buggies, airboats or helicopters. The response contractor should possess, or have ready access to, the minimum required equipment.

   Temporary utilities, including potable water, fuel and electricity may be available at some parks and absent at others. If not available, they must be brought in by the contractor's response team.

Initial Response Strategies

1. The Company Incident Commander will:

   - Initiate evacuation of the public from the affected areas and from the area toward which the plume is moving,
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product,
   - Order immediate deployment of the contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal, State, and local regulatory agencies. Local, State and Federal agency notification is listed in this FRP.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone..

The response supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the problem, noting any special considerations that may affect selection of resources required to complete the response action.

3. The response contractor's program manager should mobilize the Tier 1 response contractor's team while the response supervisor is en route to the site. The Tier 1 response contractor's team should be capable of removing 1,500 BBL of product per day, should be en route within 2 hours of notification, and should arrive on-site within 12 hours of notification. This response team may consist of:

   - 8 HAZWOPER-trained personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,
   - 1 van,
   - 2 work boats,
   - 2,000 ft of containment boom,
   - one foam trailer with applicator and foam to cover 90,000 square feet,
   - a seven (7)-day supply of PPE,
   - 12 sets of air bottles,
   - lights,
   - 2 skimmers,
   - 1 generator,
   - 1 air compressor,
   - PID/LEL,
   - detector tube specific for benzene (not affected by other hydrocarbons)
   - 4 radios, and
   - expendable supplies (absorbent booms & pads, PPE)

   The Tier 1 team should immediately report to the response contractor's supervisor for a briefing on the response action and a tailgate health and safety meeting. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response contractor's teams once the Tier 1 team is enroute to the site.

   The Tier 2 response contractor's team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and may consist of the Tier 1 response contractor's team, plus:

   - 12 HAZWOPER-trained personnel,
   - 4 work boats,
   - 4,000 feet of containment boom,
   - 2 skimmers,
   - 2 vans,
   - 2 pick-up trucks,
   - 2 vacuum trucks,

- 1 skid unit (1,500 gallon capacity),
- 8 radios, and
- 24 air bottles

The Tier 3 response contractor's team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response contractor's teams, plus:

- 23 HAZWOPER-trained personnel,
- 2 pick-up trucks,
- 4 vans,
- 1 supply trailer,
- 4 work boats,
- 6,000 feet of containment boom,
- 3 vacuum trucks,
- 3 skimmers,
- 12 radios, and
- 48 air bottles

5. The first task of the Tier 1 response contractor's team should be to minimize the spread of the product on the water and ground surface in order to protect the public and the vegetation and wildlife in the refuge. The team should place a containment boom / berm as close as possible to the point of origin of the spill to minimize the area of most severe contamination. The placement of the containment boom / berm will also be based on personnel safety considerations for the personnel setting up the containment boom / berm. The team may then place one or more secondary booms / berms farther away, in the path(s) of the plumes deemed by the Company Incident Commander and the response supervisor to be the most dangerous to the public or to the environment.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the standard operating procedure. The response contractor's Site Safety Officer will complete a Site-Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

As soon as possible after the SSO completes his initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public or wildlife.

8. Contingency Planning

The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

The Company Incident Commander and the response contractor's supervisor will jointly review the maps provided and inspect the affected area(s) and assess:

- The nature of the spilled liquid,
- Source of the spill,
- Direction(s) of spill migration,
- Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
- Overhead and buried utility lines, pipelines, etc.,
- Nearby population, property or environmental features that might be affected by the contained spill, or by an uncontained spill.

The Tiers 1, 2, and 3 response contractor's team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.

If the Company Incident Commander determines that additional resources are required, the response contractor's supervisor will request additional resources for the Tier 2 and 3 response contractor's teams from the response contractor's program manager. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials, foam and imported clay for berms.

10. Delineation of Exclusion and Support Zones

The Site Safety Officer (SSO) will mark the limits of the exclusion zone with red plastic tape, using existing trees to support the tape where possible. The support zone will be marked with green plastic tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

Company's Incident Commander, the response contractor's supervisor and SSO will inspect the boom / berm system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms / berms or relocation of existing booms / berms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, small and large animals affected by the spill, for transportation by the appropriate wildlife agencies to treatment facilities.

2. Recovery and Transfer of Free Product

Construction of the free product temporary storage area will start after the containment booms / berms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials, or imported clay.

The response contractor's team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

The response contractor's team may construct a siphon dam to contain the spilled product if contaminated surface water is flowing. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipes.

4. Debris Removal

Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response contractor's team.

Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit burning of timber and vegetation under some circumstances, but this is unlikely within the boundaries of the public park itself.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing.

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies for National, State and Local Parks

1. Access on or Through National, State and Local Parks

   Response activities, particularly movement of vehicles and equipment into and out of the area may temporarily inconvenience or disrupt the public's use of the park facilities. The Company Incident Commander and the response contractor will coordinate response activity traffic control with the authorities responsible for the park.

   The response contractor will use existing roads into the spill area wherever possible and where permitted by the cognizant authorities. The response contractor will construct staging and laydown areas, in locations approved by the appropriate authorities responsible for the park, taking into consideration any ongoing use of the park, and nearby habitations if any are present. Where roads do not exist but a practical and approved route is available, the response contractor may construct temporary roads to the spill site, and staging/laydown areas. The response contractor will utilize the minimum size and number of vehicles in the response activities.

   Where the cognizant authorities approve and navigable waterways are convenient to the site, the response contractor may use workboats and/or barges to mobilize the response equipment to the site. Equipment sizes may be limited by the capacity of available boats and barges. It may be necessary to construct a temporary landing to tie up the watercraft and offload the equipment.

   If the spill occurs in a park area so rugged that land and water transportation is impractical, the response contractor may have to use helicopters to lift personnel and equipment to the site. Since heavy equipment is not readily air-transportable, most of the response work in such areas may have to be done using labor and hand tools, with a limited amount of lightweight powered equipment. Helicopter landing zones may be located, and if necessary cleared, at the direction of Company and the appropriate government agencies.

   Roads, staging areas, watercraft landings and helicopter landing zones will be restored to their pre-spill conditions as described in SITE RESTORATION below.

2. Protection of National, State and Local Parks

   Once human health and safety have been addressed, priority will be given to protecting the park features from contamination, and limiting further spread of the spilled product. Natural areas, playground equipment, swimming pools, and pavilions used for public gatherings will be given special attention. Containment booms and) berms are usually used to contain and direct the spilled product. The cognizant authority, Company Incident Commander and the first responder will identify the park features, land areas and water bodies threatened by the spill, prioritize the features to be protected, and select the boom and berm locations. The Company Incident Commander will communicate special or additional equipment and material needs to the contractor's response team.

   Where a body of water is affected or threatened by the spill, the response contractor will normally deploy containment booms as close downstream of the spill site as may be safe and practical. If the impacted area includes rough water, such as rapids and waterfalls,

the boom may have to be installed at a distance downstream, where the water is calm enough for the boom to be effective. This may increase the volume of contaminated water to be collected and treated. If use of the nearest effective deployment site is denied by the cognizant authorities, or if lack of roads, cliffs, heavy forests etc. make its use impractical, it may be necessary to deploy the boom at another site even further downstream.

Containment of an overland spill is usually done with ditches and berms. With the approval at the direction of the cognizant authorities, the response contractor will dig ditches and build berms downslope of the spill site to stop the overland flow of the spilled product. In some cases it may be possible to use this ditch/berm system to divert the product to a collection point downslope of the spill. If the soil dug from the ditches is clay, it may be used to build the berms. Sandy or gravelly soil does not make good barrier berm material. If importing clay from offsite is impractical and no clay is available onsite, the response contractor may have to use sorbent materials, i.e., sorbent booms and pads, to construct the berm.

3. Recovery of Product from Water and Treatment of Contaminated Water

Product is typically recovered from water bodies such as lakes, ponds and rivers by a combination of mechanical skimming, vacuum recovery, and sorbent materials. The preferred point of recovery is normally be as close as practical downstream of the spill site. Access for personnel and equipment will be a major factor in selecting the equipment and where it will be used.

Product spilled onto the ground is usually recovered by excavating the product-laden soils. Other methods such as by soil/vapor extraction, or pumping from recovery wells may be considered as part of the long-term plan. Porous soils, such as sands and gravels may permit the product to soak in to a depth of several feet or more, usually until it is stopped by a layer of clay, solid rock or a water table. It is expected that product-contaminated soils in playgrounds and other areas of frequent and intense human use may be excavated more completely than at spill sites in less-used areas of parks. Clay soils usually retain the product at or near the surface, and require less excavation than sandy/gravelly soils.

If space is available and if the cognizant agency permits, the response contractor may construct the water storage and treatment system in the park, near the site of the spill, at a safe distance from any feature subject to human occupation or usage. If space is not available for practical reasons, or if onsite treatment would be a continuing hazard to the public safety and health, the contained water may have to be transported offsite for treatment or disposal.

Once the contained waters have been stored, treatment options can be explored. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies.

4. Cleaning of Affected Structures

   Man-made structures can be cleaned by traditional methods that include wiping, hot water, low or high-pressure wash down, and use of surfactants, emulsifiers or other agents. Swimming pools and playground equipment will receive special attention during cleaning. Some wooden structures that cannot be adequately cleaned may have to be removed and/or replaced.

   Affected natural structures may include large rocks and boulders, which can usually be cleaned by the same methods as man-made structures. Cleaning rocky shorelines along rapids and near waterfalls, and rocky cliffs, may require special safety precautions and special equipment such as safety lines.

   Cleaning methods and materials to be used at a spill will be discussed with the appropriate authorities and used only with their concurrence.

   Washdown water and other liquids from cleaning activities should be contained by the boom or ditch/berm system, then collected and treated with the contaminated ground and surface waters.

5. Solids Handling and Removal

   Product-laden soils will be removed to the satisfaction of, and at the direction of, the appropriate authorities. The extent of excavation may be limited in some park areas, since excavation will mar their natural state. Heavy equipment, such as tracked excavators and dump trucks, will probably be used wherever their use is not prohibited by the cognizant authorities or impractical due to access restrictions.

   Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition. The response contractor will take particular care to remove all his site-generated wastes from the area, and will conduct a final walking inspection of the entire area with the Company Incident Commander to confirm that this has been done prior to departure.

   Contaminated soils and other solids will be removed from the site unless the cognizant authorities concur with or direct other disposition. Solids may be removed by s trucks where roads are available, or by barges where navigable waterways are reasonably close. In areas so remote that the only access is by aircraft, removal of solids from the site may be impractical. In this event, the Company Incident Commander and the appropriate authorities will determine if onsite containment or disposal is acceptable, and if it is, the best methods of doing so consistent with protection of the environment and the public health and safety.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

   Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements.

2. Rebuild/Reconstruct Affected Structures/Areas

   Public Park restoration activities will vary considerably from site to site and may involve park officials. As early as possible, the Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications, and costs can be prepared.

3. Final Report

   The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

Sec. 3.4 Protected Waterways

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to a protected waterway. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment, and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

Protected waterways are those designated by the U.S. Department of the Interior as part of the Wild and Scenic Rivers System. By their nature, they are in remote areas and/or areas of rugged terrain.

1. Public Health and Safety Concerns

   Most major protected waterways are remote from human habitation, where a spill is unlikely to have a direct effect on the public safety and health except for small numbers of tourists and hikers, white-water rafters and other sportsmen.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. The response contractor's team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response contractor's team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel, Company representatives and the regulatory agencies' representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbons, heat stress and cold exposure, falling rocks, drowning, and contact with or bites from, poisonous plants, insects, snakes, rodents and large wildlife indigenous to the protected waterways.

   Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area and upwind of the exclusion zone wherever possible.

3. Property and Environmental Impact

   Property impact of a spill in a protected waterway will depend on its proximity to inhabited or improved property. Major protected waterways are generally undeveloped; the primary commercial value derives from tourism. A spill is expected to have minimal impact on the commercial value of public or private property.

Environmental impact on a protected waterway can be severe. Petroleum hydrocarbons may have an adverse impact on most forms of plant and animal life, and can destroy vegetation along the banks of the protected waterway.

4. Potential Logistical Problems

   Protected waterways are frequently remote from major transportation networks and utility services. Roads into such areas may be seasonal and intermittent, and should be considered generally unreliable. There may be insufficient cleared space on which to set up support areas and lay-down areas adjacent to the protected waterway, since they are frequently in canyons and gorges or similar rough terrain, or have heavily wooded shorelines. Temporary berms or dams cannot interrupt the flow of the waterway.

   Transportation of personnel, equipment and materials into and out of the area may require specialized vehicles such as UTVs, cranes, hoists and repelling gear. The response contractor should possess, or have ready access to, the minimum required equipment.

   Temporary utilities, including potable water, fuel and electricity will probably be absent and must be brought in by the response contractor's team.

Initial Response Strategies

The deployment of containment booms may be impractical in reaches of the waterway in which the water flow is fast and turbulent. It may be necessary to deploy the booms and recover the spilled liquids some distance downstream of the spill, where water conditions are favorable. The recovery point may be downstream of the protected waterway itself.

1. The Company Incident Commander will;

   - Initiate evacuation of the public from the affected areas and from the area toward which the plume is moving,
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product.
   - Order immediate deployment of the response contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal, State, and local regulatory agencies. Local, State and Federal agency notification is listed in this FRP.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response contractor's supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone. The response contractor's supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the problem, noting any special considerations that may affect selection of resources required to complete the response action.

3. The response contractor's program manager should mobilize the Tier 1 response contractor's team while the response contractor's supervisor is en route to the site. The Tier 1 response contractor's team should be capable of removing 1,500 BBL of product per day, should be en route within 2 hours of notification, and should arrive on-site within 12 hours of notification. This team may consist of:

   - 8 HAZWOPER-trained personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,
   - 1 van,
   - 2 work boats,
   - 2,000 ft of containment boom,
   - one foam trailer with applicator and foam to cover 90,000 square feet,
   - a seven (7)-day supply of PPE,
   - 12 sets of air bottles,
   - lights,
   - 2 skimmers,
   - 1 generator,
   - 1 air compressor,
   - PID/LEL,
   - detector tube specific for benzene (not affected by other hydrocarbons)
   - 4 radios, and
   - expendable supplies (absorbent booms & pads, PPE)

   The Tier 1 team should immediately report to the response contractor's supervisor for a briefing on the response action and a tailgate health and safety meeting. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response contractor's teams once the Tier 1 team is enroute to the site.

   The Tier 2 response contractor's team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and may consist of the Tier 1 response contractor's team, plus:

   - 12 HAZWOPER-trained personnel,
   - 4 work boats,
   - 4,000 feet of containment boom,
   - 2 skimmers,
   - 2 vans,
   - 2 pick-up trucks,
   - 2 vacuum trucks,
   - 1 skid unit (1,500 gallon capacity),
   - 8 radios, and
   - 24 air bottles

The Tier 3 response contractor's team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response contractor's teams, plus:

- 23 HAZWOPER-trained personnel,
- 2 pick-up trucks,
- 4 vans,
- 1 supply trailer,
- 4 work boats,
- 6,000 feet of containment boom,
- 3 vacuum trucks,
- 3 skimmers,
- 12 radios, and
- 48 air bottles

5. The first task of the Tier 1 response contractor's team should be to minimize the spread of the product into the protected waterway. The team should place sorbent pads as close as possible to the point of origin of the spill. The team may then place one or more containment booms downstream of the spill source, if residual liquids continue to spill from the source.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the standard operating procedure. The response contractor's Site Safety Officer will complete a Site-Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

   As soon as possible after the SSO completes his initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public.

8. Contingency Planning

The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

The Company Incident Commander and the response contractor's supervisor will jointly review the maps provided and inspect the affected area(s) and assess:

- The nature of the spilled liquid,
- Source of the spill,
- Direction(s) of spill migration,
- Dams, rapids or other river features downstream.
- Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
- Overhead and buried utility lines, pipelines, etc.,
- Nearby population, property or environmental features that might be affected by the contained spill, or by an uncontained spill.

The Tiers 1, 2, and 3 response contractor's team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.

If the Company Incident Commander determines that additional resources are required, the response contractor's supervisor will request additional resources for the Tier 2 and 3 response contractor's teams from the response contractor's program manager. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials and foam.

10. Delineation of Exclusion and Support Zones

The Site Safety Officer (SSO) will mark the limits of the exclusion zone with red plastic tape, using existing trees or rocks to support the tape where possible. The support zone will be marked with green plastic tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

Company's Incident Commander, the response contractor's supervisor and SSO will inspect the boom system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms or relocation of existing booms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, reptiles and mammals affected by the spill, for transportation by the wildlife agencies to treatment facilities.

2. Recovery and Transfer of Free Product

Construction of the free product temporary storage area will start after the containment booms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials or imported clay.

The response contractor's team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

The response contractor's team may construct a siphon dam to contain the spilled product if the contaminated water is shallow (10 feet or less) and flowing gently. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipe. A siphon dam will not be practiced or effective in confined waterways with rapidly moving, turbulent water.

4. Debris Removal

Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response contractor's team.

Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit on-site burning of timber and vegetation under some circumstances.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing.

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies for Protected Waterways

1. Access to and on a Protected Waterway

   Getting personnel, equipment and materials to the response site will be a major problem in this scenario. Nature, as well as the cognizant authorities, may limit the sizes and weights to what can be carried by hand.

   Protected waterways are typically not navigable by any watercraft large enough to transport heavy equipment, and the cognizant authorities may restrict or prohibit the use of powered boats in the protected waterway itself. Rapids and waterfalls in some protected waterways may make water-borne transportation both difficult and dangerous. Shoreline access may be restricted in some protected waterways by high cliffs, and may in some cases be heavily wooded with no nearby roads. These conditions would severely limit the use of heavy equipment in the response.

   Where roads or railroad lines are available in the vicinity, and the heavy equipment can approach the shoreline, it may be mobilized and used. Routes and work areas will be subject to approval and onsite directions of the cognizant authorities. Construction of temporary road extensions or access road spurs may be necessary. When mobilization or use of heavy equipment is impractical, the response contractor may have to mobilize additional labor and perform the work using hand tools with a limited amount of lightweight powered equipment. In very remote areas it may be necessary for the response crew to approach the spill site on foot. It may be practical to use helicopters to deliver personnel and light equipment and materials to a remote site in rugged terrain.

   In some cases, the spill containment may actually be deployed downstream of the protected waterway, due to the impracticality of getting sufficient equipment and personnel into the immediate area of the spill. The Company Incident Commander will coordinate with the owners of the affected property downstream of the protected waterway if this becomes necessary.

2. Protection of Protected Waterways

   Once human health and safety concerns have been addressed, priority will be given to preventing contamination of the protected waterway, or to limiting further contamination if it has already occurred. This is usually accomplished primarily with containment booms and berms. The Company Incident Commander and the first responder will select the boom and berm locations. The Company Incident Commander will communicate special or additional equipment and material needs to the contractor's response team.

   The Company Incident Commander and the response contractor will attempt to contain the spilled product on land before it reaches the waterway, if it has not already done so. Time will be critical. With the approval of and at the direction of the cognizant authorities, the response contractor may dig ditches and build berms downslope of the spill site to stop the overland flow of the spilled product and prevent it from entering the protected waterway. In some cases it may be possible to use this ditch/berm system to divert the product to a collection point. If the soil dug from the ditches is clay, it may be used to build the berms. Sandy or gravelly soil does not make good barrier berm material. If importing clay from

offsite is impractical and no clay is available onsite, the response contractor may have to use sorbent materials, i.e., sorbent booms and pads, to construct the berm.

To contain the spilled product once it has contaminated the protected waterway, the response contractor will probably deploy containment booms as close downstream of the spill site as may be safe and practical. The impacted area may include rough water, such as rapids and falls, in which case the boom may have to be installed at a distance downstream, where the water is calm enough for the boom to be effective. This may increase the volume of contaminated water to be collected and treated. If use of the nearest effective deployment site is denied by the cognizant authorities, or if lack of roads, cliffs, heavy forests etc. make its use impractical, it may be necessary to deploy the boom at another site even further downstream. The location of the containment boom is critical and will require the approval of the cognizant authorities.

3. Recovery of Product from Water and Treatment of Contaminated Water.

   Product is typically recovered from the surface water by a combination of mechanical skimming, vacuum recovery, and sorbent materials. The point of recovery may be some distance downstream of the spill site, if access to closer sites is denied or is impractical. This may increase the response time, the amount of contaminated water, and the length of shoreline to be cleaned and restored. The size and capacity of skimming equipment, pumps, piping, and tankage may be limited by access restrictions, as described above.

   The methods of temporary storage of the contaminated water will be site-specific, and will be highly dependent on site access and approval by the cognizant authorities. Railroad tank cars, tank trailers or frac tanks may be used if roads/railroads are accessible or constructible. Rubber bladder tanks may be used, but require cleared, relatively smooth laydown areas.

   The decision to treat contaminated water onsite or to transport it offsite for treatment will be made by Company and the cognizant authorities with consideration of factors such as availability of utilities, suitable land area, and a comparison of the difficulties of getting the treatment equipment to the site versus the difficulties of getting the contaminated water to an offsite treatment facility. Once the contaminated waters have been stored, treatment options can be explored. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies.

4. Cleaning of Affected Structures

   Manmade structures can be cleaned by traditional methods that include wiping, hot water, low or high-pressure wash down and use of surfactants, emulsifiers or other agents.

   Affected natural structures may include large rocks and boulders, which can usually be cleaned by the same methods as man-made structures. Cleaning rocky shorelines along rapids and near waterfalls will probably be done with sorbent pads since recovery of wash-down water surfactants emulsifiers and other agents may be impractical near rough water. Cleaning activities near rough water may also require special safety precautions and equipment such as safety lines.

Cleaning methods and materials to be used at a spill will be discussed with the appropriate authorities and used only with their concurrence and at their direction.

Wash down water and other liquids from cleaning activities onshore should be contained by the ditch/berm system, then collected and treated with the contaminated ground and surface waters.

5. Solids Handling and Removal

Removal of product-laden soils will be conducted only with the concurrence and at the direction of the appropriate authorities. Excavation may be limited to manual labor activities by the exclusion of heavy equipment due to restricted access.

Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition. The response contractor will take particular care to remove all his site-generated wastes from the area, and will conduct a final walking inspection of the entire area with the Company Incident Commander to confirm that this has been done prior to departure.

Contaminated soils and other solids will be removed from the site unless the cognizant authorities direct otherwise. Solids may be removed from the site by truck where roads are available or by barges where navigable waterways are reasonably close. In areas so remote that the only access is by aircraft, removal of solids from the site may be impractical. In this event, the Company Incident Commander and the appropriate authorities will determine if onsite containment or disposal is acceptable, and if it is, the best methods of doing so consistent with protection of the environment and the public health and safety.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements.

2. Rebuild/Reconstruct Affected Structures/Areas

Restoration activities will vary considerably from site to site. As early as possible, the Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications, and costs can be prepared.

3. Final Report

The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

Sec. 3.5 Recreational Sites

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to a recreational site. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment, and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

Recreational sites are areas designated by federal, State and local governments for public use. A recreational site may include any type of terrain, including beaches, streams, lakes, forests, and mountainous areas. Recreational sites may be either remote from, or close to, human habitation, and are frequently developed for residential use and commercial enterprises related to recreation activities.

Recreational sites are generally identified and marked as such on maps.

1. Public Health and Safety Concerns

   Immediate evacuation of the public, and their subsequent health and safety, are a major concern. The danger zone for the public will generally be downwind of the point of discharge and the resulting plume.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. The response contractor's team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response contractor's team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel, Company representatives and the regulatory agencies' representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbons, heat stress and cold exposure, and contact with, or bites from, poisonous plants, insects, snakes, rodents and large wildlife indigenous to the recreational site.

   Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area and upwind of the exclusion zone wherever possible.

3. Property and Environmental Impact

   Property impact of a spill on a recreational site will depend on the degree of private, commercial and public development in the affected area. Major recreational sites are generally well developed and have considerable commercial value; a spill may be expected to have a major impact on the commercial value of public and private property.

   Environmental impact on a recreational site can be immediate and extensive. Petroleum hydrocarbons may have an adverse impact on most forms of plant and animal life, and can destroy the exposed portion of a recreational site. Major recreational sites provide habitats and food supplies for wildlife and are sources of oxygen for the atmosphere.

4. Potential Logistical Problems

   Logistic support at recreational sites will vary from site to site, but typically includes access to major transportation networks and utility services. Roads into and through such areas may be considered generally reliable. Sufficient solid level ground or a wide enough clearing in which to set up support areas, lay-down areas, etc should be available.

   Transportation of personnel, equipment and materials into and out of some recreation sites may require specialized vehicles such as UTVs, swamp buggies, airboats or helicopters. The response contractor should possess, or have ready access to, the minimum required equipment.

   Temporary utilities, including potable water, fuel and electricity may be available at some recreation areas and absent at others. If not available, they must be brought in by the contractor's response team.

Initial Response Strategies

1. The Company Incident Commander will:

   - Initiate evacuation of the public from the immediate area of the spill and from the area toward which the plume is moving,
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product.
   - Order immediate deployment of the response contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal, State, and local regulatory agencies. Local, State and Federal agency notification is listed in this FRP.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response contractor's supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone. The response contractor's supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the

problem, noting any special considerations that may affect selection of resources required to complete the response action.

3. The response contractor's program manager should mobilize the Tier 1 response contractor's team while the response contractor's supervisor is en route to the site. The Tier 1 response contractor's team should be capable of removing 1,500 BBL of product per day, should be en route within 2 hours of notification, and should arrive on-site within 12 hours of notification. This response team may consist of:

   - 8 HAZWOPER-trained personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,
   - 1 van,
   - 2 work boats,
   - 2,000 ft of containment boom,
   - one foam trailer with applicator and foam to cover 90,000 square feet,
   - a seven (7)-day supply of PPE,
   - 12 sets of air bottles,
   - lights,
   - 2 skimmers,
   - 1 generator,
   - 1 air compressor,
   - PID/LEL,
   - detector tube specific for benzene (not affected by other hydrocarbons)
   - 4 radios, and
   - expendable supplies (absorbent booms & pads, PPE)

   The Tier 1 team should immediately report to the response contractor's supervisor for a briefing on the response action and a tailgate health and safety meeting. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response contractor's teams once the Tier 1 team is enroute to the site.

   The Tier 2 response contractor's team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and may consist of the Tier 1 response contractor's team, plus:

   - 12 HAZWOPER-trained personnel,
   - 4 work boats,
   - 4,000 feet of containment boom,
   - 2 skimmers,
   - 2 vans,

- 2 pick-up trucks,
- 2 vacuum trucks,
- 1 skid unit (1,500 gallon capacity),
- 8 radios, and
- 24 air bottles

The Tier 3 response contractor's team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response contractor's teams, plus:

- 23 HAZWOPER-trained personnel,
- 2 pick-up trucks,
- 4 vans,
- 1 supply trailer,
- 4 work boats,
- 6,000 feet of containment boom,
- 3 vacuum trucks,
- 3 skimmers,
- 12 radios, and
- 48 air bottles

5. The first task of the Tier 1 response contractor's team should be to minimize the spread of the product on the water and ground surface in order to protect the public and environmentally sensitive areas downstream of the spill. The team should place a containment boom on water or construct earthen berms on land as close as possible to the point of origin of the spill to minimize the area of most severe contamination. The placement of the containment boom / berm will also be based on personnel safety considerations for the personnel setting up the containment boom / berm. The team may then place one or more secondary booms / berms farther away, in the path(s) of the plumes deemed by the Company Incident Commander and the response contractor's supervisor to be the most dangerous to the public or to the environment.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the standard operating procedure. The response contractor's Site Safety Officer will complete a Site-Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

As soon as possible after the SSO completes his initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public or wildlife.

8. Contingency Planning

The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

The Company Incident Commander and the response contractor's supervisor will jointly review the maps provided and inspect the affected area(s) and assess:

- The nature of the spilled liquid,
- Source of the spill,
- Direction(s) of spill migration,
- Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
- Overhead and buried utility lines, pipelines, etc.,
- Nearby population, property or environmental features that might be affected by the contained spill or by an uncontained spill.

The Tiers 1, 2, and 3 response contractor's team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.

If the Company Incident Commander determines that additional resources are required, the response contractor's supervisor will request additional resources for the Tier 2 and 3 response contractor's teams from the response contractor's program manager. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials, foam and imported clay for berms.

10. Delineation of Exclusion and Support Zones

The Site Safety Officer (SSO) will mark the limits of the exclusion zone with red plastic tape, using existing trees to support the tape where possible. The support zone will be marked with green plastic tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

Company's Incident Commander, the response contractor's supervisor and SSO will inspect the boom / berm system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms / berms or relocation of existing booms / berms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, small and large animals affected by the spill, for transportation by the appropriate wildlife agencies to treatment facilities.

2. Recovery and Transfer of Free Product

Construction of the free product temporary storage area will start after the containment booms / berms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials or imported clay.

The response contractor's team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

The response contractor's team may construct a siphon dam to contain the spilled product if contaminated surface water is flowing. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipe.

4. Debris Removal

Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response contractor's team. Contaminated lumber from marine facilities is anticipated to make up the majority of the debris.

Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit on-site burning of timber and vegetation under some circumstances.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing.

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies for Recreational Sites

1. Access on and through Recreational Sites

   Response activities, particularly movement of vehicles and equipment into and out of the area may temporarily inconvenience or disrupt the public's use of the recreational site facilities. The Company Incident Commander and the response contractor will coordinate access routes and response activity traffic control with the authorities responsible for the recreational site.

   The response contractor may use existing roads into the spill area wherever possible and where permitted by the cognizant authorities. The response contractor will construct staging and laydown areas in locations approved by the appropriate authorities responsible for the recreational site, taking into consideration all ongoing public activities, and any nearby habitations. Where roads do not exist but a practical and approved route is available, the response contractor may construct temporary roads to the spill site, and staging/laydown areas. The response contractor will utilize the minimum size and number of vehicles in the response activities.

   Where navigable waterways are convenient to the site and the cognizant authorities approve waterborne access, the response contractor may use workboats and/or barges to mobilize the response equipment to the site. Response equipment sizes may be limited by the capacity of available boats and barges. The response contractor may use existing boat landings/docks or construct a temporary landing to tie up the watercraft and offload the equipment.

   Roads, staging areas and watercraft landings will be restored to their pre-spill conditions as described in SITE RESTORATION below.

2. Protection of Recreational Sites

   One of the major concerns in this scenario is the removal of contamination to levels acceptable for the protection of the public using the park.

   Once immediate human health and safety have been addressed, priority will be given to protecting the recreational site features from contamination, and limiting further spread of the spilled product. Playground equipment, swimming pools, and pavilions used for public gatherings will be given special attention. Containment booms and berms may be used to contain and direct the spilled product. The cognizant authority, the Company Incident Commander and the first responder will identify the recreational site features, land areas and water bodies threatened by the spill, prioritize the features to be protected, and select the boom and berm locations. The Company Incident Commander will communicate special or additional equipment and material needs to the contractor's response team.

   Where a body of water is affected or threatened by the spill, the response contractor will usually deploy containment booms as the isolating/protecting mechanism. The booms will be deployed downstream of the spill if the water is moving, as in a stream or river. The boom will be deployed to surround the spill if it is on a pond or lake where the water is relatively stagnant.

Containment of an overland spill is typically done with ditches and berms. With the concurrence of and at the direction of the cognizant authority, the response contractor may dig ditches and build berms downslope of the spill site to stop the overland flow of the spilled product. In some cases it may be possible to use this ditch/berm system to divert the product to a collection point downslope of the spill. If the soil dug from the ditches is clay, it may be used to build the berms. Sandy or gravelly does not make good barrier berm material. If importing clay from offsite is impractical and no clay is available onsite, the response contractor may have to use sorbent materials, i.e., sorbent booms and pads, to construct the berm.

3. Recovery of Product from Water and Treatment of Contaminated Water

   Product is typically recovered from water bodies such as lakes, ponds and rivers by a combination of mechanical skimming, vacuum recovery, and sorbent materials. The point of recovery will be as close as practical downstream of the spill site.

   Product spilled onto the ground is usually recovered by excavating the product-laden soils. Excavation of contaminated soils will be performed only with the concurrence of and at the direction of the cognizant authorities. Other methods such as soil/vapor extraction, or pumping from recovery wells may be considered as part of the long-term plan. Porous soils, such as sands and gravels may permit the product to soak in to a depth of several feet or more, usually until it is stopped by a layer of clay, solid rock or a water table. Clay soils usually retain the product at or near the surface, and require less excavation. Collection of product for treatment or disposal will easier in clay soils than in sandy/gravelly soils.

   Selection of storage and treatment locations will depend on patterns of public use of the site, proximity of the public using the recreational site, and approvals and/or preferences of the responsible authorities. If space is available and if the cognizant agency permits, the response contractor may construct the water storage and treatment system in or adjacent to the recreational site, near the site of the spill, at a safe distance from any feature subject to human occupation or usage. If space is not available for practical reasons, or if onsite treatment would be a continuing hazard to the public safety and health, the contained water may have to be transported offsite for treatment or disposal.

   Once the contaminated waters have been stored, treatment options can be explored. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies.

4. Cleaning of Affected Structures

   Man-made structures can be cleaned by traditional methods that include wiping, hot water, low or high-pressure washdown, and use of surfactants, emulsifiers or other agents. Swimming pools, playground equipment, pavilions and similar structures will receive special attention during cleaning. Some wooden structures that cannot be adequately cleaned may have to be removed and/or replaced.

   Cleaning methods and materials to be used at a spill will be discussed with the appropriate authorities and used only with their concurrence and at their direction.

Washdown water and other liquids from cleaning activities should be contained by the boom or ditch/berm system, then collected and treated with the contaminated ground and surface waters.

5. Solids Handling and Removal

   Product-laden soils will be removed to the satisfaction of, and at the direction of, the appropriate authorities. It is expected that product-contaminated soils in playgrounds and other areas of frequent and intense human use at recreational sites will be excavated more completely than at spill sites in more remote areas. Heavy equipment, such as tracked excavators and dump trucks, may be used wherever their use is not prohibited by the cognizant authority, or is impractical due to access restrictions.

   Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition. The response contractor will take particular care to remove all his site-generated wastes from the area, and will conduct a final walking inspection of the entire area with the Company Incident Commander to confirm that this has been done prior to departure.

   Contaminated soils and other solids will be removed from the site. Solids will be removed by trucks where roads are available, or by barges where navigable waterways are reasonably close and the volume of contaminated soils justifies their use.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

   Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements.

2. Rebuild/Reconstruct Affected Structures/Areas

   Recreational site restoration activities will vary considerably from site to site and may entail major efforts by a combination of Company and multiple regulatory and municipal, county or state agencies. As early as possible, the Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications, and costs can be prepared.

3. Final Report

   The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

Sec. 3.6 Water Supply Intakes

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to a water supply intake. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment, and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

Water supply intakes generally include lakes, reservoirs, rivers, streams, springs, and similar bodies of water near the inhabited areas that are served by the intake.

1. Public Health and Safety Concerns

   The most serious impact on public health and safety is contamination of the drinking water, followed by danger of fire or explosion, and inhalation of toxic vapors. The danger zone for the public will generally be downwind of the point of discharge and the resulting plume.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. The response contractor's team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response contractor's team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel, Company representatives and the regulatory agencies' representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbons, heat stress and cold exposure. Contact with, or bites from, poisonous plants, insects, snakes, rodents and large wildlife will be a concern in some remote parks.

   Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area and upwind of the exclusion zone wherever possible.

3. Property and Environmental Impact

   Property impact of a spill on a Water Supply Intake will depend on its proximity to inhabited or improved property and whether the water purification equipment is contaminated by the spill. Major Water Supply Intakes are frequently developed as recreational areas and have considerable commercial value.

Environmental impact on vegetation and wildlife in a Water Supply Intake can be severe if not removed immediately, but this will be secondary to the potential affects on the public health and welfare.

4. Other Impacts

   The intake may be rendered unfit as a source of public drinking water for a prolonged time. It may become necessary to locate, and activate or enlarge alternate sources of drinking water. These may be artisan wells or surface water sources such as lakes or rivers not ordinarily used for drinking water. Purification facilities may be required to treat the water from such sources, to make it suitable for public use.

5. Potential Logistical Problems

   Water Supply Intakes are typically close to the population centers that they serve. Major transportation networks and utility services are usually available in the general vicinity. Roads to such areas are generally reliable, but public and/or private roads may need to be closed for the duration of the cleanup.

   Transportation of personnel, equipment and materials within the area may require specialized vehicles such as UTVs, workboats, swamp buggies, airboats or barges. The response contractor should possess, or have ready access to, the minimum required equipment.

   Temporary utilities, including potable water, fuel and electricity may be available; if not, the response contractor's team must bring them in.

Initial Response Strategies

1. The Company Incident Commander will

   - Initiate evacuation of the public from the affected areas and from the area toward which the plume is moving,
   - Alert appropriate health authorities to warn the public of possibly tainted water supply, and initiate analysis of the water for potability.
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product.
   - Order immediate deployment of the response contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal, State, and local regulatory agencies. Local, State and Federal agency notification is listed in this FRP.
   - Initiate measures to locate or develop temporary alternate water supply if the spill or the response activities will render the intake unusable. The temporary supply will be provided until the intake is judged by the appropriate health agency to be acceptable.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response contractor's supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone. The response contractor's supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the problem, noting any special considerations that may affect selection of resources required to complete the response action.

3. The response contractor's program manager should mobilize the Tier 1 response contractor's team while the response contractor's supervisor is en route to the site. The Tier 1 response contractor's team should be capable of removing 1,500 BBL of product per day, should be en route within 2 hours of notification, and should arrive on-site within 12 hours of notification. This response team may consist of:

   - 8 HAZWOPER-trained Personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,
   - 1 van,
   - 2 work boats,
   - 2,000 ft of containment boom,
   - one foam trailer with applicator and foam to cover 90,000 square feet,
   - a seven (7)-day supply of PPE,
   - 12 sets of air bottles,
   - lights,
   - 2 skimmers,
   - 1 generator,
   - 1 air compressor,
   - PID/LEL,
   - detector tube specific for benzene (not affected by other hydrocarbons)
   - 4 radios, and
   - expendable supplies (absorbent booms & pads, PPE)

   The Tier 1 team should immediately report to the response contractor's supervisor for a briefing on the response action and a tailgate health and safety meeting. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas. One of the first tasks of the Tier 1 response contractor's team should be to double, and if possible, triple the containment boom system to minimize the possibility of boom failure or product bypassing the boom system and/or entering the intake. It may be necessary for the Tier 1 response contractor's team to work extended hours, using lights after nightfall.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response contractor's teams once the Tier 1 team is enroute to the site.

The Tier 2 response contractor's team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and may consist of the Tier 1 response contractor's team, plus:

- 12 HAZWOPER-trained Personnel,
- 4 work boats,
- 4,000 feet of containment boom,
- 2 skimmers,
- 2 vans,
- 2 pick-up trucks,
- 2 vacuum trucks,
- 1 skid unit (1,500 gallon capacity),
- 8 radios, and
- 24 air bottles

The Tier 1 response contractor's team should work 24 hours per day, in shifts.

The Tier 3 response contractor's team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response contractor's teams, plus:

- 23 HAZWOPER-trained Personnel,
- 2 pick-up trucks,
- 4 vans,
- 1 supply trailer,
- 4 work boats,
- 6,000 feet of containment boom,
- 3 vacuum trucks,
- 3 skimmers,
- 12 radios, and
- 48 air bottles

5. The first task of the Tier 1 response contractor's team should be to minimize the spread of the product on the water and ground surface in order to protect the public and environmentally sensitive areas. The team should place a containment boom as close as possible to the point of origin of the spill to minimize the area of most severe contamination. The placement of the containment boom will also be based on personnel safety considerations for the personnel setting up the containment boom. The team may then place one or more secondary booms farther away, in the path(s) of the plumes deemed by the Company Incident Commander and the response contractor's supervisor to be the most dangerous to the public or to the environment.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the standard operating procedure. The response contractor's Site Safety Officer will complete a Site-Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

   As soon as possible after the SSO completes his initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public or wildlife.

8. Contingency Planning

   The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

   The Company Incident Commander and the response contractor's supervisor will jointly review the maps provided and inspect the affected area(s) and assess:

   - The nature of the spilled liquid,
   - Source of the spill,
   - Direction(s) of spill migration,
   - Relative position of the intake,
   - Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
   - Overhead and buried utility lines, and pipelines, etc.,
   - Nearby population, property or environmental features that might be affected by the contained spill, or by an uncontained spill.

   The Tiers 1, 2, and 3 response contractor's team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.

If the Company Incident Commander determines that additional resources are required, the response contractor's supervisor will request additional resources for the Tier 2 and 3 response contractor's teams from the response contractor's program manager. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials, foam and imported clay for berms.

10. Delineation of Exclusion and Support Zones

    The Site Safety Officer (SSO) will mark the limits of the exclusion zone with red plastic tape, using existing trees to support the tape where possible. The support zone will be marked with green plastic tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

    Company's Incident Commander, the response contractor's supervisor and SSO will inspect the boom system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms or relocation of existing booms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

   The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, reptiles and mammals affected by the spill, for transportation by the wildlife agencies to treatment facilities.

2. Recovery and Transfer of Free Product

   Construction of the free product temporary storage area will start after the containment booms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials or imported clay.

   The response contractor's team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

   The response contractor's team will construct a siphon dam to contain the spilled product if the contaminated water is flowing, and the water is shallow enough for this to be practical; i.e., if the water depth is less than 10 feet. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipes.

4. Debris Removal

   Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response contractor's team. Timber debris may result from demolition of docks, piers and similar marina structures contaminated too badly for decontamination to be practical

   Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

   Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit on-site burning of timber and vegetation under some circumstances.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, and public and private marine structures, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing.

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies for Water Supply Intakes

1. Access to, at and on Water Supply Intakes

   Access to the site will probably be by road or navigable waterway, subject to approval and oversight by the cognizant authority. Personnel and equipment may be mobilized by truck or boat/barge. Once the floating equipment reaches the water supply intake, the booms can be deployed and moved by boat. Personnel can be landed on the shoreline as required to anchor containment booms, clean shoreside structures and excavate small volumes of contaminated soil. Tracked or wheeled heavy equipment may be used along the shoreline for major excavation where the shore can be approached from the landward side.

   The response contractor will construct temporary roads, staging and laydown areas in locations approved by the appropriate authorities responsible for the intake, taking into consideration the need to avoid interfering with the operation of the intake wherever possible.

   Where navigable waterways are convenient to the site and the cognizant authorities approve the use of waterborne equipment, the response contractor may use workboats and/or barges to mobilize the response equipment to the site. Equipment sizes may be limited by the capacity of available boats and barges. The response contractor may use existing boat landings/docks or construct a temporary landing to tie up the watercraft and offload the equipment.

Roads, staging areas, and watercraft landings will be restored to their pre-spill conditions as described in SITE RESTORATION below.

2. Protection of Water Supply Intakes

   Protection of the water supply intake from contamination by the spilled product is the crucial aspect of this scenario.

   Once human health and safety concerns have been addressed, priority will be given to protecting the intake from contamination. Whenever the release is waterborne, booms will be typically deployed as the isolating/protecting mechanism. Boats will probably be used to deploy the booms. The cognizant authority, the Company Incident Commander and the first responder should identify potential boat launch sites and communicate this to the response crew prior to their arrival.

   If the release is overland, then priority should be given to preventing the spilled product from reaching the water body. Containment of an overland spill is typically done with ditches and berms. With the approval of and at the direction of the cognizant authorities, the response contractor may dig ditches and build berms downslope of the spill site to stop the overland flow of the spilled product. In some cases it may be possible to use this ditch/berm system to divert the product to a collection point downslope of the spill. If the soil dug from the ditches is clay, it may be used to build the berms. Sandy or gravelly soil does not make good barrier berm material. If importing clay from offsite is impractical and no clay is available onsite, the response contractor may have to use sorbent materials, i.e., sorbent booms and pads, to construct the berm.

3. Recovery of Product from Water and Treatment of Contaminated Water

   Typically, product is recovered from surface water like a water supply intake by a combination of mechanical skimming, vacuum recovery, and manual application of sorbent materials. Temporary storage of recovered product may be accomplished by the use of tank trailers, small barges or other containers. All recovery and storage plans, techniques, equipment and materials will be subject to the approval and direction of the cognizant authorities.

   Prolonged storage of contaminated water in close proximity to the intake may be inadvisable due to the continued danger of leaks from the tanks and pipefittings. If the cognizant authorities concur, the storage tanks or barges may be moved offsite as soon as practical to reduce this hazard. The Company Incident Commander or the first responder will have to assess the situation quickly and communicate with the response crew in order to ensure that sufficient quantities of the correct storage and transfer equipment are deployed.

   Once the contaminated waters have been stored, treatment options can be explored. Although onsite storage and treatment is generally preferred by regulatory agencies, offsite water treatment should be considered as an alternative in order to remove the hazard of recontaminating the water body. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies.

4. Cleaning of Affected Structures

   Traditional methods of cleaning structures affected by released product include wiping, hot water, low or high-pressure washdown, and/or the use of surfactants, emulsifiers or other agents. Because improper or misapplied materials and procedures may do more harm than good, and because of the potential for irrecoverable damage to the intake structure and the water purification process system downstream of it, the method of choice for cleaning an intake structure contaminated with product will require the approval and direction of the cognizant authority. Alternative methods, including the use of detergents or emulsifiers, will be discussed with the appropriate authorities and used only with their concurrence and at their direction.

5. Solids Handling and Removal

   Product-laden soils on the shore of the water supply body will be removed to the satisfaction of, and at the direction of, the appropriate authorities. Heavy equipment, such as tracked excavators and dump trucks, will be used wherever their use is not prohibited by the cognizant authority or impractical due to access restrictions.

   Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition. The response contractor will take particular care to remove all his site-generated wastes from the area, and will conduct a final walking inspection of the entire area with the Company Incident Commander to confirm that this has been done prior to departure.

   Contaminated soils and other solids will be removed from the site as approved by and at the direction of the cognizant authority. Trucks may remove solids where roads are available. Barges may be used for removal of large volumes of contaminated solids where navigable waterways connect to the water supply body, provided caution is exercised to avoid recontamination by spillage.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

   Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements. This effort may be prolonged in order to ensure that the public is not endangered by residual spill-related contaminants in the drinking water supply.

2. Rebuild/Reconstruct Affected Structures/Areas

   Restoration requirements will vary considerably from site to site. As early as possible, the Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications, and costs can be prepared.

3. Final Report

The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

Sec. 3.7 Wetlands

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to wetlands. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment, and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

Wetlands are described in 40 CFR 230.3(t) as "...those areas that are inundated or saturated by surface or ground water at a frequency and 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 swamps, marshes, bogs and similar areas" Wetlands are frequently, but not always, remote from human habitation, and are generally undeveloped. Wetlands are not always identified and marked as such.

1. Public Health and Safety Concerns

   Most major wetlands are remote from human habitation, where a spill is unlikely to have a direct effect on public safety and health. However, some small wetlands may be found in or near metropolitan areas, where public safety and health will be a major and immediate concern, primarily due to danger of fire or explosion, or due to inhalation of toxic vapors. The danger zone for the public will generally be downwind of the point of discharge and the resulting plume.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. The response team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel, Company representatives and the regulatory agencies' representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbons, heat stress and cold exposure, and contact with, or bites from, poisonous plants, insects, snakes, rodents and large wildlife indigenous to the wetlands.

   Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area, and upwind of the exclusion zone wherever possible.

3. Property and Environmental Impact

   Property impact of a spill on wetlands will depend on its proximity to inhabited or improved property. Major wetlands are generally undeveloped and have little or no commercial value; a spill is expected to have minimal property impact.

   Environmental impact on wetlands can be severe. Petroleum hydrocarbons may have an adverse impact on most forms of plant and animal life, and can destroy the exposed portion of wetlands. Wetlands perform a valuable filtering action for the waters that pass through them, removing solids and organic materials. Wetlands also provide a habitat for wildlife and are a source of oxygen for the atmosphere.

4. Potential Logistical Problems

   Wetlands are typically remote from major transportation networks and utility services. Roads into and through such areas may be seasonal, intermittent, and should be considered generally unreliable. There may be insufficient solid ground on which to set up support areas, lay-down areas, etc.

   Transportation of personnel, equipment and materials into and out of the area may require specialized vehicles such as UTVs, swamp buggies, airboats or barges. The response contractor should possess, or have ready access to, the minimum required equipment.

   Temporary utilities, including potable water, fuel and electricity will probably be absent and must be brought in by the response team.

Initial Response Strategies

1. The Company Incident Commander will

   - Initiate evacuation of the public from the affected areas and from the area in which the plume is moving,
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product.
   - Order immediate deployment of the response contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal, State, and local regulatory agencies. A local, State and Federal agency notification is listed in this FRP.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response contractor's supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone. The response contractor's supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the problem, noting any special considerations that may affect selection of resources required to complete the response action.

3. The response contractor's program manager should mobilize the Tier 1 response team while the response contractor's supervisor is en route to the site. The Tier 1 response team should be capable of removing 1,500 BBL of product per day, should be enroute within 2 hours of notification, and should arrive on-site within 12 hours of notification. This response team may consist of:

   - 8 HAZWOPER-trained personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,
   - 1 van,
   - 2 work boats,
   - 2,000 ft of containment boom,
   - one foam trailer with applicator and foam to cover 90,000 square feet,
   - a seven (7)-day supply of PPE,
   - 12 sets of air bottles,
   - lights,
   - 2 skimmers,
   - 1 generator,
   - 1 air compressor,
   - PID/LEL,
   - detector tube specific for benzene (not affected by other hydrocarbons)
   - 4 radios, and
   - expendable supplies (absorbent booms & pads, PPE)

   The Tier 1 team should immediately report to the response contractor's supervisor for a briefing on the response action and a tailgate health and safety meeting. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response teams once the Tier 1 team is en route to the site.

   The Tier 2 response team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and may consist of the Tier 1 response team, plus:

   - 12 HAZWOPER-trained personnel,
   - 4 work boats,
   - 4,000 feet of containment boom,
   - 2 skimmers,
   - 2 vans,
   - 2 pick-up trucks,
   - 2 vacuum trucks,
   - 1 skid unit (1,500 gallon capacity),
   - 8 radios, and
   - 24 air bottles

The Tier 3 response team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response teams, plus:

- 23 HAZWOPER-trained personnel,
- 2 pick-up trucks,
- 4 vans,
- 1 supply trailer,
- 4 work boats,
- 6,000 feet of containment boom,
- 3 vacuum trucks,
- 3 skimmers,
- 12 radios, and
- 48 air bottles

5. The first task of the Tier 1 response team should be to minimize the spread of the product on the water and ground surface in order to protect the public and environmentally sensitive areas. The team should place a containment boom as close as possible to the point of origin of the spill to minimize the area of most severe contamination. The placement of the containment boom will also be based on personnel safety considerations for the personnel setting up the containment boom. The team may then place one or more secondary booms farther away, in the path(s) of the plumes deemed by the Company Incident Commander and the response contractor's supervisor to be the most dangerous to the public or to the environment.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the standard operating procedure. The response contractor's Site Safety Officer will complete a Site-Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

   As soon as possible after the SSO completes his initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public or wildlife.

8. Contingency Planning

The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

The Company Incident Commander and the response contractor's supervisor will jointly review the maps provided and inspect the affected area(s) and assess:

- The nature of the spilled liquid,
- Source of the spill,
- Direction(s) of spill migration,
- Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
- Overhead and buried utility lines, pipelines, etc.,
- Nearby population, property or environmental features that might be affected by the contained spill, or by an uncontained spill.

The Tiers 1, 2, and 3 response team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.
If the Company Incident Commander determines that additional resources are required, the response contractor's supervisor will request additional resources for the Tier 2 and 3 response teams from the response contractor's program manager. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials, foam, and imported clay for berms.

10. Delineation of Exclusion and Support Zones

The Site Safety Officer (SSO) will mark the limits of the exclusion zone with red plastic tape, using existing trees to support the tape where possible. The support zone will be marked with green plastic tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

Company's Incident Commander, the response contractor's supervisor and SSO will inspect the boom system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms or relocation of existing booms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

   The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, reptiles and mammals affected by the spill, for transportation by the wildlife agencies to treatment facilities.

2. Recovery and Transfer of Free Product

   Construction of the free product temporary storage area will start after the containment booms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials or imported clay.

   The response team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

   The response team will construct a siphon dam to contain the spilled product if the contaminated water is flowing. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipes.

4. Debris Removal

   Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response team.

   Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

   Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit on-site burning of timber and vegetation under some circumstances.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing.

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a weekly report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies for Wetlands

1. Access on and Through Wetlands

   Access on and through wetlands may probably be severely restricted by the regulatory agencies due to the severe and long-lasting damage that could result. Routes for temporary roads and laydown areas will be coordinated with the appropriate authorities with due consideration for critical and sensitive vegetation and animal habitats. The cognizant authorities will be requested to assist the Company Incident Commander and the response contractor by directing the layout of

temporary roads and work areas, and the marking of areas in which personnel and equipment are prohibited. Response personnel will be briefed on the approved and prohibited areas on their arrival and at the daily tailgate safety briefings.

Boats and/or barges may prove practical and less disruptive to the wetlands than vehicles and tracked equipment in some cases. The response contractor may have to construct a temporary landing to tie up the watercraft and offload some personnel, equipment and materials. The response contractor will minimize the size and number of heavy equipment used in the response, to the minimum necessary to do the work.

All access roads, boat landings, etc. will be restored to their pre-spill conditions as described in SITE RESTORATION below.

2. Protection of Wetlands

Once human health and safety issues have been addressed, the next priority will be given to limiting the spread of spilled product and further contamination of plant and animal life. This is usually done with containment booms and berms. The cognizant authorities, the Company Incident Commander and the first responder will identify the areas threatened by the spill, and select the boom and berm locations. The Company Incident Commander will advise the contractor's response team of special or additional equipment and material needs.

Booms typically protect swamps and ponds that are contaminated or threatened by a spill. Booms will be deployed by boat if possible, provided that the cognizant authorities approve their use. Where the water is too shallow for workboats, the response contractor may have to deploy the boom manually, by workers wading in the water or mud.

Ditches and berms typically protect a spill on solid ground. With the concurrence and at the direction of the cognizant authorities, the response contractor may dig ditches and/or build berms around the spill site to stop the overland flow of the spilled product. Tracked excavators and/or bulldozers may be used for this where there is solid enough ground to support heavy equipment and the regulatory agencies permit its use. In some cases it may be possible to use this ditch/berm system as the product collection system or to divert the product to a collection point. If the soil dug from the ditches is clay, it may be used to build the berms. Sandy or gravelly soil does not make good barrier berm material. Clay dug from other onsite areas may be used only with the approval of, and at the direction of, the cognizant authorities. If importing clay from offsite is impractical and no clay is available onsite, the response contractor may have to use sorbent materials, i.e., sorbent booms and pads, to construct the berm.

3. Recovery of Product from Water and Treatment of Contaminated Water.

Product is typically recovered from lakes, ponds and rivers associated with wetlands by a combination of mechanical skimming, vacuum recovery, and sorbent materials. Boats may be used to move personnel, booms and materials where water depth is adequate and if the cognizant authorities concur.

Product spilled onto the ground of a wetland does not normally soak very far into the soil, due to the saturated nature of the soil. The spilled product will probably collect as pools in low spots of the ground surface. Vacuum pumps and sorbent pads may be used to remove the majority of the product. Excavation of remaining contaminated soils will be done only with the concurrence and at the direction of the appropriate authorities. Other methods such as by soil/vapor extraction, or pumping from recovery wells may be considered as part of a long-term plan. Free product will probably be pumped to temporary storage, and used sorbent materials will be collected and handled as solid wastes.

The methods of temporary storage of the contaminated water will be site-specific, and will depend on suitable onsite ground space, distance to a suitable offsite storage area, and agency approvals. Barges may be practical storage containers where navigable waters are conveniently close and the cognizant authority approves their use. Tank trailers or frac tanks may be used if roads are closer than barge access to the wetlands spill site. In any case, the regulatory agencies may require that product and contaminated water be transported offsite as quickly as possible.

Once the contained waters have been stored, treatment options can be explored. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies. It is expected that the water treatment facility will be installed outside the wetlands.

4. Cleaning of Affected Structures

Wetlands typically do not include many man-made structures. However such man-made structures as are contaminated by the spilled product can be cleaned by traditional methods that include wiping, hot water, low or high-pressure wash down, and use of surfactants, emulsifiers or other agents. The use of surfactants, emulsifiers and other agents may be prohibited by the regulatory or other cognizant authorities in some areas. Cleaning methods and materials to be used at a spill will be discussed with the appropriate authorities and used only with their concurrence and at their direction.

Wash down water and other liquids from cleaning activities should be contained by the boom or ditch/berm system, then collected and treated with the contaminated ground and surface waters.

5. Solids Handling and Removal

Removal of product-laden soils will be conducted only with the concurrence and at the direction of the appropriate authorities. Heavy equipment such as excavators will be used where the cognizant authorities permit it. Otherwise contaminated soils will be excavated manually using shovels and other hand tools.

Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition. The response contractor will take particular care to remove all his site-generated wastes from the area, and will conduct a final walking inspection of the entire area with the Company Incident Commander to confirm that this has been done prior to departure.

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Contaminated soils and other solids will be removed from the site unless the regulatory authorities dictate that they remain onsite. Transportation plans, including routes, vehicle types and loading methods may require the approval of the cognizant authorities. Trucks may be used where roads are available. Barges may be more practical where navigable waterways are reasonably close. Where vehicle and barge use is impractical or prohibited by regulatory agencies, solids from the site may have to be removed manually.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

   Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements.

2. Rebuild/Reconstruct Affected Structures/Areas

   Wetlands restoration activities will vary considerably from site to site. As early as possible, the Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications, and costs can be prepared.

3. Final Report

   The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

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Sec. 3.8 Wildlife Refuges

Environmental Response Scenario

The following scenario provides probable, effective response actions in the event of a spill to a wildlife refuge. Depending on the site-specific conditions, Company may choose to respond in a manner different from that described below. The manpower, equipment, and recovery rates are all dependent upon site-specific conditions and Company will respond in an appropriate manner.

Description of the Affected Area

Wildlife refuges are areas designated by the federal government to remain in a natural or underdeveloped condition for the benefit of wild animals, particularly game species and those that are endangered. The vegetation and water supply generally support a wide variety of insects, fish, reptiles, mammals and birds, some of which may be endangered or otherwise protected by law. A wildlife refuge may include any type of terrain, including shorelines, swamps, forests, deserts, and mountainous areas. Wildlife refuges are frequently, but not always, remote from human habitation, and are generally undeveloped. Wildlife refuges are usually identified and marked as such on maps and along their boundaries.

1. Public Health and Safety Concerns

   Most major wildlife refuges are remote from human habitation, where a spill may affect the health and safety of a relatively small number of forest rangers, fish and game agents and visitors. The danger zone for the public will generally be downwind of the point of discharge and the resulting plume.

2. Project Personnel Safety Concerns

   The greatest safety concern for project personnel is fire and explosion. The response contractor's team personnel will conduct continuous air monitoring for flammable vapors with a combustible gas meter and will suspend operations when readings exceed 10 percent of the lower explosive limit (LEL). Response contractor's team personnel will use non-sparking equipment whenever monitoring indicates explosion/fire potential. Smoking paraphernalia, including lighters, will not be permitted in the work areas under any circumstances.

   Other safety concerns for project personnel, Company representatives and the regulatory agencies' representatives are inhalation of hydrocarbon vapors (specifically benzene vapors), skin contact with liquid hydrocarbons, heat stress and cold exposure, and contact with, or bites from, poisonous plants, insects, snakes, rodents and large wildlife indigenous to the wildlife refuge.

   Air monitoring analysis will dictate the level of PPE utilized by workers in the exclusion zone. The support area, including break and eating areas, will be located in a safe area, and upwind of the exclusion zone wherever possible.

3. Property and Environmental Impact

Property impact of a spill on a wildlife refuge will depend on its proximity to inhabited or improved property. Major wildlife refuges are generally undeveloped but may have potential commercial value; a spill may have serious impact on the commercial value of public or private property.

Environmental impact of a spill on a wildlife refuge can be immediate and extensive. Petroleum hydrocarbons may have an adverse impact on most forms of plant and animal life, and can destroy the exposed portion of a wildlife refuge. Wildlife refuges provide crucial habitats and food supplies for wildlife and are sources of oxygen for the atmosphere.

The more tender vegetation, such as grasses, may be destroyed by direct contact with the spilled product. Hardier vegetation such as shrubs and trees contaminated by the spilled product may be removed as part of the response activities. The loss of habitat and food supply is expected to have a serious impact on wildlife in the refuge.

Wildlife may be threatened by direct contact with the spilled product, eating product-contaminated vegetation, and hunger if large areas are cleared of contaminated vegetation during the response activities. The times of greatest danger to wildlife will be during migrations, when large numbers of birds depend on the refuges for food and safety. Even temporary loss of part of a major refuge could have a serious impact on some species. Loss of part of a key breeding ground for an endangered species could contribute to its extinction.

4. Potential Logistical Problems

Wildlife refuges differ from site to site, but typically they are remote from major transportation networks and utility services. Roads into and through such areas may be seasonal, intermittent, and should be considered generally unreliable. There may be insufficient solid level ground or a wide enough clearing in which to set up support areas, lay-down areas, etc.

Transportation of personnel, equipment and materials into and out of the area may require specialized vehicles such as UTVs, swamp buggies, airboats or helicopters. The response contractor should possess, or have ready access to, the minimum required equipment.

Temporary utilities, including potable water, fuel and electricity will probably be absent and must be brought in by the response contractor's team.

Initial Response Strategies

1. The Company Incident Commander will:

   - Initiate evacuation of the public from the affected areas and from the area toward which the plume is moving,
   - Initiate appropriate actions to isolate the pipeline or any other source of the spill; i.e., turn off the nearest block valves and shut down the flow of product.
   - Order immediate deployment of the response contractor's oil containment boom (minimum 200 ft long), complete with anchors,
   - Notify the response contractor's program manager that a spill is in progress and
   - Notify the appropriate Federal, State, and local regulatory agencies. Local, State and Federal agency notification is listed in this FRP.

2. The response contractor's program manager should dispatch a response supervisor to the location of the spill by the fastest means practical. The response contractor's supervisor should be equipped with a one-day supply of PPE to include supplied air, and a radio or mobile telephone. The response contractor's supervisor should contact the Company Incident Commander immediately on arrival at the site and jointly assess the magnitude of the problem, noting any special considerations that may affect selection of resources required to complete the response action.

3. The response contractor's program manager should mobilize the Tier 1 response contractor's team while the response contractor's supervisor is en route to the site. The Tier 1 response contractor's team should be capable of removing 1,500 BBL of product per day, should be enroute within 2 hours of notification, and should arrive on-site within 12 hours of notification. This response team may consist of:

   - 8 HAZWOPER-trained personnel (including a supervisors and a site safety officer),
   - 2 pick-up trucks,
   - 1 one-ton box truck/associated supplies,
   - 2 vacuum trucks,
   - 1 van,
   - 2 work boats,
   - 2,000 ft of containment boom,
   - one foam trailer with applicator and foam to cover 90,000 square feet,
   - a seven (7)-day supply of PPE,
   - 12 sets of air bottles,
   - lights,
   - 2 skimmers,
   - 1 generator,
   - 1 air compressor,
   - PID/LEL,
   - detector tube specific for benzene (not affected by other hydrocarbons)
   - 4 radios, and
   - expendable supplies (absorbent booms & pads, PPE)

The Tier 1 response contractor's team should immediately report to the response contractor's supervisor for a briefing on the response action and a tailgate health and safety meeting. The response contractor's supervisor should direct the team's activities from this point on, including setting up laydown areas and support areas.

4. The response contractor's program manager should begin mobilizing the Tier 2 and Tier 3 response contractor's teams once the Tier 1 team is enroute to the site.

   The Tier 2 response contractor's team should be capable of removing 3,000 BBL per day, should be on-site within 36 hours of notification, and may consist of the Tier 1 response contractor's team, plus:

   - 12 HAZWOPER-trained personnel,
   - 4 work boats,
   - 4,000 feet of containment boom,
   - 2 skimmers,
   - 2 vans,
   - 2 pick-up trucks,
   - 2 vacuum trucks,
   - 1 skid unit (1,500 gallon capacity),
   - 8 radios, and
   - 24 air bottles

   The Tier 3 response contractor's team should be capable of removing 6,000 BBL per day, should be on-site within 60 hours of notification, and may consist of the Tier 1 and Tier 2 response contractor's teams, plus:

   - 23 HAZWOPER-trained personnel,
   - 2 pick-up trucks,
   - 4 vans,
   - 1 supply trailer,
   - 4 work boats,
   - 6,000 feet of containment boom,
   - 3 vacuum trucks,
   - 3 skimmers,
   - 12 radios, and
   - 48 air bottles

5. The first task of the Tier 1 response contractor's team should be to minimize the spread of the product on the water and ground surface in order to protect the public and the vegetation and wildlife in the refuge. The team should place a containment boom as close as possible to the point of origin of the spill to minimize the area of most severe contamination. The placement of the containment boom will also be based on personnel safety considerations for the personnel setting up the containment boom. The team may then place one or more secondary booms farther away, in the path(s) of the plumes deemed by the Company Incident Commander and the response contractor's supervisor to be the most dangerous to the public or to the environment.

6. Health and Safety Plan

   Initial health and safety response actions will be in accordance with the standard operating procedure. The response contractor's Site Safety Officer will complete a Site-Specific Health and Safety Plan after the initial hazard assessment is conducted.

7. Implementation of Air Monitoring Program

   Company's Incident Commander will assign a Site Safety Officer (SSO) who will begin monitoring activities (using a PID, an LEL meter and benzene-specific detection tubes) in the area of the spill immediately on arrival, to assess the danger from fire and explosion in the work area, determine potential exposure to benzene, delineate the exclusion zone, and establish the support zone. Instruments, frequency of readings, records and responses to action levels will conform to the Health and Safety Plan. The SSO will pay particular attention to LEL readings.

   As soon as possible after the SSO completes his initial air monitoring for the spill site hazard assessment and delineates the work zones, he/she will begin a perimeter air-monitoring program to confirm that the exclusion zone is properly sized and to document potential offsite migration of vapors that could impact the unprotected public or wildlife.

8. Contingency Planning

   The Company Incident Commander, the SSO and the response contractor's supervisor will identify evacuation routes of egress and procedures, safe distances and places of refuge, and emergency alerting procedures to be used in the event of an uncontrollable situation such as fire or explosion.

9. Assessment of Affected Area(s)

   The Company Incident Commander and the response contractor's supervisor will jointly review the maps provided and inspect the affected area(s) and assess:

   - The nature of the spilled liquid,
   - Source of the spill,
   - Direction(s) of spill migration,
   - Apparent or otherwise known subsurface geophysical feature that might impact the work; i.e., subsurface sand layers, water table elevation,
   - Overhead and buried utility lines, pipelines, etc.,
   - Nearby population, property or environmental features that might be affected by the contained spill, or by an uncontained spill.
   - Closest concentration of wildlife and breeding areas

   The Tiers 1, 2, and 3 response team resources in personnel, equipment and material will be assessed to determine if they are adequate to effectively perform the work.

If the Company Incident Commander determines that additional resources are required, the response contractor's supervisor will request additional resources for the Tier 2 and 3 response teams from the response contractor's program manager. Additional equipment may include backhoes, dump trucks, watercraft, generators, light sets, bulldozers and front-end loaders. Equipment operators, laborers, and engineers may be mobilized as necessary. Additional material may include more spill booms, absorbent materials, foam and imported clay for berms.

10. Delineation of Exclusion and Support Zones

    The Site Safety Officer (SSO) will mark the limits of the exclusion zone with red plastic tape, using existing trees to support the tape where possible. The support zone will be marked with green plastic tape if in the SSO's judgment such marking is necessary to avoid confusion with a contaminated area. If the exclusion zone cannot be physically marked, the SSO will annotate a site map or layout sketch and brief all personnel on the zone layout prior to site entry.

11. Protection of Downstream Sensitive Areas

    Company's Incident Commander, the response contractor's supervisor and SSO will inspect the boom system to ensure that it is effectively protecting the public and environmentally sensitive areas downstream of the spill. The response contractor's supervisor will direct placement of additional booms or relocation of existing booms if ongoing measures are judged to be ineffective.

Ongoing Response

1. Recovering Wildlife for Transfer to Treatment Facilities

   The response contractor will cooperate with Company and local wildlife assistance agencies to recover birds, fish, small and large animals affected by the spill, for transportation by the appropriate wildlife agencies to treatment facilities. The response contractor will take extreme care to minimize the disruption or displacement of wildlife, with particular attention to the breeding areas of protected species.

2. Recovery and Transfer of Free Product

   Construction of the free product temporary storage area will start after the containment booms are in place and judged effective in limiting the spread of the plume. The storage will consist of frac tanks or rubber bladders. The tanks or bladders will be surrounded by a berm built up from on-site materials or imported clay.

   The response contractor's team will recover free product with vacuum trucks, sorbent booms and pads, oil skimmers and vacuum pumps.

3. Install Siphon Dams, Etc.

   The response contractor's team may construct a siphon dam to contain the spilled product if the contaminated water is flowing. A siphon dam is built of earth with steel or plastic pipes embedded through it at a vertical angle such that the lighter, floating product is trapped behind the dam while the water below it is permitted to flow through the pipes.

4. Debris Removal

   Debris will consist of steel, concrete, timber and vegetation contaminated by the spilled product, plus product-soaked sorbent materials and trash generated by the response contractor's team. Contaminated vegetation is anticipated to make up the majority of the debris.

   Company will remove and dispose of debris or may direct the response contractor to do so. Ultimate disposal may depend on the degree of contamination and is subject to approval by the regulating agencies.

   Typically, steel and concrete will be transported to a landfill. Timber and vegetation will be either landfilled or incinerated off-site. The regulatory agencies may permit on-site burning of timber and vegetation under some circumstances, but this is unlikely within the boundaries of the wildlife refuge itself.

5. Stabilize Damaged or Affected Structures

   The response contractor will construct temporary bracing and shoring as necessary to prevent collapse of structures and foundations that might impede or endanger the response work. This may include timber shoring as temporary replacements for sleepers under a damaged pipeline section.

   Company will stabilize damaged major pipeline bridges and pipeline river crossings, if needed.

6. Initial Response and Draft Work Plan

   The response contractor will prepare a draft work plan and submit it to Company. The work plan will include:

   - A summary of initial response actions and results,
   - Subsequent planned activities,
   - Water and soil removal and treatment and/or disposal,
   - Air monitoring program,
   - Sampling and Analysis Plan,
   - Restoration and repairs, and
   - A schedule for the work.

7. Debriefing/Dissemination of Information and Data

   The Company Incident Commander will interface with the regulatory agencies and news media. The response contractor will not disseminate any information or data without approval of the Company Incident Commander. The response contractor may furnish personnel to assist the Company Incident Commander in debriefing.

8. Documentation of Cleanup Efforts and Progress

   The response contractor will prepare and maintain records, including photos and/or video, documenting the response. Records and documents will include the supervisor's daily notes, personnel time sheets, equipment usage logs, material delivery tickets, daily air monitoring logs, and soil and water analysis reports.

   The response contractor's program manager will submit to the Company Incident Commander a report summarizing the accomplishments of the preceding week, the cost status and the response activity schedule.

9. Public Relations/Agency Liaison

   The Company Incident Commander will provide all direct contact with the news media and with regulatory agencies.

Cleanup Strategies for Wildlife Refuges

1. Access on and Through Wildlife Refuges

   Access on and through wildlife refuges may be severely restricted by the regulatory agencies during the mating /nesting seasons of some animal species. The regulatory agencies are expected to judge whether the response activities may cause more harm than good, or they may elect to postpone some or all of the response activities to a later time. Routes for temporary roads and laydown areas should be established by the appropriate authorities with due consideration to critical and sensitive vegetation and animal habitats. Boats and/or barges may prove practical and less disruptive to the wildlife than vehicles and tracked equipment in some cases. The response contractor may have to construct a temporary landing to tie up the watercraft and offload personnel, equipment and materials. The response contractor will minimize the size and number of heavy equipment used in the response. In all cases the cognizant authorities will participate in and approve all plans, routes, equipment, materials, and methods.

   All work areas, to include access roads, laydown areas, boat landings, etc. will be restored to their pre-spill conditions as described in SITE RESTORATION below.

2. Protection of Wildlife Refuges

Once human health and safety issues have been addressed, the next priority will be given to limiting the spread of spilled product and further contamination of plant and animal life. This is typically done with containment booms and earthen berms. The cognizant authorities, Company Incident Commander and the first responder will have to quickly identify the areas threatened by the spill, and select the boom and berm locations. The Company Incident Commander will communicate special or additional equipment and material needs to the contractor's response team.

Where a body of water is affected or threatened by the spill, the response contractor will normally deploy containment booms as close downstream of, or around, the spill site as may be safe and practical. If the impacted area includes rough water, such as rapids and falls, the boom may have to be installed at a distance downstream, where the water is calm enough for the boom to be effective. This may increase the volume of contaminated water to be collected and treated. If use of the nearest effective deployment site is denied by the cognizant authorities, or if lack of roads, cliffs, heavy forests etc. make its use impractical, it may be necessary to deploy the boom at another site even further downstream.

Containment of an overland spill is typically done with ditches and berms. With the approval of, and at the direction of, the cognizant authorities, the response contractor may dig ditches and/or build berms downslope of, or around, the spill site to stop the overland flow of the spilled product. In some cases it may be possible to use this ditch/berm system to divert the product to a collection point. If the soil dug from the ditches is clay, it may be used to build the berms. The cognizant authority may prefer that clay for berms be obtained at an alternative clay source, offsite. Sandy and gravelly soils are not good barrier berm materials. If importing clay from offsite is impractical and no clay is available onsite, the response contractor may have to use sorbent materials, i.e., sorbent booms and pads, to construct the berm.

The Company Incident Commander and the response contractor will cooperate with the cognizant authorities to assist in the recovery of animals affected by the spilled product. The refuge staff, park rangers and/or wildlife rescue specialists will probably handle the animals, with some transportation provided by Company and the response contractor.

3. Recovery of Product from Water and Treatment of Contaminated Water.

Product is typically recovered from water bodies such as lakes, ponds and rivers by a combination of mechanical skimming, vacuum recovery, and sorbent materials. The point of recovery may be some distance downstream of the spill site, if access to closer sites is denied or is impractical. This may increase the response time, the amount of contaminated water, and the length of shoreline to be cleaned and restored. The size and capacity of skimming equipment, pumps, piping, and tankage may be limited by access restrictions, as described above.

Excavation of soil to recover product spilled onto the ground may be strictly controlled by the cognizant authorities, or even prohibited altogether. Other methods such as by soil/vapor extraction, or pumping from recovery wells may be considered as part of the long-term plan for some refuges, but these may be judged to be too intrusive for others.

The methods of temporary storage of the contaminated water will be dependent on site access and approval by the cognizant authorities. Barges may be practical where navigable waters are nearby. Tank trailers or frac tanks may be used if roads are accessible or constructible. Rubber bladder tanks may be used, but require cleared, relatively smooth laydown areas. It may be necessary to pump the contaminated water/product a considerable distance to a storage area outside the refuge itself. The response contractor should be sensitive to noise control and to leaks from fittings and pumps in the transfer system.

Once the contained waters have been stored, treatment options can be explored. Possible treatment options include steam or air stripping, oil/water separation, carbon adsorption, or other methodologies or combinations of methodologies. It is expected that the water treatment facility may be installed outside the refuge. Planning for the treatment technology and the location of the equipment will require approval of the cognizant authority.

4. Cleaning of Affected Structures

Wildlife refuges typically do not include many man-made structures. However, there may be visitor centers, viewing platforms and water-control equipment at some refuges. These structures contaminated by the spilled product may be cleaned by traditional methods that include wiping, hot water, low or high-pressure washdown, and use of surfactants, emulsifiers or other agents. The use of surfactants, emulsifiers and other chemical agents may be prohibited by the regulatory or other cognizant authorities in some areas of the wildlife refuge. Cleaning methods and materials to be used at a spill will be discussed with the appropriate authorities and used only with their concurrence and at their direction. Some wooden structures that cannot be adequately cleaned may have to be removed and/or replaced.

Washdown water and other liquids from cleaning activities should be contained by the boom or ditch/berm system, then collected and treated with the contaminated ground and surface waters.

5. Solids Handling and Removal

Removal of product-laden soils will be conducted only with the concurrence of, and at the direction of, the appropriate authorities. Where the noise and exhaust fumes from heavy equipment such as tracked excavators may disturb mating or nesting animals such equipment will be used only if the cognizant authorities permit it. Otherwise contaminated soils may have to be excavated manually using shovels and other hand tools.

Sorbent materials and other solid residue will be placed in trash bags and removed from the site for disposition. The response contractor will take particular care to remove all his site-generated wastes from the area, and will conduct a final walking inspection of the entire area with the Company Incident Commander to confirm that this has been done prior to departure.

Excavated contaminated soils and other solids will be removed from the site unless the regulatory authorities dictate that they remain onsite. Trucks may be used where roads are available. Barges may be more practical where navigable waterways are reasonably close. Where vehicle and barge use is impractical or prohibited by regulatory agencies, solids from the site may have to be removed manually.

Site Restoration

1. Sampling and Analysis to Verify Cleanup

   Sampling and analysis of the remaining soils and water will be coordinated with local, State and federal agencies to verify that the cleanup meets their requirements.

2. Rebuild/Reconstruct Affected Structures/Areas

   Wildlife refuge restoration activities will vary considerably from site to site and may entail major efforts by a combination of Company and multiple regulatory and wildlife agencies. As early as possible, the Company should determine the feasibility and practicality of restoration in consultation with the appropriate authorities so that detailed, deliberate plans, specifications, and costs can be prepared.

3. Final Report

   The response contractor will prepare a Final Report for Company, summarizing the actions taken during the response activities, with particular attention to restoration and verification of cleanup.

Sec. 3.9 Natural Resource Damage Assessments

Under the provision of CERCLA, the Oil Pollution Act of 1990 (OPA '90), and numerous state statutes, cost recovery can be obtained from industry for natural resource damage caused by the release of oil or hazardous substances to the environment. Natural resources are defined as land, air, biota, groundwater and surface water. A federal or state government entity, an Indian tribe or another nation acting as a public trustee of a natural resource may file claims for damages to natural resources.

A Natural Resource Damage Assessment (NRDA) is used to determine the damages owed to a public Trustee for residual natural resource injuries. This assessment is often conducted by the public Trustee, the potential responsible party or both. During the NRDA study, the injured natural resources are identified, the extent of the injury is quantified and the extent of the economic damage resulting from the loss of services provided by the resources is determined. In addition, the assessment also determines the cost of restoration or replacement of the injured natural resource.

A NRDA study is not conducted in all cases. HSE will work closely with the Trustees on a case-by-case basis to determine if a NRDA study is required. Company may choose to conduct a parallel study if the trustee determines that a NRDA will be conducted. The Environmental Coordinator should be contacted immediately if a Trustee contacts any member of the Company response team. HSE will provide assistance in conducting NRDA studies.

If a spill occurs that could potentially result in a NRDA, steps should be taken to assist the Trustees and to help protect Company interests throughout the assessment process. The following sampling procedures describe the steps that might be taken if the spill enters a stream. Sampling events would be modified appropriately if the spill only impacts land. To fully characterize the impact of the spill, several sampling events may be required. The initial round of samples should be collected as soon as possible following the spill event. Follow up sampling events will be scheduled to document the site restoration.

1. Formulate a sampling plan. Observe the site conditions and determine the best locations to collect samples. Contact a local lab and obtain the proper sampling containers, sampling equipment and documentation. The sample collection may be delegated to the lab or to response contractor personnel.

2. Contact the State Environmental Representative and inform them that samples are to be collected and offer to split the samples. If the State representative is not immediately available, do not wait, go ahead and collect the samples and inform them later. Time is a critical factor.

3. In any spill event, data collection and documentation are key factors to minimizing adverse financial and public perception impact to Company. The increased use of NRDA and lawsuits by local, county and state agencies following a spill, regardless of the efficiency of the response, requires an increased awareness and documentation of our response actions. Any sample collection event and all types of documentation may be utilized in a legal setting, therefore utilizing proper data collection techniques and detailed documentation are important.

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a. Photo Documentation: Photograph and/or Video Tape the event as thoroughly as possible. A photo record of the event should be maintained. All major events and response efforts should be photographed to establish a record of the events as they occur.

b. Written Documentation: A written log should be maintained that outlines the following information: 1) Major response events (i.e. time of the spill, time of the response, when valves were shut in, estimated volume of product. etc.) most of this information is documented on the Release Report Form in this FRP; 2) instructions or guidance provided to Company by State or Trustee representatives; 3) amount of product recovered; 4) amount of hazardous waste or special wastes generated as a result of the spill; 5) a sample collection location map that outlines the date, time, and type of samples collected, and; 6) date of project completion.

4. Sample Parameters/Collection: In the event of a product spill, review the State cleanup criteria for the individual state and sample accordingly, your Environmental Coordinator can assist in determining the proper sampling methodology and clean-up standards. If this information is not readily available instruct the lab to analyze for the following parameters: BTEX, (EPA Test Method 8020), and PAH (EPA Test Method 8270). BTEX analysis requires three 40 ml vials for liquid and one 4 oz glass jar for solids. PAH analysis requires a l liter glass jar for liquids, and one 8 oz. glass jar for solids. Properly labeling and chain of custody must be employed when collecting samples. All sample containers should be laboratory quality, glass containers. Use clean stainless steel or Teflon sample spoons and use proper decontamination techniques between samples. All samples should be placed in an ice chest, cooled and transported to the lab as soon as possible. You may choose to delegate the sampling duties to the lab or to the response contractor. Consult your Environmental Coordinator if you have questions concerning proper sample containers or equipment.

   Sample Location #1: Background Samples
   1 Sediment Sample -- BTEX, PAH
   1 Water Sample -- BTEX, PAH

   As soon as possible following the spill event, collect a background sample. This sample should be upstream of the spill event in an area that has not been impacted by the spill.

   Sample #2: Spilled Product Sample

   Collect a sample of the product that has been spilled. This sample is not to be analyzed but should be stored on ice for the next few weeks. The material may be useful in the future in the event that fingerprint analysis is required. Collect approximately 2 quarts of the material if possible.

   Sample Location #3: Midpoint Sample
   1 Water Sample -- BTEX, PAH
   1 Sediment Sample -- BTEX, PAH

Collect a sample of the water and sediment in the area that has been impacted by the release event. This sample will help determine the impact of the spill on the environment.

Sample Location #4: Downstream Sample
1 Water Sample -- BTEX, PAH
1 Sediment Sample -- BTEX, PAH

Collect a sample downstream of the area that has been impacted. This should be downstream of the last containment dike or boom. If the release has not been contained attempt to get ahead of the plume to collect the samples.

5. Air Samples Surveys should be conducted near the release site. Initially, a simple benzene draeger tube may be used. Your Environmental Coordinator will assist in establishing a sampling program if more sophisticated air sampling is required. Follow the same basic approach that is applied to the water sampling. Collect at least one air sample from an upwind location and two samples from a downwind location. Always take precautions collecting the samples and do not put yourself at risk when collecting the samples.

Sampling Procedures

1. Always wear latex or rubber gloves when taking samples. This protects the sample from your hands and your hands from the sample.

2. It is best to use a clean, clear glass jar for sampling. Four- or six-ounce jars are sufficient. Dip or lower the jar (using string if necessary) into the oil or oily water at about a 30° angle. This may allow more oil and less water to flow over the lip of the jar. Do not fill the jar more than 2/3 full.

3. If sampling a small amount of light oil, such as a sheen, the oil can be collected more easily using a Teflon strip or sorbent pad that is transferred to a sample jar. Do not use anything containing organic fibers such as rag, cotton, cheesecloth, etc.; these may contaminate the sample, thus, giving improper analysis results.

4. Decanting the water may be necessary to get enough oil for analysis. To decant, fasten the lid on securely and turn the jar over allowing the water to settle towards the lid. Then unscrew the lid just enough to allow the excess water to slowly escape.

5. Fasten the lid after lining it with aluminum foil or Teflon to obtain a good seal.

6. Affix the documentation label to the jar after wiping it clean and dry for the label to adhere. The label should identify the following information:

    - Date and time of sampling
    - Source/location of sample (be specific)
    - Name of person who took the sample
    - Sample designation using a sequential numbering or lettering system

a. Samples should be delivered to a laboratory immediately for analysis. If samples cannot be delivered immediately, they should be temporarily stored in a refrigerator or a cool dark place since exposure to heat and light could affect the analysis. Samples should be transported in waterproof containers or wrapped in enough sorbent material to soak up the entire contents of the jar in case of leakage or breakage.

Sec. 3.10 Oregon Wildlife Rehabilitation & Recovery

Sec. 3.10.1 Natural Resource Damage Assessment/Wildlife Management

Natural resource damage assessment (NRDA) and wildlife management (protection, rescue and rehabilitation) are typically only an issue in moderate to large spills as the natural resource/wildlife impacts from smaller spills are generally minimal or non-existent. In the unlikely event of a larger spill, the Environmental Coordinator should evaluate the need for NRDA (ephemeral data collection) and wildlife related actions. If necessary, the appropriate contractors should be activated immediately to assist in conducting and/or managing those efforts.

Natural Resource Damage Assessment

Definition. NRDA refers to the quantification of injury to natural resources and public services caused by an oil spill and the restoration of those resources and services to baseline (pre-spill) conditions. Natural resources generally include fish, wildlife, land, biota, air, water, sediments/soil and others whereas services affected by an oil spill often include recreation, public transportation, water borne commerce, etc.

Regulatory Basis. OPA 90, 33 U.S.C. 2701 *et seq*., provides for the designation of federal (primarily NOAA, USFWS, NMFS), state (DEQ, ODF&W, Ecology, WDF&G) and tribal officials to act on behalf of the public as trustees for natural resources. This regulation authorizes these officials to conduct natural resource damage assessments when natural resources and/or services are injured as a result of an oil spill and to determine the costs the responsible party must pay for the injury, loss of services, and restoration.

Importance and General Procedures. Because damage and restoration costs can be substantial, an accurate determination of the extent of spill related resource injury and loss of services is critical. It is important to collect numerous samples, make visual observations, and conduct extensive environmental monitoring both prior to, and following a spill impacting environmentally sensitive, high recreational use, or economically important areas. These samples and data are also crucial in protecting the Company against fraudulent third party health or property damage claims.

There are generally three phases of a natural damage resource assessment:

- **Pre-assessment Phase** - Trustees determine whether to pursue restoration
- **Restoration Planning Phase** - Trustees evaluate information on potential injuries to determine the need for, type of and scale of restoration
- **Restoration Implementation Phase** - Trustees ensure implementation of restoration

Trustees Responsibilities. Trustees must coordinate their activities that are conducted concurrently with response operations and response agencies consistent with the National Contingency Plan (NCP) and Area Contingency Plans (ACPs). They must also invite the responsible parties to participate in the damage assessment. The invitation to participate should be in writing and a written response by the responsible parties is required to confirm the desire to participate.

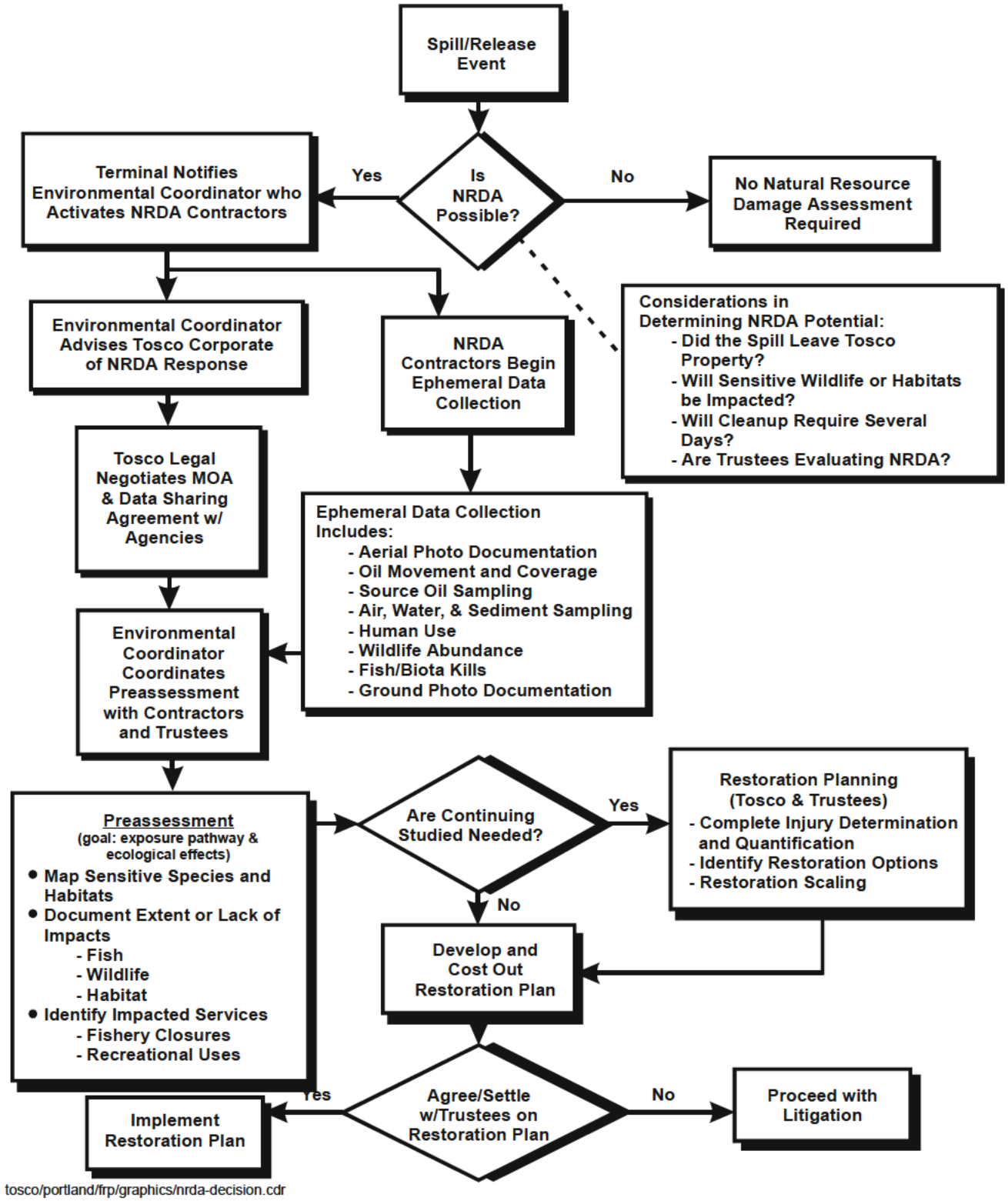
Sec. 3.10.2 Initial NRDA Response Actions

NRDA is generally only a factor for moderate to large spills to surface waters as they often pose the greatest threat of resource injury although consideration should be given to smaller spills as well. A decision guide is provided in this Plan to assist in determining if NRDA data collection is required and what to do if it is.

The Environmental Coordinator should take the following steps immediately after a spill is discovered:

1. Determine if NRDA data collection is required
2. Contact DEQ, ODF&W, Ecology and/or WDF&G as appropriate to request their participation in a joint data collection effort
3. Contact NRDA contractors and request immediate mobilization to the terminal or designated staging area
4. Establish ephemeral data collection team(s) from contractor, agency and, if available, Company personnel
5. Determine mutually agreeable data collection and sampling locations, media, quantities and objectives for each team
6. Ensure teams have appropriate PPE and are aware of potential health and safety hazards associated with their sampling and data collection activities
7. Arrange for overflights to assess and photo document extent of spill impact area and to help identify probable areas of impact

Sec. 3.10.3 NRDA Decision Guide



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Sec. 3.10.4 Ephemeral Data Collection

Ephemeral data are samples or data that must be collected in the first few hours or days following a spill where if they are not collected, the opportunity will be lost forever. Ephemeral data aids in understanding the environmental conditions prior to oil impact and can be essential in identifying the need for, and scope of, subsequent environmental sampling and injury assessment. These data generally include the following and should be collected in the order shown:

1. Source oil
2. Pre-impact water (downstream/current and upstream/current)
3. Air samples and/or monitoring (downwind, upwind, crosswind)
4. Pre-impact sediment
5. Pre-impact fish/shellfish tissue (local fish, mussels, clams, crabs, etc.)
6. Human use observations (recreational areas, boating, fishing, etc.)
7. Post-impact water, sediment and fish/shellfish tissue

More detailed information on the collection of the above data/samples is provided in this Section and descriptions on their purposes are provided below.

Source Oil

A sample of fresh oil should be collected immediately from the source to determine toxicity, fate and persistence, and/or fingerprinting to differentiate from other oils that could also be present in the environment.

Water

Samples of pre-impact water should be collected at multiple downstream/current and upstream/current locations and depths to establish respective baseline and background contaminant levels. Without the pre-impact samples, any hydrocarbons that may already be present in the water will likely be attributed to the spill. The collection of similar post-impact water samples is also important to determine concentrations of dissolved hydrocarbons in the water column and the aerial extent of the impact area. Sample locations must be documented, preferably with GPS instruments.

Air

Air monitoring and the collection of samples should be conducted as soon as possible and when safe to do so at various distances in the down-, up-, and crosswind directions. The intent is to determine the concentrations and extent of the spill's vapor plume. Portable monitoring instruments, such as an organic vapor meter, PID, FID, colorimetric tubes and others, are generally satisfactory but the collection of air samples using pumps and Tedlar bags or sorbent tubes are superior.

Sediment

As with the water samples, it is important to collect pre-impact sediment samples at various locations likely to be impacted by the spill to determine if hydrocarbon contamination is already present. It is also important to collect post-impact samples in the same locations to determine the degree of impact. Samples should be collected at the current water/tide line as well as below and above the waterline but still within the normal fluctuation/tidal range.

Tissue

The collection of fish/shellfish tissue samples is not critical but should be considered particularly for areas already known to be somewhat contaminated. Species suitable for collection include resident fish or shellfish that naturally tend to bio-accumulate hydrocarbons such as mussels, clams, crabs, and fatty or oily fish. Pre- and post-impact samples can help determine if fish received significant hydrocarbon exposure from the spill.

Additional Assessments

In addition to the ephemeral data collection activities mentioned above, other NRDA related assessments may be required to adequately quantify the impacts of a spill. Common types of supplemental assessments along with the resources that may be required to conduct the assessments are listed in this Section. Contractors that could be utilized to conduct the assessments are included in this Plan.

Sec. 3.10.5 Wildlife Management

General Responsibilities. In the event birds or other wildlife become oiled or potentially could be oiled, the Company will contact the Oregon Department of Fish and Wildlife (ODF&W) to initiate wildlife management activities (i.e., protection, rescue and rehabilitation). The ODF&W is the lead agency for most non-federally protected species and will oversee the majority of the wildlife management activities. The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) are the lead agencies for federally protected species such as selected birds (bald eagles, heron, osprey) and fish (salmon), respectively. These agencies will work together and with the Company to establish a sound wildlife management program.

Company Policy and Responsibilities. The Company will generally utilize Clean Rivers Cooperative to implement and coordinate wildlife management activities. The Company may, however, be required to conduct the following activities:

- Liaison with federal, state and local agency personnel
- Integration of wildlife rescue activities with the spill response operations
- Acquisition of appropriate wildlife take permits and access agreements
- Transportation of wildlife management personnel to and from the spill area
- Transportation of rescued wildlife to collection and rehabilitation centers
- Establishment of collection and rehabilitation centers

Sec. 3.10.6 Ephemeral Data Collection Guidelines

Media	Location	Number	Container	Analyses
Source Oil	Tank, vessel, pipeline, etc.	1	1 liter, pre-cleaned, glass wide mouth jar w/ Teflon lined cap (clean metal or plastic bucket may suffice)	Complete characterization – PAHs by 8270 mod.-GC/MS/SIM, BTEX by 8240 GC/MS/SIM, density, boiling curve, metals, sulfur content, weight fraction in oil of aromatics, naphthenes, total paraffins, asphaltenes/resins and sulfur
Water	Downstream/ current and upstream/ current	Min. 3 each	2.5 liter, pre-cleaned, amber-glass wide mouth jars and 2-40 ml VOA vials	TPH by 8015 mod. GC/FID, extended range, PAHs by 8270 mod. GC/MS/SIM, BTEX by 8240 GC/MS/SIM
Air	Down-, up-, crosswind	Min. 3 each	1 liter Tedlar bag and/or charcoal sorbent tube	TPH and BTEX by 8015 mod. GC/FID
Sediment	Potentially impacted areas	Min. 5 composite each area	8 ounce pre-cleaned, glass wide mouth jar w/ Teflon lined cap	TPH by 8015 mod. GC/FID, extended range, PAHs by 8270 mod. GC/MS/SIM, BTEX by 8240 GC/MS/SIM
Tissue	Same as sediment (shellfish) or random (fish)	15-30 shellfish or 5-10 fish	Plastic bags or appropriate size glass jars	PAHs by 8270 mod.-GC/MS/SIM, BTEX by 8240 GC/MS/SIM, lipid and water content (report results as dry weight)

Sec. 3.10.7 Wildlife Protection

General Procedures. Wildlife protection involves preventing the oil from reaching key wildlife habitat or use areas or keeping wildlife from inhabiting impacted areas. The former involves the exclusion of oil from wetlands or other areas by booming, damming, or other means as discussed in the Sensitive Area Protection Section and the latter involves various means of hazing.

Hazing. Although waterfowl and other wildlife will, at least initially, avoid areas of intensive human and heavy equipment activities, such as those associated with spill response operations, attempts should be made to scare wildlife away from the oiled areas by hazing. The following are hazing methods commonly employed during spill responses:

- Pyrotechnics (propane cannons, fire crackers, guns, etc.)
- Acoustic Devices (electronic and mechanical sound devices)
- Aircraft (periodic flyovers with helicopters or fixed wing aircraft)

Care must be taken not to drive the wildlife from one oiled area to another and any hazing activities should be approved by the appropriate resource agencies (trustees) and local officials prior to implementation.

Sec. 3.10.8 Rescue and Rehabilitation

Company Policy and Procedures. In the event of significant impacts to wildlife, the Company will request Clean Rivers to activate their wildlife team and equipment for rescue and rehabilitation operations. All wildlife management activities will be conducted in accordance with the Clean Rivers/MFSA "Oiled Wildlife Resource Guide" and will follow the direction of the ODF&W representative. The Company will assist whenever possible to enhance the operations.

Birds

Since each oil spill includes inherently different characteristics, the survival of oiled birds is dependent on several factors:

- Toxicity of the oil
- Physical condition of the birds
- Time of year the spill occurs
- Amount of stress the birds are subjected to

These factors will influence the type of care each bird will receive and ultimately influence their chance of survival. The Company will provide the toxicity/chemical make-up of the spilled oil to ODF&W and Clean Rivers so that proper care can be administered.

If nearby residents rescue birds on their own accord and call the terminal, advise them to take the birds to the nearest bird cleaning or collection station or to the local humane society or animal shelter as soon as possible.

Mammals

Terrestrial and marine mammals will undergo rescue and rehabilitation treatment managed by ODF&W with assistance from USFWS and/or NMFS as appropriate. These mammals are especially sensitive and potentially dangerous when being rescued. Therefore, only specially trained personnel will be used for this task. Similar to the birds, the toxicity/chemical make-up of the spilled oil will be provided by the Company to ODF&W to ensure proper care is administered. Terrestrial mammals are more likely to be secondarily affected when they scavenge other animals that are stressed or have died as a result of the spill.

Volunteers

Recruiting, proper training and management of all volunteers for the wildlife rescue and rehabilitation program will be under the direction of the ODF&W, USFWS, NMFS, or their designated representatives. The Company will not hire and/or train volunteers for work on an oil spill response incident due to the potential liabilities involved. Instead, the Company will refer volunteers to appropriate state and/or local agencies, contractors, or organizations that are set up to handle volunteers.

Sec. 3.10.9 Potentially Required Assessments

Potential Receptors	Evaluate	Resources
Biological		
Terrestrial Wildlife	Sensitive Species – no. present, degree of impact, mortality, abnormal behavior	Natural resources database, Visual observations
Aquatic Life	Indicator Species – no. present, degree of impact, mortality (fish kills), abnormal behavior	Area contingency plan/Visual observations
Vegetation Communities	Habitat Types/Sensitive Species – no. present, degree of impact, stressed/dead?	Local survey data, Visual Observations
Aviary Community (resident/migratory birds & waterfowl)	Seasonal Impacts – no. present, degree of impact, mortality, abnormal behavior	Local preserve data, Visual observations
Wetlands	Aerial extent of impact area and degree of impact	USGS quadrangles, Wetlands inventory maps, Visual observations
Water Quality		
Groundwater	Floating/dissolved hydrocarbons	Water resource/quality agencies, Testing
Surface Waters	Aerial extent of impact area and vertical and horizontal dissolved HC profiles within impact area, upstream and downstream	Water resource/quality agencies, Testing, Visual observations
Drinking Water Supplies	Location relative to impact area	EPA & water resource/ quality agencies, Testing, Visual observations
Sanitary Systems	Degree of impact to system	Local sanitary agencies, Visual observations
Storm Water Systems	Degree of impact to system	Local municipalities/ Visual observations
Air Quality		
Local Community/ Wildlife – houses, businesses, schools, churches, parks, day care centers, refuges, wetlands, forests, etc.	HC concentrations and/or odors at receptors/upwind/downwind	Monitoring w/OVM/PID/ FID, Sampling pumps w/charcoal tubes/Tedlar bags, Smell, Dispersion modeling
	Wind speed and direction,	Local AQMD/ Weather service/airport, Facility meterological station, Hand-held meters
	Apparent health effects, mortality, abnormal behavior	Visual observations, Medical records

Potentially Required Assessments – Contd

Soil/Sediment/Structures		
Soil	Aerial extent, vertical and horizontal HC concentrations	Visual observations, Sampling and analysis
Manmade Structures/ Impervious Surfaces	Aerial extent, coating thickness	Visual observations
Aquatic Sediments	Vertical and horizontal HC concentrations	Sampling and analysis
Services - General Public		
Recreational Use	Closure of parks, beaches, etc, No. of persons present or typically present at time of closure	Visual observations, Recreation agency facility use records
Commerce	Closure of major transportation routes (highways, bridges, waterways, common carrier pipelines, etc., Typically daily usage of affected routes	Visual observations, DOT traffic count records
Traffic	Traffic delays, rerouting, No. of affected vehicles	Visual observations, DOT/municipal traffic count records

High Impact Areas

- Tidally influenced water bodies
- Major rivers and waterways
- Drinking water intakes/aquifers
- Rare and endangered or threatened wildlife/plant species
- Wildlife areas
- Sensitive sites as defined by the ACP
- Schools/day care centers
- Hospitals
- Businesses
- Neighboring properties

Annex 4 – Table of Contents

Sec. 4.0 EPA 40 CFR 112

U.S. EPA -OPA 90 Appendix F to Part 112 – Facility Specific Response Plan		
Appendix F	**Brief Description**	**Location**
1.0	**Model Facility-Specific Response Plan**	---
1.1	**Emergency Response Action Plan**	--
	1. Qualified Individual Information	ERAP
	2. Emergency Notification Phone List	ERAP
	3. Spill Response Notification Form	ERAP
	4. Response Equipment List and Location	ERAP
	5. Response Equipment Testing and Deployment	ERAP
	6. Facility Response Team	ERAP
	7. Evacuation Plan	ERAP
	8. Immediate Actions	ERAP
	9. Facility Diagram	ERAP
1.2	**Facility Information**	--
1.2.1	Facility name and location	Annex 1
1.2.2	Latitude and Longitude	Annex 1
1.2.3	Wellhead Protection Area	Annex 1
1.2.4	Owner/operator	Annex 1
1.2.5	Qualified Individual	Annex 2
1.2.6	Date of Oil Storage Start-up	Annex 1
1.2.7	Current Operation	Annex 1
1.2.8	Dates and Types of Substantial Expansion	Annex 1
1.3	**Emergency Response Information**	
1.3.1	Notification	Sec. II, Annex 2
1.3.2	Response Equipment List / Location	Annex 2
1.3.3	Response Equipment Testing/Deployment	Sec. III
1.3.4	Personnel	
	• A description of information to pass to response personnel	Sec II
	• A description of response personnel capabilities, including: • Duties of persons at the Facility during a response action	Sec. II
	• Response times and qualifications	Annex 1 & 2
	• Evidence of contractual arrangements	Annex 2

EPA 40 CFR 112 (Cont'd)

U.S. EPA -OPA 90 Appendix F to Part 112 – Facility Specific Response Plan		
Appendix F	**Brief Description**	**Location**
1.3.5	Evacuation Plans	Annex 1
	Plans for evacuation…and community evacuation plans, as appropriate	Annex 1
1.3.6	Qualified Individual's Duties	Sec. II, Annex 1
	A description of the duties of the qualified individual to include:	
	Activate internal alarms and hazard communication systems to notify all facility personnel;	
	Notify all response personnel, as needed;	Sec. II, Annex 1
	Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;	Sec. II, Annex 1
	Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;	Sec. II, Annex 1
	Assess the interaction of the spilled substance with water and/ or other substances stored at the facility and notify response personnel at the scene of that assessment;	Sec. II, Annex 1
	Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);	Sec. II, Annex 1
	Assess and implement prompt removal actions to contain and remove the substance released;	Sec. II
	Coordinate rescue and response actions as previously arranged with all response personnel;	Sec. II
	Use authority to immediately access company funding to initiate cleanup activities; and	Annex 1
	Direct cleanup activities until properly relieved of this responsibility.	Sec. II
1.4	**Hazard Evaluation**	
1.4.1	Hazard Identification	Annex 1
1.4.2	Vulnerability Analysis	Annex 1
1.4.3	Analysis of the Potential for an Oil Spill	Annex 1
1.4.4	Facility Reportable Oil Spill History	Annex 1
1.5	**Discharge Scenarios**	Annex 1
1.5.1	Small and Medium Discharges	Annex 1
1.5.2	Worst Case Discharge	Annex 1

EPA 40 CFR 112 (Cont'd)

U.S. EPA -OPA 90 Appendix F to Part 112 – Facility Specific Response Plan		
Appendix F	**Brief Description**	**Location**
1.6	**Discharge Detection Systems**	Sec II--
1.6.1	Discharge Detection by Personnel	Sec. II, Annex 1
1.6.2	Automated Discharge Detection	Sec. II, Annex 1
1.7	**Plan Implementation**	
1.7.1	Response Resources for Small, Medium, and Worst Case Spills	Annex 1 & 2
1.7.2	Disposal Plans	Sec. II
1.7.3	Containment and Drainage Planning	Sec. II
1.8	**Self-Inspection, Drills/Exercises, and Response Training**	
1.8.1	Facility Self-Inspection	Sec. III
	1.8.1.1 Tank Inspection	Sec. III
	1.8.1.2 Response Equipment Inspection	Sec. III
	1.8.1.3 Secondary Containment Inspection	Sec. III
1.8.2	Facility Drills/Exercises	Sec. III
	1.8.2.1 Qualified Individual Notification Drill Log	Sec. III
	1.8.2.2 Crisis Management Team Tabletop Exercise Log	Sec. III
1.8.3	Response Training	Sec. III
	1.8.3.1 Personnel Response Training Log	Sec. III
	1.8.3.2 Discharge Prevention Meeting Log	Sec. III
1.9	**Diagrams**	
	(1) Site Plan Diagram	Annex 1
	(2) Site Drainage Plan Diagram	Annex 1
	(3) Site Evacuation Plan Diagram	Annex 1
1.10	**Security**	Sec. II
2.0	**Response Plan Cover Sheet**	Annex 1
3.0	**Acronyms**	Sec. I

EPA 40 CFR 112 (Cont'd)

U.S. EPA -OPA 90 Appendix F to Part 112 – Facility Specific Response Plan (Cont'd)		
40 CFR 112.21	**Brief Description**	**Location**
(a)	Develop a training and drill program that satisfies the requirements of this section.	Sec. III
(b)	Develop a facility response training program to train personnel involved in response activities.	Sec. III
(b)(1)	Proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations.	Sec. III
(b)(2)	Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel.	Sec. III
(b)(3)	Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup.	Sec. III
(c)	Develop a program of facility response drills/exercises, including evaluation procedures. Can follow PREP.	Sec. III

Sec. 4.1 USCG 33 CFR 154

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
33 CFR §154.1030	**Location**
(a) The plan must be written in English.	--
(b) A response plan must be divided into the sections listed in this paragraph and formatted in the order specified herein unless noted otherwise. It must also have some easily found marker identifying each section listed below. The following are the sections and subsections of a facility response plan:	T.O.C.
(1) Introduction and plan contents.	T.O.C., Sec. I
(2) Emergency response action plan:	ERAP
(i) Notification procedures.	ERAP
(ii) Facility's spill mitigation procedures.	ERAP
(iii) Facility's response activities.	ERAP
(iv) Fish and wildlife and sensitive environments.	ERAP
(v) Disposal plan.	ERAP
(3) Training and Exercises:	ERAP
(i) Training procedures.	Sec. III
(ii) Exercise procedures.	Sec. III
(4) Plan review and update procedures.	Sec. I
(5) Appendices.	
(i) Facility-specific information.	Annex 1
(ii) List of contacts.	Annex 2
(iii) Equipment lists and records.	Sec. II
(iv) Communications plan.	Sec. II
(v) Site-specific safety and health plan.	Sec. II
(vi) List of acronyms and definitions.	Sec. I
(vii) A geographic-specific appendix for each zone in which a mobile facility operates.	N/A
(c) The required contents for each section and subsection of the plan are contained in §§ 154.1035, 154.1040, and 154.1041, as appropriate.	Annex 4
(d) The sections and subsections of response plans submitted to the COTP must contain at a minimum all the information required in §§154.1035, 154.1040, and 154.1041, as appropriate. It may contain other appropriate sections, subsections, or information that are required by other Federal, State, and local agencies.	Annex 4
(e) For initial and subsequent submission, a plan that does not follow the format specified in paragraph (b) of this section must be supplemented with a detailed cross-reference section to identify the location of the applicable sections required by this subpart.	Annex 4

Sec. 4.1 USCG 33 CFR 154 (Cont'd)

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
33 CFR §154.1030 (Cont'd)	**Location**
(f) The information contained in a response plan must be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR part 300) and the Area Contingency Plan(s) (ACP) covering the area in which the facility operates. Facility owners or operators shall ensure that their response plans are in accordance with the ACP in effect 6 months prior to initial plan submission or the annual plan review required under § 154.1065(a). Facility owners or operators are not required to, but may at their option, conform to an ACP which is less than 6 months old at the time of plan submission.	Sec. I
CFR §154.1035	**Location**
(a) *Introduction and plan content.* This section of the plan must include facility and plan information as follows:	--
(1) The facility's name, street address, city, county, state, ZIP code, facility telephone number, and facsimile number, if so equipped. Include mailing address if different from street address.	Annex 1
(2) The facility's location described in a manner that could aid both a reviewer and a responder in locating the specific facility covered by the plan, such as, river mile or location from a known landmark that would appear on a map or chart.	Annex 1
(3) The name, address, and procedures for contacting the facility's owner or operator on a 24-hour basis.	Annex 1
(4) A table of contents.	Annex 1
(5) During the period that the submitted plan does not have to conform to the format contained in this subpart, a cross index, if appropriate.	Sec. I, Annex 1, 2, 3, 4
(6) A record of change(s) to record information on plan updates.	Annex 5
(b) *Emergency Response Action Plan.* This section of the plan must be organized in the subsections described in this paragraph:	--
(1) *Notification procedures.* (i) This subsection must contain a prioritized list identifying the person(s), including name, telephone number, and their role in the plan, to be notified of a discharge or substantial threat of a discharge of oil. The telephone number need not be provided if it is listed separately in the list of contacts required in the plan. This Notification Procedures listing must include:-	Sec. II, Annex 2
(A) Facility response personnel, the spill management team, oil spill removal organizations, and the qualified individual(s) and the designated alternate(s); and	Sec. II, Annex 2
(B) Federal, State, or local agencies, as required.	Sec. II, Annex 2
(ii) This subsection must include a form, such as that depicted in Figure 1, which contains information to be provided in the initial and follow-up notifications to Federal, State, and local agencies. The form shall include notification of the National Response Center as required in part 153 of this chapter. Copies of the form also must be placed at the location(s) from which notification may be made. The initial notification form must include space for the information contained in Figure 1. The form must contain a prominent statement that initial notification must not be delayed pending collection of all information.	Section 4
(2) *Facility's spill mitigation procedures.* (i) This subsection must describe the volume(s) and oil groups that would be involved in the --	Annex 1
(A) Average most probable discharge from the MTR facility;	Annex 1
(B) Maximum most probable discharge from the MTR facility;	Annex 1
(C) Worst case discharge from the MTR facility; and	Annex 1
(D) Where applicable, the worst case discharge from the non-transportation-related facility. This must be the same volume provided in the response plan for the non-transportation-related facility.	Annex 1

Sec. 4.1 USCG 33 CFR 154 (Cont'd)

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
CFR §154.1035 (Cont'd)	**Location**
(ii) This subsection must contain prioritized procedures for facility personnel to mitigate or prevent any discharge or substantial threat of a discharge of oil resulting from operational activities associated with internal or external facility transfers including specific procedures to shut down affected operations. Facility personnel responsible for performing specified procedures to mitigate or prevent any discharge or potential discharge shall be identified by job title. A copy of these procedures shall be maintained at the facility operations center. These procedures must address actions to be taken by facility personnel in the event of a discharge, potential discharge, or emergency involving the following equipment and scenarios:	Sec. II
(A) Failure of manifold, mechanical loading arm, other transfer equipment, or hoses, as appropriate;	Sec. II
(B) Tank overfill;	Sec. II
(C) Tank failure;	Sec. II
(D) Piping rupture;	Sec. II
(E) Piping leak, both under pressure and not under pressure, if applicable;	Sec. II
(F) Explosion or fire; and	Sec. II
(G) Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers.)	Sec. II
(iii) This subsection must contain a listing of equipment and the responsibilities of facility personnel to mitigate an average most probable discharge.	Sec. II, Annex 2
(3) *Facility's response activities.*	
(i) This subsection must contain a description of the facility personnel's responsibilities to initiate a response and supervise response resources pending the arrival of the qualified individual.	Sec. II
(ii) This subsection must contain a description of the responsibilities and authority of the qualified individual and alternate as required in § 154.1026.	Sec. II, Annex 1
(iii) This subsection must describe the organizational structure that will be used to manage the response actions. This structure must include the following functional areas.	Sec. II
(A) Command and control;	Sec. II
(B) Public information;	Sec. II
(C) Safety;	Sec. II
(D) Liaison with government agencies;	Sec. II
(E) Spill Operations;	Sec. II
(F) Planning;	Sec. II
(G) Logistics support; and	Sec. II
(H) Finance.	Sec. II

Sec. 4.1 USCG 33 CFR 154 (Cont'd)

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
CFR §154.1035 (Cont'd)	**Location**
(iv) This subsection must identify the oil spill removal organizations and the spill management team to:	--
(A) Be capable of providing the following response resources:	--
(*1*) Equipment and supplies to meet the requirements of §§ 154.1045, 154.1047 or subparts H or I of this part, as appropriate; and	Annex 2
(2) Trained personnel necessary to continue operation of the equipment and staff of the oil spill removal organization and spill management team for the first 7 days of the response.	Sec. II, Annex 2
(B) This section must include job descriptions for each spill management team member within the organizational structure described in paragraph (b)(3)(iii) of this section. These job descriptions should include the responsibilities and duties of each spill management team member in a response action.	Sec. II
(v) For mobile facilities that operate in more than one COTP zone, the plan must identify the oil spill removal organization and the spill management team in the applicable geographic-specific appendix. The oil spill removal organization(s) and the spill management team discussed in paragraph (b)(3)(iv)(A) of this section must be included for each COTP zone in which the facility will handle, store, or transport oil in bulk.	N/A
(4) *Fish and wildlife and sensitive environments.* (i) This section of the plan must identify areas of economic importance and environmental sensitivity, as identified in the ACP, which are potentially impacted by a worst case discharge. ACPs are required under section 311(j)(4) of the FWPCA to identify fish and wildlife and sensitive environments. The applicable ACP shall be used to designate fish and wildlife and sensitive environments in the plan. Changes to the ACP regarding fish and wildlife and sensitive environments shall be included in the annual update of the response plan, when available.	Sec. I, Annex 3
(ii) For a worst case discharge from the facility, this section of the plan must	--
(A) List all fish and wildlife and sensitive environments identified in the ACP which are potentially impacted by a discharge of persistent oils, non-persistent oils, or non-petroleum oils.	Annex 3
(B) Describe all the response actions that the facility anticipates taking to protect these fish and wildlife and sensitive environments.	Annex 3
(C) Contain a map or chart showing the location of those fish and wildlife and sensitive environments which are potentially impacted. The map or chart shall also depict each response action that the facility anticipates taking to protect these areas. A legend of activities must be included on the map page.	Annex 3

Sec. 4.1 USCG 33 CFR 154 (Cont'd)

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
CFR §154.1035 (Cont'd)	**Location**
(iii) For a worst case discharge, this section must identify appropriate equipment and required personnel, available by contract or other approved means as described in § 154.1028, to protect fish and wildlife and sensitive environments which fall within the distances calculated using the methods outlined in this paragraph as follows:	Annex 2
(A) Identify the appropriate equipment and required personnel to protect all fish and wildlife and sensitive environments in the ACP for the distances, as calculated in paragraph (b)(4)(iii)(B) of this section, that the persistent oils, non-persistent oils, or non-petroleum oils are likely to travel in the noted geographic area(s) and number of days listed in Table 2 of appendix C of this part;	Annex 2
(B) Calculate the distances required by paragraph (b)(4)(iii)(A) of this section	Annex 3
(5) *Disposal Plan.* This subsection must describe any actions to be taken or procedures to be used to ensure that all recovered oil and oil contaminated debris produced as a result of any discharge are disposed according to Federal, state, or local requirements.	Sec. II
(c) *Training and exercises.* This section must be divided into the following two subsections:	Sec. III
(1) *Training procedures.* This subsection must describe the training procedures and programs of the facility owner or operator to meet the requirements in § 154.1050.	Sec. III
(2) *Exercise procedures.* This subsection must describe the exercise program to be carried out by the facility owner or operator to meet the requirements in § 154.1055.	Sec. III
(d) *Plan review and update procedures.* This section must address the procedures to be followed by the facility owner or operator to meet the requirements of §154.1065 and the procedures to be followed for any post-discharge review of the plan to evaluate and validate its effectiveness.	Sec. V
(e) *Appendices.* This section of the response plan must include the appendices described in this paragraph.	
(1) *Facility-specific information.* This appendix must contain a description of the facility's principal characteristics.	Annex 1
(i) There must be a physical description of the facility including a plan of the facility showing the mooring areas, transfer locations, control stations, locations of safety equipment, and the location and capacities of all piping and storage tanks.	Annex 1
(ii) The appendix must identify the sizes, types, and number of vessels that the facility can transfer oil to or from simultaneously.	Annex 1

Sec. 4.1 USCG 33 CFR 154 (Cont'd)

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
CFR §154.1035 (Cont'd)	**Location**
(iii) The appendix must identify the first valve(s) on facility piping separating the transportation-related portion of the facility from the non transportation-related portion of the facility, if any. For piping leading to a manifold located on a dock serving tank vessels, this valve is the first valve inside the secondary containment required by 40 CFR part 112.	Annex 1
(iv) The appendix must contain information on the oil(s) and hazardous material handled, stored, or transported at the facility in bulk. A material safety data sheet meeting the requirements of 29 CFR 1910.120, 33 CFR 154.310(a)(5) or an equivalent will meet this requirement. This information can be maintained separately providing it is readily available and the appendix identifies its location. This information must include --	Annex 1
(A) The generic or chemical name;	Annex 1
(B) A description of the appearance and odor;	Annex 1
(C) The physical and chemical characteristics;	Annex 1
(D) The hazards involved in handling the oil(s) and hazardous materials. This shall include hazards likely to be encountered if the oil(s) and hazardous materials come in contact as a result of a discharge; and	Annex 1
(E) A list of firefighting procedures and extinguishing agents effective with fires involving the oil(s) and hazardous materials.	Annex 1
(2) *List of contacts.* This appendix must include information on 24-hour contact of key individuals and organizations. If more appropriate, this information may be specified in a geographic-specific appendix. The list must include -	Annex 2
(i) The primary and alternate qualified individual(s) for the facility;	Annex 2
(ii) The contact(s) identified under paragraph (b)(3)(iv) of this section for activation of the response resources; and	Annex 2
(iii) Appropriate Federal, State, and local officials.	Sec. II, Annex 2
(3) *Equipment list and records.* This appendix must include the information specified in this paragraph.	
(i) The appendix must contain a list of equipment and facility personnel required to respond to an average most probable discharge, as defined in § 154.1020. The appendix must also list the location of the equipment.	Annex 2
(ii) The appendix must contain a detailed listing of all the major equipment identified in the plan as belonging to an oil spill removal organization(s) that is available, by contract or other approved means as described in § 154.1028(a), to respond to a maximum most probable or worst case discharge, as defined in § 154.1020. The detailed listing of all major equipment may be located in a separate document referenced by the plan. Either the appendix or the separate document referenced in the plan must provide the location of the major response equipment.	Annex 2

Sec. 4.1 USCG 33 CFR 154 (Cont'd)

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
CFR §154.1035 (Cont'd)	**Location**
(iii) It is not necessary to list response equipment from oil spill removal organization(s) when the organization has been classified by the Coast Guard and their capacity has been determined to equal or exceed the response capability needed by the facility. For oil spill removal organization(s) classified by the Coast Guard, the classification must be noted in this section of the plan.	Annex 2
(4) *Communications plan.* This appendix must describe the primary and alternate method of communication during discharges, including communications at the facility and at remote locations within the areas covered by the response plan. The appendix may refer to additional communications packages provided by the oil spill removal organization. This may reference another existing plan or document.	Sec. II
(5) *Site-specific safety and health plan.* This appendix must describe the safety and health plan to be implemented for any response location(s). It must provide as much detailed information as is practicable in advance of an actual discharge. This appendix may reference another existing plan requiring under 29 CFR 1910.120.	Sec. II
(6) *List of acronyms and definitions.* This appendix must list all acronyms used in the response plan including any terms or acronyms used by Federal, State, or local governments and any operational terms commonly used at the facility. This appendix must include all definitions that are critical to understanding the response plan.	Sec. I
CFR §154.1050	**Location**
(a) A response plan submitted to meet the requirements of §154.1035 or §154.1040, as appropriate, must identify the training to be provided to each individual with responsibilities under the plan. A facility owner or operator must identify the method to be used for training any volunteers or casual laborers used during a response to comply with the requirements of 29 CFR 1910.120.	Sec. II
(b) A facility owner or operator shall ensure the maintenance of record sufficient to document training of facility personnel; and shall make them available for inspection upon request by the U.S. Coast Guard. Records of facility personnel must be maintained that the facility for 3 years.	Sec. II
(c) Where applicable, a facility owner or operator shall ensure that an oil spill removal organization identified in a response plan to meet the requirements of this subpart maintains records sufficient to document training for the organization's personnel and shall make them available for inspection upon request by the facility's management personnel, the qualified individual, and U.S. Coast Guard. Records must be maintained for 3 years following the completion of training.	Sec. II
(d) The facility owner or operator remains responsible for ensuring that all private response personnel are trained to meet the Occupation Safety and Health Administration (OSHA) standards for emergency response operations in 29 CFR 1910.120.	Sec. II

Sec. 4.1 USCG 33 CFR 154 (Cont'd)

33 CFR Part 154 – Facilities Transferring Oil or Hazardous Materials in Bulk	
CFR §154.1055	**Location**
(a)(1) Qualified individual notification exercises (quarterly).	Sec. III
(a)(2) Spill management team tabletop exercises (annually). In a 3-year period, at least one of these exercises must include a worst case discharge scenario.	Sec. III
(a)(3)(i) Equipment deployment exercises. Semi-annually for facility owned and operated equipment.	Sec. III
(a)(3)(ii) Equipment deployment exercises. Annually for oil spill removal organization equipment.	Sec. III
(a)(4) Emergency procedures exercises (optional).	Sec. III

Sec. 4.2 DOT 49 CFR 194

DOT/PHMSA 49 CFR PART 194 CROSS REFERENCE		
§ 194.105	**Brief Description**	**Location**
(a)	Each operator shall determine the worst case discharge for each of its response zones and provide the methodology, including calculations, used to arrive at the volume.	Annex 1
(b)	The worst case discharge is the largest volume, in barrels, of the following:	Annex 1
(b)(1)	The pipeline's maximum release time in hours, plus the maximum shutdown response time in hours (based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the line section(s) in the response zone expressed in barrels; or	Annex 1
(b)(2)	The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken; or	Annex 1
(b)(3)	If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels.	Annex 1
(b)(4)	Operators may claim prevention credits for breakout tank secondary containment and other specific spill prevention measures as follows:	Annex 1
§ 194.107	**Brief Description**	
(a)	Each response plan must plan for resources for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge.	Annex 2
(b)	An operator must certify in the response plan that it reviewed the NCP and each applicable ACP and that its response plan is consistent with the NCP and each applicable ACP as follows:	Sec. I
(b)(1)	As a minimum to be consistent with the NCP as a facility response plan must:	Sec. I
(b)(1)(i)	Demonstrate an operator's clear understanding of the function of the Federal response structure, including procedures to notify the National Response Center reflecting the relationship between the operator's response organization's role and the Federal On Scene Coordinator's role in pollution response;	Sec. II
(b)(1)(ii)	Establish provisions to ensure the protection of safety at the response site; and	Sec. II
(b)(1)(iii)	Identify the procedures to obtain any required Federal and State permissions for using alternative response strategies such as in-situ burning and dispersants as provided for in the applicable ACPs; and	Sec. II
(b)(2)	At a minimum, to be consistent with the applicable ACP the plan must:	--
(b)(2)(i)	Address the removal of a worst case discharge and the mitigation or prevention of a substantial threat of a worst case discharge;	Sec. II
(b)(2)(ii)	Identify environmentally and economically sensitive areas;	Annex 3
(b)(2)(iii)	Describe the responsibilities of the operator and of Federal, State and local agencies in removing a discharge and in mitigating or preventing a substantial threat of a discharge; and	Sec. II
(b)(2)(iv)	Establish the procedures for obtaining an expedited decision on use of dispersants or other chemicals.	Sec. II

Sec. 4.2 DOT 49 CFR 194 (Cont'd)

DOT/PHMSA 49 CFR PART 194 CROSS REFERENCE		
§ 194.107	**Brief Description**	
(c)	Each response plan must include:	--
(c)(1)	A core plan consisting of --	--
(c)(1)(i)	An information summary as required in § 194.113,	Annex 1
(c)(1)(ii)	Immediate notification procedures,	Sec. II, Annex 2
(c)(1)(iii)	Spill detection and mitigation procedures,	Sec. II
(c)(1)(iv)	The name, address, and telephone number of the oil spill response organization, if appropriate,	Annex 2
(c)(1)(v)	Response activities and response resources,	Sec. II, Annex 2
(c)(1)(vi)	Names and telephone numbers of Federal, state, and local agencies which the operator expects to have pollution control responsibilities or support,	Annex 2, ERAP
(c)(1)(vii)	Training procedures,	Sec. III
(c)(1)(viii)	Equipment testing,	Sec. III
(c)(1)(ix)	Drill program – an operator will satisfy the requirement for a drill program by following the National Preparedness for Response Exercise Program (PREP) guidelines. An operator choosing not to follow PREP guidelines must have a drill program that is equivalent to PREP. The operator must describe the drill program in the response plan and OPS will determine if the program is equivalent to PREP.	Sec. III
(c)(1)(x)	Plan review and update procedures;	Sec. V
(c)(2)	An appendix for each response zone that includes the information required in paragraph (c)(1)(i)-(ix) of this section and the worst case discharge calculations that are specific to that response zone. An operator submitting a response plan for a single response zone does not need to have a core plan and a response zone appendix. The operator of a single response zone onshore pipeline shall have a single summary in the plan that contains the required information in § 194.113.7; and.	Annex 1
(c)(3)	A description of the operator's response management system including the functional areas of finance, logistics, operations, planning, and command. The plan must demonstrate that the operator's response management system uses common terminology and has a manageable span of control, a clearly defined chain of command, and sufficient trained personnel to fill each position.	Sec. I, Sec. II
§ 194.111	**Brief Description**	
(a)	Each operator shall maintain relevant portions of its response plan at the operator's headquarters and at other locations from which response activities may be conducted, for example, in field offices, supervisor's vehicles, or spill response trailers.	Sec. I

Sec. 4.2 DOT 49 CFR 194 (Cont'd)

DOT/PHMSA 49 CFR PART 194 CROSS REFERENCE		
§ 194.113	**Brief Description**	
(a)	The information summary for the core plan, required by § 194.107, must include:	--
(a)(1)	The name and address of the operator.	Sec. I, Annex 1
(a)(2)	For each response zone which contains one or more line sections that meet the criteria for determining significant and substantial harm as described in § 194.103, a listing and description of the response zones, including county(s) and state(s).	Annex 1
(b)	The information summary for the response zone appendix, required in § 194.107, must include:	--
(b)(1)	The information summary for the core plan.	Sec. I
(b)(2)	The names or titles and 24-hour telephone numbers of the qualified individual(s) and at least one alternate qualified individual(s);	Annex 2
(b)(3)	The description of the response zone, including county(s) and state(s), for those zones in which a worst case discharge could cause substantial harm to the environment.	Annex 1
(b)(4)	A list of line sections for each pipeline contained in the response zone, identified by milepost or survey station number, or other operator designation.	Annex 1
§ 194.115	**Brief Description**	
(b)(5)	The basis for the operator's determination of significant and substantial harm.	Sec. I
(b)(6)	The type of oil and volume of the worst case discharge.	Annex 1
(a)	Each operator shall identify and ensure, by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.	Annex 2
(b)	An operator shall identify in the response plan the response resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge.	Sec. II, Annex 2

Sec. 4.2 DOT 49 CFR 194 (Cont'd)

DOT/PHMSA 49 CFR PART 194 CROSS REFERENCE		
§ 194.117	**Brief Description**	
(a)	Each operator shall conduct training to ensure that:	--
(a)(1)	All personnel know --	--
(a)(1)(I)	Their responsibilities under the response plan	Sec. II, Annex 2
(a)(1)(ii)	The name and address of, and the procedure for contacting, the operator on a 24-hour basis	Annex 2, ERAP
(a)(1)(iii)	The name of, and procedures for contacting, the qualified individual on a 24-hour basis	Annex 2, ERAP
(a)(2)	Reporting personnel know --	
(a)(2)(I)	The content of the information summary of the response plan.	Sec. II, Annex 2
(a)(2)(ii)	The toll-free telephone number of the National Response Center	Sec. II, Annex 2
(a)(2)(iii)	The notification process	Sec. II, Annex 2
(a)(3)	Personnel engaged in response activities know --	--
(a)(3)(I)	The characteristics and hazards of the oil discharged	Annex 1
(a)(3)(ii)	The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions.	Sec. II, Annex 1
(a)(3)(iii)	The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage	Sec. II, Annex 1
(a)(3)(iv)	The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus	Sec. II, Annex 1
(b)	Each operator shall maintain a training record for each individual that has been trained as required by this section. These records must be maintained in the following manner as long as the individual is assigned duties under the response plan	Sec. III
(b)(1)	Records for operator personnel must be maintained at the operator's headquarters	Sec. III
(b)(2)	Records for personnel engaged in response, other than operator personnel, shall be maintained as determined by the operator.	Sec. III
(c)	Nothing in this section relieves an operator from the responsibility to ensure that all response personnel are trained to meet the OSHA standards for emergency response operations in 29 CFR 1910.120 ...	Sec. III

Sec. 4.3 DOT 49 CFR 195

DOT/PHMSA 49 CFR PART 195.402 & .403 CROSS REFERENCE		
49 CFR 195.402	**Brief Description**	**Location**
(c)	*Maintenance and Normal Operations:* The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:	Annex 1
(c)(4)	Determining which pipeline facilities are located in areas that would required an immediate response by the operator to prevent hazards to the public if the facilities failed or malfunctioned.	Annex 1
(c)(5)	Analyzing pipeline accidents to determine their causes.	Annex 1
(c)(6)	Minimizing the potential for hazards identified under paragraph (c)(4) of this section and the possibility of recurrence of accidents analyzed under paragraph (c)(5) of this section.	Annex 1
(c)(9)	In the case of facilities not equipped to fail safe that are identified under paragraph 195.402 (c)(4) or that control receipt an delivery of the hazardous liquid or carbon dioxide, detecting abnormal operating conditions by monitoring pressure, temperature, flow or other appropriate operational data and transmitting this data to an attended location.	Sec. II
(c)(12)	Establish and Maintain Liaison with Public Officials	Sec. III
(e)	Emergencies	Sec. II
(e)(1)	Receive, Identify, and Classify Notices of Events	Sec. II
(e)(2)	Procedures for Prompt and Effective Response	Sec. II
(e)(3)	Availability of Response Personnel and Resources	Sec. II, Annex 1 & 2
(e)(4)	Emergency Shutdown and Pressure Reduction Procedures	Sec. II
(e)(5)	Control and Minimization of Released Hazardous Liquid	Sec. II
(e)(6)	Evacuation, Traffic, and Security Control	Sec. II
(e)(7)	Notification of Emergency Officials	Sec. II, Annex 2
(e)(8)	Assessment of HVL Clouds	N/A
(e)(9)	Post Incident Critique	Annex 1

Sec. 4.3 DOT 49 CFR 195 (Cont'd)

DOT/PHMSA 49 CFR PART 195.402 & .403 CROSS REFERENCE		
49 CFR 195.403	**Brief Description**	**Location**
(a)	Operator Personnel Training	Sec. III-
(a)(1)	Carry Out 195.402 Emergency Procedures	Sec. II
(a)(2)	Characteristics and Hazards of Liquids and HVLs	Annex 1
(a)(3)	Recognition of Emergency Causes and Preventative Actions	Sec. II, Annex 1
(a)(4)	Steps to Control and Minimize Effects of Accidental Release	Sec. II
(a)(5)	Firefighting Procedures and Equipment	Sec II, Annex 1
(b)	Operator's Training Program	Sec. III
(b)(1)	Review and Evaluate Response Personnel Performance	Annex 1
(b)(2)	Implement Training Program Changes Where Appropriate	Sec. III
(c)	Supervise Knowledge of Applicable Response Procedures	Sec III

4.4 OSHA 29 CFR 1910.120

OSHA Emergency Response Plan Requirements (29 CFR 1910.120(p)(8)(ii))	
Brief Description	**Location**
Pre-emergency planning and coordination with outside parties	Sec II
Personnel roles, lines of authority and communication	Sec. II, Annex 2
Emergency recognition and prevention	Sec. II, Annex 1
Safe distances and places of refuge	Sec. II, Annex 1
Site security and control	Sec. II
Evacuation routes and procedures	Sec. II, Annex 1
Decontamination procedures	Sec. II
Emergency medical treatment and first aid	Sec. II
Emergency alerting and response procedures	Sec. II, Annex 1
Critique of response and follow-up	Sec. II, Annex 1
PPE and emergency equipment	Sec. II

4.5 Oregon Department of Environmental Quality

DEQ Regulations	Required Section	Location
OAR 340-141-0100	**Plan Preparation**	
OAR 340-141-0100 (1)	(1) The owner or operator of each onshore and offshore facility handling or storing 10,000 gallons of oil or more per day and of each covered vessel must prepare a contingency plan for the prevention, containment and cleanup of oil spills from the facility or vessel into the navigable waters of the state, and for the protection of fisheries and wildlife, other natural resources and public or private property from such spills.	Entire Plan
OAR 340-141-0130	**Plan Format Requirements**	--
OAR 340-141-0130 (1)	Plans must be prepared using a combination of narrative and graphic formats that provide both detailed spill response information and quick access to general information needed during an emergency response.	Entire Plan
OAR 340-141-0130 (2)	Plans must be divided into a system of chapters and appendices. Chapters and appendices must be numbered. Chapters should be reserved primarily for information on emergency response and cleanup operations, such as notification procedures or description of the spill response organization structure. Appendices should be used primarily for supplemental background information and documentation such as response strategies or descriptions of drills and exercises. The spill prevention strategies may be part of the appendices.	Entire Plan
OAR 340-141-0130 (3)	A system of index tabs must be used to provide easy reference to particular chapters and appendices.	Entire Plan
OAR 340-141-0130 (4)	Plans must be formatted to allow replacement of revised pages and components without requiring replacement of the entire plan.	Entire Plan
OAR 340-141-0130 (5)	Plans must include a simplified field document that summarizes key notification and action elements of the plan and is suitable for onsite use in the event of a spill.	ERAP
OAR 340-141-0140	**Plan Content Requirements**	--
OAR 340-141-0140 (1)	Submittal Agreement. Each plan must contain a submittal agreement that:	
	(a) Includes the name, address and phone number of the submitting party;	Sec. I, Annex 1

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
OAR 340-141-0140	**Plan Content Requirements**	
	(b) Verifies acceptance of the plan, including any incorporated contingency plans, by the owner or operator of the facility or covered vessel by either signature of the owner or operator or a person with authority to bind the corporation that owns or operates the facility or covered vessel;	Sec. I, Annex 1
	(c) Commits to execution of the plan, including any incorporated contingency plans, by the owner or operator of the facility or covered vessel, and verifies authority for the plan holder to make appropriate expenditures in order to execute plan provisions; and	Sec. I, Annex 1
	(d) Includes: (A) In the case of a facility, the name, location including latitude, longitude and river mile, and address of the facility, type of facility, starting date of operations, types of oils (see definition of oil) handled, volume of oil stored and maximum volume of oil capable of being stored.	Sec. I, Annex 1
OAR 340-141-0140 (20)	Response Time. Each plan must briefly describe initial equipment and personnel deployment activities that will accomplish the response standard listed in OAR 340-141-0190(e)(d) and provide:	Sec. I, Annex 1
	(a) An estimate of the actual execution time;	
	(b) The specific location in the Zone where the resident required response equipment is stored; and	Sec. I, Annex 1
	(c) The source and management of personnel to deploy the initial response equipment.	Sec. I, Annex 1
OAR 340-141-0140 (21)	Chemical Agents. If the plan holder proposes to use dispersants, coagulants, bioremediants or other chemical agents for response operations under certain conditions, the plan must describe:	N/A
	(a) Type and toxicity of chemicals, supplemented with material safety data sheets (MSDS) for each product;	N/A
	(b) The conditions under which the chemicals will be applied, in conformance with all applicable local, state and federal requirements, including the Northwest Area Contingency plan and OAR 340-141-0020;	N/A
	(c) Methods of deployment; and	N/A
	(d) Location and accessibility of supplies and deployment equipment.	N/A
OAR 340-141-0140 (22)	In Situ-Burning. If the plan holder proposes to use in-situ burning for response operations, the plan must describe:	N/A
	(a) Type of burning operations;	N/A

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
	(b) Conditions under which burning will be applied in conformance with all applicable local, state and federal requirements, including the Northwest Area Contingency plan and OAR 340-264-0030 to 0040;	N/A
	(c) Methods of application; and	N/A
	(d) Location and accessibility of supplies and deployment equipment.	N/A
OAR 340-141-0140 (23)	Environmental Protection. Each plan must describe how environmental protection will be achieved, including:	
	(a) Protection of sensitive shoreline and island habitat by diverting or blocking oil movement;	Annex 1 & 2
	(b) Priorities for sensitive area protection in the region of operation covered by the plan as provided in a Geographic Response Strategy of the Northwest Area Contingency Plan, or designated by the Department;	Annex 1
	(c) Rescue and rehabilitation of birds, marine mammals and other wildlife contaminated or otherwise affected by the oil spill; and	Annex 3
	(d) Measures taken to reduce damages to the environment caused by shoreline and adjacent land cleanup operations.	Annex 3
OAR 340-141-0140 (24)	Interim Storage. Each plan that has identified that oil will be recovered must plan for the storage of the oil and combined oily waste material potentially created.	Sec. II
	(a) Each plan must describe site criteria and methods used for interim storage of oil recovered and oily wastes generated during response and cleanup operations, including sites available within the facility. Interim storage methods and sites must be designed to prevent contamination of the storage area by recovered oil and oily wastes.	Sec. II
OAR 340-141-0140	**Plan Content Requirements**	
OAR 340-141-0140 (24)	(c) Interim storage and permanent disposal methods and sites must be sufficient to sustain support for oil recovery operations and manage the entire volume of oil recovered and oily wastes generated.	Sec. II
	(d) Interim storage and permanent disposal methods and sites must comply with all applicable local, state and federal requirements.	Sec. II
OAR 340-141-0140 (25)	Health and Safety. Each plan must describe procedures to protect the health and safety of oil spill response workers, and other individuals on-site. Provisions for training, decontamination facilities, safety gear and a safety officer position must be addressed	Sec. II

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
OAR 340-141-0140 (26)	Post Spill Review. Each plan must explain post-spill review procedures, including methods to review both the effectiveness of the plan and the need for plan amendments. Post-spill procedures must provide for a debriefing with the Department that will include any newly recognized need to amend the plan and list of any other lessons learned.	Sec. III
OAR 340-141-0140 (27)	Drills and Exercises. All approved plans must be verified by drills and exercises. Each plan must describe the schedule and type of drills and other exercises that will be practiced to ensure readiness of the plan elements, including drills that satisfy OAR 340-141-0200 (3).	Sec. III
	(a) The plan holder must test and document internal call out procedures at least once every 90 calendar days. The plan holder must retain records of these drills for at least three years and make them available for Department review upon request.	Annex I
	(b) The plan holder must notify the Department of drills and exercises, at least 60 days before full deployment and tabletop drills, and 10 days prior to equipment exercises. Prior notice to the Department is not required before notification drills and internal phone number verification exercises.	Sec. III
	(c) The plan holder must send post drill reports for all tabletop exercises or deployment drills to the Department no later than 60 days after the completion of the drill or exercise. The executive summary from a National Preparedness for Response Exercise Program (N-PREP) report may be submitted to meet this requirement when the exercise has been designed by the N-PREP staff.	Sec III
OAR 340-141-0140 (28)	Risk Variables. Each plan must list the spill risk variables within the region of operation covered by the plan, including:	
	(a) Each plan for a facility must list the following: (A) Types, physical properties and amounts of oil handled;	Annex I
	(B) A written description and map indicating site topography, stormwater and other drainage systems, mooring areas, pipelines, tanks, and other oil processing, storage and transfer sites and operations;	Annex I
	(C) A written description of sites or operations with a history of or high potential for oil spills, including key areas that pose significant navigation risk within the region of operation covered by the plan; and	Annex I
	(D) Methods to reduce spills during transfer operations, including overfill prevention.	Annex I

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
OAR 340-141-0140	**Plan Content Requirements**	
OAR 340-141-0140 (28)	(b) Each plan for a covered vessel must list the following: (A) Types, physical properties and amounts of oil handled; (B) A written description and diagram showing cargo, fuel and ballast tanks; and piping, power plants and other oil storage and transfer sites and operations; and (C) A written description of operations with a history of or high potential for oil spills, including key areas that pose significant navigation risks within the region of operation covered by the plan.	N/A
OAR 340-141-0140 (29)	Environmental Variables. Each plan must list the environmental variables within the region of operation covered by the plan. Facility plans required to include river or coastal areas must identify the environmental variables from the probable point of release to the point the oil could travel in 24 hours in a current of four knots. Vessel contingency plans must encompass the entire length of the Oregon waterway in the Zone or sub-Zone entered. All plans must describe:	Annex I
	(a) Natural resources, including coastal and aquatic habitat types and sensitivity by season, breeding sites, presence of state or federally listed endangered or threatened species and presence of commercial and recreational species;	Annex III
	(b) Public resources, including public beaches, water intakes, drinking water supplies and marinas;	Annex III
	(c) Seasonal hydrographic and climatic conditions; and	Section 4A
	(d) Physical geographic features, including relative isolation of coastal regions, beach types, and other geological characteristics. Plans may reference numbered Geographic Response Plan strategies (GRPs) in the Northwest Area Contingency Plan when identifying individual environmental features.	Section 4A
OAR 340-141-0140 (30)	Logistical Resources. Each plan must list the logistical resources within the region of operation covered by the plan, including facilities for fire services, medical services and accommodations; and shoreline access areas, including boat launches.	ERAP

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
OAR 340-141-0140 (31)	Response Strategy Outline. Each plan must include a statement of the intended response activities. This statement must describe how the plan resources must be applied to adequately respond during the initial phase of the response to an average most probable and worst case spill, release or discharge. The Response Strategy Outline must begin with a description of the situation to be managed, and must describe:	Annex I
	(a) Deployment of resources and estimates of response times;	Annex I
	(b) The intended result of the activity for each person listed in section (7) and (12) of this section;	Sec. 2
	(c) Command and control arrangements;	Sec. 2
	(d) Required coordination; and	Sec. 2
	(e) Probable obstacles and an estimate of oil movement during the first 72 hours.	Annex I
OAR 340-141-0150	**Oil Spill Contingency Planning Standards**	
OAR 340-141-0150 (3)	Plan writers must identify in their plans adequate resources to protect the areas potentially affected by a spill from their facility or vessel. The plan must state how the Planning Standards, including any performance standards, will be achieved. Required resources are further described in section (4)(a), (4)(b) and (4)(c) of this rule. The lands and waters of the state are divided into Zones and sub-Zones for planning purposes. Planning standards are established for each Zone and sub-Zone covered by this Division:	Annex I

4.5 Oregon Department of Environmental Quality (Cont'd)

(a) Facilities located in a sub-Zone of the Columbia River must meet the following planning standards, except as provided in subsections (g) and (h) of this section: (A) By 1 hour after the discovery of a spill, the facility must have deployed containment boom around the spill source. The length of boom on hand for this purpose must be at least four times the length of the largest vessel, or combined vessel lengths, potentially at that facility. The boom must be placed in the water in a location and fashion so as to contain and facilitate recovery of the greatest amount of oil from the water. (B) By 2 hours after the discovery of a spill, responders listed in the plan must be prepared to participate in an initial assessment of the release. The amount of boom deployed and available in reserve to be deployed, if needed, must be eight times the length of the largest vessel, or combined vessel lengths, potentially at that facility. (C) By 6 hours after the discovery of a spill, the facility must arrange for recovery of spilled oil. There must be equipment and personnel on site with the ability to recover the lesser of 12,000 barrels of oil or an amount of oil equal to 10 percent of the facility's worst case spill from the water in the next 24 hours. (D) By 12 hours after the discovery of a spill, the facility must have 35,000 feet of boom deployed or available at the designated staging area for equipment deployment. Facilities handling only non-persistent oils need to have 15,000 feet of boom at this time. All facilities must have the ability at or before this time to recover the lesser of 36,000 barrels of oil or 15 percent of the worst case spill volume from the water in the next 24 hours. Facilities must have the ability to assess the impact of a spill on wildlife. Responders listed in the plan must have the ability to identify shoreline impacts. (E) By 24 hours after the discovery of a spill, the facility must have in place equipment and personnel with the ability to recover oil from the water to the lesser of 48,000 barrels of oil or 20 percent of the worst case spill volume in the next 24 hours. (F) By 48 hours after the discovery of a spill, the facility must have in place equipment and personnel with the ability to recover oil from the water to the lesser of 60,000 barrels of oil or 25 percent of the worst case spill volume in the next 24 hours.	Sec. 2

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
OAR 340-141-0150	**Oil Spill Contingency Planning Standards**	
OAR 340-141-0150 (3)	(g) Pipelines located in, or crossing, a planning Zone where there is a potential for spilling or releasing oil to navigable waters of the state must meet the following planning standards: (A) By 1 hour after the discovery of a spill, the pipeline operator must completely shutdown the pipeline. (B) By 2 hours after the discovery of a spill, the pipeline operator or its dedicated response contractor must have deployed 1,000 feet of containment boom around the spill source entering the water. The boom must be placed in the water in a location and fashion so as to contain and facilitate recovery of the greatest amount of oil from the water. (C) By 6 hours after the discovery of a spill, the pipeline operator must have arranged for recovery of spilled oil. There must be equipment and personnel on site capable of recovering the lesser of 12,000 barrels of oil or an amount of oil equal to 10 percent of the pipeline's worst case spill from the water in the next 24 hours. (D) By 12 hours after the discovery of a spill, the pipeline operator must have 15,000 feet of boom deployed or at the designated staging area for equipment deployment. All pipelines must have the ability to recover oil at or before this time and have in place equipment and personnel with the ability to recover the lesser of 36,000 barrels of oil or 15 percent of the worst case spill volume from the water in the next 24 hours. The pipeline operator must have the ability to assess the damage potentially done to wildlife and shorelines in the impacted area of the spill. (E) By 24 hours after the discovery of a spill, the pipeline operator must increase the ability to recover oil from the water to the lesser of 48,000 barrels of oil or 20 percent of the worst case spill volume in the next 24 hours. The pipeline operator must have arranged for sufficient boom of an appropriate design to be deployed for the protection of sensitive wildlife habitats within the potential drift of oil in 24 hours. (F) By 48 hours after the discovery of a spill, the pipeline operator must increase the ability to recover oil from the water to the lesser of 60,000 barrels of oil or 25 percent of the worst case spill volume in the next 24 hours. The pipeline operator must have arranged for sufficient boom of an appropriate design to be deployed for the protection of sensitive wildlife habitats within the potential drift of oil in 48 hours.	Sec. 2, Annex I

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
OAR 340-141-0150	**Oil Spill Contingency Planning Standards**	
OAR 340-141-0150 (5)	(h) Pipelines For all facilities, pipelines and covered vessels subject to planning standards in this rule, if equipment to recover oil from the water is required, the plan must identify interim storage for the recovered oil and oily water. Interim storage qualifications are described in section 0140 (24), the required content of contingency plans section of this rule, and are also addressed in OAR 340-142-0080. The Department will set plan specific interim storage planning standards, or apply a default interim storage capacity equal to three times the effective daily recovery capacity (EDRC) of the equipment used to achieve the recovery percentages or volumes given in the planning standards of section (3). EDRC is used in planning standards to adjust the total recovery ability of a particular piece of oil spill recovery equipment to a lower value compensating for any incidental water it may recover. Unless otherwise approved by the Department the nameplate efficiency for a piece of equipment will be derated to 20 percent of its manufacturer's claim. Requirements for the 6 to 12 hour planning standards must show how the plan will meet the need for interim storage.	Sec. II, Annex I
OAR 340-141-0160	**Prevention Strategies for Facilities**	**--**
OAR 340-141-0160 (1)	The owner or operator of each onshore and offshore facility must develop spill prevention strategies that will, when implemented, provide the best achievable protection from damages caused by the discharge of oil into the waters of the state. The strategies may be in the form of:	--
	(a) Appendices to oil spill prevention and emergency response plans required under this chapter; or	Sec. II, Annex I
	(b) A stand alone prevention plan that meets all requirements of OAR 340-141-0100 to 340-141-0230.	SPCC Plan
OAR 340-141-0160 (2)	Spill Prevention Countermeasure and Control Plans (SPCC), Operation Manuals and other prevention documents prepared to meet federal requirements under 33 CFR 154, 33 CFR 156, 40 CFR 109, 40 CFR 112, or the Federal Oil Pollution Act of 1990 or plans prepared to meet the requirements of other states may be submitted to satisfy requirements under this chapter if the Department deems that such requirements equal or exceed those of the Department, or if the plans are modified or appended to satisfy requirements of this Division.	SPCC Plan
OAR 340-141-0160 (3)	Spill prevention strategies must at a minimum provide all of the following:	--

4.5 Oregon Department of Environmental Quality (Cont'd)

DEQ Regulations	Required Section	Location
	(a) Documentation of types and frequency of spill prevention training provided to applicable personnel;	SPCC Plan
	(b) Evidence that the facility has an operations manual;	SPCC Plan
	(c) A description of a drug and alcohol awareness program that provides training and information materials to all employees on recognition of alcohol and drug abuse treatment opportunities, and applicable company policies;	SPCC Plan
OAR 340-141-0160	**Prevention Strategies for Facilities**	
OAR 340-141-0160 (3)	(d) Evidence of a maintenance and inspection program that includes: (A) Summary of the frequency and type of all regularly scheduled inspection and preventative maintenance procedures for tanks, pipelines, key storage, transfer, or production equipment including associated pumps, valves, and flanges, and overpressure safety devices and other spill prevention equipment; (B) Description of integrity testing of storage tanks and pipelines using such techniques as hydrostatic testing and visual inspection, including but not limited to the frequency of tests, means of identifying that a leak has occurred and measures to reduce spill risk if test material is product; (C) External and internal corrosion detection and repair; (D) Damage criteria for equipment repair or replacement; (E) Maintenance and inspection records of the storage and transfer facilities and related equipment will be made available to the Department upon request; and (F) Documentation required under 40 CFR 112.7(e) or 33 CFR 154, Subparts C and D may be used to address elements of this subsection.	SPCC Plan
	(e) A description of the use of containment boom at facilities transferring persistent oil, including: (A) Type(s) of boom used based upon the varied conditions within the region(s) of operation; and (B) Methods of boom placement and anchoring.	N/A

Annex 5 – Table of Contents

Sec. 5.0 Distribution List

Recipient	Address	Plan Type Held	
		Hard Copy	CD
Tom Lyons	Portland Terminal 5528 NW Doane Avenue Portland, OR 97210	1	1
Gary LeFebvre	Portland Terminal (Lubes) 5528 NW Doane Avenue Portland, OR 97210	1	1
U.S. EPA – Region 10	Mr. Robert Johnson 1200 6th Avenue, Ste. 900 (MS:ECL0116) Seattle, WA 98101	1	1
U.S. Coast Guard	COTP, Marine Safety Office 6767 North Basin Avenue Portland, OR 97217-3992	1	1
Oregon Department of Environmental Quality Emergency Response Program	Planning / Exercise Coordinator 811 SW 6th Avenue Portland, OR 97204-1390	1	1
U.S. DOT – PHMSA	Attn: Melanie Barber 1200 New Jersey Avenue, S.E. Room E22-210, East Building Washington, DC 20590	0	2
Clean Rivers Cooperative	Tim Archer 200 SW Market Street, Suite 190 Portland, OR 97201	1	1
Emergency Preparedness, Response& Security Director	Rob Yarbrough c/o EPR&S Coordinator 600 N. Dairy Ashford, TR-2000 Houston, TX 77079	1	1
John Reed	Department of Heath and Safety Legacy Emanuel Hospital 2801 N. Gantenbien Avenue Portland, OR 97227	0	1
Bureau of Fire, Rescue an Emergency Services	City of Portland 1500 SE 122nd Portland, OR 97233	0	1
Bureau of Police	City of Portland 1111 SW 2nd Avenue Portland, OR 97204	0	1
Oregon Dept. of Energy Emergency Preparedness Division	Attn: Ms. Deanne Henry 625 Marion Street, SE Salem, OR 97301	1	1

5.1 Record of Revisions

Date	Revision No.	Revision
05/12	Initial Version	New Hard Copy and CD

Update Notice

Portland Marine Terminal, Dock & Lubricants Plant Integrated Contingency Plan (ICP)

To all holders of the ICP

Date: May 2012
Revision: Initial Version

Attached are the revised pages of the ICP that has been assigned to you. Please update your copy with these revisions:

Section/Annex	Remove Pages	Replacement Pages
Entire Plan	Entire Old Plan	New Plan
Portland Marine Terminal ERP CD	Destroy all previously dated Portland Marine Terminal CDs.	New Portland Marine Terminal ERP Dated 5/12
Update Notice	Replace the Revision Log at the beginning of the "Administration" Section and Insert this Update Notice at the end of the "Record of Revisions" Section.	

EMERGENCY RESPONSE ACTION PLAN

PORTLAND MARINE TERMINAL, DOCK & LUBRICANTS PLANT

5528 NW Doane Avenue
Portland, OR 97210

USCG: P-034
EPA: FRP OR-0019
DOT/PHMSA: 1611

Owner/Operator:

Phillips 66
600 N. Dairy Ashford, TA-2136
Houston, Texas 77079

24-Hour Number

(800) 231-2551 or (877) 267-2290

VOLUME 1 OF 1

Prepared by: The Response Group, Inc. • 13939 Telge Road • Cypress, Texas 77429

Annex 6 – Table of Contents

The purpose of this Emergency Response Action Plan (ERAP) is to provide quick access to key types of information that are often required in the initial stage of a spill response. The information provided in this ERAP is presented in greater detail in other sections of the plan.

Sec 6.0 General Facility Identification Information

The terminal is a bulk storage and distribution facility for finished petroleum products and lube oil. Oil storage at the location commenced in 1908. The tank farms were rebuilt in 1951 and the marine dock was rebuilt in 1959. Several minor changes have been made to the facility since 1959 to improve operations and incorporate best practices for spill prevention.

General Information	
Facility Name/Description:	Portland Terminal / Bulk storage & distribution facility
Facility Address:	5528 NW Doane Avenue Portland, OR 97210
Facility Phone Number/Fax Number:	503-248-1565 / 503-248-1522
County	Multnomah County, northwest of city of Portland
Latitude and Longitude: River Mile:	(b) (7)(F) [redacted]
Wellhead Protection Area	No
Owner of Facility:	Phillips 66 Company
Owner Address	600 North Dairy Ashford, TA-2136 Houston, TX 77079
Owner Phone	281-293-3891
Owner County	Harris
Operator of Facility:	Phillips 66 Company
Dun and Bradstreet Number:	Phillips 66: 07-837-8508
North American Industry Classification System (NAICS) Code:	424710 (Petroleum Bulk Stations and Terminals and 324191 (Petroleum Lubricating Oil and Grease Manufacturing)
Largest Aboveground Oil Storage Tank Capacity:	(b) (7)(F) [redacted]
Maximum Oil Storage Capacity:	
Number of Aboveground Oil Storage Tanks:	119
Worst Case Discharge Amount:	(b) (7)(F) [redacted]
Facility Distance to Navigable Waters:	0 to ¼ mile
Products Handled:	Distillates, gasoline, motor oil, industrial lubricants, and heavy fuel oils
Products Transported in Pipeline:	Distillates and gasoline
Date of Oil Storage Startup:	1908
Average Daily Throughput:	1,260,000 gallons of bulk petroleum products and packaged lubricants
Date(s) and Type(s) of Substantial Expansion:	1951 - Tank farm rebuilt 1959 - Dock rebuilt
Basis for Significant and Substantial Harm:	See Certificate of Substantial Harm form in this Section.
Date Prepared:	May 1999

Sec 6.1 Communication Equipment

Primary communications for Company response activities will consist of the following:	
•	Company mobile phones, hard line phones, faxes, and Company intranet devices, VHF-FM marine radios, VHF-AM aircraft radios, UHF oil spill radios, HF Single Sideband radios, satellite phones and paging systems.
•	Company Response Team mobile and office telephone numbers are located in Annex 2 of this Plan.
•	Communications needs beyond primary communications devices will be supplied by Company contracted OSRO's.
•	OSRO telephone numbers are located in Annex 2 of this Plan.

Sec 6.2 Notification Sequence

Facility, Corporate & Regulatory Notifications

In the event of an emergency, it is the responsibility of the Incident Commander (IC) to ensure that the required and applicable notifications are made. However, if the Incident Commander elects to do so, he may choose to delegate these notifications to the appropriate support resources. (Refer to Emergency Notification - Telephone List, located in this plan for support resource contact information.)

NOTE: Use the Incident Report Form, Notification Information to document notifications completed and follow-up requests.

PORTLAND PRODUCT TERMINAL

Emergency Notification Contact List

Emergency Response Numbers

Group/Function	Telephone	Other Telephone/Fax
Duty Officer	800-231-2551	Fax: 918-662-0179
Control Center Emergency Hotline	877-267-2290	800-231-2566
Company "Meet Me" Number	866-836-3169	Pass Code: 157528
Employee Hotline (Natural Disaster)	866-397-3822	
Axiom Medical Monitoring	281-419-7063	

Qualified Individual / Incident Commander (QI / IC) Contact List

Name / Job Title	Office Phone	Home Phone	Cell Phone	Resp. Time
QI/IC Tom Lyons, Facility Supervisor	(503) 248-1558	(b) (6)	(503) 849-9604	1 hr
Office: 5528 NW Doane Ave, Portland, OR 97210		**Home:** (b) (6)		
Alt. QI/IC Gary LeFebvre, Lube Plant Manager	(503) 248-1533	(b) (6)	(503) 849-9812	1 hr
Office: 5528 NW Doane Ave, Portland, OR 97210		**Home:** (b) (6)		

Incident Support Team

Position	Name	Office Phone	(b) (6)	Mobile Phone
EPR&S Contact	Rob Yarbrough	(281) 293-3891		(281) 627-3177
Environmental Contact	Jim Phelan	(281) 293-3715		(580) 761-3233
DOT Contact	Todd Tullio	(832) 379-6255		(281) 685-3646
Health & Safety Contact	Brad A. Hendrix	(918) 661-0140		(918) 977-0137
Manager, Division	Gabe Munoz	(562) 290-1528		(562) 714-7155
Manager, HSE	Travis J. Wilke	(281) 293-2515		(580) 401-0047
Manager, Engineering & Projects	Dave J Barney	(281) 293-4385		(281) 467-4732
Manager, Logistics	Doug B. Sauer	(918) 661-0271		(832) 274-8478
Lubes, Alt. QI/IC	David Hauck	(503) 248-1542		(503) 849-9813
Lubes, Ops & Logistics Manager	Karen L. Shorten	(832) 486-2818		(610) 636-3066
Lubes, S&OH Director	Joanne Phillips	(281) 293-3916		(832) 420-4631

Transportation Tier 1 Responders

Name	Office Phone	(b) (6)	Mobile Number	Resp. Time
Forbes, Chris - Operator	(503) 248-1565			1 hr
Gross, Rob - Operator	(503) 248-1565		(503) 704-7884	1 hr
Janke, Andrew - Operator	(503) 248-1565		(503) 849-9605	1 hr
Teske, Jim - Operator	(503) 248-1565		(503) 849-9605	1 hr
Vogel, Chris - Operator	(503) 248-1559		(503) 756-1286	1 hr
Adams, Steve - Maintenance Coordinator	(503) 248-1507			1 hr
Baugher, David (Dave) - Lubes Responder	(503) 248-1541		(509) 936-4691	1 hr
Burke, William (Todd) - Lubes HSEQ Coordinator	(503) 248-1570		(503) 849-4456	1 hr
Catlow, Mark - Lubes Responder	(503) 248-1541		(360) 907-7988	1 hr
Eaton, Michael - Lubes Responder	(503) 248-1533		(___) ___-____	1 hr
Hubert, Lester Lynn (Les) - Operator	(503) 248-1565		(___) ___-____	1 hr
Paul, Mathew D. - Operator	(503) 248-1565		(___) ___-____	1 hr
Taylor, Dave - Lubes Responder	(503) 248-1560		(503) 849-4252	1 hr
Howard, Cory S. - Lubes Responder	(503) 248-1520		(503) 853-6359	1 hr
Hamilton, Wade - Lubes Responder	(503) 248-1541		(___) ___-____	1 hr
Fossum, Jeff E. - Maintenance Technician	(503) 248-1558		(503) 867-0728	1 hr
Taylor, Russell - Maintenance Coordinator	(503) 248-1508		(503) 777-5121	1 hr
Keafer, Jane - Analyst	(503) 248-1531		(___) ___-____	1 hr
Hester, Linda G. - Lubes, Legal Support	(281) 293-2851		(713) 628-1922	1 hr
Henderson, Pat - Lubes Responder	(503) 248-1541		(503) 522-8517	1 hr
Caldwell, Jeff J. - Operator	(503) 248-1565		(503) 849-9605	1 hr
Forbes, Scott A. - Operator	(503) 248-1565		(503) 849-9605	1 hr

Emergency Response Contractors

Name	Phone	Alt. Phone	Resp. Time
Contract			
Cowlitz Clean Sweep	(888) 423-6316	(360) 957-2018	1 hr
MSRC & STAR Contractors	(800) 645-7745	(800) 259-6772	1 hr
Co-op			
Clean Rivers Cooperative, Inc.	(503) 220-2040		1 hr
Other			
Entrix, Inc. (NRDA/SCAT)	(800) 476-5886	(206) 269-0104	1 hr
International Bird Rescue & Rehab. Ctr.	(510) 841-9086		1 hr
Polaris Applied Sciences, Inc.(NRDA/SCAT	(800)759-7243	(425) 823-4841	1 hr

Agency/Other Telephone Numbers

Agency/Group	Telephone	Other Telephone/Fax
Federal		
National Response Center	(800) 424-8802	(202) 267-2675
EPA Region 10	(800) 424-8802	(206) 553-1263
National Marine Fisheries Service	(206) 526-6150	
National Weather Service - NOAA	www.weather.gov	(206) 526-6317
NOAA, Scientific Coord./Hazmat Response	(800) 424-8802	(206) 526-6317
U.S. Fish & Wildlife Service (USFWS)	(206)764-3463	
USCG Marine Safety Office (Portland, OR)	(503) 240-9301	Fax: (503) 240-9369
State		
OR Department of Energy	(503) 370-3500;Duty Offic	(503) 932-4428
OR Dept. of Fish and Wildlife	(503) 872-5260	
OR DEQ - Air (D.P. Kauth. PE)	(503) 667-8414 x55003	
OR DEQ - Headquarters	(503) 229-5696	(800) 452-4011
OR Emergency Response System (OERS)	(800) 452-0311	(503) 378-6377
OR State Fire Marshall (SERC)	(503) 378-3473	(800) 452-0311
OR State Police, Multnomah	911	(503) 731-3030
WA Dept. F/G; Wildlife Rescue Coalition	(360) 534-8233	(360) 902-2200
Washington Department of Ecology (Lg. River Spills)	(360) 407-6300	(360) 407-6375
Washington Division of Emergency Management (DEM)	(800) 258-5990	(253) 912-4901
Local		
Control Room, Portland	(503) 248-1565	
Fire Dept., Multnomah County	911	(503) 760-6911
Ambulance, Emmanuel Life Fligh	911	(503) 413-1006
Police Dept., Portland	911	(503) 655-8211
Hospital, American Medical	911 or (503) 231-630	
Hospital, Good Samaritian ER	(503) 494-7551	
Media - KGW TV Channel 8	(503) 226-5111	
Media - KPDX Fox 49	(503) 239-4949	
Media - KXL Radio 750 AM, 95.5	(503) 417-7630	
Weather	(503) 243-7575	
City of Portland-Mayor's Office	(503) 823-4120	
LEPC: Multnomah County	(503) 988-4233	(503) 988-6700, #1 (24/7)
Neighbors		
Columbia River Water Intake: James River Wauna Mil	(503) 834-8465	
Columbia River Water Intake: Kalama Chemical	(306) 673-2550 x237	
Columbia River Water Intake: Longview Fibre	(360) 557-5503	
Columbia River Water Intake: PGE, Environmental De	(503) 464-8970	
Columbia River Water Intake: Port of Vancouver	(360) 693-3611	
Columbia River Water Intake: Weyerhaeuser	(360) 425-2150 x5296	
Columbia River Water Intake: Willow Grove Beach Pa	(360) 577-3030	
Downstream: Burlington Northern Railroad	(503) 261-6300	
Downstream: Certainteed	(503) 222-1307	
Downstream: Chevron Prod. Co./USA Asphalt	(503) 221-7866	(503) 221-7714
Downstream: Great Western Chemical	(503) 242-0200	
Downstream: Kinder Morgan, Willbridge	(503) 220-1246	
Downstream: Liquid Air	(503) 224-4351	
Downstream: McCall Oil Marine Terminal	(503) 221-5755	
Downstream: Merchants Exchange (Faciliy/Vessel Not	(503) 228-4361	(503) 916-8397
Downstream: Olympic Pipeline - Operations Controll	(206) 226-8880	(206) 226-8882
Downstream: Waste Transfer Station	(503) 222-9330	

PORTLAND LUBES

Emergency Notification Contact List

Emergency Response Numbers

Group/Function	Telephone	Other Telephone/Fax
Duty Officer	800-231-2551	Fax: 918-662-0179
Control Center Emergency Hotline	877-267-2290	800-231-2566
Company "Meet Me" Number	866-836-3169	Pass Code: 157528
Employee Hotline (Natural Disaster)	866-397-3822	
Axiom Medical Monitoring	281-419-7063	

Qualified Individual / Incident Commander (QI / IC) Contact List

Name / Job Title	Office Phone	Home Phone	Cell Phone	Resp. Time
QI/IC				
Office:		**Home:**		
Alt. QI/IC				
Office:		**Home:**		

Incident Support Team

Position	Name	Office Phone	(b) (6)	Mobile Phone
EPR&S Contact	Rob Yarbrough	(281) 293-3891	[redacted]	(281) 627-3177
Environmental Contact	Jim Phelan	(281) 293-3715	[redacted]	(580) 761-3233
DOT Contact	Todd Tullio	(832) 379-6255	[redacted]	(405) 371-1477
Health & Safety Contact	Brad A. Hendrix	(918) 661-0140	[redacted]	(918) 977-0137
Manager, Division			[redacted]	
Manager, HSE	Travis J. Wilke	(281) 293-2515	[redacted]	(580) 401-0047
Manager, Engineering & Projects	Dave J Barney	(281) 293-4385	[redacted]	(281) 467-4732
Manager, Logistics	Doug B. Sauer	(918) 661-0271	[redacted]	(832) 274-8478

Transportation Tier 1 Responders

Name	Office Phone	(b) (6)	Mobile Number	Resp. Time
Phillips, Joanne - Lubes HSE Director	(281) 293-3916	[redacted]	(832) 420-4631	<Unknown>
Shorten, Karen L. - Lubes Ops. & Logistics Manag	(832) 486-2818	[redacted]	(610) 636-3066	<Unknown>
Liberti, Tom - Lubes General Manager	(832) 486-3360	[redacted]	(281) 468-3212	<Unknown>

Emergency Response Contractors

Name	Phone	Alt. Phone	Resp. Time

Agency/Other Telephone Numbers

Agency/Group	Telephone	Other Telephone/Fax
State		
State Police		
Local		
Fire		
Ambulance		
Police		
Hospital		
Media		

Sec 6.4 Emergency Response Equipment, Testing & Deployment

All Company owned response equipment will be inspected at a minimum interval of 12 months although most equipment will be inspected and/or tested at much shorter intervals. Inspections will verify the equipment is available and in good condition. To minimize wear and tear on the equipment, these inspections will typically coincide with the semi-annual equipment deployment drills. The pumps are used on a regular basis during routine terminal operations and are generally not included in a regular inspection or testing program. They will, however, be inspected at least every 6 months if they have not been used during that time frame.

Sec 6.5 Evacuation

The purpose of this Section is to provide guidance in the event that shutdown and evacuation are necessary. This Section contains:

A description of evacuation issues and procedures
A checklist containing evacuation considerations
An evacuation diagram

An evacuation will be signaled by the fire alarm, radio, or other means and initiated under the following circumstances:

Fire - Activation of the fire alarm alerts personnel to evacuate.
Personnel Protection - When the Incident Commander or other person acting in good judgment determines that evacuation is the appropriate means of protecting personnel during an earthquake, spill, bomb threat or other emergency situation.

Decision to Evacuate.

Facility evacuation will occur if/when the Incident Commander (Terminal Superintendent or designee) deems necessary. The decision to evacuate the facility will be made utilizing information gathered as defined in this section or in the Site Safety and Health Plan. An evacuation checklist is provided in this Section. The facility contains no critical equipment that requires employees to continue to operate after the evacuation notification is made.

Evacuation Considerations.

- Be aware of potential hazards along the evacuation route, such as downed power lines, ruptured gas lines, vapor clouds and other barriers.
- Monitor wind direction by looking at flags, or other indicators.
- Move upwind of the emergency to prevent potential exposure to released vapors, gases, or particulates. If it is not possible to move upwind, move at a 90 degree angle away from the emergency.
- Authorization for employees to return to their work areas will be given by the Incident Commander or his/her designee by radio.

Evacuation Routes and Designated Assembly Areas

Evacuation routes and assembly areas are shown in this Section. There are three designated assembly areas at the Terminal. The following table indicates the personnel or departments associated with each assembly area:

Assembly Area	Personnel Affected	Group Leader
1. Area West of the boiler room	Lab, Lube blending and packaging	Lab Supervisor Lab Tech (Alternate)
	Drivers (fuel/lube oil racks; lube unloading areas)	
	HSE personnel	
Note: Bulk Handling reports to Area 1 Group Leader. Report in person or by radio.		
2. Length of Doane Avenue	Refined and Lubes Offices Van loaders and drivers	Office Manager H.R. Rep
	Mechanics	
	Non-essential dock personnel	
	Company Drivers	
Note: Maintenance reports to Area 2 Group Leader. Report in person or by radio.		
3. Doane Avenue/Front Street	Drivers with trucks are to assemble in Area 3, if safe to do so.	

Evacuation Procedures and Assignments

Incident Commander (Terminal Superintendent or Designee)

Alert personnel of need to evacuate if alarms have not been activated; obtain a radio.
Make a sweep of the facility to ensure that all personnel have been evacuated from the office, tank farm and other parts of the facility.
Assume control of the incident and coordinate with local emergency services, if necessary.
Identify all personnel who cannot be accounted for and determine whether rescue efforts will be required by local emergency services (fire, police or medical) or terminal response personnel.
Call 911, if emergency assistance is required.
Contact required personnel and agencies.

Group Leader (Operations Supervisor)

Obtain employee lists, visitor log sheets, and portable radio.
Report to assembly area and account for terminal personnel, visitors, and contractors.
Request medical assistance, if needed.
Check off personnel leaving the facility from employee/visitor lists.
Maintain all roll call lists/logs throughout and following an evacuation.

Visitors, Contractors and Other Personnel

- Report to assembly area and identify yourself to the Group Leader.
- Do not leave unless instructed to do so.
- Accounting for Personnel

Conduct a roll call of personnel in each assembly area to assure that all personnel have been evacuated safely using the following procedures:

Personnel	Tasks/Procedures
All personnel without specific assignment	Report to nearest assembly area and to immediate supervisor or area Group Leader; do not leave unless instructed to do so.
Visitors, contractors	Report to nearest assembly area and to Company contact if he/she is in the assembly area, otherwise report to the Group Leader and identify yourself and Company contact.
Personnel responsible for contractors/visitors	Account for visitors and contractors under your direction; check immediate assembly area and ask Group Leader to radio other assembly areas to locate personnel if needed.
Group Leaders	Obtain employee evacuation lists and/or visitor log; account for personnel in your assembly area; assist other Group Leaders via radio; request medical assistance if needed. Maintain all roll call lists/logs throughout and following evacuation.
Terminal Supt./Lube Plant Manager	Coordinate personnel accounting with Group Leaders/Incident Commander; check personnel off employee/visitor lists if they leave facility.
Incident Commander	If personnel are unaccounted for, determine if search and rescue efforts will be required (by emergency agencies or Company personnel).

Off-Hour Procedures

During off-hours, the Terminal Operator takes charge of the emergency, and ensures the following procedures are implemented:

- Evacuate to the nearest assembly area or the command post.
- Account for all personnel using roll call lists and sign-in logs and check-off names from the list(s).
- Identify missing or injured personnel and if medical assistance is required.
- Call 911 if emergency assistance is or may be needed from the fire department, police or emergency medical services.
- Make emergency contacts as listed in this section.
- Remain in the assembly areas or if unsafe, retreat to a safe area upwind and uphill.

Await further instructions from the Head Operator and/or responding emergency personnel.

Wind and Weather Conditions

The prevailing winds for this facility are generally from the northwest during summer months and from the east/southeast during winter months. Evacuation route should be evaluated at the time, since wind direction varies.

Additional Facility Evacuation Route Considerations

Fires, explosions and liquid releases may occur such that wind direction is not the only criteria for determining the safest evacuation from the facility. Other considerations must be evaluated during facility evacuation. These may include potential exposure to toxins and carcinogens such as benzene and TPH (total petroleum hydrocarbons), intense heat, potential for further explosion or fire and blockage of planned route by fire, debris or released liquid.

Municipal Evacuation

The facility is located in an area primarily developed with light industrial facilities. A spill from this facility is not likely to create a need for evacuation outside the facility boundaries. However, in the event evacuation of neighbors is required, the evacuation would be accomplished utilizing the county sheriff and fire departments in coordination with the Company Incident Commander or his/her designee.

Rescue Operations

It is Company policy that confined space or hazardous atmosphere rescues will not be conducted by Company personnel. Company will instead rely on the local fire department or other emergency response organization to perform rescue operations. The fire department or other emergency response organization can be contacted by calling 911 or the fire department directly.

EVACUATION CHECKLIST

Actions to be Taken	Complete (Time/Initials)
Assess situation/take command.	
Shut off source of supply/"ESD" if necessary.	
Determine the need for evacuation.	
Determine the method for evacuation.	
Determine the method of evacuation: • Personnel and/or company vehicles, • On foot.	
Inform all personnel onsite of: • The need to evacuate, • The evacuation route, • Where to assemble, • Special precautions.	
As soon as possible, the Operations Supervisor and Manager-in-Charge make the necessary notification and mobilize outside resources if necessary.	
Assemble and account for personnel.	
If any person is missing/down, search and/or rescue. (if safe to do so)	
Secure operations. Eliminate all ignition sources onsite.	
Direct the evacuation.	
Refer to other checklists as necessary.	

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

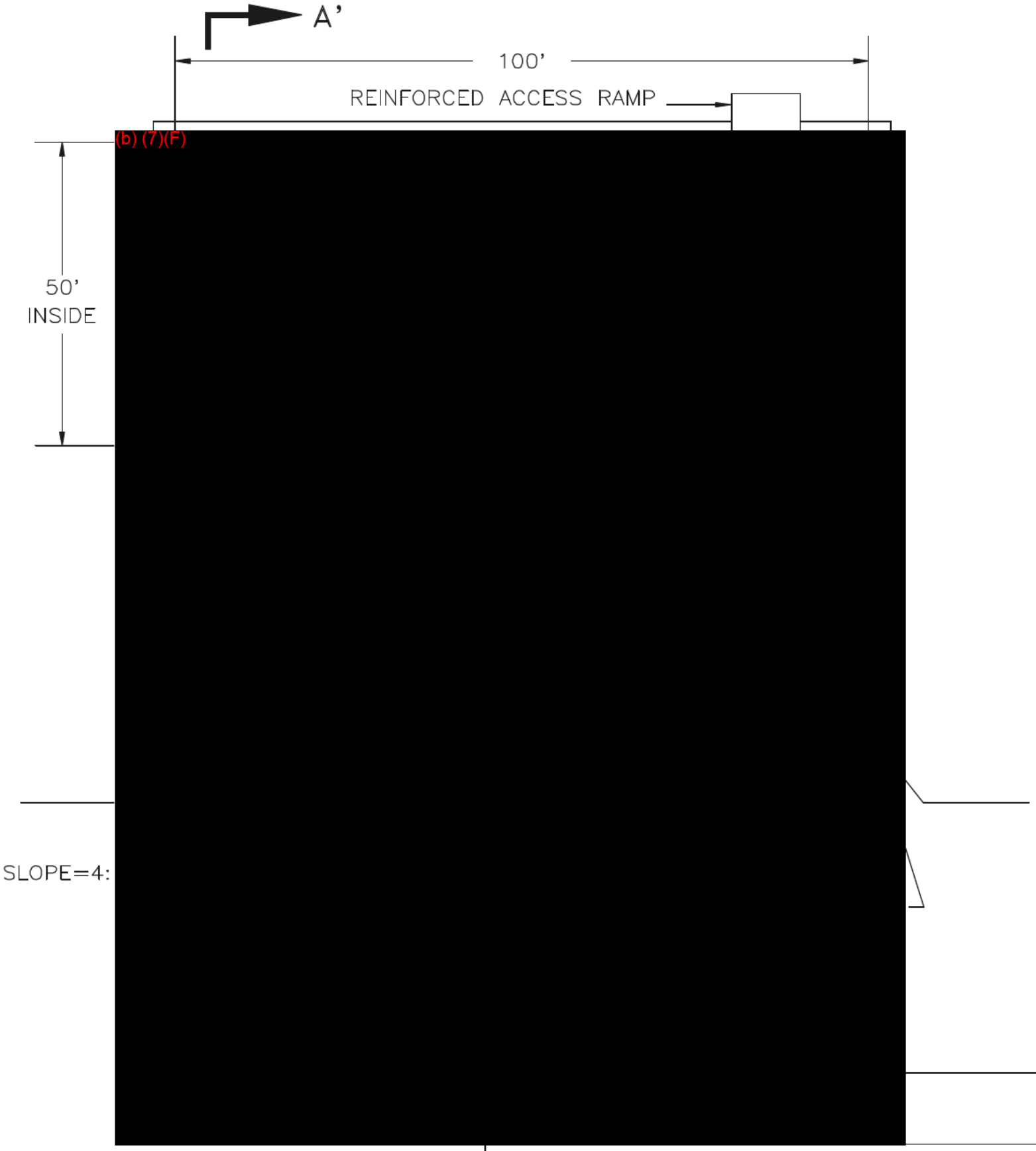


FIGURE F-4
TEMPORARY CONTAINMENT
CELL DIAGRAM

DRAWN: K. Mongar	DATE: February 10, 1995	PROJECT NO: 6752 007 700
FILE NO: 10007712	CHECKED: S. Ketchen	

Sec 6.7 Response Forms

Spill Trajectory Report Form

ICS 201-1 Incident Briefing Map

ICS 201-2 Incident Briefing – Summary of Current Actions

ICS 201-3 Incident Briefing – Current Organization

ICS 201-4 Incident Briefing – Resources Summary

ICS 201-5 Incident Briefing – Site Safety Plan (Short Form)

Weather Report

ICS 202 Response Objectives

ICS 203-Organizational Assignment List

ICS 211p-Check In List – Personnel

ICS 211e Check In List – Equipment

Incident Report Form

Spill Trajectory Form

The Response Group
Emergency Response | Pre-Planning & Support

Spill Trajectory Request Form

THE RESPONSE GROUP	**OFFICE: (281) 880-5000**	**EFAX: (281) 596-6976**
FAX: (281) 880-5005	**EMAIL ADDRESS: trajectory@responsegroupinc.com**	

COMPANY INFORMATION

Company Name: _____

Company Contact Name: _____

Phone #: _____ Fax #: _____

Alternante # (i.e.: Mobile, Pager): _____

Email Address: _____

SPILL SITE INFORMATION

Source Type (Circle): Platform/Well Pipeline Vessel Facility

Source Name & Location (Name/Area/Block): _____

Latitude: ____° ____‘ ____“ Longitude: ____° ____‘ ____“

Date & Time of Incident (mm/dd/yy): ____/____/____ ____:____ (Military)

Type of Product (i.e.: Medium Crude): _____ API Gravity: ____

Estimated Volume of Release: _____ Barrels or Gallons

Continues Release Rate: _____ bbls/hr How Long: _____ hrs.

WEATHER CONDITIONS

Wind Direction (From the): _____	Wind Speed: MPH or Knots
Current Direction (Toward): _____	Current Speed: MPH or Knots
Air Temperature: _____°	Water Temperature: _____
High Tide: ____:____ (Military)	Low Tide: ____:____ (Military)

Weather Forecast:

OVERFLIGHT INFORMATION

Date & Time of Overflight (mm/dd/yy): ____/____/____ ____:____ (Military)

Leading Edge Location: Latitude: ____° ____‘ ____“ Longitude: ____° ____‘ ____“

Trailing Edge Location: Latitude: ____° ____‘ ____“ Longitude: ____° ____‘ ____“

Length: _____ Feet / Yards / Miles	Width: _____ Feet / Yards / Miles

Slick Appearance (Percent & Estimated Length & Width)

Barely Visible: ____% L x W: ____	Silvery: ____% L x W: ____
Slight Color: ____% L x W: ____	Bright Color: ____% L x W: ____
Dull: ____% L x W: ____	Dark: ____% L x W: ____

THE RESPONSE GROUP 13939 TELGE ROAD CYPRESS, TX 77429

ICS 201-1 Incident Briefing Map/Sketch	
Incident:	**Prepared By:** **at**
Period:	**Version Name:**

ICS 201-1 Incident Briefing Map/Sketch	

ICS 201-2 – Summary of Current Actions	
Incident:	**Prepared By:** **at:**
Period: **to**	**Version Name:**

Incident Information

Initial Incident Objectives

Summary of Current Actions	
Date/Time	**Action/Note**

ICS 201-2 Summary of Current Actions			© 1997-2012 TRG/dbSoft, Inc.

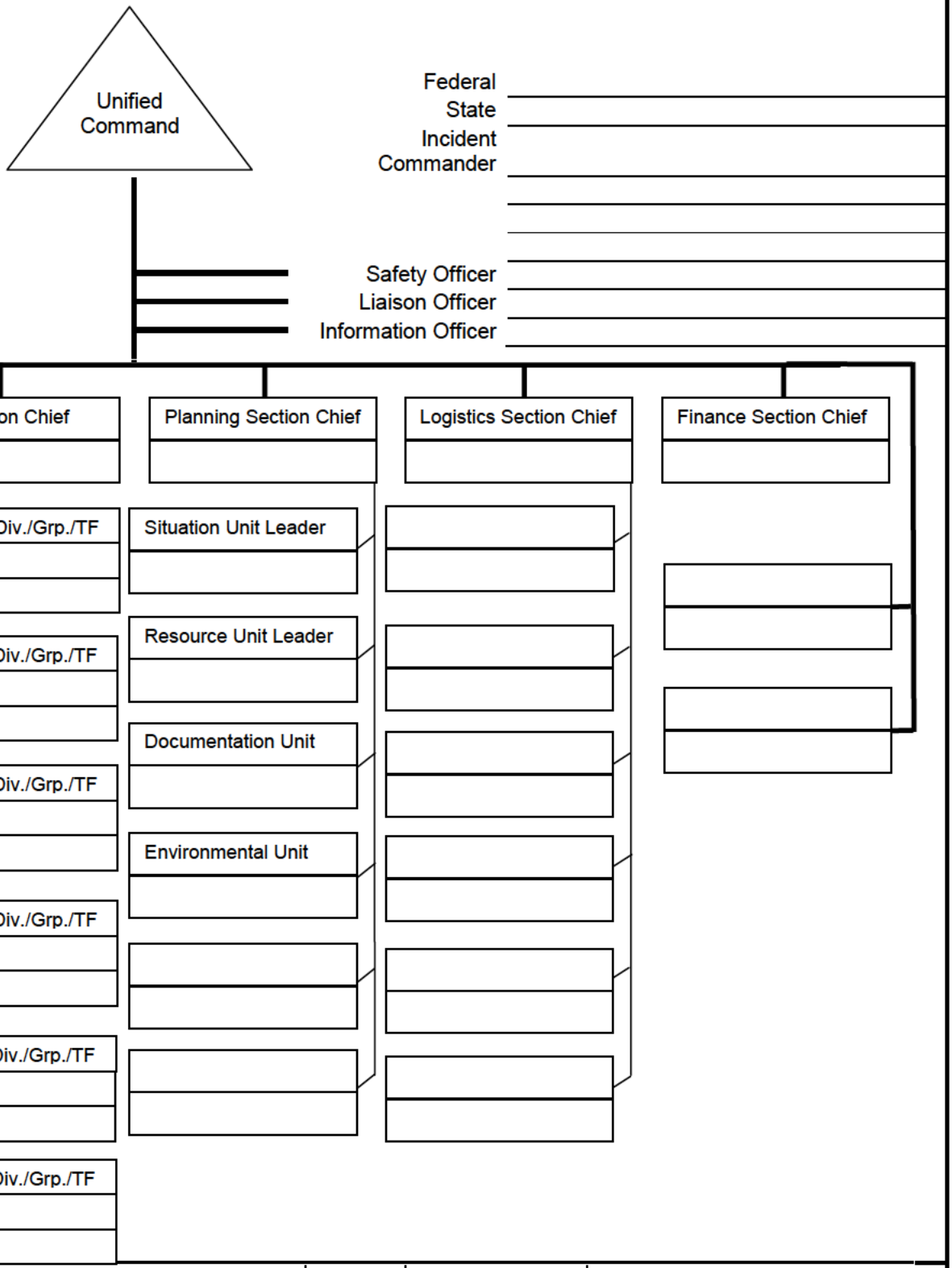
ICS 201-2 – Summary of Current Actions	
Incident:	Prepared By: at:
Period: to	Version Name:

Summary of Current Actions	
Date/Time	Action/Note

ICS 201-2 Summary of Current Actions			© 1997-2012 TRG/dbSoft, Inc.

ICS 201-3 Current Organization

Incident:	**Prepared By:** **at:**
Period:	**Version Name:**



ICS 201-3 – Current Organization			**© 1997-2012 TRG/dbSoft, Inc.**

ICS 201-4 – Resource Summary								
Incident:					Period:			
ID	Supplier	Resource Type	Description	Quantity	Size	Area of Operation	Status	Status Date/Time
ICS 201-4 Resource Summary						© 1997-2012 TRG/dbSoft, Inc.		

ICS 201-5 Site Safety and Control Analysis

Incident:	**Prepared By:** **at:**
Period:	**Version Name:**

Site Control

1. Is Site Control set up? ☐ Yes ☐ No	2. Is there an on-scene command post? ☐ Yes ☐ No If so, where?
3. Have all personnel been accounted for? ☐ Yes ☐ No ☐ Don't Know	Injuries: Fatalities: Unaccounted: Trapped:
4. Are observers involved, or rescue attempts planned? Observers: ☐ Yes ☐ No Rescuers: ☐	5. Are decon areas setup? ☐ Yes ☐ No If so, where?

Hazard identification, immediate signs of: (if yes, explain in Remarks)

1. Electrical line(s) down or overhead? ☐ Yes ☐ No	2. Unidentified liquid or solid products visible? ☐ Yes ☐ No
3. Wind direction across incident: ☐ Towards your position Wind Speed ☐ Away from	4. Is a safe approach possible? ☐ Yes ☐ No
5. Odors or smells? ☐ Yes ☐ No	6. Vapors visible? ☐ Yes ☐ No
7. Holes, ditches, fast water, cliffs, etc. nearby? ☐ Yes ☐ No	8. Fire, sparks, sources of ignition nearby? ☐ Yes ☐ No
9. Is local traffic a potential problem? ☐ Yes ☐ No	10. Product placards, color codes visible? ☐ Yes ☐ No
11. Other Hazards? ☐ Yes ☐ No	12. As you approach the scene from the upwind side, do you note a change in the status of any of the above? ☐ Yes ☐ No

Hazard Mitigation: have you determined the necessity for any of the following?

1. Entry Objectives:

2. Warning sign(s), barriers, color codes in place? ☐ Yes ☐ No

3. Hazardous material being monitored? ☐ Yes ☐ No
   - 3a. Sampling Equipment:
   - 3b. Sampling location(s):
   - 3c. Sampling frequency:
   - 3d. Personal exposure monitoring:

4. Protective gear / level:
   - 4a. Gloves:
   - 4b. Respirators:
   - 4c. Clothing:
   - 4d. Boots:
   - 4e. Chemical cartridge change frequency:

5. Decon
   - 5a. Instructions:
   - 5b. Decon equipment and materials:

6. Emergency escape route established? ☐ Yes ☐ No
   Route?

7. Field responders briefed on hazards? ☐ Yes ☐ No

8. Remarks:

ICS 201-5 Site Safety and Control Analysis	**© 1997-2012 TRG/dbSoft, Inc.**

Weather Report

Incident:	**Prepared By:** at
Period:	**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:	

Notes:

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):	

Notes:

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):	

Notes:

Weather Report			

ICS 202 - General Response Objectives			
Incident:	**Prepared By:**	**at:**	
Period:	**Version Name:**		
Overall and Tactical Objectives			
		Assigned to:	Status
1. Ensure the Safety of Citizens and Response Personnel			
☐ 1a. Identify hazard(s) of spilled material			
☐ 1b. Establish site control (hot zone, warm zone, cold zone, & security)			
☐ 1c. Consider evacuations if needed			
☐ 1d. Establish vessel and/or aircraft restrictions			
☐ 1e. Monitor air in impacted areas			
☐ 1f. Develop site safety plan for personnel & ensure safety briefings are conducted			
2. Control the Source of the Spill			
☐ 2a. Complete emergency shutdown			
☐ 2b. Conduct firefighting			
☐ 2c. Initiate temporary repairs			
☐ 2d. Transfer and/or lighter product			
☐ 2e. Conduct salvage operations, as necessary			
3. Manage a Coordinated Response Effort			
☐ 3a. Complete or confirm notifications			
☐ 3b. Establish a unified command organization and facilities (command post, etc.)			
☐ 3c. Ensure local and tribal officials are included in response organizations			
☐ 3d. Initiate spill response Incident Action Plans (IAP)			
☐ 3e. Ensure mobilization & tracking of resources & account for personnel & equip			
☐ 3f. Complete documentation			
4. Maximize Protection of Environmentally-Sensitive Areas			
☐ 4a. Implement pre-designated response strategies			
☐ 4b. Identify resources at risk in spill vicinity			
☐ 4c. Track oil movement and develop spill trajectories			
☐ 4d. Conduct visual assessments (e.g., overflights)			
☐ 4e. Development/implement appropriate protection tactics			
ICS 202 General Response Objectives			**© 1997-2012 TRG/dbSoft,**

ICS 202 - GENERAL RESPONSE OBJECTIVES

Incident:	Prepared By:	at:
Period:	Version Name:	

Overall and Tactical Objectives

	Assigned to:	Status
5. Contain and Recover Spilled Material		
☐ 5a. Deploy containment boom at the spill site & conduct open-water skimming		
☐ 5b. Deploy containment boom at appropriate collection areas		
☐ 5c. Evaluate time-sensitive response technologies (e.g., dispersants, in-situ burning)		
☐ 5d. Develop disposal plan		
6. Recover and Rehabilitate Injured Wildlife		
☐ 6a. Establish oiled wildlife reporting hotline		
☐ 6b. Conduct injured wildlife search and rescue operations		
☐ 6c. Setup primary care unit for injured wildlife		
☐ 6d. Operate wildlife rehabilitation center		
☐ 6e. Initiate citizen volunteer effort for oiled bird rehabilitation		
7. Remove Oil from Impacted Areas		
☐ 7a. Conduct appropriate shoreline cleanup efforts		
☐ 7b. Clean oiled structures (piers, docks, etc.)		
☐ 7c. Clean oiled vessels		
8. Minimize Economic Impacts		
☐ 8a. Consider tourism, vessel movements, & local economic impacts		
☐ 8b. Protect public and private assets, as resources permit		
☐ 8c. Establish damage claims process		
9. Keep Stakeholders and Public Informed of Response Activities		
☐ 9a. Provide forum to obtain stakeholder input and concerns		
☐ 9b. Provide stakeholders with details of response actions		
☐ 9c. Identify stakeholder concerns and issues, and address as practical		
☐ 9d. Provide timely safety announcements		
☐ 9e. Establish a Joint Information Center (JIC)		
☐ 9f. Conduct regular news briefings		
☐ 9g. Manage news media access to spill response activities		
☐ 9h. Conduct public meetings, as appropriate		
ICS 202 General Response Objectives	**© 1997-2012 TRG/dbSoft, Inc.**	

ICS 203 - Organization Assignment

Incident:	**Prepared By:** **at:**
Period:	**Version Name:**

Command Staff

Title	Name	Mobile	Pager	Other	Radio
Federal (FOSC)		( ) -	( ) -	( ) -	
State (SOSC)		( ) -	( ) -	( ) -	
RP(s)		( ) -	( ) -	( ) -	
Incident Commander		( ) -	( ) -	( ) -	
Deputy Incident Commander		( ) -	( ) -	( ) -	
Safety Officer		( ) -	( ) -	( ) -	
Information Officer		( ) -	( ) -	( ) -	
Liaison Officer		( ) -	( ) -	( ) -	
Intelligence Officer		( ) -	( ) -	( ) -	

Operations Section

Title	Name	Mobile	Pager	Other	Radio
Operations Section Chief		( ) -	( ) -	( ) -	
Deputy Operations Section Chief		( ) -	( ) -	( ) -	
Staging Area Manager		( ) -	( ) -	( ) -	
Recovery & Prot. Branch Director		( ) -	( ) -	( ) -	
Emergency Resp. Branch Director		( ) -	( ) -	( ) -	
Air Ops Branch Director		( ) -	( ) -	( ) -	
Wildlife Branch Director		( ) -	( ) -	( ) -	
Branch Director		( ) -	( ) -	( ) -	
Division/Group Supervisor		( ) -	( ) -	( ) -	
Disposal Group Supervisor		( ) -	( ) -	( ) -	

Planning Section

Title	Name	Phone	Fax	Other	Radio
Planning Section Chief		( ) -	( ) -	( ) -	
Deputy Planning Sec ion Chief		( ) -	( ) -	( ) -	
Situation Unit Leader		( ) -	( ) -	( ) -	
Resource Unit Leader		( ) -	( ) -	( ) -	
Documentation Unit Leader		( ) -	( ) -	( ) -	
Technical Specialist		( ) -	( ) -	( ) -	
Demobilization Unit Leader		( ) -	( ) -	( ) -	
Check In Recorder		( ) -	( ) -	( ) -	

ICS 203 Organization Assignment

ICS 203 - Organization Assignment (Continued)

Incident:	Prepared By: at
Period:	Version Name:

Logistics section

Title	Name	Phone	Fax	Other	Radio
Logistics Section Chief		( ) -	( ) -	( ) -	
Deputy Logistics Section Chief		( ) -	( ) -	( ) -	
Service Branch Director		( ) -	( ) -	( ) -	
Medical Unit Leader		( ) -	( ) -	( ) -	
Food Unit Leader		( ) -	( ) -	( ) -	
Communication Unit Leader		( ) -	( ) -	( ) -	
Support Branch Director		( ) -	( ) -	( ) -	
Supply Unit Leader		( ) -	( ) -	( ) -	
Facilities Unit Leader		( ) -	( ) -	( ) -	
Ground Support Unit Leader		( ) -	( ) -	( ) -	
Vessel Support Unit Leader		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	

Finance Section

Title	Name	Phone	Fax	Other	Radio
Finance Section Chief		( ) -	( ) -	( ) -	
Deputy Finance Section Chief		( ) -	( ) -	( ) -	
Time Unit Leader		( ) -	( ) -	( ) -	
Procurement Unit Leader		( ) -	( ) -	( ) -	
Compensa ion/Cla ims Unit Leader		( ) -	( ) -	( ) -	
Cost Unit Leader		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	

Source Control Section

Title	Name	Phone	Fax	Other	Radio
Salvage/Source Control Group		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	
		( ) -	( ) -	( ) -	

ICS 203 Organizational Assignment

ICS 211p – Check-In List (Personnel)					
Incident:			Prepared By:		at:
Period:			Version Name:		
Check-In Location - - ☐ Command Post ☐ Staging Area ☐ Other --> Location Name:					
Personnel Check-In Information					
Name (Last, First) & Contact Information	Classification & Company/Agency	Assigned Section & Position	Quantity & UOM	Check-In Date/Time	Check-Out Date/Time Destination
ICS 211P Check-In List (Personnel)					© 1997-2012 TRG/dbSoft, Inc.

ICS 211e – Check-In List (Equipment)					
Incident:			**Prepared By:**		**at:**
Period:			**Version Name:**		
Check-In Location: ☐ Command Post ☐ Staging Area ☐ Other --> **Location Name:**					
Equipment Check-In Information					
Equipment Description & Identifier	**Supplier & Contact Information**	**Quantity & UOM**	**Size & UOM**	**Check-In Date/Time & Assignment**	**Check-Out Date/Time & Destination**
ICS 211e Check-In List (Equipment)					© 1997-2012 TRG/dbSoft, Inc.

TRANSPORTATION – HEALTH & SAFETY
EPR&S PREP - INCIDENT REPORT FORM

Company, Agency and environmental notifications must be made quickly. **Do NOT wait for all incident information before calling the National Response Center at 800-424-8802.** Use this form to record as much incident information as possible. **Communicate within 30 to 60 minutes of discovery time**. Use the Emergency Notifications Log to document all communication, any additional information and distribution.

I. INCIDENT TYPE

A. Check all that apply: ☐ **Release** ☐ **Security** ☐ **Fire** ☐ **Other (Specify)** _____

B. REPORTING PARTY

Name/Title: _____
Company: _____
Address: _____
City, State Zip: _____
Call Back #: _____

C. SUSPECTED RESPONSIBLE PARTY

Name/Title: _____
Company: _____
Address: _____
City, State Zip: _____
Call Back #: _____

D. **Calling for the Responsible Party?** ☐ Yes ☐ No

II. INCIDENT LOCATION INFORMATION

Incident Location: ☐ Terminal ☐ Pump Station ☐ Vessel ☐ Pipeline ☐ Truck ☐ Rail

Owner Name: _____ Operator Name: _____
Address: 600 N. Dairy Ashford, TA-2136 Address: _____
City, State, Zip: Houston, TX 77079 City, State, Zip: _____
County/Parish: _____ Hwy or River Mile Marker: _____
Section-Township-Range: _____ Latitude _____ Longitude _____
Dist./Dir. to Nearest City: _____ Facility Storage Capacity: _____ (bbls)
Container Type (☐ AST/ ☐ UST) _____ Container Capacity _____ (bbls)
Site Supervisor/Contact: _____ Call Back #: _____

III. INCIDENT DESCRIPTION & IMPACTS

Date/Time Discovered: _____ Discovered by: _____
Material Released: _____ Quantity Released: _____ (bbls/lbs)
Duration of the Release: _____ Weather Conditions: _____
Quantity to Surface Water: _____ Temperature: _____ °F Humidity: _____
Off Company Property? ☐ Yes ☐ No Wind Speed: _____ Direction: _____
Evacuations: ☐ Yes ☐ No # Evacuated: _____ Name of Surface Water _____
Fire: ☐ Yes ☐ No # Hospitalized: _____ Distance to Water: _____ (ft/mi)
Explosion: ☐ Yes ☐ No # of Injuries: _____ # of Fatalities _____ Media coverage expected? ☐Yes ☐ No
If Operator error, has Drug and Alcohol program been initiated? ☐Yes ☐ No **DOT jurisdiction event?** ☐Yes ☐ No

If DOT event, list those completing Drug and Alcohol testing? _____

Incident description (Including Source and or Cause of the Incident) _____

Impacted area description _____

Damage description and estimate ($, days down, etc.) _____

Actions taken to correct, control or mitigate (Change in Security Level, FSP and/or ERP Implemented, etc.) _____

Agency/Person Contacted	Notified By	Office Phone	Cell Phone	Other Phone	Date & Time Notified	Log #	Comments
IV. EMERGENCY NOTIFICATIONS - LOG							
Duty Officer/		800-231-2551	N/A	Fax: 918-662-0179			Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No

Agency/Person Contacted	Notified By	Office Phone	Cell Phone	Other Phone	Date & Time Notified	Log #	Comments
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No
							Follow-Up: ☐ Yes ☐ No

V. ADDITIONAL INFORMATION

** Alternate NRC contact information: Fax: 202-267-2165, TDD: 202-267-4477, or e-mail: lst-nrcinfo@comdt.uscg.mil

VI. PREPARED BY AND DISTRIBUTION

Prepared by: _____ **Date:** _____ **IMPACT Entry Complete:** ☐ Yes ☐ No

* Notify the appropriate Company DOT Coordinator to complete the *PHMSA FORM F 7000-1*, as applicable.

PHMSA 00003554