CHAPTER 1000

INTRODUCTION

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1000 INTRODUCTION

Area committees have been established for each area of the United States that have been designated by the President. The area committees are comprised of personnel from Federal and state agencies who coordinate response actions with tribal and local governments and with the private sector. Area committees, under the coordinated direction of Federal On-Scene Coordinators (FOSC), are responsible for developing Area Contingency Plans (ACPs). Area committees are also required to work with the response community to develop procedures to expedite decisions for the use of alternative response measures.

The purpose of the Northwest Area Contingency Plan (NWACP) is:

(1) To provide for orderly and effective implementation of response actions to protect the people, natural resources, and property of the coastal and inland zones of the Northwest area, including the states of Washington, Oregon, and Idaho from the impacts of oil or hazardous substances spills.

(2) To promote the coordination of and describe the strategy for a unified and coordinated federal, state, tribal, local, potential responsible party, response contractor, response cooperative, and community response to a discharge or substantial threat of discharge of oil or a release of a hazardous substance from inland and marine sources.

(3) To be consistent with the NCP and be adopted as the Region Ten Regional Contingency Plan (RCP).

(4) To provide guidance to all Facility and Vessel Response Plan reviewers and Plan holders to ensure consistency with the Area Contingency Plan.

(5) To be a guidance manual for responders.

This plan is intended for use as a guideline for response actions to spill incidents and to ensure consistency in response to spills. Federal and state rules require that a Responsible Party (RP), or spiller, must be able to manage spills with a predesignated response management organization that accommodates a unified command structure in recognition of federal, state, tribal or local jurisdiction.

The National Interagency Incident Management System (NIIMS) Incident Command System is the recognized standard with which management systems must demonstrate compatibility and is the measure by which regulatory agency plan reviewers, drill evaluators & spill responders will gauge adequacy of response actions. While this system allows considerable operational flexibility, it includes a collaborative planning process which delineates key management position responsibilities, common use of forms, essential Incident Action Plan elements and response personnel and equipment resource tracking methods.

This plan has been streamlined by adopting the USCG Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996. Detailed information regarding all positions within the Unified Command can be found in this guide.

1100 Authority

The Federal Water Pollution Control Act (FWPCA)(33 USC 1321 et seq) addresses development of a National Planning and Response System. As part of this system, in conjunction with the National Contingency Plan (NCP), these plans are to address responses to worst-case discharges of oil or hazardous substances, and mitigation or prevention of a substantial threat of discharge from a vessel, offshore facility, or onshore facility. The Area Committee is also responsible for working with the response community to plan for joint response efforts, including spill containment, mechanical recovery, use of dispersants, in-situ burning, shoreline cleanup, protection of sensitive areas, and protection, rescue, and rehabilitation of fish and wildlife.

1110 Federal

Designating areas, appointing area committee members, determining information to be included in, and review of area contingency plans, has been delegated by Executive Order 12777 of 22 October 1991, to the Commandant of the U.S. Coast Guard (USCG) (through the Secretary of Transportation) for the coastal zone, and to the Administrator of the Environmental Protection Agency (EPA) for the inland zone. The coastal zone and inland zone are defined in the NCP (40 CFR 300.5). The EPA has responsibility for response in all areas inland of the coastal zone. The Coast Guard has designated as Areas, those portions of the Captain of the Port (COTP) zones which are within the coastal zone and for which area committees will prepare area contingency plans. COTP zones are described in Coast Guard regulations (33 CFR Part 3). This is the ACP for Coast Guard COTP Zones Puget Sound and Portland, the States of Washington, Oregon and Idaho, and the Environmental Protection Agency's Inland Region Ten excluding Alaska.

1120 Washington State

<u>The Northwest Area Contingency Plan</u> - The NWACP has been adopted as the state's Oil and Hazardous Substance Spill Prevention and Response Plan as required by statute (see Chapter 90.56.060 RCW). This plan applies to the activities of all state and local agencies involved in managing oil and hazardous substance spills where federal, state and local agencies respond to a release or potential release of oil or hazardous substances.

<u>Ecology is the Lead State Agency</u> - The Washington State Department of Ecology (Ecology) is designated (see Chapter 90.56.020 RCW) as the State's lead agency, "to oversee prevention, abatement, response, containment, and cleanup efforts with regard to an oil or hazardous substance spill to waters of the state. The director is the head of

the state incident command system in response to a spill of oil or hazardous substances and shall coordinate the response efforts of all state agencies and local emergency response personnel." The Ecology incident commander will coordinate with other state agencies and be the principal state spokesperson in the incident command as an advocate for all state interests.

If a responsible party fails to respond in a manner deemed reasonably consistent with this policy and NWACP, the FOSC or Ecology may assume the lead for a portion of or the entire response. Ecology will closely coordinate with other members of the unified command prior to taking such action.

Cooperation with Other Government Entities - It is the policy of the State of Washington that it will co-manage spills of oil or hazardous substances in close cooperation with federal, local and tribal officials as provided in this plan. A coordinated approach is the best means to provide the best protection of the state's public health and safety, natural resources, and private property.

1130 Oregon State

This plan satisfies requirements set forth in Oregon Revised Statutes 468B.495-500 and 466.620 and replaces the Oil and Hazardous Materials Spill Contingency Plan, for the Oregon Coast, Columbia River and Willamette River to Willamette Falls (Volume II). This plan also satisfies ORS 401, 453.347, 466.620 and 469.611 and is part of the requirements of Title III Section 303 of the Superfund Amendments and Re-authorization Act of 1986. It also replaces the Oil and Hazardous Materials Emergency Response Plan (For inland spills and non-coastal waters)[formerly Annex O]. It is intended to be consistent with all other existing plans. The Oregon State Department of Environmental Quality (DEQ) is the lead State agency on the Area Committee and provides the lead for oil and hazardous substance spill prevention efforts, contingency planning, and cleanup oversight for spills affecting state air, water, or land resources.

1140 Idaho State

This plan, in conjunction with the Idaho Hazardous Materials Incident Command and Response Support Plan, functions as an appendix to Annex Z of the Idaho Emergency Plan, Part II, Natural and Man-made Disasters. This plan may be activated independent of the Idaho Emergency Plan. Its primary purpose is to provide effective, coordinated emergency response support to local government by federal, state, and private agencies for incidents involving the release or potential release of oil and hazardous substances in Idaho. It also provides guidance to state personnel who may encounter an incident involving oil or hazardous substances and to define the support role of specific state agencies. This plan can be initiated at the request of local governments when their capabilities have been exceeded. Authority for implementation of the plan is derived from Executive Order 96-01, the Idaho Environmental Protection and Health Act (Idaho Code Section 39-100), the Hazardous Waste Management Act (Idaho Code Section 39-4400), Protection from Radioactive Materials (Idaho Code Section 39-

8005), Idaho Hazardous Substances Response Act (Idaho Code 39, Chapter 71) and the Disaster Preparedness Act (Idaho Code 46, Chapter 10).

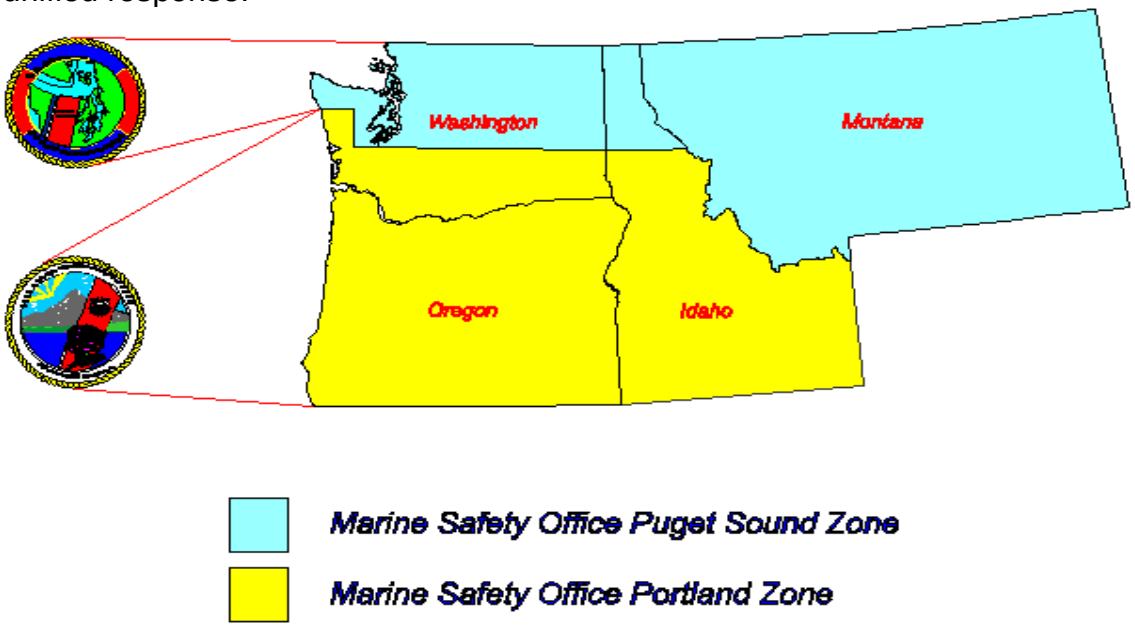
1200 Reserved for Future Use

1300 Area Committee Purpose and Objectives

The Area Committee's primary objective is to plan for a safe, appropriate, and timely response to all reports of oil or hazardous substance spills. The Coast Guard has authority to respond in the Coastal Zone, the Environmental Protection Agency in the Inland Zone, and Washington, Oregon, and Idaho respond within their respective state boundaries. Each agency responds to reports of releases of oil or hazardous substances to determine their nature and immediate impact on the public health and the environment. If a responsible party is conducting proper response actions, the appropriate on-scene coordinator will use best judgment in determining the need for and scope of agency involvement.

1400 Geographic Boundaries

The geographic boundaries of this plan are the states of Washington, Oregon, and Idaho which include COTP zones for Puget Sound and Portland and EPA Inland Region Ten, excluding Alaska. The boundaries between the Coast Guard and EPA areas of responsibility are shown in Table 1-1. The boundary for undesignated waters shall be the nearer of 100 yards from the junction with, or the first bridge crossing, any river discharging into a salt-water body. All waterways, which mark the boundary between two states, e.g., the Columbia and Snake Rivers, are the joint, shared responsibility of both states. Spills affecting, or with the potential to affect, shared water must be reported to both states and both states will normally participate in the unified response.



1500 National Response System

1510 National Response Structure

The National Response System (NRS) coordinates all government agencies with responsibility for environmental protection in a focused response strategy for the immediate and effective cleanup of an oil or hazardous substance discharge. It is a three-tiered federal response and preparedness mechanism that supports the pre-designated FOSC in coordinating national, regional, state, tribal & local government agencies, industry, and the responsible party during a response.

The three tiers are the National Response Team, Regional Response Team, and the OSC. The federal system is described in the NCP (40 CFR 300). The NRS does not remove the primary responsibility of initiating and completing a proper response by the responsible party. The NRS is used for all spills, including a Spill of National Significance (SONS). When appropriate, the NRS is designed to incorporate a unified command and control support mechanism consisting of the FOSC, the SOSC, and the Responsible Party's Incident Manager and, when appropriate, tribal and local representatives.

1520 National Response Team

The NRT consists of 15 federal agencies with responsibilities, interests, and expertise in various aspects of emergency response to pollution incidents. The EPA serves as chair and the Coast Guard as vice-chair of the NRT, except when activated for a specific incident, when the lead response agency representative serves as chair. The NRT is primarily a national planning, policy and coordination body and does not respond directly to incidents. The NRT provides policy guidance prior to an incident and assistance as requested by a FOSC via an RRT during an incident. NRT assistance usually takes the form of technical advice, access to additional resources/equipment, or coordination with other RRTs.

1530 Regional Response Teams

There are 13 RRTs, one for each of the ten federal regions and Alaska, the Caribbean and the Pacific Basin. Each RRT has federal and state representation. EPA and the Coast Guard co-chair the RRTs. RRTs are planning, policy and coordinating bodies, and may be activated during a major incident to assist the FOSC with resources. The RRT operating in the Northwest Area has agreed to use this Area Contingency Plan as the Regional Contingency Plan (RCP). They also provide guidance support and approval for pursuing certain response strategies.

Regional Response Teams (RRTs) may be activated for specific incidents when requested by the FOSC. If the assistance requested by a FOSC exceeds an RRT's capability, the RRT may request assistance from the NRT. During an incident the RRT may either be alerted by telephone or convened. The cognizant RRTs will also be consulted by the FOSC on the approval/disapproval of the use of alternative response technologies (i.e. dispersants, bio-remediation, and other chemical counter - measures.) when that decision has not been preapproved. The RRT may also be

consulted on the use of in situ burning.

1540 Area Response Structure

The Northwest Area Committee member agencies have adopted and will manage spill incidents according to the following principles*:*

- Incident Command System - The signatory agencies will use the National Interagency Incident Management System (NIIMS) model Incident Command System (ICS).

- Unified Command - When more than one of the signatory agencies arrive on-scene to participate in managing a response action, the agencies will utilize a unified command structure to jointly manage the spill incident. In the Unified Command (UC), whenever possible, decisions with regard to the response will be made by consensus and documented through a single Incident Action Plan (IAP). When a consensus cannot be reached, the FOSC has the ultimate decision-making authority.

- Tribal and Local Government On Scene Coordinators - The unified command may incorporate additional tribal or local government on scene coordinators into the command structure as appropriate.

- Responsible Party Command Structure - The person or persons responsible for a spill incident shall utilize an incident command system which is capable of rapidly and readily integrating into the NIIMS based ICS/UC organization utilized by the NWACP signatory agencies.

- Response Plan Approval - The National Oil and Hazardous Substance Contingency Plan (NCP) 40 CFR 300 requires that vessel and facility response plans be compatible with the applicable Area Plan. Washington and Oregon State laws have similar provisions in RCW 90.56.210 and OAR 340-047-0150(9). Therefore, it is the policy of the Area Committee that vessel and facility response plans be consistent with the NWACP.

The unified command structure allows for a coordinated response, which takes into account the federal, state, tribal, local and responsible party concerns and interests when implementing the response strategy. The FOSC has the ultimate authority in a response operation and will exert this authority only if the other members of the unified command are not present or are unable to reach consensus quickly.

During responses to oil and hazardous substance spills, local agencies may be involved as part of the UC, and may provide agency representatives who interface with the command structure through the Liaison Officer or the SOSC. When a UC is used, a Incident Command Post (ICP) and Joint Information Center (JIC) shall be established. The ICP shall be as near as practicable to the spill site. All responders (federal, state,

tribal, local and private) should be incorporated into the response organization (Figure 2-1) at the appropriate level.

1541 Federal On-Scene Coordinators

MSO Puget Sound and MSO Portland maintain and manage emergency response teams for response to discharges of oil and hazardous substances. These teams vary in size based on the nature of the incident. In all cases, they are tasked with assessing the discharge to determine response measures, monitor and supervise pollution countermeasures, deploy pollution control equipment as available and necessary until a contractor arrives, document all phases of the response, conduct investigations, and act for the FOSC until their arrival.

The EPA Response Team consists of emergency response FOSCs located in the regional office in Seattle and an operations offices in Boise. The FOSCs are responsible for determining the source, cause and responsible party, as well as initiating source control and enforcement actions as appropriate. Additional responsibilities include ensuring containment cleanup and disposal are carried out adequately, notification of all Natural Resources Trustees, and coordination of activities with federal, state, tribal, and local agencies to monitor their performance. EPA also has access to technical assistance contractors who can provide technical oversight and other resources at spills and uncontrolled hazardous waste sites. In some cases, EPA's technical assistance contractor may arrive on scene prior to the FOSC. Prior to

arrival of the EPA OSC, the EPA contractor will cooperate with on-site agencies but will take direction through the EPA OSC only.

1542 Washington Response System

The Washington State Response system is designed to provide coordinated state agency response, in cooperation with federal agencies for effective cleanup of oil or hazardous substance spills. In Washington state:

The **Department of Ecology (Ecology)** acts as state Incident Commander for oil or hazardous substance spills or threatened spills to waters of the state. Ecology provides 24-hour response to oil and hazardous substance spills when any amount of regulated waste or hazardous substance is released to the air, land or water, or whenever oil is spilled on land or to state waters. The agency maintains spill response teams in Olympia, Seattle, Spokane and Yakima that provide round-the-clock response service to emergencies that pose an immediate threat to human health and the environment. In July 1997, the state Office of Marine Safety merged with Ecology to form a comprehensive Spill Prevention, Preparedness, and Response Program within the agency. In addition, Ecology:

- Confirms emergency notifications;
- Determines the source and cause of an incident;
- Identifies the responsible party for an oil spill or hazardous substance release;

- Assumes responsibility for incident management and cleanup if the responsible party is unavailable, unresponsive or unidentified;
- Sets state cleanup standards and ensures that source control, containment, cleanup and disposal are accomplished;
- Assists in monitoring and ensuring the safety of first responders and other personnel;
- Determines the need for and initiates appropriate enforcement actions;

- Coordinates spill response with other state and federal agencies and tribal and local jurisdictions using the National Interagency Incident Management System (NIIMS) model of Incident Command System (ICS);
- Establishes a Joint Information Center (JIC) with involved agencies and the responsible party to provide current and accurate information to the community;
- Conducts on-site inspections of commercial vessels and oil handling facilities.
- Investigates the cause of commercial vessels and oil handling facility spills;
- Provides maritime expertise, such as advise on salvage operations;
- Leads, activates and coordinates the Natural Resource Damage Assessment (NRDA) team which also includes the state departments of Fish and Wildlife, Health, Natural Resources, and Community, Trade and Economic Development's Office of Archaeology and Historic Preservation, and the state Parks and Recreation Commission;
- Participates in the activities of the Washington Wildlife Rescue Coalition; and
- Notifies the appropriate resource trustee agency of injury to fish, shellfish, habitat and other wildlife.

Under the Washington Response System, the **Washington State Patrol (WSP)** assumes responsibility as Incident Commander and acts as the lead state agency responsible for cleanup activities when oil and hazardous substance spills occur on state highways. WSP also:

- Assists local jurisdictions with law enforcement and evacuations;
- Represents local jurisdictions as designated Incident Commander;
- Coordinates and maintains liaison with other state agencies involved with an incident;
- Assists in receiving and disseminating warning information;
- Provides communications and technical support to the incident;
- Provides radiological monitoring;
- Provides aerial reconnaissance of impacted area;
- Coordinates fire resources when an emergency mobilization is authorized for a hazardous substance incident; and
- Provides 24-hour, statewide communications support.

The **Washington Military Department's Emergency Management Division (EMD)** maintains capabilities to make 24-hour notifications to Ecology, WSP and other appropriate local, tribal, state and federal agencies. EMD also:

- Activates the state Emergency Operations Center (EOC) when required;

- Coordinates state agency response activities within the state EOC, including procurement of state resources, as requested;
- Provides public information officer support to JICs or Incident Command Posts; and
- Provides communication links on an ongoing basis.

During oil and hazardous substance spills and releases, the **Washington Department of Fish and Wildlife (Fish and Wildlife)**:

- Coordinates the activities of the Washington Wildlife Rescue Coalition. Rescues and rehabilitates wildlife injured during oil and hazardous substance spills and releases;
- Assists in identification of fish and wildlife protection needs;
- Assists in reconnaissance and NRDA efforts.

The state **Department of Health** is responsible for handling environmental spills and releases involving radioactive substances. They assist in determination of public health impacts to fish and shellfish harvesting and consumption.

The state **Department of Natural Resources** assists is the identification of aquatic habitat/state lands protection needs.

The state **Office of Archaeology and Historic Preservation** assists in the ID of historic/archaeological resource protection needs.

The state **Parks and Recreation Commission** assists in response activities involving state parks lands and property.

Local jurisdictions are usually the first responders to oil and hazardous substance spills and releases. Under the Washington Response System, local jurisdictions must designate a local Incident Command agency, usually a fire department, or they may delegate that responsibility to WSP. Under SARA, Title III, Local Emergency Planning Committees (LEPCs) may be involved with planning, training, and assisting with interagency coordination. They may also activate their local Emergency Operations Center to support on-scene operations, make notifications and response to requests for resources and other assistance.

1543 Oregon State Response System

The Oregon State Response system is designed to provide coordinated state agency response, in cooperation with federal agencies, for effective clean up of an oil or hazardous substance discharge. Specific responsibilities of state agencies for planning and response are outlined below.

Oregon Emergency Management (OEM) maintains 24-hour notification capability through the Oregon Emergency Response System (OERS). The Department of Environmental Quality (DEQ) is the Lead Agency for oil and hazardous materials

incidents, and coordinates the state's response following receipt of notification from OERS. In performing these duties, DEQ may be assisted by several other primary and secondary response agencies of the state.

1544 Idaho State Response System

Local Fire Departments and Departments of Emergency Management are the primary response authority for all oil spills and hazardous materials releases. It is the state's intent to SUPPLEMENT local response activity, not supplant it. This plan and the Idaho Hazardous Materials Incident Command and Response Support Plan are to be implemented when local capabilities have been exceeded by the incident. The Incident Command System, when implemented by local government during initial response, will allow the state to become part of the response network without disrupting local efforts.

1545 States/BC Oil Spill Task Force

States/British Columbia Oil Spill Task Force was established to provide cooperative and coordinated oil spill response and prevention efforts. Since its formation in March 1989, it has grown to include the states of Alaska, Oregon, Washington, and California, and the Province of British Columbia, Canada. The environmental agencies of the four western states and British Columbia have agreed to work together to improve coordinated spill response in the following ways:

- Sharing state resources and assist state OSCs during major spills if requested
- Observing state spill drills and response activities
- Debriefing after a major spill to determine what changes it might make in its recommendations for improving spill prevention or response across state boundaries
- Meeting annually to share information and coordinate state policy with federal agencies
- Coordinating implementation efforts, such as making rules and regulations as consistent as possible
- Conducting joint spill drills to better coordinate trans-boundary response efforts
- Updating the joint emergency response call-down list and communications procedures

1600 Regional Response Team Standing Membership

A list of all RRT members' addresses and phone numbers can be found in section 9100.

1610 RRT Co-Chairs

- U.S. Coast Guard

- U.S. Environmental Protection Agency

1620 On-Scene Coordinators (OSCs)

1621 Inland Area

- Environmental Protection Agency

1622 Coastal Area

- U.S. Coast Guard

1630 Federal Representatives

- Department of Agriculture (U.S. Forest Service)
- Department of Commerce (NOAA)
- Department of Defense (U.S. Army)
- Department of Energy
- Department of Justice
- Department of Labor (OSHA)
- Department of Transportation (USCG)
- Environmental Protection Agency
- Federal Emergency Management Agency
- Department of Health and Human Services
- Department of Interior
- Food and Drug Administration
- General Services Administration (GSA)

1640 State Representatives

- State of Idaho
- State of Oregon
- State of Washington

1650 Associated Membership

- U.S. Army
- U.S. Navy
- Federal Highway Administration

1700 Response Policy

1710 National Response Policy

The National Response Policy is to ensure that all applicable laws and regulations are

carried out. Those laws and regulations are intended to ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial threat of a discharge, of oil or a hazardous substance.

1711 High-Seas Policy

Application of the Intervention on the High Seas Act (33 USC 1471 et seq.): Under authority of the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969, governments party to the present convention may take such measures on the high seas as may be necessary to prevent, mitigate, or eliminate grave and imminent danger to their coastline or related interests from oil or hazardous substances pollution or threat of pollution. The pollution or threat of pollution may result from a maritime casualty or acts related to such a casualty which may reasonably be expected to result in major harmful consequences. In the event of a ship collision, stranding, or other incident on board or external to a ship outside U.S. Territorial waters which creates a potential threat of pollution by oil or hazardous substances, all available information shall be relayed to the Coast Guard which will determine whether or not grave and imminent danger to our coastline or related interests exists. Once that determination is made, the designated FOSC shall take measures to prevent, mitigate, or eliminate the threat.

1712 Coast Guard Policy

The Coast Guard will respond, consistent with the policy outlined in the Northwest Area Contingency Plan. The Coast Guard may elect not to dispatch representatives to reported discharges where representatives of another cognizant government agency are responding. However, if Federal removal is indicated within the Coastal Zone, the Coast Guard will respond. If the responsible party is conducting proper removal, the Coast Guard On-Scene Coordinator will use best judgment in determining the need for the presence of Coast Guard personnel on scene. General Coast Guard policy for pollution response is provided in Volume VI of the Coast Guard Marine Safety Manual; Thirteenth Coast Guard District policy is provided in Appendix 38 to Annex C to the CCGD13 Standard Operating Procedures.

1713 Environmental Protection Agency (EPA) Policy

By statute, EPA is the FOSC for inland spills. In many instances, EPA is not the first responder on scene. EPA contractors may arrive before EPA. EPA works in cooperation with other responders but has not delegated their responsibility as FOSC. In all spill situations, it is EPA's intent to contribute to the response by working with the local, state, tribal authorities, general public, and Federal agencies to ensure the information needed to maximize the effectiveness of the response effort is easily accessible. During a response to a release, the potentially responsible parties (PRP) are generally given the opportunity to adequately respond. The U.S. EPA works closely with the PRPs when they are known and willing to take action to ensure that the release reaches an adequate and rapid conclusion with a minimum impact on the environment. In the event of a spill where the PRP is not identified, does not respond to

contain or clean up the spill, or does an inadequate job responding, Federal responsibilities may
include taking over the response or assuming a co-lead role in a unified command with state and local responders.

1714 Department of Defense and Department of Energy Policies

In the case of the Department of Defense (DOD) or Department of Energy (DOE), those agencies shall provide FOSCs/RPMs responsible for taking all response actions. DOD will be the removal response authority with respect to incidents involving DOD military weapons or munitions or weapons or munitions under the jurisdiction, custody, or control of DOD. For oil spills on DOD facilities, the Coast Guard or EPA is the pre-designated FOSC as appropriate.

1720 State Response Policy

1721 Washington Policy

Washington State law has established the Washington State Department of Ecology (Ecology) as the pre-designated State OSC (SOSC) for all oil and hazardous substance spills in state waters. As such, Ecology is also responsible for supporting Federal response actions. In this role, Ecology effectively represents all State agencies and the interests of the State and its citizens. Ecology will respond to any significant discharge or threatened discharge. Ecology will provide local geographic and environmental information; identify and prioritize vulnerable resources in consultation with other resource agencies through the NRDA team; fund orphan oil spills through the Oil Spill Recovery Act (OSRA); and coordinate with other State agencies. The State of Washington has devised parallel statutes on water pollution and marine transportation safety which meet, or in some cases exceed, those standards set forth in federal legislation. Chapter 90.48 of the Revised Code of Washington (RCW) has made it unlawful to cause or permit the discharge by any means, of polluting matter into the waters of Washington State. Additionally, this Act designates the State of Washington as a participant in the federal permit program. It is the policy of the state to use the unified command system (UCS) (as described in Chapter 2000 of this plan) during response to significant spills or threatened spills.

1722 Oregon Response Policy

This Area Contingency Plan provides a description of Oregon's statewide oil and hazmat response system and outlines the responsibilities of all those who may be involved in an incident. It provides for a coordinated Oregon state agency response as well as detailed plans for how each of the counties and cities in the state will respond. Oregon has a hazardous material training system that organizes and coordinates the development and delivery of cost effective, quality hazardous materials training and education. The program consists of providing basic hazmat training and providing discipline-specific training to identified target groups. The proficiency series consists of

specific qualification levels and is provided to first responders. This program is coordinated through the Board of Public Safety Standards and Training.
To ensure a reasonable emergency response time to all parts of the state, a system of state funded regional hazardous materials response teams consisting of highly trained individuals has been developed. The teams are equipped and trained by the state and manned for the most part by individuals from local fire departments and other emergency providers.

A computerized call up system has been developed by the Office of the State Fire Marshall. The system provides data on the location and type of hazardous materials stored around the state. It also provides technical information on various hazardous materials and guidance on emergency response procedures. This plan, together with the information system, the training program and the regional teams is designed to insure that all emergency responders are adequately prepared for hazmat incidents.

The Oregon Department of Environmental Quality (DEQ) is the lead agency for oil or hazardous material spills. The Oregon Health Division (OHD) is the lead state agency for all incidents involving hazards to human beings, communicable disease agents, or radiation emergencies other than transportation accidents. The Oregon Department of Energy (ODOE) is the lead state agency for radioactive materials transportation incidents. The lead state agency will provide a state on-scene coordinator (SOSC) to direct state response and to assist the FOSC. Assistance which may be requested of the State includes guidelines for the disposal of oily waste, identification and prioritization of vulnerable resources, local geographic and environmental information, counsel on cleanup and restoration standards, medical/toxicological information through State health officials and identification of unknown pollutants.

State Assistance:
Abandoned Chemicals- The Oil and Hazardous Materials Fund may be used by DEQ to contract for emergency removals of materials presenting public health and environmental risk if the owner, property owner, or responsible party is unable to act. This assistance may be on a cost reimbursement basis. Drug Lab Chemicals-DEQ's Drug Lab Cleanup Fund. Requests must come through a law enforcement agency. Financial reimbursement is also available through the State Fire Marshall's Office for HAZMAT Team response within the terms of the response contract.

1723 Idaho Response Policy

Idaho uses a collaborative system in responding to hazardous materials incidents. A single phone call to the state provides immediate access to virtually any resource needed at a hazardous materials incident. The state’s Division of Environmental Quality plays a key role in facilitating and fostering the collaborative efforts and the Bureau of Hazardous Materials is responsible for ensuring that emergency response is timely and effective. Local, state, and federal responses are expected to be coordinated and in support of local efforts.

Unified command is the standard method of operation. The state's representative to command under emergency or disaster conditions is designated by the Idaho Adjutant General.

It is policy in Idaho that responders operate only within the scope of their training and the state has set clear training guideline in the *Idaho Hazardous Materials Incident Command Response and Support Plan*.

The Idaho Division of Environmental Quality directs long term site remediation efforts with the cooperation and support of other state agencies.

1730 Multinational Policy

The United States and Canada share responsibilities in numerous locations covered by this plan. The northern boundary of the States of Washington and Idaho is the Canadian border. U.S. and Canadian OSCs will cooperate fully to respond to pollution incidents which affect or threaten to affect both parties. Toward this end, the Canada-United States Joint Marine Pollution Contingency plan (JMP) for spills of oil and other Harmful Substances (CANUSPAC) and the Canada-United States Joint Inland Pollution Contingency Plan (CANUSWEST) provide guidance for a joint response.

If a spill or potential spill may impact or does impact Canadian waters or territory, the FOSC will alert Thirteenth Coast Guard District's Marine Safety Division, and/or EPA and recommend activation of CANUSPAC or CANUSWEST and the associated Joint Preparedness Team (JPT). The FOSC will then contact the Canadian OSC as necessary to coordinate response. If a spill in Canadian marine waters threatens to impact U.S. waters, the Canadian OSC will contact the Thirteenth Coast Guard District's Marine Safety Division, who will activate CANUSPAC and notify COTP Puget Sound. In cases involving inland waters, the Canadian OSC will contact EPA Region Ten. A JPT co-chair may activate the CANUSWEST if the spill poses a threat to Canada or spreading has already occurred, or the magnitude of the spill makes a request for assistance necessary.

Any pollution incident posing a substantial threat to the other country shall be reported immediately by the Canadian National Environmental Emergencies Center (NEEC) or the U.S. National Response Center (NRC), depending on the incident location. In addition, the EPA Region Ten duty officer in Seattle shall notify the Environment Canada duty officer in Vancouver, or vice versa, in the event of an incident with cross-border impacts.

This Area Contingency Plan is compatible with the CANUSPAC and CANUSWEST Joint Contingency Plans .

1760 Responsible Party Policy

<u>Responsible Party Conformance with NWACP</u>

The National Contingency Plan requires that response plan holders, "prepare and submit a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil or a hazardous substance. These response plans are required to be consistent with applicable Area Contingency Plans."

The requirement for facility and vessel response plans to be consistent with the Northwest Area Contingency Plan applies to:

- Vessel and facility Contingency Plan: content, review and approval;
- The execution and evaluation of spill drills and exercises; and
- The management of spill response actions.

Failure to adequately conform to the NWACP may result in: rejection of a spill contingency/response plan; non-credit for a drill; or federal and/or state agencies assuming direct control of a spill response action. However, it is also the policy of the NW Area Committee that the unified command will encourage the party responsible for a spill incident, to maintain the primary responsibility for managing the response action so long as they:

- Actively and cooperatively participate in the unified command structure;
- Provide an organization which is compatible with NIIMS ICS;
- Provide regular communication and documentation that assures adequate response resources are being rapidly mobilized in proportion to the size of the incident as discussed in the following section.
- Follow their approved spill contingency/response plan (if applicable) unless otherwise directed, or a deviation is agreed to, by the unified command.

Requirement for a Full and Rapid Response

During the initial stages of some spill response actions adequate response resources are not rapidly mobilized to the scene of significant oil spills. The reasons for this are:

- It is often difficult to obtain precise information on the quantity of oil or hazardous material which has actually been released and is likely to continue to be released until the source is controlled.
- Notification may be delayed.
- There is a tendency of some responsible parties to be very conservative in estimating the quantity of oil spilled due to liability considerations.
- Miscommunication can occur as to the actual extent of personnel and equipment which has been ordered and as to the time of arrival. Similarly, estimates are sometime overly optimistic.
- Response contractors may experience difficulty in mobilizing in a timely fashion a portion of their response resources for various reasons.
- In some cases, state and federal on-scene coordinators are cautious in making sure

responsible parties do not mobilize unnecessary resources which would needlessly increase the cost of the response action.

However, adequate response resources must be rapidly mobilized if initial source control, containment and cleanup efforts are to be successful. Experience in the Northwest has found that it is much more cost-effective and far less damaging to natural resources to contain an oil spill rather than to remove it from the water and beaches.

Therefore, it is the policy of the Northwest Area Committee that the response to a spill incident should be promptly "ramped-up" to provide adequate equipment and trained personnel to effectively respond to the highest quantity of product which will most likely be released. If it is determined that excessive response resources are ordered or mustered they may be canceled or demobilized to help control the cost of the response action to the responsible party and responding agencies**.**

If a responsible party fails to respond in a manner deemed reasonably consistent with this policy and NWACP, the FOSC or SOSC may assume the lead for a portion of or the entire spill. The agency proposing to assume lead for the clean up will closely coordinate with other members of the unified command prior to taking such action.

Another reason that rapid response and containment is important is that, while the Northwest Area has one of the best spill response systems in the world, there are certain weaknesses in the response community ability to mount a fully effective response. These weaknesses are:

- **Coastal Response** -During certain times of the year, it is very difficult to mount an effective response action for spills in the outer coastal environment. This difficulty is due to the long transit distance from the major Columbia River and Puget Sound equipment stores to the outer coast. Once equipment arrives on-scene in the coastal environment, sea state and meteorological conditions (such as fog, wind and rain) may dramatically limit or terminate effective oil booming and on-water oil recovery efforts.
- **Response-in- Shallow Marine Embayments -** Diversion and containment booming and intertidal shoreline clean-up is very difficult in many of the Northwest's environmentally sensitive shallow marine estuaries such as the Columbia River, Padilla Bay and the Nisqually Delta. Once oil enters these intertidal areas, extensive environmental damage is likely and recovery technology has minimal effectiveness. In these environments, conventional shoreline clean-up activities themselves can cause extensive damage and are therefore seldom used.

- **Response to Catastrophic Oil Spills** - Should a catastrophic oil spill occur, it is likely that there will not be adequate response resources in the Northwest Area to manage and clean-up the spill. Therefore, the Northwest Area will rely in part on mutual aid from other West Coast and other jurisdictions to provide much of the necessary response resources. In order to expedite decision making on West Coast

mutual aid, the States/British Columbia Oil Spill Task Force adopted a Mutual Aid Plan.

West Coast Mutual Aid

During major and catastrophic spills on the West Coast, it may be necessary to expedite the cross boundary transfer of additional response capabilities which can only be provided by private contractors. Many of these contractors have signed commitments with facility and/or vessel operators that, if released to another spill, would place them out of compliance with their federal or state/provincial approved spill contingency plan.
Some West Coast states set performance standards (benchmarks) and let the plan holder and response contractors decide how they will be met. All major contractors have commitments under several contingency plans. This makes equipment "cascading" more difficult.

The members of the State/British Columbia Oil Spill Task Force are the primary state and provincial spill prevention and response agencies for Alaska, British Columbia, Washington, Oregon and California. In an effort to expedite and enhance the response to major West Coast spills, the States/British Columbia Oil Spill Task Force members pre-approved and signed the 1996 mutual aid agreement (see section 9820) which will be activated by the unified command if additional resources are needed.

Umbrella Vessel Contingency Plans

Washington and Oregon require vessel oil spill contingency plans from all tank vessels and cargo and passenger vessels (300 gross tons and over) to be submitted for review and approval. There are two options vessel owners and operators have to meet these vessel contingency plan requirements. The first option is to submit a company-specific vessel oil spill contingency plan to the states. The other option is to enroll in one of the organizations that operate umbrella vessel contingency plans.

The Washington State Maritime Cooperative (WSMC) and the Maritime Fire and Safety Association (MFSA) provide contingency plan coverage, primary response contractors, and a spill management team to enrolled vessels for a per trip fee. These services are provided for the first 24 hours of the oil spill response. The WSMC provides this coverage in Puget Sound, Strait of Juan de Fuca, and the Washington Coast. The MFSA provides coverage for the Columbia River and Willamette Rivers.

Vessels enrolled with WSMC or MFSA are expected to follow the approved umbrella contingency plan throughout the duration of the spill response. Any deviation from the vessel contingency plan must be approved by the State and Federal On-Scene Coordinators

Table 1-1 Area of Responsibility Boundaries Between EPA and Coast Guard for Major Oregon & Washington Waters

Washington

River/Canal Name	Boundary
Big Quilcene	North Quilcene Avenue Bridge
Chehalis	Route 107 Bridge South of Montesano
Clallam	State Highway 112 Bridge
Columbia	Bonneville Dam
Cowlitz	Route 4 Bridge at Kelso
Deschutes	4th Avenue Bridge, Olympia
Dosewallips	Route 101 Bridge
Duckabush	Route 101 Bridge
Dungeness	Town Road Bridge
Duwamish	102nd Street Bridge
Ebey	I-5 Bridge
Elwha	State Highway 112
Grays	Route 4 Bridge at Roseburg
Hama Hama	Route 101 Bridge
Hoh	Bridge Southwest of Hoh
Hoko	State Highway 112 Bridge
Hoquiam	Route 101 Bridge
Humptulips	Route 109 Bridge
Kalama	Interstate 5 Bridge
Lake Washington Ship Canal	Montlake Bridge
Lewis	Interstate 5 Bridge at Woodland
Little Quilcene	Rogers Street Bridge
Naselle	Route 101 Bridge
Nisqually	I-5 Bridge
Nooksack	Route 540 Bridge North of Marietta

Table 1-1 Area of Responsibility Boundaries Boundaries Between EPA and Coast Guard for Major Oregon & Washington Waters (Continued)

Washington (Continued)

North	Route 105 Bridge
North Nemah	Route 101 Bridge, Nemah
Ozette	North Boundary of Ozette Indian Reservation
Palix	Route 101 Bridge
Puyallup	I-5 Bridge
Pysht	Bridge Northwest of Pysht, North of Highway 112
Queets	Route 101 Bridge at Queets
Quillaute	Entrance of Dickey River
Sekiu	State Highway 112 Bridge
Skagit, North Fork	Route 511 Bridge Five Miles Southwest of Mount Vernon
Skagit, South Fork	Bridge at Conway
Skokomish, S. Fork	Route 106 Bridge
Snohomish	Great Northern Railroad Bridge at Preston Point
Sooces	Bridge Approximately One Mile South of Mukkaw Bay
Steamboat Slough	I-5 Bridge
Stillaguamish	Great Northern Railroad Bridge at Silvana
Union	State Highway 300 Bridge
Waatch	Bridge East of Makah Air Force Station
Willapa	Entrance to Ellis Sough
Wiskah	Route 101 Bridge, Aberdeen

Table 1-1 Area of Responsibility Boundaries Boundaries Between EPA and Coast Guard for Major Oregon & Washington Waters (Continued)

Oregon

River Name	Boundary
Alsea	Line North from Mouth of Eckham Slough
Chetco	Route 101 Bridge Brookings to Harbor
Clatskanie	Spokane, Portland and Seattle Railroad Bridge One Mile North of Clatskanie
Columbia	Bonneville Dam
Coos	Line Due North and Due West from the Forward Range Light of Ferndale Upper Range
Coquille	Route 101 Bridge, Bandon
Elk	Route 101 Bridge
Nehalem	Route 53 Bridge
Nestucca	Bridge Pacific City to Woods
Rogue	Route 101 Bridge Wedderburn to Gold Beach
Sandy	Interstate 84 Bridge at Troutdale
Siletz	Route 101 Bridge Kernville to Gleneden Beach
Siuslaw	Line South from Cushman
Umpqua	Overhead Power Cable 1.6 Miles East of Reedsport
Willamette	Oregon City Falls
Yaquina	Line Due West from Oneatta Point

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CHAPTER 2000

COMMAND

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2000 COMMAND

2100 Command Structure – Unified Command Organization

Policy Statement

It is the policy of Northwest Area Committee to manage spill incidents according to the following principles:

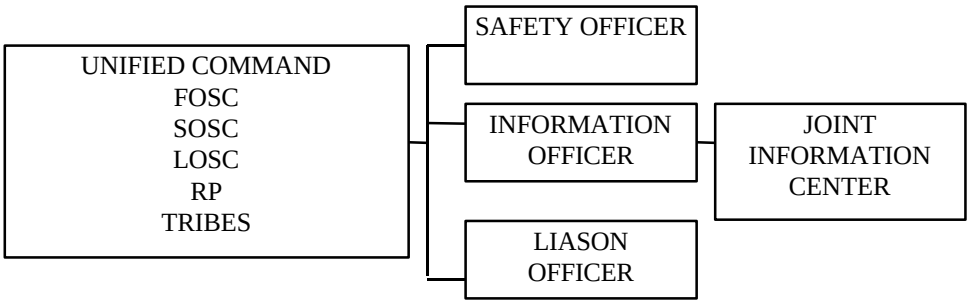
- Incident Command System - The signatory agencies will use the National Interagency Incident Management System (NIIMS) model Incident Command System (ICS)

- Unified Command - When a federal or state agency arrive on-scene to participate in managing a response action, the agencies will utilize a unified command structure to jointly manage the spill incident. In the unified command, decisions with regard to the response will be made by consensus and documented through a single Incident Action Plan (IAP).

- Tribal or Local Government On-Scene Coordinators - The unified command may incorporate additional tribal or local government on-scene coordinators into the command structure as appropriate.

Organizational charts for the Unified Command & Command Staff and its subordinate units are shown in figures 2000-1 and 2000-2. They serve as examples and are not meant to be all inclusive. The functions of the Unified Command & Command Staff must be accomplished during an incident, however, they can be performed by one individual or can be expanded, as needed, into additional organizational units with appropriate delegation of authority.

Figure 2000-1. Unified Command Staff



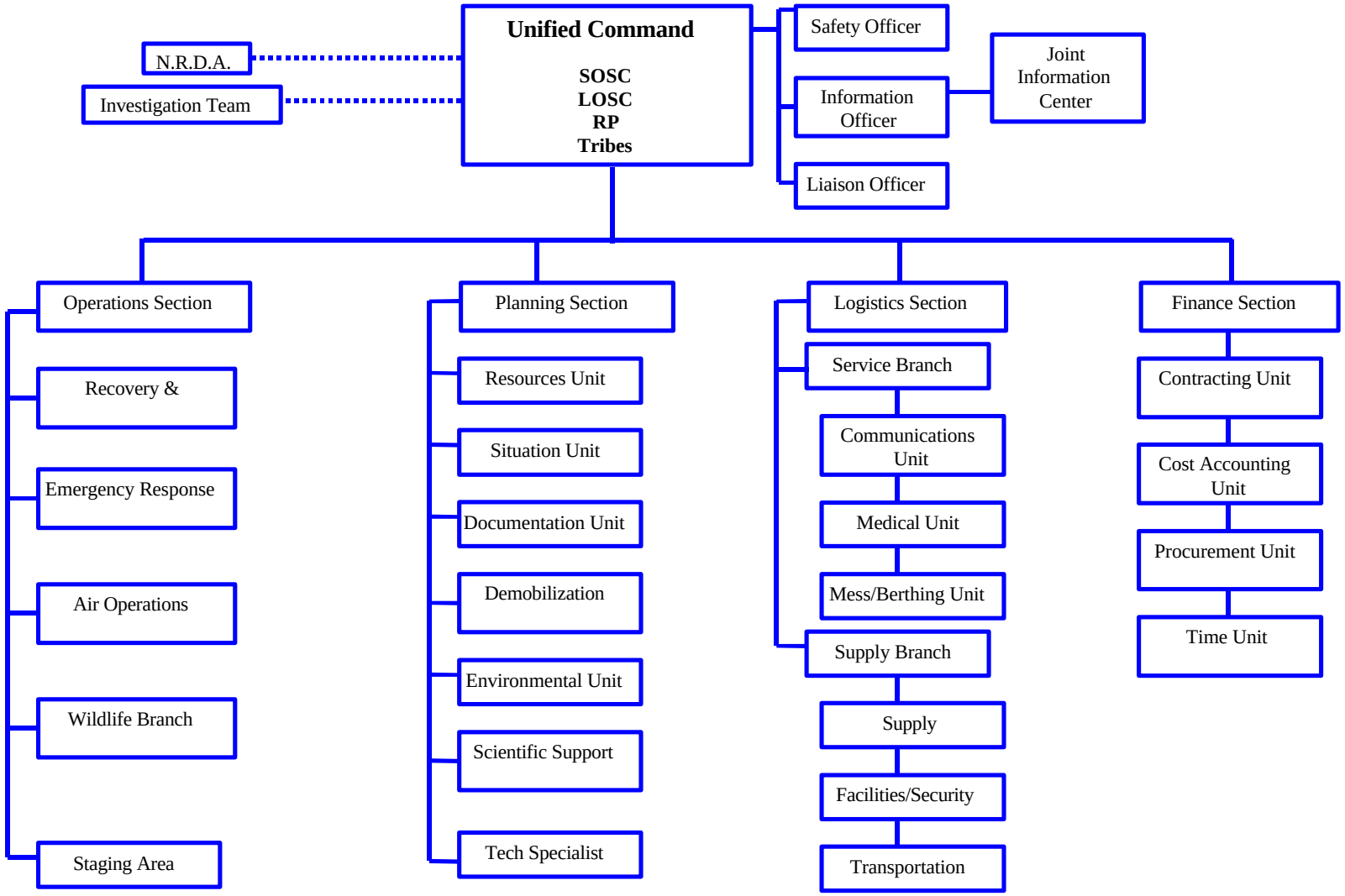
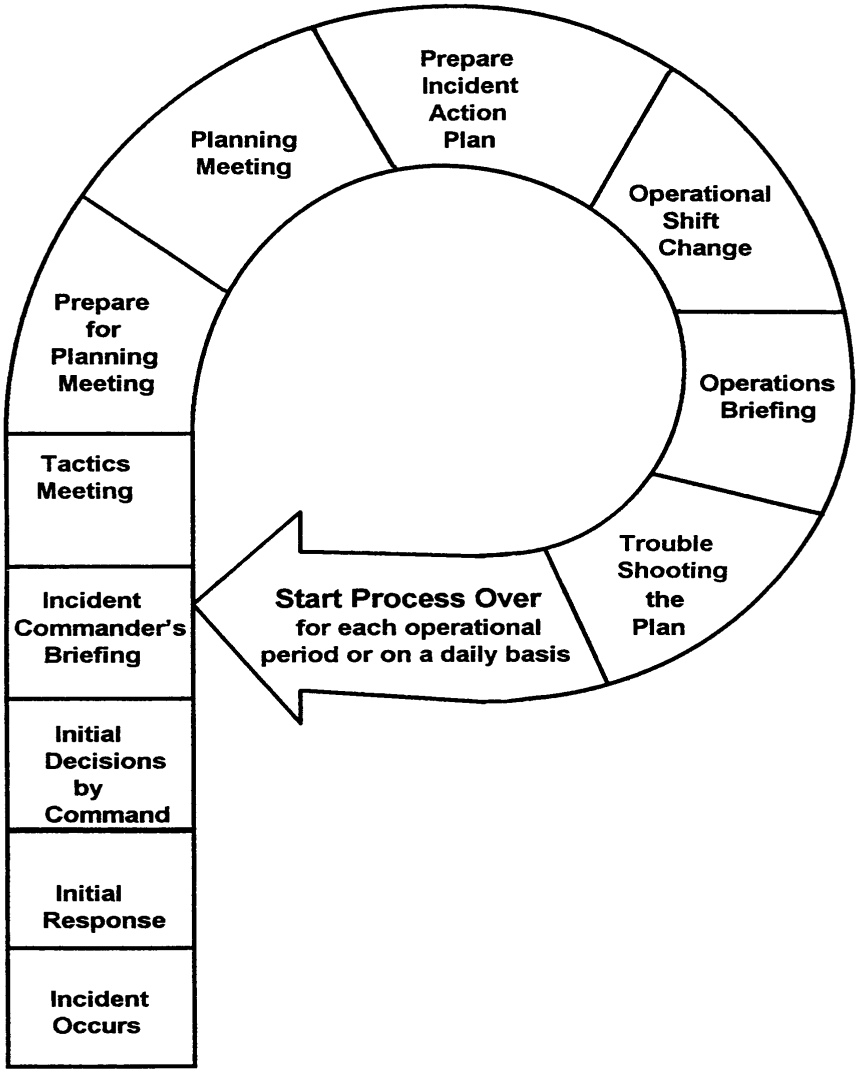


Figure 2000-2. UNIFIED COMMAND ORGANIZATION

2110 Command and General Staff Planning Cycle Guide



2200 Command/Staff Elements: Roles and Responsibilities

The Area Committee has adopted the NIIMS-based Incident Command System (ICS) as the basic model for operating a coordinated response. Under the Unified Command Structure, the Federal government, state, and responsible party will each provide an On-Scene Coordinator (OSC), who will

consult each other and share decision-making authority regarding spill response and clean-up management issues. Depending on the circumstances of the incident, a local or tribal entity may also provide an OSC. Together, these OSCs will jointly serve as the Unified Command.

Additional information regarding each of the positions within the Command Staff can be found in the Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996.

2210 Incident Commander

Incident Commanders for oil and hazardous substance discharges will, whenever possible and practical, be organized under the Unified Command Structure which includes, but not limited to:

- The pre-designated Federal On Scene Coordinator (FOSC).
- The State On Scene Coordinator (OSC).
- The representative of the Responsible Party (RP).
- The local and tribal On Scene Coordinators, as appropriate**.**

The Unified Command is responsible for the overall management of the incident. The Unified Command directs incident activities including the development and implementation of strategic decisions, approval of the incident action plan, and approves the ordering and releasing of resources.

2220 Information Officer

The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. The IO will obtain information from technical experts to provide to the press and other interested parties. See section 9610 for the Joint Information Center Manual.

2230 Safety Officer

The Safety Officer is responsible for monitoring and assessing hazardous and unsafe situations and developing measures for assuring personnel safety. Although the Safety Officer may exercise emergency authority to stop or prevent unsafe acts when immediate action is required, the Safety Officer will attempt to correct unsafe acts or conditions through the regular line of authority. The Safety Officer maintains awareness of active and developing situations, ensures the preparation and implementation of the Site Safety

Plan, and includes safety messages in each Incident Action Plan.

2240 Liaison Officer

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

The liaison officer has the following responsibilities:

- Serve as the initial point of contact for participating federal, state, and local agencies with a vested interest in the response.
- Maintain a spill response summary distribution list for public and private entities requesting spill response status reports.
- Receive and coordinate all calls from public and private entities offering assistance or requesting information.
- Identify public and private concerns related to the status and effectiveness of the spill response.

2250 Natural Resource Damage Assessment (NRDA)

NRDA involves identifying the type and degree of impacts to public biological and cultural resources in order to assist in restoring those resources. NRDA may involve a range of field surveys and studies used to develop a monetary damage claim, or may involve immediately developing a restoration plan with the responsible party. NRDA activities for small spills typically involve simplified assessment methods and minimal field data collection.

Given that the goals of NRDA are outside the sphere of most emergency spill response actions, NRDA activities generally do not occur within the structure, processes, and control of the Incident Command System. However, particularly in the early phases of a spill response, many NRDA activities overlap with environmental assessment performed for the sake of spill response. Because NRDA is carried out by natural resource trustee agencies and/or their contractors, personnel limitations may require staff to perform NRDA and response activities simultaneously. Therefore, NRDA staff should remain coordinated with the spill response organization, and need to work directly with the Unified Command, Environmental Unit, Wildfire Rescue/Rehabilitation Branch and the NOAA Scientific Support Coordinator to resolve any problems or address areas of overlap. While NRDA resource

requirements and costs may fall outside the responsibility of the Logistics and Finance sections, coordination is again important.

2260 Incident Investigation

Investigators from federal and state agencies will not normally be a part of the Unified Command. While personnel may report to individuals that are part of the UC, the investigators should be separate so as not to introduce polarizing forces into the Unified Command system.

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CHAPTER 3000

OPERATIONS

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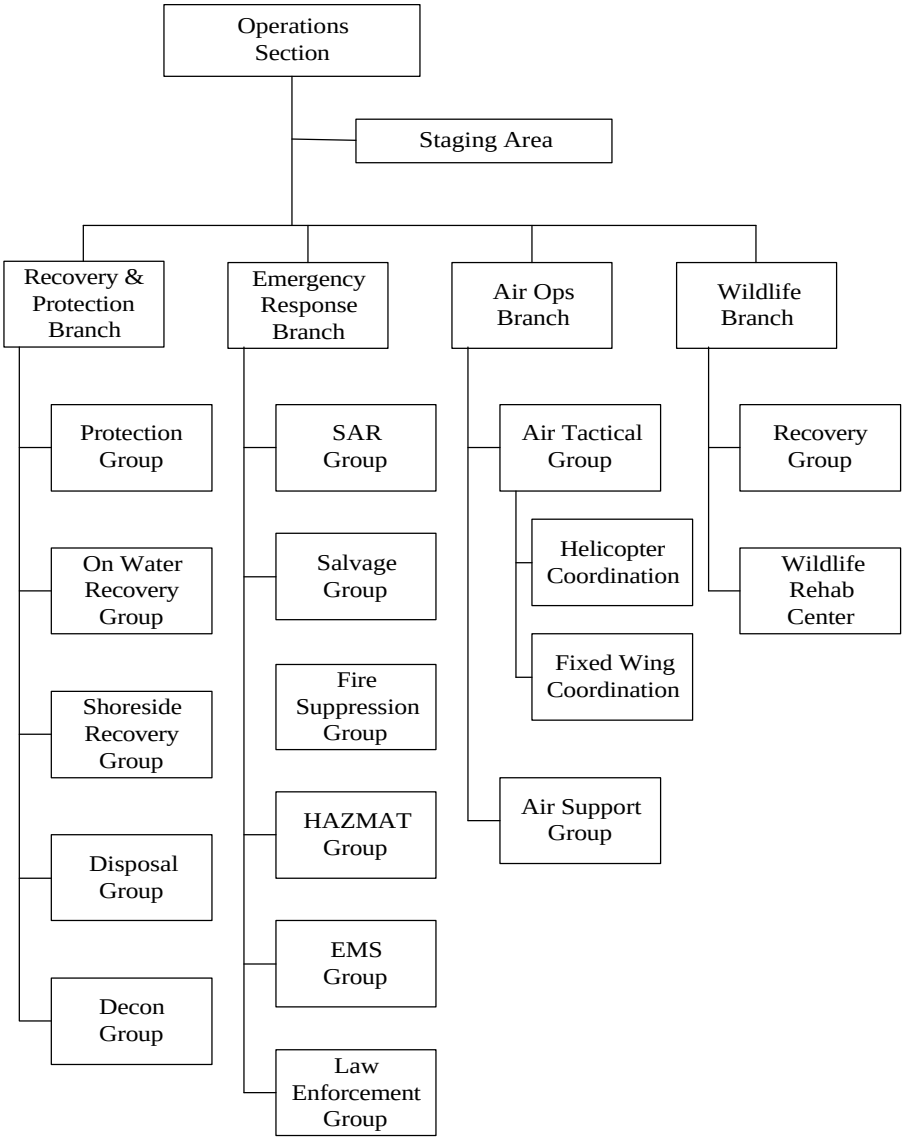
3000 OPERATIONS

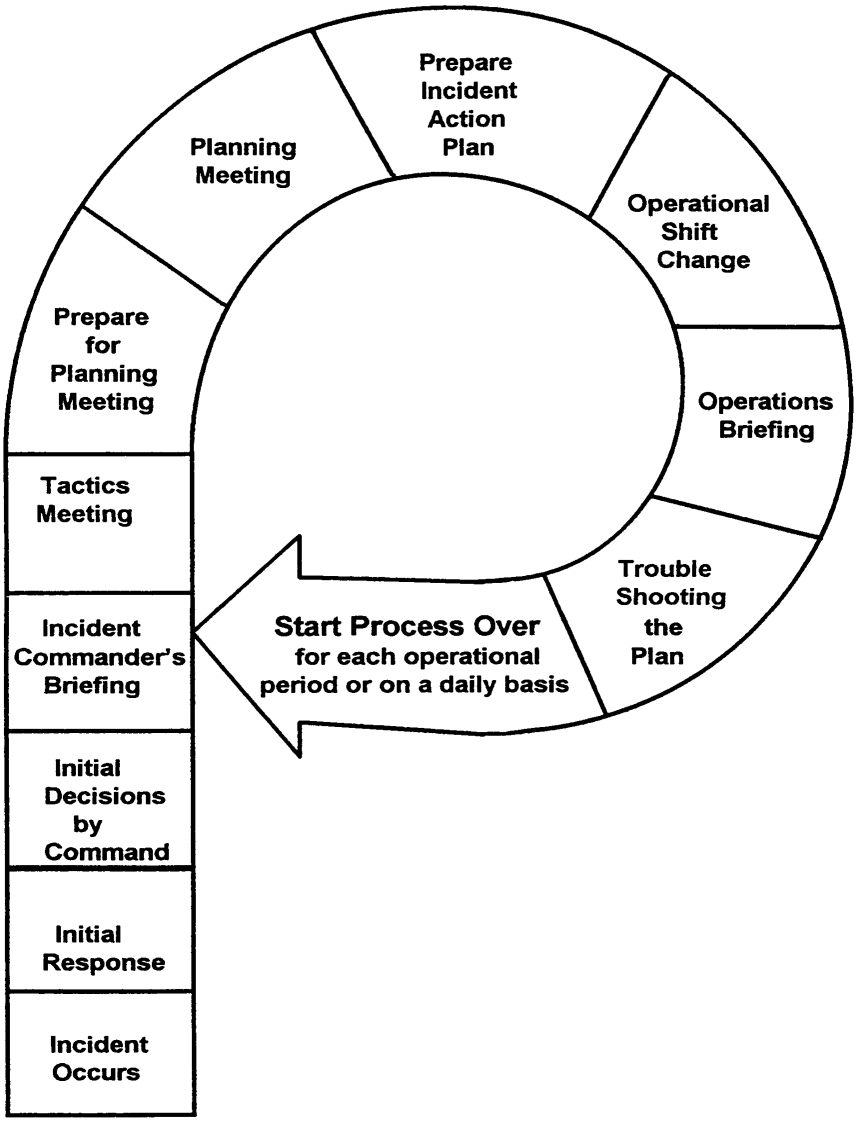
3100 Operations Section Organization

The following is an organizational chart of the Operations Section and its subordinate units. It serves as an example and is not meant to be all inclusive. The functions of the Operations Section must be accomplished during an incident, however, they can be performed by one individual or can be expanded, as needed, into additional organizational units with appropriate delegation of authority.

Information regarding the Operation Section and Staff positions within the command can be found in the Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996.



3110 Operations Section Planning Cycle Guide



3200 Roles and Responsibilities

The Operations Section is responsible for the direction and coordination of all incident tactical operations. This is done under the direction of the Operations Section Chief.

Not all positions will always be manned, the Incident Commander may create/modify positions in the ICS Structure as deemed necessary. This authority may be delegated to the Section Chief. All functions not assigned by the Section Chief remain the responsibility of the Section Chief.

3210 Operations Section Chief

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

3220 Staging Area Manager

Under the Operations Section Chief, the Staging Area Manager is responsible for managing all activities within the designated staging areas.

3230 Air Operations Branch Director

The Air Operations Branch Director, who is ground based, is primarily responsible for preparing the air operations portion of the Incident Action Plan. The Incident Action Plan will reflect agency restrictions that have an impact on the operational capability or utilization of resources such as night flying or hours per pilot. After the Incident Action Plan is approved, air operations is responsible for implementing its strategic aspects, those that relate to the overall incident strategy as opposed to those that pertain to tactical operations like specific target selection. Additionally, the Air Operations Branch Director is responsible for providing logistical support to helicopters operating on the incident. Specific tactical activities including target selection, or suggested modifications to specific tactical actions in the Incident Action Plan, are normally performed by the Air Tactical Group Supervisor working with ground and air resources.

3240 Recovery and Protection Branch Director

The Recovery and Protection Branch Director is responsible for overseeing and implementing the protection, containment and cleanup activities established in the Incident Action Plan. The Recovery and Protection Branch coordinates with the Environmental Unit in the Planning Section regarding changes or additions to GRP strategy implementation. Although the Environmental Unit assumes lead responsibility for Shoreline Cleanup Assessment Teams (SCATs), the Recovery and Protection Branch works directly with SCATs during field response activities.

3250 Emergency Response Branch Director

The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation.

3260 Wildlife Branch

The branch is responsible for:

- Implementing wildlife rescue and rehabilitation plans developed with involvement from the state and federal Fish and Wildlife agencies, spill response contractors, and private wildfire care groups.

Wildlife rescue/rehabilitation duties include:

- Conducting wildlife rescue/rehabilitation operations
- Conducting aerial and ground reconnaissance for dead/injured wildlife
- Transportation of dead/injured wildlife
- Establishing treatment and rehabilitation facilities
- Implementing volunteer training/management plans
- Release of rehabilitated wildlife
- Disposal of dead wildlife
- Maintaining evidence and records
- Coordinating with Planning Section and the Environmental Unit

3261 Volunteer Organizations

3262 Washington

To work at wildlife rescue, potential volunteers must meet the following minimum requirements:

- Must be at least 18 years old (exceptions may be granted for 16- and 17-year-olds by L&I and the Department of Fish and Wildlife).
- Must be registered by the Department of Fish and Wildlife.
- Must receive required training.
- Must be covered by worker's compensation.
- Must complete work according to standard operating procedures.

All wildlife work force members, including volunteers, must complete training prior to performing any tasks. Safety is one of the most important aspects of wildlife collection and rehabilitation efforts. All volunteers and workers must receive the appropriate training required by the Washington State Industrial Safety and Health Administration (WISHA), a division of the Department of Labor and Industries. Washington State, through provisions of the federal

Occupational Safety and Health Administration (OSHA), has elected to adopt its own Health and Safety program. As such, worker health and safety requirements are found under WISHA rules and directives.

WISHA requires eight hours of safety training for wildlife volunteers who work as post-emergency workers on sites determined by the site safety officer as "low risk." Washington has developed a safety and wildlife handling class to meet WISHA's requirements. Participants will receive a certification card upon successful completion of the course.

During a spill, WISHA will accept four hours of classroom training and four hours of on-the-job training for those not pretrained. All wildlife workers will receive additional training as outlined in the site safety plan (please refer to Health & Safety Section of the Northwest Area Contingency Plan). Workers located off site at the bird treatment center will only be required to complete a basic safety training orientation.

3262.1 Roles and Responsibilities for Volunteer Management

The following is a listing of the potential players in an oil spill response and volunteer management.

<u>The Responsible Party</u>
The Responsible Party is part of the Unified Command and will help decide on the use of volunteers and will coordinate with the Department of Fish and Wildlife in the implementation of the Wildlife Rescue and Response Plan.

See "Local Governments" below for program implementation.

The U.S. Coast Guard
The Coast Guard is the Federal On-Scene Coordinator for marine spills, and under the Unified Command, will jointly determine if volunteers will be used.

3262.2 Wildlife Volunteer Management

The following is a summary of the volunteer program for wildlife rescue

The Wildlife Rescue and Response Plan consists of a three-part spill response strategy.

Search and Collection
Oiled wildlife is located and removed from the spill area.

Birds are taken to temporary care sites located near the spill area. Here they are kept warm, provided fluids, and oil is removed from their eyes, mouth, and nasal cavities.

Treatment and Cleaning
After being held overnight at a primary care site, wildlife is moved to a predetermined treatment center near Seattle. Here birds are thoroughly washed, then rehabilitated for eventual release back into the wild.

The number of wildlife affected in a spill will determine whether contractors are hired. Washington's Wildlife Rescue Coordinator and the responsible party will make recommendations to the Unified Command regarding the use of wildlife rehabilitation contractors.

Screening Potential Volunteers

Potential volunteers will be screened for the following information:

- If they meet the minimum requirements listed above
- Dates and times available to volunteer
- Task preferences (primary care, collection, etc.)
- Spill experience
- Animal experience
- CPR/Medical/Nurse/Doctor experience
- Related experience
- Physical condition
- Health concerns
- Provide initial information to pretrained volunteers to find out when volunteers are available.
- Provide information about volunteer opportunities and material donations.
- Screen and create a roster of potential volunteers.

3262.3 Safety Equipment

The following safety equipment will be provided for the various tasks:

- Search and Collection: rain gear, gloves, goggles, and overboots.
- Primary Care Center: Tyvek or rain suits, gloves, exam gloves, and overboots if necessary.
- Bird Treatment Center: Tyvek or rain suits, garbage bags, gloves to keep off oil, boots (Wellys), washing gloves, rubber latex exam gloves.

First aid kits and survival kits will also be provided.

3262.4 Tracking System For Volunteers

Data Management
A database containing training information is currently being maintained. Databases for volunteer screening and registration will be maintained during a spill by the Department of Community Development.

Registration
All volunteers will be registered as Washington Department of Fish and Wildlife volunteers. Volunteers will be registered when they attend a workshop and complete the Wildlife Rescue Volunteer Registration form. Upon successful completion of an 8-hour safety training course, volunteers will be issued a certificate, certification card, and an identification number. During a spill, volunteers will check in each day and receive their name badges.

Time Reporting and Hours Worked
Wildlife contractors will keep track of volunteer assignments and the hours the volunteers have worked. Contractors will provide daily reports of the number of volunteers working and their total volunteer hours. The Wildlife Rescue Coordinator must report volunteer information to the Department of Fish and Wildlife's payroll office on a quarterly basis so that liability insurance can be paid.

Contractors should make sure that volunteers do not work more than 12 hours in one day, and that volunteers take appropriate breaks. L&I requirements do not allow 16- & 17-year-olds to work more than eight hours a day, five days a week.

Accidents and Reporting
All volunteers should know where first aid supplies are located and how to report an accident. Volunteers are to report any accident to their supervisor. Even small scratches should be treated. Supervisors will make sure that volunteers receive first aid attention if appropriate and will assist in completing an Incident Report form.

Incident Report forms will be kept and tracked by contractors. Volunteers, supervisors, and contractors should notify the safety trainers of any changes necessary to the safety training class to meet current working conditions.

3262.5 Food/Lodging/Transportation Costs

Search and Collection and Primary Care Volunteers:
As these volunteers will be located near the spill site, contractors will provide food and lodging. This may be provided through caterers, camp groceries, per diem, or receipt reimbursement. These volunteers will also be reimbursed for mileage, ferry fees, and tolls according to state rates.

Bird Treatment Center Volunteers:

As the bird treatment center will be located near a highly populated area, costs for these volunteers should only include meals, which will be provided. However, if a volunteer has unique skills to provide, then housing may be provided at the discretion of the Wildlife Rescue Coordinator.

If volunteers live more than 50 miles from the bird treatment center, they can be reimbursed for mileage and fares per the state rate.

3262.6 Financial Tracking/Cost Recovery

Expenditure guidelines will be established by the state On-Scene Coordinator (Department of Ecology) or other lead agency as established by the Incident Command System for the spill.

3262.7 Volunteer Supervision

The span of control should range from three to seven people, with five being optimum. Every volunteer should know who their supervisor is and how they will keep in communication with them. Contractors are responsible for setting up effective supervision to meet this requirement.

Search and rescue teams shall be made up of three people—two bird handlers and a monitor. Each team will be outfitted with a radio or cellular phone which will be used to keep positive contact with their supervisor.

3262.8 Potential Wildlife Volunteer Tasks

The following are some of the tasks that may be performed by volunteers; the first group of tasks are working directly with the oiled birds, the second group of tasks are tasks to support the wildlife effort:

Group 1 Tasks: Wildlife Handling

- Collect live and dead birds.
- Collect evidence and data that will be used later to monitor and assess wildlife population impacts and to develop restoration recommendations.
- Assist in care and treatment of live birds.
- Bird intake at primary care center, and bird holders and/or feeders.

Group 2 Tasks: Support For Wildlife Handlers

- Administrative tasks such as registration of volunteers and data entry.
- Communications support (radios, etc.).
- Assisting in the provision of food and beverages for wildlife handlers.

- Safety monitors
- Primary care set-up, pen construction, pen and bedding cleaning, and maintenance
- Bird and volunteer transportation.

Other Potential Wildlife Volunteer Tasks

- Provide volunteer support to the marine mammal rescue efforts.
- Handling of marine mammals: volunteers will not directly handle dead or alive marine mammals without the Wildlife Rescue Coordinator's authorization.

3262.9 Non-wildlife-Related Volunteer Management

The policy of the Department of Ecology is to not use volunteers for beach cleanup or for pre-spill cleanup (e.g., debris removal). These tasks have been determined to be best performed by trained professional response contractors. The responsible party may however use volunteers for these tasks if they assume management and liability of these volunteers. However, there is a potential opportunity for volunteers to provide support services as outlined under the state's Emergency Worker Program (Washington Administrative Code, Chapter 118-04). The following is a summary of this program.

3262.10 Emergency Worker Program

Washington State's Emergency Worker Program is designed for use during emergencies, disasters, and related incidents. The Emergency Worker Program is implemented by local governments, with the Emergency Management Division (located in the State Department of Community, Trade, and Economic Development) providing assistance. While this program has generally been used for search and rescue missions, local officials may elect to implement the program for volunteers in oil spills for specific tasks. However, if local emergency management agencies elect to implement this program for oil spill response, the agency will need to be integrated into the incident command structure established by the state and federal on-scene coordinators for the spill. The following are some of the job classes of emergency workers that have been established in the Emergency Worker Program:

- Administrative assistance such as recruiting, coordinating, and directing oil spill support activities.

- Communication assistance that is carried out in accordance with approved state or local emergency operations and communication plans.

- Fire service assistance including fighting fires, rescuing persons, or protecting property. This job class does not include volunteer fire fighters while operating under Chapter 41.24 RCW.

- Mass Care assistance including the provision of food, clothing, and lodging for persons who may be temporarily displaced or for oil spill response workers.

- Public Education assistance involving public education and informational activities necessary to keep the public informed during an the oil spill.

The above listing is just a summary of the potential activities for volunteers under the Emergency Worker Program that may be appropriate during an oil spill. Emergency workers will be assigned to an emergency worker class in accordance with their skills, abilities, licenses, and qualifications. Emergency workers must register in their jurisdiction of residence or in the jurisdiction where their volunteer organization is headquartered. Please refer to Chapter 118-04 of the Washington Administrative Code or contact local emergency management agencies.

3262.11 Washington Wildlife Rescue Coalition

The Coalition was established by state law (RCW 90.56.100) to establish a Wildlife Rescue and Response Plan. The Coalition is made up of representatives from various agencies and organizations.

3262.12 Adopt-a-Beach

This nonprofit organization assists in the development of the Wildlife Rescue and Response Plan and is a member of the Washington Wildlife Rescue Coalition.

3263 Oregon Volunteer Management Policy

Oil spill volunteers will be managed by the agency or department to whom they are donating their time. The specific task each volunteer feels they are capable of offering will determine which agency or department they should contact. Each State agency or department will decide whether or not they are in need of additional personnel and in what way to use the services offered by volunteers.

3263.1 General Policy

State agencies and departments are not all equivalent in their ability to accept the services of volunteers. Likewise the tasks potentially assigned a volunteer will vary in complexity and risk between agencies and departments. Due to the differences no general rules on volunteer service can be provided. The DEQ is the department responsible for On Scene Coordination during an oil spill, however DEQ will not train or supervise volunteers performing tasks outside of the scope of work normally handled by DEQ employees.

Volunteers will be used during oil spill remediation only if the state deems their use to be necessary to effectively accomplish the cleanup. Volunteers are only one option available to the state for oil spill cleanup activities. Volunteers will only be involved in very low risk activities and will be utilized only to the extent that safety limitations will not be exceeded according to their level of training. Human health and safety is the first priority in decisions regarding volunteers.

3263.2 Mobilization

Volunteers will be contacted by the agency or department they have prearranged volunteer service through.

3263.3 Pre-Trained Volunteers

Each agency utilizing volunteer workers will prepare those workers for the tasks that agency anticipates the worker performing. Training expectations will be clear at the time the volunteer is recruited by an agency or department.

3263.4 Coordination and Supervision

Agencies or departments using volunteers as part of their emergency staff during an oil spill will provide necessary supervision, unless a contract service has been established to perform this function.

3263.5 Idaho Volunteer Management Policy

At this time, Idaho has not determined the need to have a volunteer management program.

3300 Initial Emergency Communication

The primary emergency notification list for this plan is located in the forward. This list is provided for all users as a reference to meet reporting mandates.

Response agencies shall also ensure that all appropriate notifications are made. The OSC shall promptly notify natural resources trustees of discharges or releases that are injuring or may injure natural resources under their jurisdiction. The OSCs shall coordinate all response activities with the natural resource trustees.

3400 Tactical Response Options

Specific tactics for response strategy implementation are developed by the Operations Section in coordination with the Planning Section.

3410 Situation Assessment

Evaluate if special circumstances exist requiring special action

- Hazardous Substance Release
- Fire/explosion
- Impacts to populated areas
- Evacuation of Threatened Population
- Requirements for Access Limitation (barricades, security fences, etc.)
- Requirement to collect and analyze samples (air, water, soil as appropriate) for evaluation/source determination
- Collision
- Vessel grounding
- Lightering operations
- Salvage operations

Implement Geographic Response Plan for location

Implement support infrastructure

- Determine response structure consistent with Unified Command System principles that will be used, and from there determine level of support needed to fill positions in the structure (see Unified Command System discussion in Chapter 2000)

Mobilize personnel

- Determine personnel needed for response, and identify source of personnel. Ensure personnel are properly trained, and health and safety issues are addressed.

Mobilize equipment

- Type of equipment needed
- Quantity
- Location - staging area
- Support needed (boats, trucks, cranes, etc.)
- Aircraft support for transporting equipment
- Additional requirements
- Contact list

Implement logistics support network

- Logistics needed to support personnel
  - Food
  - Lodging
  - Additional clothing
  - Transportation
- Logistics needed to support response
  - Adequate communications
  - Command post - Establish command post in location to support response. Command post must be adequate in size to support the anticipated number of personnel.
  - Air support (overflights)
  - Coast Guard and Auxiliary
  - Other agencies

Private sources

Determine local impacts

- Impact on water intakes
  - Drinking water (Alternate supplies)
  - Industrial
  - Transportation of fresh water supply

Address funding issues (See Chapter 6000 for details on funding issues)

- FOSC access to the federal funds (OSLTF/CERCLA)
- State access to the federal funds (under certain conditions; there must be a site-specific state Superfund contract or a Cooperative Agreement in place)
- Access to state funds
- Vendors - BOA policy

Coordinate volunteers (See Section 4338)

Evaluate fish, wildlife and habitat protection strategies from GRP and mitigate damage

Coordinate with natural resource damage assessment personnel

Coordinate with natural resource trustees (in Washington State this contact should be made through the NRDA Chair).

Note: At any release where the lead agency determines that there is a threat to the public health or welfare or the environment, the lead agency may take appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release, or the threat resulting from that release (NCP, Section 300.415(b)(1)). At releases determined to pose a substantial threat to public health or welfare, the FOSC <u>must</u> direct a response to the incident.

3420 Containment and Cleanup

Strategy

- Offshore considerations
- Near shore considerations
- Shoreline considerations - determine type and location of shoreline cleanup using applicable GRP(s)
- Set aside areas for research purposes and countermeasure effectiveness determination (recognize that identifying set-aside sites involve complex matrix of scientific, logistical, legal and public relation issues).
- Inland considerations
- Sensitive areas
- Staging areas
- Integrated Containment/Cleanup System
- Booming and containment
- Trenching and Diking
- Siphon Dams (for floating substances)
- Filter Fences (for floating substances)
- Water Sprays

- Stream Diversion or Impoundment
- Gelling or Chemical Agents
- Analyze the potential use of decanting, insitu burn and/or dispersants
- Recovery of spilled product and contaminated debris (test for components of recovered product)
- Temporary storage (RCRA permit if necessary)
- Transport of collected material for disposal (RCRA permit)
- Monitor and refine cleanup strategies
- Develop criteria/guidance for terminating cleanup

Note: Ensure adequate disposal of released substances. Moving of hazardous substances off site must comply with regulations promulgated under the Resource Conservation and Recovery Act (RCRA). Under certain circumstances, some of the procedural requirements of the RCRA regulations can be waived. The specific circumstances are described in the RCRA regulations.

3430 Monitoring and Controlling Oil Movement

- Conduct over flights and collect detailed photographic, video and/or infrared information.
- Conduct computer modeling and develop possible trajectories
- Conduct shore side and on water assessments to monitor proximity of spill to sensitive areas

3440 Removal and Disposal

- Outline disposal plan, prepared in accordance with the disposal guidelines found in Section 9620
- Federal, state and local laws/regulations
- Volume of oil or hazardous substance for disposal
- Identify disposal locations (onsite vs. offsite)
- Obtain necessary permits
- Secure transportation for product disposal

3450 Demobilization

- Complete final survey
- Clean/return equipment
- Survey/replace equipment
- Restore damaged areas in consultation with appropriate Natural Resource Trustees and property owners

3460 Salvage

This section describes salvage situations and the general guidelines to follow in responding to a salvage situation. Note: Coast Guard Captains of the Port have jurisdiction over vessel salvage; this does not preclude any other agencies' interests with respect to spill prevention or response.

3461 Strandings

This section describes actions to be taken in response to vessel strandings, and the relationship between the on-scene coordinator, the responsible party, the vessel's master, and the salvor. Information pertaining to salvage procedures was adapted from Chapter 8 of Volume I of the U.S. Navy Salvage Manual. All parties involved in a salvage response should refer to the manual for specific information relating to salvage techniques. For listings of salvage resources, please refer to Chapter 6. Guidelines for communications between all involved parties are provided later in this Chapter.

Salvage efforts may be divided into three phases: stabilization, refloating, and post-refloating. During the stabilization phase, salvors take steps to limit further damage to the vessel, and to keep the ship from being driven harder aground or broaching. Response leaders gather information and formulate a salvage plan; that plan specifies actions to be taken during the refloating and post-refloating phases of the salvage. The refloating phase commences when the salvage plan is executed and ends when the ship begins to move from her strand. During post-refloating, the vessel is secured and delivered to the designated port facility.

3461.1 Stabilization Phase

This phase of operations must take into account the potential discharge of oil or hazardous substances into the environment. Upon stranding, the vessel's master should take the following steps:

- Have ship's personnel report to emergency stations.
- Secure watertight closures.
- Notify Coast Guard, vessel's operations controller and EMD
- Request salvage assistance.
- Note course and speed at time of stranding.
- Obtain and provide if necessary, an accurate cargo stowage plan.
- Evaluate the following:
    - Safety of personnel
    - Weather and sea conditions
    - Forecast for change in w/s conditions
    - Nature of the seafloor, shoreline
    - Depth of water around ship
    - Ground reaction

- Damage to hull
- Damage to shafting, screws, and Rudder
- Risk of further damage
- Prospect of maintaining communications
- Ground reaction
- Likely draft/trim after refloating
- Potential for discharge of pollutants (including aquatic nuisance species in the ballast)
- Position of vital and cargo systems' Valves
- The liquid level of all tankage (e.g. fuel, ballast, cargo, etc.)

The vessel's master SHOULD:
- Determine the vessel's condition.
- Take action to stabilize the ship.

The vessel's master should NOT:
- Jettison weight in an attempt to lighten ship prior to an attempt to back the vessel off.
- Attempt to back the vessel off when the bottom is torn open.
- Fail to take action to stabilize the ship and to determine its condition.

The vessel's master should request salvage assistance immediately, and not delay pending the result of an early attempt to refloat the vessel. If the damage assessment shows the ship will not broach, sink, or capsize, the master can attempt to back the vessel clear using full engine power on the next high tide.

The Responsible Party should take the following steps:
- Contact the Coast Guard. Provide current information.
- Implement Unified Command System organization.

Identify salvage resources available and time required for resources to arrive on-scene:
- Salvage manager
- Salvage vessel(s)
- Tugs
- Beach gear
- Barges with ground tackle
- Lifting vessels
- Pumps and hoses
- Hull patching equipment, cement
- Initiate salvage response. Over-estimate resources needed.
- Inform vessel's master of all actions taken.
- Obtain services of naval architect.
- Conduct analysis of ship's longitudinal strength and damaged stability.

After the threat of loss to life is eliminated and the emphasis shifts to protection of environment and property, the OSC will monitor the mounting salvage efforts of the responsible party, and provide technical review and information. In the event that the Responsible Party is unable or unwilling to respond to the casualty, the government will respond to the salvage requirement, utilizing commercial and government facilities and resources.

The On Scene Coordinator may obtain services of the Navy Supervisor of Salvage by:

- Telephoning Supervisor of Salvage Operations (703)607-2758
- After hours and weekends (NAVSEA Duty Officer) (703)602-7527

Initiating a message to:
CNO WASHINGTON DC//N312/N866//

Add the following if applicable:
//N45// for oil pollution
//N873// for diving support
Info copy to:
COMNAVSEASYSCOM WASHINGTON DC//00C//

Text should include brief description of services required, location, urgency, point of contact, and telephone number. If the task is urgent and requires immediate mobilization, the message should amplify this and include a statement that funding will be provided by separate correspondence.

SUPSALVAGE can provide the services of naval architects, may provide the services of naval salvage vessels, and has access to contracts which will provide the services of commercial salvors and equipment. SUPSALVAGE developed and has available software for rapid analysis of longitudinal strength and intact/damaged stability; the software is known as Program of Ship Salvage Engineering (POSSE).

Technical support is also available from the Coast Guard Marine Safety Center Salvage Team. This group can evaluate vessel stability, hull strength, and salvage plans, and may be available to go on scene. MSC may be able to provide vessel plans, if the ship is U.S. flag. The On Scene Coordinator may obtain services of MSC by calling (202) 366-6481 during business hours, or by calling FLAGPLOT at (202) 267-2100, after hours.

Initial rescue efforts will have priority over pollution response efforts, to the extent that they may interfere. Subsequent to any rescue efforts, the pollution response efforts and salvage efforts may be conducted concurrently. The On Scene Coordinator will prioritize actions when interference between salvage and pollution response efforts cannot be eliminated.

Upon being assigned responsibility for the salvage action, the salvor should:
Advise the vessel that he (his organization, vessel, etc.) is enroute to assist, and provide ETA (estimated time of arrival) on-scene.
Ensure that the master is aware of the information covered in the preceding paragraphs that relates to early attempts to refloat the vessel.
Obtain all information available regarding the vessel's particulars and details of the stranding. This should include:

- An accurate position of the stranding (latitude/longitude)
- Applicable chart numbers
- Means used to fix position
- Drafts at time of sailing
- Estimated drafts at time of stranding
- Drafts after stranding, with state of tide and time
- Soundings alongside from forward to aft, corrected to datum of the chart of the area
- Soundings of all tanks and voids, noting changes in contents
- Ship's course and speed at time of stranding
- Ship's heading after stranding, and details of changes
- Liveliness of ship (movement in response to swells/surf)
- Weather conditions
- Sea and current conditions
- Extent of and damage to ship
- Location of grounding points & estimated ground reaction
- Type of seafloor
- Status of ship's machinery and piping systems
- Ship's cargo list or manifest
- Amount & location of known hazardous substances
- Resources available locally (tugs, cranes, bulldozers)

Based on information received from the vessel, the salvor should evaluate the following:

- Vessel's original estimates of ground reaction and freeing force.
- Stability afloat and residual strength.
- Ship's machinery condition and retraction power available locally.
- Ship's ability to proceed to a safe haven after refloating.

The salvor should then advise the master based on these evaluations, and take the following steps to mobilize the salvage force:
Determine personnel and material needs.
Collect information about the stranded ship. Sources include:

- Owner
- Vessel's classification society
- Coast Guard

Ensure needed navigation material is on board.
Begin recording written record of information and actions taken.

Ensure that salvage vessels enroute will be prepared to respond upon arrival to the stranding site.
Upon arrival (in coordination with the response organization/OSC where applicable), the salvage ship or vessels, and personnel, should conduct damage control and position stabilization. Damage control actions may range from augmenting ship's crew to conducting firefighting and flooding control. Position stabilization consists of securing the ship at first opportunity to prevent broaching or being driven further ashore.

The Salvor must then, in preparation for development of the salvage plan, conduct a thorough salvage survey of the vessel and its immediate surroundings. The survey is defined in the Navy Salvage Manual as being comprised of the preliminary survey, the detailed hull survey, the topside survey, the interior survey, the diving survey, the hydrographic survey, and the safety survey, and may be approached in this manner. The Salvor should refer to Section 8-2.6 of Volume I of the Navy Salvage Manual for details. The information should be recorded on the salvage survey form included in Appendix I to Chapter 8 of Volume I of the Navy Salvage Manual, or an equivalent.

Working with the Responsible Party and the naval architect, the salvor must develop a salvage plan. The plan must detail actions to be taken and resources to be used, and it must set organizational responsibilities and the anticipated schedule. After the plan is prepared, the Responsible Party must submit a copy of the plan to the On Scene Coordinator, for his review. The On Scene Coordinator will review the plan, provide a copy to the state(s) for review, and approve or disapprove it based on resulting risks to port safety and the environment. Any plans for intentional jettison of cargo will be reviewed as part of the salvage plan. The salvage plan should include the following:

Basic information identifying the ship's characteristics and the condition of the stranding.
An analysis prepared by the salvor and naval architect, which provides estimates of:

- The ground reaction
- The freeing force
- Location of the neutral loading point (point at which weight can be added w/out change in ground reaction)
- Stability grounded and afloat
- Strength of hull girder, damaged areas, attachment points, and rigging
- A summary of the engineering rationale employed for selection of retraction and refloating techniques
- Hydrographic information
- List of specific safety hazards involved
- Potential pollution risks
- List of specific safety hazards involved
- Potential pollution risks

- Lightering Considerations
- Booming Considerations
- Standby Equipment
- Means for controlling interference between pollution response efforts and salvage efforts
- Appendices which provide detailed information regarding techniques to be employed.
- Location to which the vessel will proceed following refloating.
- Means for controlling the vessel as it is freed
- Vessel escort, if any, to be employed
- Means for delivering vessel to destination (tow, own power).
- Any preparation of vessel necessary to gain permission for entry into port of destination
- Means of disposal if other than as above

Refer to the U.S. Navy Salvage Manual for detailed information.

3461.2 Refloating Phase

The salvage plan is implemented during this phase. The plan should be considered a working plan with prudent changes made in response to changing conditions. During this phase, all parties should be in close communication, and the process should be brought to a halt if significant safety problems develop. The salvor, Responsible Party, and the On Scene Coordinator/Captain of the Port have the authority to stop salvage operations in this case.

3461.3 Post-Refloating Phase

This phase commences when the ship begins to move off the strand, and is completed when the ship has been delivered to safe haven or repair facility, and all salvage resources and equipment have been removed from the salvage site. The options for disposal of the vessel include:

- Steaming into port, or to another location within the port
- Towing to safe haven
- Anchoring in preparation for tow or temporary repairs
- Beaching if the ship is in danger of sinking
- Scuttling or sinking

These items should be addressed in the salvage plan, and updated as necessary following refloating. Following refloating, the salvor should check the following items:

- Overall seaworthiness
- Vessel's bottom, for damage hidden by the strand
- Potential for oil or pollution
- Piping systems and machinery
- All ship's systems necessary for the transit

- Ship's stability, list, and trim (may necessitate loading or shifting of weights)
- Patching and pumping arrangements for compartments way of damage
- Towing bridle, day marks, and navigation lights. (an insurance line should be rigged even when the ship proceeds under its own power).

Following this phase, the Responsible Party shall submit a completed form CG-2692 to the Officer in Charge of Marine Inspection and submit all requested information to the Senior Investigations Officer of the Marine Safety Office. Washington state requires an event report within 30 days.

3462 Salvage Response for other than Strandings

Salvage assistance may also be required for vessel sinkings and rescues (towing). In these cases, the relationships between the various parties remain the same as for strandings. For sinkings, the salvor must focus on methods for refloating the vessel, and vessel stability as it is refloated. For rescue situations, development of a comprehensive salvage plan may not be necessary; use of good marine practice in establishing and maintaining the tow, and coordination with the vessel's master, tow vessel, Coast Guard SAR Mission Coordinator, the Captain of the Port, States, and the vessel's owner/operator may suffice. It should be noted that in rescue situations the rescue vessel must be appropriately powered, equipped and crewed to handle to meet the demands of the tow and sea conditions. In either of these cases, the user of this plan should follow the guidelines presented, adapting them to the specific salvage requirements at hand.

3500 Reserved for Future Use

3600 Reserved for Future Use

3700 Reserved for Future Use

3800 Reserved for Future Use

3900 Reserved for Future Use

CHAPTER 4000

PLANNING

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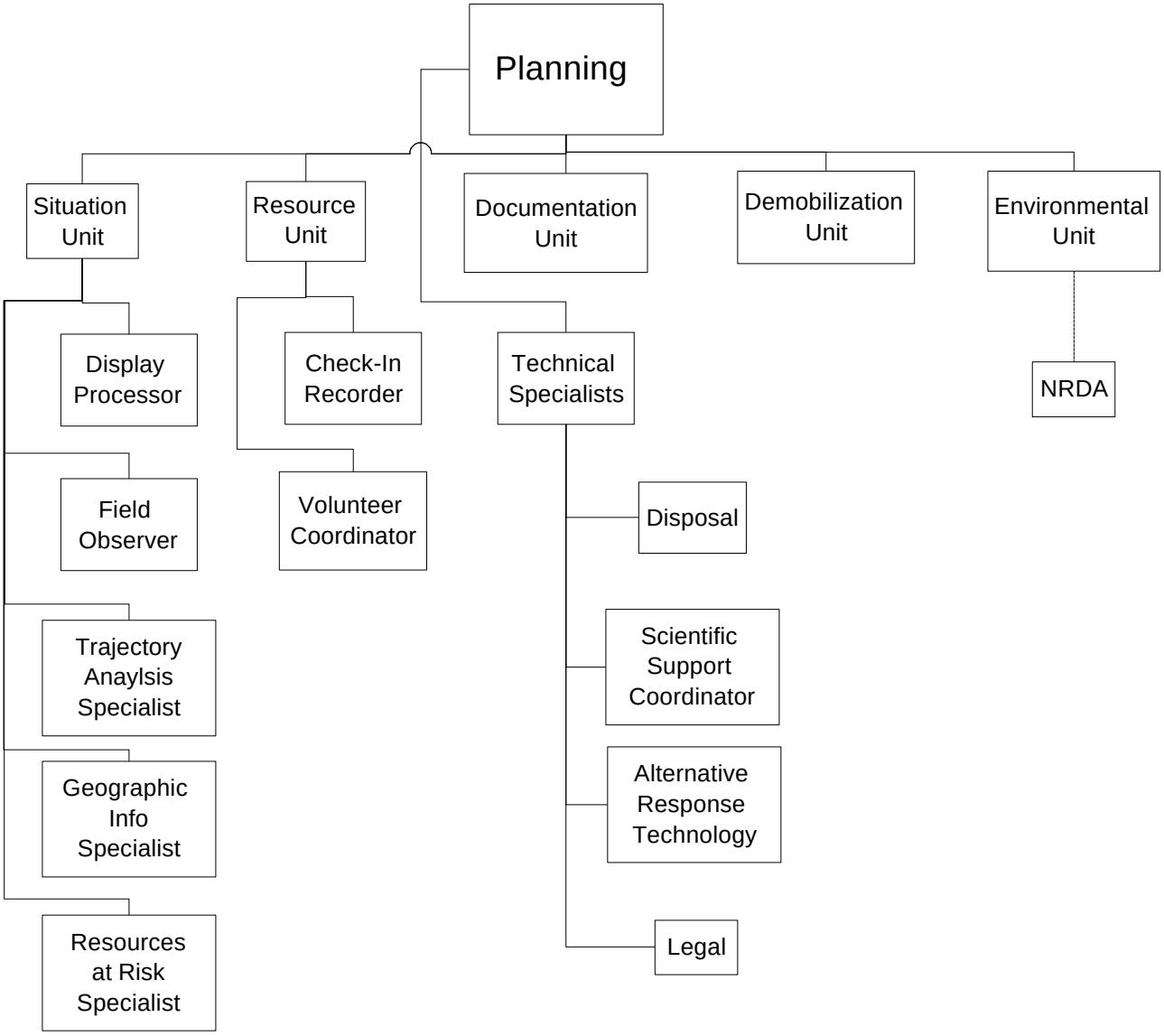
4000 PLANNING

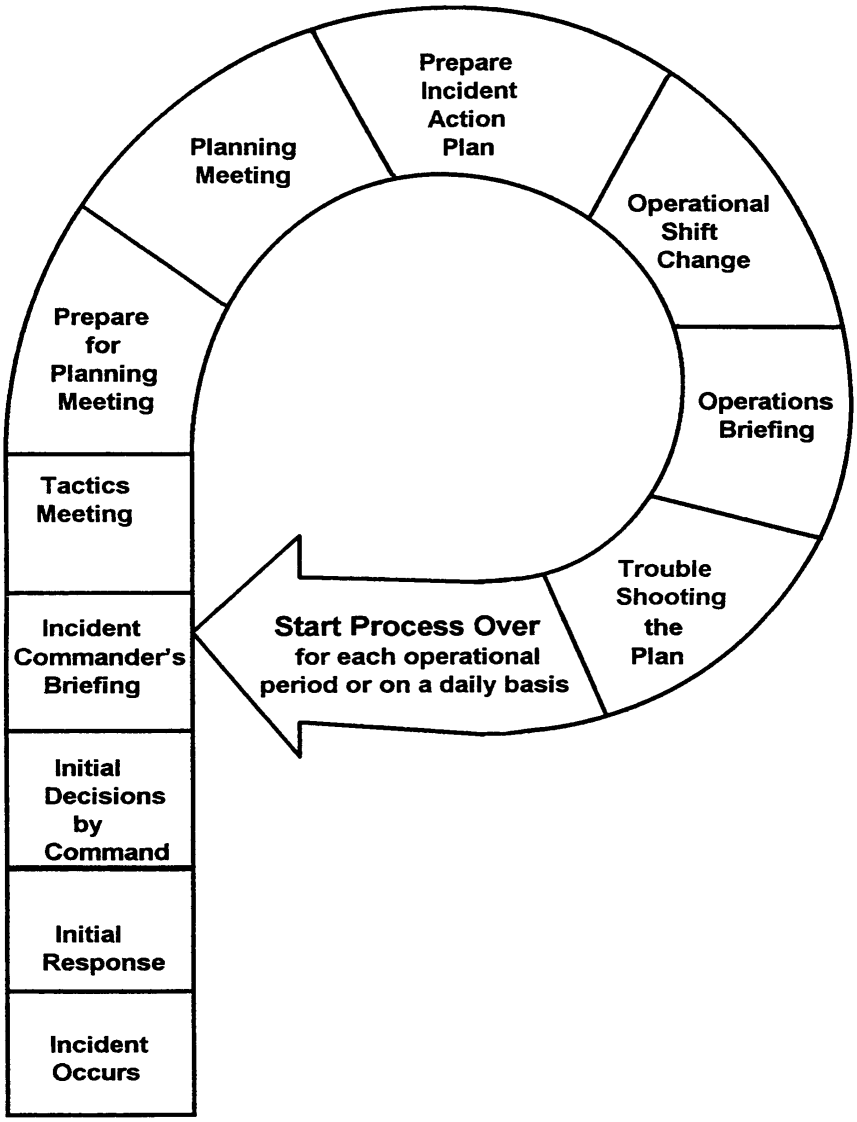
4100 Planning Section Organization

The following is an organizational chart of the Planning Section and its subordinate units. It serves as an example and is not meant to be all inclusive. The functions of the Planning Section must be accomplished during an incident, however, they can be performed by one individual or can be expanded, as needed, into additional organizational units with appropriate delegation of authority.

Information regarding the Planning Section and Staff positions within the command can be found in the Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996.



4110 Planning Section Planning Cycle Guide



4200 Roles and Responsibilities

The Planning Section is responsible for the collection and evaluation of incident situation information, preparing situation status reports, displaying situation information, maintaining status of resources, developing an Incident Action Plan, and preparing required incident related documentation. This is done under the direction of the Planning Section Chief. All functions not assigned by the Section Chief remain the responsibility of the Section Chief.

4210 Planning Section Chief Responsibilities

The Planning Section Chief, a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to 1) understand the current situation, 2) predict probable course of incident events, and 3) prepare alternative strategies for the incident.

4220 Situation Unit

The Situation Unit is responsible for the collection, command post display, and evaluation of information about the current and possible future status of the spill and the spill response operations. This responsibility includes the compilation of information regarding the type and amount of oil spilled, the amount of oil recovered, the oil's current location and anticipated trajectory, and impacts on natural resources. This responsibility includes providing information to the GIS Specialist(s) for the creation of maps to depict the current and possible future situation and the preparation of reports for the Planning Section Chief.

4230 Resource Unit

The Resource Unit (RESTAT) is responsible for maintaining the status of all resources (primary and support) at an incident. RESTAT achieves this through development and maintenance of a master list of all resources, including check-in, status, current location, etc. This unit is also responsible for preparing parts of the Incident Action Plan (ICS forms 203, 204 & 207) and compiling the entire plan in conjunction with other members of the ICS, (e.g., Situation Unit, Operations, Logistics) and determines the availability of resources.

4240 Technical Specialists

Technical Specialist are advisors with special skills needed to support the incident. Technical Specialists may be assigned anywhere in the ICS organization. If necessary, Technical Specialists may be formed into a separate unit. The Planning Section will maintain a list of available specialists and will assign them where needed.

4250 Documentation Unit

The Documentation Unit is responsible for the maintenance of accurate, up-to-date incident files. Examples of incident documentation include: Incident Action Plans, incident reports, communication logs, injury claims, situation status reports, etc. Thorough documentation is critical to post-incident analysis. Some of these documents may originate in other sections. This unit shall ensure each section is maintaining and providing appropriate documents. Incident files will be stored for legal, analytical, and historical purposes. The Documentation Unit also provides duplication and copying services.

4260 Demobilization Unit

The Demobilization Unit is responsible for developing the Incident Demobilization Plan, and assisting Sections/Units in ensuring that an orderly, safe, and cost effective demobilization of personnel and equipment is accomplished from the incident. Duties of the Demobilization Unit Leader are described in the Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996.

4270 Environmental Unit

Other than protecting human life and safety, reducing impacts to public, natural and cultural resources represents the key motive in responding to an oil spill. The Environmental Unit is the central point within the Planning Section for determining how to best protect those resources. Specifically, the Environmental Unit is responsible for:

- Identifying all sensitive public natural and cultural resources likely to be affected by the spill, and set priorities for protecting these resources.
- Guiding the implementation of Geographic Response Plans (GRPs).
- Working with Operations Section to establish any additional environmental protection strategies not identified in GRPs.
- Working with Operations Section to coordinate wildlife rescue/rehabilitation activities.
- Establishing Shoreline Cleanup Assessment Teams (SCAT).
- Using SCAT information to recommend shoreline cleanup recommendations, priorities, and restrictions.
- Providing guidance regarding “how clean is clean” decisions.
- Providing technical review and recommendations regarding use of alternative technologies.
- Developing a disposal plan (note: Washington State Disposal Guidelines found in Chapter 9000).
- Providing information to JIC and media regarding natural resource concerns/impacts.
- Coordinating with NRDA activities.

- Planning wildlife hazing operations under the guidance and authority of state and federal fish and wildlife agencies and in coordination with the Air Operations Branch.

The Northwest Area Committee and Region X Regional Response Team recognize that there is a shared responsibility between the Unified Command representatives. Plus it is broadly recognized that the critical phase of any response, regardless of size, is the initial hours after the spill. Given the importance of the Environmental Unit's duties, and because the responsibility and knowledge base for public resources lies with trustee agencies, it is in everyone's best interest to ensure that early critical response decisions are made by the most knowledgeable individuals quickly, efficiently and effectively. Therefore, it is the policy of the Northwest Area Committee that the Environmental Unit be led by a representative of a government natural resource trustee or environmental agency, if available. If no such agency representative is initially available or willing to lead the environmental unit, a responsible party representative may fill that role. Furthermore, as the response action matures, a transition to a responsible party designated Environmental Unit Leader may occur with the concurrence of the Unified Command. The Northwest Area Committee also encourages spill response plan holders and responsible parties to designate a Deputy Environmental Unit Leader, who will participate in all the meetings attended by and briefings made by the Environmental Unit Leader. These meetings and briefings include, but are not limited to, the following pre-identified ICS scheduled events:

- Initial ICS 201 Briefing
- Tactics Meetings
- Planning Meetings
- Operations Meetings
- Unified Command Briefings
- Press Conferences

All trustee resource agency staff with environmental information/expertise should initially report to the Environmental Unit. This includes technical specialists (e.g., Scientific Support Coordinator) identified elsewhere within the ICS organization. However, it is recognized that the SSC is an independent advisor to the FOSC.

4300 Compliance Guidance

4310 Statutory Guidance - Federal

4311 Comprehensive Environmental Response, Compensation and Liability Act, 1980 (CERCLA)

Enacted by congress in 1980, it is also known as the Hazardous Substance Superfund as defined by 42 U.S.C. 9601 et seq. Its purpose is to provide for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and the cleanup of inactive hazardous waste disposal sites.

4312 Federal Water Pollution Control Act (FWPCA) as amended by Clean Water Act (CWA) and Oil Pollution Act 1990 (OPA)

As listed in 33 U.S.C. 1251 et seq, the objective of the act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The goals of the Act include:

- The elimination of pollutants discharged into navigable waters.
- Attain water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and around those waters.
- Prohibits the discharge of toxic pollutants.
- Provides Federal financial assistance to construct publicly owned waste treatment works.
- Requires States to provide waste treatment management plans.
- Conducts research to develop technology in order to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans; and
- Develop national policy for the control of nonpoint sources of pollution.

4313 National Historic Preservation Act (NHPA)

The National Historic Preservation Act of 1966 (Public Law 89-665) authorized the National Register of Historic Places, expanding Federal recognition to historic properties of local and State significance. The National Park Service in the U.S. Department of the Interior administers both programs. Regulations for these programs are contained in 36 CFR Part 60, National Register of Historic Places, and 36 CFR Part 65, National Historic Landmarks Program.

4314 Endangered Species Act (ESA)

Endangered Species Act Consultation

Contact:

<u>U.S. Fish & Wildlife Service</u>

Oregon - (503)231-6179

Idaho - (208)334-1931

Washington - (360)534-9330

NMFS

Oregon - (503)230-5425/5428

Idaho - (208)378-5734

Washington - (206)526-6604

4315 Resource Conservation and Recovery Act (RCRA)

Also known as the Solid Waste Disposal Act, it was enacted by congress as 42 U.S.C. 6901 et seq. The Congress declared it to be the national policy of the United States that, whenever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.

4316 National Environmental Policy Act

As defined by 42 U.S.C. 4321 et seq., the purposes of this act are:

- To declare a national policy which will encourage productive and enjoyable harmony between man and his environment;
- To Promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man.
- To enrich the understanding of the ecological systems and natural resources important to the Nation: and
- To establish a Council on Environmental Quality.

4320 National Responsible Party Policy

Under the FWPCA as amended by OPA90, the responsible party has primary responsibility for cleanup of a discharge. Per FWPCA Section 311 and OPA 90 Section 4201, an owner or operator of a tank vessel or facility participating in removal efforts shall act in accordance with the National Contingency Plan and the applicable response plan. FWPCA Section 311.(j)(5)(C) as implemented by OPA 90 Section 4202 states that these response plans shall:

> *(i) Be consistent with the requirements of the National Contingency Plan and Area Contingency Plans;*
> *(ii) Identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate Unified command official and the persons providing personnel and equipment pursuant to this clause;*

(iii) identify, and ensure by contract or other means approved by the President, the availability of private personnel and equipment necessary to remove to the maximum extent practicable a worst-case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;

(iv) Describe the training, equipment testing, periodic unannounced drills, and response actions of persons on the vessel or at the facility, to be carried out under the plan to ensure the safety of the vessel or facility and to mitigate or prevent the discharge, or the substantial threat of a discharge;

(v) Be updated periodically;

(vi) Be resubmitted for approval of each significant change;

Each owner or operator of a tank vessel or facility required by OPA to submit a response plan shall do so in accordance with applicable regulations. Facility and tank vessel response plan regulations, including plan requirements for the coastal zone, are located in 33 CFR Parts 154 and 155, respectively. Facility response plan regulations for the inland zone are located in 40 CFR Part 112.

Each responsible party for a vessel or a facility from which oil is discharged, or which poses a substantial threat of a discharge, into or upon the navigable waters, adjoining shorelines or the Exclusive Economic Zone, is liable for the removal costs and damages specified in Subsection (b) of Section 1002 of OPA. Any removal activity undertaken by a responsible party must be consistent with the provisions of the NCP, the Regional Contingency Plan (RCP), the Northwest Area Contingency Plan, and the applicable response plan required by OPA. If directed by the Unified Command at any time during removal activities, the responsible party must act accordingly.

4330 State and Local Compliance Guidance

4331 Responsible Party

Specific responsibilities of the RP are as follows:

- Assessment of spill.
- Establishment of a command post, in concurrence with the other On-Scene Coordinator (OSC).
- Documentation/identification of type and quantity of oil or hazardous substance spilled.
- Containment of the oil spilled and protection of the environment, with a particular emphasis on sensitive areas.
- Provision of input relative to clean-up priorities (i.e. waste minimization).
- Timely and effective clean-up.
- Disposal of oil, oily waste, and Hazardous Substances.
- Restoration of damaged environment/natural resources.

- Communication with local, state, and national response agencies and organizations.
- Communication with media.
- Payment for damages.
- Steps to prevent reoccurrence of spills.
- Wildlife collection and care in conjunction with responsible state, local, and federal agencies.

The RP has the opportunity to conduct damage assessment when required by the state and/or when appropriate given the RP's available resources as determined by the Unified Command.

4332 Washington

Any person responsible for discharging oil or hazardous substances to the waters of the state must immediately notify the National Response Center (NRC) and the Washington State Emergency Management Division (EMD). The responsible party is also encouraged to contact the appropriate office of the Department of Ecology (see page v.).

Waters of the state include lakes, rivers, ponds, streams, inland waters, underground water, salt waters, estuaries, sewers, and all other surface waters and watercourses within the jurisdiction of the state of Washington. For the notification requirements for spills of dangerous waste or hazardous substances to other than waters of the state, see Section 7000 of this plan.

Under the RCW 90.48.335, 90.48.336, and 90.48.142, Washington state has no limit on the liability of the responsible party for clean-up of the spill or damages caused by the spill. In addition, any party owning oil or having control over oil that enters the waters of the state in violation of RCW 90.48.320 shall be strictly liable, without regard to fault, for the damages to persons or property, public or private, caused by such entry.

If the responsible party is unknown, fails to respond, or fails to respond in a manner deemed adequate by the state OSC (SOSC) or the federal OSC (FOSC), the state or federal agency having jurisdiction may exercise the authority to take over the response and recover expenses from the spiller (RCW 90.48.335).

4333 Oregon

Under Oregon state law, the responsible party is required to immediately notify the Oregon Emergency Response System (OERS) and the National Response Center. (See the plan preface for notification numbers.) The responsible party is also encouraged to notify local response agencies through the 911 system.

Any person owning or having control over any oil or hazardous material spilled or released or threatening to spill or release is strictly liable without regard to fault. Any person who fails to clean up oil or hazardous materials immediately, when under obligation to do so, is responsible for the expenses incurred by DEQ in carrying out the cleanup project. Any person who does not make a good faith effort to carry out a cleanup project is liable to the DEQ for damages not to exceed three time the amount of expenses incurred by DEQ.

If a spiller is unknown, fails to respond, or the response is considered inadequate, the DEQ may exercise the authority to take over the response or contract for the cleanup of the spill. The DEQ may recover the costs of the cleanup (ORS 466.645).

4334 Idaho

Idaho law requires that the responsible party immediately contact the Idaho Bureau of Hazardous Materials and Emergency Medical Services Center. (See the plan preface for notification numbers.)

The Idaho Hazardous Substance Control Act provides that the responsible party is strictly liable for emergency response to hazardous materials incidents.

4335 Prevention Laws

4335.1 Washington

4335.1.1 Washington Prevention Requirements

The Department of Ecology has an extensive spill prevention program for both vessels and oil handling facilities. Spill prevention plans covering operational procedure, personnel policies, management practices, and technology are required for all tank vessels. Cargo and passenger vessels 300 gross tons or larger are screened for potential risk and inspected by Ecology vessel inspectors determine actual risk and mitigate through a system of accepted industry standards. All types of large commercial vessels are required to comply with Washington's rules for safe bunkering (refueling). Oil handling facilities are required to comply with operating and design standards, operations manuals, spill prevention plans, and training and certification programs. The Stare Pilotage Act requires tug escorts laden double-hull tankers over 40,000 deadweight tons.

4335.1.2 Vessel Traffic System in Puget Sound

East of Dungeness Spit, participation in the Puget Sound Vessel Traffic System is mandatory for the following vessels:

- Vessels of 300 Gross Tons (GT) or more propelled by machinery
- Vessels of 100 GT or more carrying 1 or more passengers for hire
- Commercial vessels of 26 ft or more engaged in towing
- Each dredge or floating plant (33 CFR 161.101)

West of Dungeness Spit, participation in the cooperative Vessel Traffic Management System, as described in 33CFR161 Subpart B, is mandatory for the following vessels:

- Each vessel of 30 meters or more in length
- Each vessel towing alongside or astern or pushing ahead an object or objects where:
    - The combined length of the vessel towing and object being towed (including towline) exceeds 45 meters; '
    - The vessel or object being towed is over 25 meters in length

4335.2 Oregon

In accordance with Oregon Revised Statute (ORS) 776.405: No person shall pilot any vessel upon any of the pilotage grounds established under ORS 776.025 or 776.115 without being a licensed pilot under this chapter or a pilot trainee under the on-board supervision of a pilot licensed under this chapter.

This does not apply to:

- The master of a vessel under fishery, recreation, or coastwise endorsement provided under 46 U.S.C. Chapter 121;
- A vessel registered with the State Marine Board or a similar licensing agency of another state; or
- The master of a foreign registered fishing or recreational vessel, exempted by the board, of not more than 100 feet in length or 250 gross tons international.

4335.2.1 Pilotage in Portland Area

Note: Proposed laws dealing with required escorts for tank vessels transiting the Columbia River will be addressed in a later release of this plan.

4336 Local Government Requirements

4336.1 Washington

Under the Revised Code of Washington (RCW) 38.52, local government has the responsibility to prepare for emergencies including oil spills and hazardous materials releases. Some key responsibilities and authorities which relate to oil and hazardous substance spill planning and response are as follows:

Emergency Management is the preparation for and carrying out of all emergency functions, other than those for which the military is responsible, to mitigate, prepare for, respond to, and recover from emergencies or disasters, and to aid victims...and to provide support for search and rescue operations. (RCW 38.52.010 [1])

Each political jurisdiction (county, city and town) is directed to establish a local organization for emergency management. Each local organization shall have a director appointed by the executive head of the political subdivision, subject to the direction and control of such executive officer or officers. (RCW 38.52.070 [1])

Each political subdivision shall have the power to enter into contacts and to incur obligations necessary to combat disaster. Each political subdivision can exercise the powers herein without regard to time consuming procedures and formalities prescribed by law (except constitutional requirements). (RCW 38.52.070 [2])

The director of each local organization...may develop mutual aid agreements.. with other public and private agencies... The State emergency management organization shall publish guidance. (RCW 38.52.090)

The governor and the executive heads of political subdivisions are directed to utilize the services of all public agencies, and the officers and personnel of all public agencies are directed to cooperate with the emergency management organizations of the state upon request notwithstanding any other provision of law. (RCW 38.52.110 [1])

Upon the declaration of a disaster by the governor, executive heads of political subdivisions and the director of emergency management of said political subdivisions may command the services and equipment of as many citizens as necessary.... (RCW 38.52.110 [2])

4337 Disposal Guidelines

It is critical for the OSC in an immediate removal operation or the RPM in a remedial action to recognize that contaminated soils, dredge spoils, drums, tanks, refuse, water or other associated materials are to be considered hazardous wastes and must be disposed of as such in accordance with the Resource Conservation and Recovery Act (RCRA), as well as local and state regulations managing the disposal of hazardous wastes. Many of the removal actions employed by the OSC will in fact create a situation in which the OSC has assumed the responsibility as a generator of hazardous wastes. These wastes then become subject to the "cradle to the grave" manifesting procedures currently in effect under the governing RCRA regulations. The OSC must ensure that the hazardous waste generated from his/her removal actions be transported by an approved hazardous waste hauler to an approved hazardous

waste facility. The OSC should consider the possibility of employing on-site treatment

(e.g. incineration, biological treatments, chemical treatments, waste stream treatment methods, etc.). Approved and effective on-site treatment will often eliminate the dilemma affiliated with hauling hazardous waste to a hazardous waste facility - the dilemma of simply relocating your problem to some other geographic area where it may eventually develop into somebody else's problem.

Specific disposal information will be added to this section as it is developed. Also, for local disposal options, consult the GRP for the specific area being considered.

4337.1 Washington

Disposal practices shall be in accordance with state disposal guidelines. Guidelines are available from Washington State Department of Ecology and can be seen in section 9620.

4337.2 Oregon

The general policy of the Department of Environmental Quality is that, whenever possible, recovered oil and oily debris be recycled and reused, thereby reducing the amount of oily debris to be burned on-site or disposed of at a solid waste landfill. Spilled oils and oil contaminated materials resulting from control, treatment, and clean up shall be handled and disposed of in a manner approved by the Department.

4337.2.1 Classification and Segregation

The state of Oregon will utilize its access to federal samples taken by the Coast Guard. As necessary, the state will also utilize sampling capabilities of the DEQ laboratory. All oily waste and debris is classified as a specified waste in the state of Oregon.

The segregation of oily waste and debris is a key part of the disposal process. Oil recovered from an aquatic area will typically contain large amounts of water and debris. Excess water needs to be removed; it increases the amount of material to be transported and can cause problems for disposal facilities. It is most productive to segregate the waste on site to facilitate transportation and disposal. An oil/water separator or a vacuum truck should be available on site to complete this process. Oiled debris needs to be separated out as well. Oil and oily debris should be segregated into the following categories:

- Reuse/Recycle
- Incinerate

- Burn on site
- Landfill

4337.2.2 Reuse/Recycle

Whenever possible, recovered oil and oily debris should be recycled and reused, thereby reducing the amount of oily debris to be burned on site or disposed of at a solid waste landfill.

4337.2.3 Incineration

Facilities are available which are capable of burning combustible, oiled debris, subject to any emission limits or restriction of the Air Containment Discharge Permit and Solid Waste Disposal Permit, if applicable.

A 60-day letter permit can be obtained immediately from the Air Quality Division of the Department of Environmental Quality in Portland by the facility to change fuel. In order to obtain this permit, a written request must be submitted including a statement of anticipated emissions based on the petroleum product contaminating the debris to be burned. Consecutive permits may be issued, but an evaluation will be conducted by DEQ prior to combustion.

For a list of facilities capable of incinerating oily debris, consult the appropriate Geographic Response Plan.

4337.2.4 On-site Burning

Although no specific sites have been identified, the DEQ may authorize a 60-day letter permit for controlled open burning of combustible, oiled debris on the Oregon Coast and portions of the Columbia River in accordance with Oregon Administrative Rules, Division 23. The 60-day letter permit may be obtained from the Air Quality Division of the DEQ in Portland. A written request is required to obtain the permit, and must include the anticipated emissions based on the petroleum product contaminating the debris to be burned. Controlled open burning is defined as follows from most to least preferable:

- Forced air pit incineration
- Tall stack burning with auxiliary air supply
- Pile burning with auxiliary air supply
- Pile burning

The DEQ would generally intend to require forced air pit incineration for burning proposed in or near any population center or sensitive area. Combustion efficiency enhancement through utilization of an air curtain or fan devices is generally recommended. There are several areas in Oregon currently regulated by local authorities. They are listed in Division 23 rules for open burning.

4337.2.5 Landfills

There are several landfills which may receive oiled debris, subject to the rules for disposal of spill cleanup materials, any restriction of the Solid Waste Permits, any franchise restrictions, and the concurrence of the owner/operator. See Oregon Administrative Rules Chapter 340, Division 61 on solid waste management.

4337.2.6 Interim Storage

Interim storage site selection will be made on a case-by-case basis. Oregon Administrative Rules Chapter 340, Division 61 on solid waste management addresses the definition of and guidelines for a "disposal site" which includes temporary storage sites.

A letter of authorization for six months can be obtained from the DEQ by written application. The application must contain specific criteria regarding the site; these criteria can be found in Oregon Administrative Rules Chapter 340, Division 61, page 5.

Recovered oil should be stored in sealable containers such as 55-gallon drums, portable pillow tanks, empty fuel storage tanks, tank trucks, barges, or any other available container that can be sealed to prevent spillage. If necessary, a pit can be dug to hold the waste and lined with plastic or polymeric sheeting to prevent leaching.

Oily debris should be placed in leak-proof containers, such as plastic bags or debris boxes, provided they are lined with plastic. Debris should be stored on impermeable sheeting to prevent penetration into the soil should a breach of the container occur.

Temporary storage sites should be located with good access to the cleanup operations and nearby streets and highways. Good sites are flat areas such as parking lots or undeveloped lots, with a minimum of slope to reduce potential contamination from leaching oil. Sites should be at least three meters above mean sea level. A 1- to 1-1/2 meter high earth berm should be constructed around the perimeter of the site and the site lined with an impermeable liner to the top of the berm.

After oiled debris is in storage, a monitoring program should be set up to ensure that oil is not escaping outside the berm. Free oil accumulation within the bermed area should be monitored as well.

4337.2.7 Transportation

Transportation of oiled debris to its disposal destination is the contractor's responsibility. Certified haulers should be used. Trucks should be lined with plastic or otherwise made leak-proof in order to prevent leakage during transport.

4337.3 Idaho

4338 Volunteer Management Policy

4338.1 Washington

During past oil spills, Washington State citizens have expressed an interest in providing assistance in oil spill response efforts including wildlife rescue, support services, and beach cleanup. In fact, Washington State law (RCW 90.56.100) mandated the development of a Wildlife Rescue and Response Program which relies on the use of volunteers. The law also established the Washington Wildlife Rescue Coalition which is made up of state, federal, and private organizations.

The Coalition, through its Wildlife Rescue Coordinator, will work with the responsible party to implement Washington's Wildlife Rescue and Response Plan. The Coalition was mandated to:

- Develop a mobilization plan to rescue and rehabilitate wildlife during a spill
- Develop a directory of persons, agencies, and organizations that may provide assistance
- Provide advance training to volunteers
- Obtain and maintain equipment and supplies to support its efforts.

In response to the first of these mandates, the Wildlife Rescue and Response Program developed the Washington State Volunteer Management Plan, the purpose of which is to provide guidance for the use of volunteers. Section 3 of the plan, "Wildlife Volunteer Management," contains a compilation of requirements and procedures found in the Washington Wildlife Rescue and Response Plan. At this time, the plan only covers oil spills to marine waters.

While state law clearly mandated the establishment of a program which relies on volunteer assistance in wildlife rescue, the law is silent regarding volunteers for tasks not related to wildlife (e.g., beach cleanup). Thus, the main emphasis of the State Volunteer Management Plan will be on wildlife rescue volunteers, and

will identify potential opportunities for volunteers for other tasks if determined by the Unified Command. Section 4 of this plan identifies a means for the use of volunteers not related to wildlife rescue.

4338.2 Oregon

4338.3 Idaho

4400 Environmental Sensitivity Indices, Maps & Information -- Geographic Response Plans (GRPs)

4410 Puget Sound, Washington COTP Area of Responsibility

- GRP: Washington Outer Coast
- GRP: Strait of Juan de Fuca
- GRP: San Juan Islands/North Puget Sound
- GRP: Hood Canal/Admiralty Inlet
- GRP: North Central Puget Sound
- GRP: Central Puget Sound
- GRP: Sound Puget Sound
- GRP: Nisqually River (TBD)

4420 Environmental Protection Agency Area of Responsibility

- GRP: Snake River/:Little Goose Area
- GRP: Snake River/Lower Monumental Area
- GRP: Snake River/Ice Harbor Area
- GRP: Snake River/Lower Granite Area
- GRP: Spokane River (TBD)
- GRP: Middle Columbia River/Bonneville Pool
- GRP: Middle Columbia River/Dalles Pool
- GRP: Middle Columbia River/John Day Pool
- GRP: Middle Columbia River/McNary Pool

4430 Portland, Oregon COTP Area of Responsibility

- GRP: Grays Harbor,Washington
- GRP: Willapa Bay, Washington
- GRP: Lower Columbia River/Washington/Oregon
- GRP: Tillamook Bay
- GRP: Yaquina Bay
- GRP: North Oregon Coast
- GRP: South Oregon Coast
- GRP: Coos Bay

4500 General Response Priorities

4510 General Hierarchy of Response Priorities

Specific strategies for response to spills in sensitive areas are detailed in the Geographic Response Plans (GRP). General Response Priorities are:

- Protect human life and health
- Minimize ecological impacts
- Minimize economic and public impacts

4600 Strategic Response Options

4610 Sensitive Areas

Environmentally sensitive areas are identified in the 23 Geographic Response Plans (GRPs) listed in section 4400. GRPs represent the collective input of natural resource trustee agencies and spill response organizations regarding environmental protection strategies for a given area. The objective of these plans is to reduce decision-making time during the initial hours of response to a major spill so that protection strategies can be implemented immediately. GRPs contain maps and descriptions of sensitive public natural and cultural resources, identify strategies to protect those resources, and set priorities for various spill scenarios. The Environmental Unit will supplement GRPs with other “real-time” information (e.g., wildlife surveys) to develop any spill-specific changes or additions to protection priorities.

Note that private economic resources, such as commercial marinas, are not addressed by GRPs or the Environmental Unit. These resources are assigned the lowest in priority for protection. Development of any protection strategies for private economic resources therefore falls under the duties of the responsible party.

In general, GRPs include the following types of response strategies:

- No action – appropriate when weather, sea, or other conditions make other options unsafe and/or infeasible. Also appropriate when response actions or site access will cause further environmental damage (e.g., wetlands).
- On-water recovery – mechanical removal of floating oil by sorbent materials, vacuum trucks, and skimming devices.
- Subtidal recovery – mechanical removal of sunken oil by dredges, pumps, or submersible equipment.
- Exclusion Booming – deploying various types of boom to keep oil out of a sensitive area.
- Deflection Booming – deploying various types of boom to divert oil away from a sensitive area and/or divert oil toward a collection point.

- Shoreline cleanup – ranging from deploying sorbents for passive cleanup to bioremediation; see NOAA's Shoreline Countermeasure Matrix for detailed list of options.
- In-situ Burning – burning oil on the water; usually requires containment by fire-resistant boom. See Section 4641 for more NWAC policy on in-situ burning use.
- Dispersants – applying chemical agents, usually by aircraft, to aid in breaking up surface slicks and dispersing oil within water column. See Section 4631 for more NWAC policy on dispersant use.

4620 Dispersants

Dispersants, or chemical herders, will not normally be used without the concurrence of the Environmental Protection Agency and the state with jurisdiction over the navigable water polluted by the discharge. Mechanical means such as booms, mesh screens, sorbents, and deflecting techniques such as propwash and flushing hoses are approved techniques for cleanup. Section 4622 contains a checklist developed to aid the OSC in reaching a decision on whether the use of dispersants is the best course of action.

NOTE: The FOSC may authorize the use of dispersants, chemical herders and other agents and additives without obtaining the concurrence of the EPA or state when, in the judgment of the FOSC, the use of the product is necessary to prevent or substantially reduce a hazard to human life.

4621 Dispersant Use Policy

4621.1 Washington

The state of Washington has prepared a dispersant use policy and EIS to address use of dispersants in the state. This document is to be used primarily by state, federal, and responsible party personnel in the planning and implementation of dispersant use decisions during major oil spills in coastal waters in and adjacent to Washington. The goal of the dispersant management plan is to optimize protection for natural resources. This goal was accomplished by the establishment of specific dispersant use sub-regions accompanied by specific guidelines and standards for use in all such sub-regions. The policy provides guidance for the on-scene coordinator to make decisions for the use of dispersants based on conditions for preapproval, plus guidelines and standards for use in all sub regions.

The dispersant policy guides all oil dispersant use activities and establishes standards and guidelines for appropriate applications. The plan describes the ranking of natural resource values and evaluates dispersant management practices as a tool for protecting those resources.

The dispersant use policy embodies the provisions of state and national contingency plans and other guiding documents.

The decision to approve or disapprove dispersant use is based on the seasonal Analysis of the Resource Situation (ARS) in each individual subregion (subregions described in EIS). The ARS is an examination of the present level and vulnerability of public resources and is used as the basis for examination of the effects of dispersant use on those resources. As part of the ARS, benchmarks for resources were developed to provide information about the present resource levels. These benchmarks define the extent and vulnerability of resources so that tradeoff decisions concerning those resources can be examined.

Each dispersant use decision is governed by a comparative natural resource evaluation, based on the resource type, number and sensitivity to oil and/or dispersants in each marine and estuarine subregion described in the Oil Spill Compensation Schedule WAC 173-183. The subregional scores (Tables 1-20, Appendix C in EIS) describe the present and, as a minimum, the desired future condition of natural resources in the marine and estuarine waters. The maintenance of these outputs and activities is considered to be the goal the state should meet via implementation of this policy.

Coastal and marine waters of the state have been divided in 132 subregions for purposes of ranking comparative natural resource values (WAC 173-183). Individual subregions were scored on a 1-5 basis (1-low to 5-high) for each of seven natural resource categories; habitat, marine mammals, birds, marinefish, shellfish, salmon and recreation. WAC 173- 183-400 describes, in detail, the methodology for scoring.

The evaluation leads to the selection of preapproved, conditional approval and no approval dispersant use sub-regions based on the comparative resource values by subregion and season. All decisions are based on the fact that there are known tradeoffs associated with the use of dispersants and when these are weighted against the resource value to be protected, there may be times when the value of the resource portection outweighs the added potential loss to another resource value from the use of dispersants.

Chemical dispersants may be authorized in regions when it is judged that the advantage of using the dispersant outweighs the impacts of allowing untreated oil to enter other sensitive environments or damage unique wildlife/fish populations . Three dispersant use decision categories are possible in each subregion. The decision is based on the known biological consequences of dispersant use in the specific region verses its use as a method to protect valuable fish and wildlife habitat and species in other areas.

The EIS contains the area-wide standards and guidelines that apply to all dispersant use applications in marine and estuarine waters. Authorization for

approval of dispersants within any subregion was based on meeting all of the following criteria:

- A critical evluation of resources and habitats in the spill zone
- Potential of critical habitats remote from the spill site being impacted by undispersed oil
- Potential of critical aggregations of fish, birds, and marine mammals remote from the spill site being impacted by undispersed oil
- Meteorological and oceanographic conditions that suggest that the undispersed oil trajectory will, in fact, impact these remote fish and wildlife aggregations and/or habitats
- Assume adequate delivery system
- Environmentally acceptable dispersant available
- Preliminary tests have shown that the RP can deliver dispersant effectively.

4621.2 Oregon

According to OAR 340-47-020, no chemicals shall be used to disperse, coagulate, or otherwise treat oil spills except inert absorbent materials that are completely removed in the clean-up process or other materials as may be specifically approved by the DEQ. Physical removal of oil spills will ordinarily be required except where use of chemical dispersants is warranted by extreme fire danger or other unusually hazardous circumstances. DEQ will consider each request for approval of dispersant use on a case by case basis.

4622 Dispersant Use Checklist

1. Introduction. This checklist is intended to aid the UC in reaching a decision on whether the use of dispersants is the best course of action for a potential or actual oil spill mitigation. It also provides a familiar listing of data to all RRT members involved with the decision to allow the use of dispersants. The following sequence of events should normally be followed for an oil spill in which the UC wishes to use dispersants.

a. The decision to use dispersants must be made as soon as possible after a spill occurred before substantial weathering takes place or the oil has spread. Therefore, early in the spill response the UC should evaluate the potential use of dispersants. If the UC feels the potential for dispersant use exists he/she should have his staff gather the information necessary to complete the dispersant checklist. He/she also should request RRT activation to prepare the RRT for review.

b. If upon completion of the dispersant checklist the UC decides the use of dispersants is the best course of action the checklist information should be passed to the RRT for final decision on its use.

2. The following steps should be utilized in deciding if the use of dispersants will be required. (An immediate threat to life which can be substantially lessened by the use of dispersants pre-empts the following matrix by the UC.)

a. Compilation of Data.

(1) Spill data

_____ (a) Circumstances (fire, grounding, collision, etc.):
_____ (b) Time/Date of incident:
_____ (c) Type of oil product:
_____ (d) List bulk chemicals carried and their volumes:
_____ (e) Volume of product released:
_____ (f) Total potential of release:
_____ (g) Type of release (instantaneous, continuous, intermittent etc.):

(2) Characteristics of the spilled oil

_____ (a) Specific gravity:
_____ (b) Viscosity:
_____ (c) Pour point:
_____ (d) Volatility (flash point):
_____ (e) Relative toxicity:

(3) Weather and water conditions/forecasts
_____ (a) Air temperature, wind speed, direction:
_____ (b) Tide and current information:
_____ (c) Sea conditions:
_____ (d) Water temperature and salinity:
_____ (e) Water depth and depth of mixed layer:
(4) Trajectory information
_____ (a) 48-hour oil trajectory forecast:
_____ 1 Surface area slick:
_____ 2 Expected areas of landfall:
_____ (b) 48-hour dispersed oil trajectory forecast:
_____ 1 Oil movement in water column:
_____ 2 Surface oil movement in water column:
_____ 3 Concentration of dispersant/oil mixture in water column:
(5) Characteristics of available dispersants
_____ (a) Characteristics of the dispersants:
_____ Product 1 Product 2 Product 3
_____ 1 Name
_____ 2 Manufacturer
_____ 3 When available
_____ 4 Location(s)
_____ 5 Amount available
_____ 6 Type of containers
_____ 7 Characteristics
_____a Toxicity
_____b Effectiveness
_____c Reactions
_____d Applicability to spilled oil
_____e Other
_____ 8 Application methods
_____ 9 Miscellaneous
_____ (b) Type of transportation and dispersing equipment:
Company 1 Company 2 Company 3
_____ 1 Name
_____ 2 Location
_____ 3 Time to arrive
_____ 4 Equipment available
_____ 5 Other
(6) Info about available dispersant & dispersing equipment.
_____ (a) Name of proposed dispersant on EPA and State acceptance lists:
_____ (b) Type (self-mix, concentrate, etc.):
_____ (c) Proposed application methods and rates:
_____ (d) Efficiency under existing conditions:
(% dispersed and volume dispersed)
_____ (e) Location of the area to be treated:

_____ (f) Surface area of slick treatable in scheduled time period:
_____ (g) Estimated time interval between dispersant application and sensitive environments/resources:

(7) Comparison of effectiveness of conventional cleanup methods vs. the use of dispersants:
_____ (a) Containment at the source:
_____ (b) Shoreline protection strategies:
_____ (c) Shoreline cleanup strategies:
_____ (d) Time necessary to execute response:

(8) Habitats and resources at risk
_____ (a) Shoreline habitat type and area of impact:

	Dispersant treated spill	Untreated spill
_____	1	
_____	2	
_____	3	
_____	4	

_____ (b) Resources

	Dispersant treated spill	Untreated spill
_____	1	Endangered/threatened species (state and federally designated)
_____	2	Critical habitats for the above species
_____	3	Marine animals (pupping, migration)1
_____	4	Waterfowl use (nesting, migration)
_____	5	Shellfish (spawning, harvesting)
_____	6	Finfish (spawning, release migration, harvest)
_____	7	Commercial use (aquaculture, water intakes, etc.)
_____	8	Public use areas (parks, marinas, etc.)
_____	9	Other resources of specific significance

(9) Economic Considerations
_____ (a) Cost of dispersant operation:
_____ (b) Cost of conventional containment and protection:
_____ 1 With dispersant use
_____ 2 Without dispersant use
_____ (c) Cost of shoreline cleanup: (cost per barrel x number of barrels reaching the shoreline)
_____ 1 With dispersant use
_____ 2 Without dispersant use

b. Recommendation to the RRT
(1) Possible options:
_____ (a) Do not use dispersants.
_____ (b) Use dispersants on trial basis, but not as control/cleanup technique.
_____ (c) Disperse in limited or selected areas.
_____ (d) Disperse to the maximum extent possible with accepted methods and available equipment.
(2) Other recommendations/rationale:

c. Consequences of a dispersant application decision.

(1) Will application of dispersant remove a significant amount of the slick from the surface of the water?

(2) Can the extent or location of shoreline impacts be altered in a positive manner?

(3) Can the damage to endangered or threatened species, marine mammals, and waterfowl be lessened?

(4) Will the damage to habitats and resources resulting from chemical dispersion be less than those resulting without chemical dispersion?

(5) If recreational, economic and aesthetic considerations are higher priority than natural resource considerations what is the most effective means of their protection?

3. Criteria For Monitoring Dispersant Use: Dispersant applications in the region will be monitored as a general practice. The UC is responsible for designating monitors. The Pacific Strike Team may serve as monitors as available. There are two levels of criteria suggested: required and desirable. The proposed criteria follow.

a. REQUIRED:

(1) Records:

_____ (a) Dispersant brand

_____ (b) Equipment and methods used in application

_____ (c) Dilution of dispersant prior to application, if any

_____ (d) Rate of application (gallons per acre, dispersant to oil ratio

_____ (e) Times and area of application

_____ (f) Tracts of vessels or aircraft during application

_____ (g) Wind and wave conditions during application.

(2) Effectiveness: Visual and photographic documentation, by qualified observers, of;

_____ (a) Oil before and after dispersant application, and

_____ (b) Re-surfacing of dispersed oil.

(3) Environmental Impacts: Visual and photographic surveys of:

_____ (a) The extent of shoreline impact by dispersed and undispersed oil

_____ (b) Mortality or abnormal behavior by fish, birds or mammals.

b. DESIRABLE:

(1) Effectiveness: Sampling of the water beneath the oil slick and the oil and dispersant combination to determine the level of petroleum hydrocarbons in the water. This sampling could include "in-situ" measurements or sample collection for later analysis.

(2) Environmental impacts:

_____ (a) Comparison of shoreline areas impacted by oil and oil and dispersant mixtures

_____ (b) Analysis of oil concentrations in sediments under dispersed oil

_____ (c) Investigation of water column organisms for signs of adverse impacts due to dispersed oil

_____ (d) Collection and analysis of birds affected by dispersants or dispersants and oil mixtures

4630 In-Situ Burning

In-situ is the Latin term for “in place”. In-situ burning as it relates to oil spills is the controlled burning of oil on water at the spill site. While the focus of the policy is on open-water areas in the marine environment, it also applies to in-situ burning in inland areas.

4631 In-Situ Burning Policy

The purpose of the policy is to define the conditions under which burning may occur on a pre-approved or case by case basis and define conditions under which burning will not be allowed. The complete policy defines the procedure for arriving at the decision to burn or not to burn, describes the regulatory and statutory framework, and provides background information on logistics, environmental impacts, health and safety, and monitoring. The policy applies to all marine waters as well as inland areas covered by the Northwest Area Plan. This section summarizes key sections of the policy.

It is the policy of the Northwest Area Committee to use, and in certain cases, encourage in-situ burning, provided that requirements specified herein have been met. A primary consideration in the decision to burn is the protection and safety of human life. The authority to approve a burn rests with the Unified Command, who must determine that an application to burn conforms with these guidelines. The decision to burn or not burn must be made expeditiously.

Preapproval areas are defined as those areas which are more than three miles from population. All other areas will be considered on a case-by-case basis. Monitoring and sampling will be conducted where there is the potential for people to be exposed to the smoke. As general guidance, people should not be exposed to small particles (PM-10) in concentrations that exceed 150 micrograms per cubic meter of air averaged over one hour. The concentrations should never exceed 150 micrograms per cubic meter averaged over 24 hours.

4632 Authorization Procedures

These guidelines provide a common decision-making process to evaluate the appropriateness of using in-situ burning during a spill response. The process is based on the premise that a rapid decision is essential if in-situ burning is ever to be used since oil emulsifies (becomes mixed with water) and is more difficult to ignite as time goes on. Therefore, the fewest number of decision-makers as possible are involved in deciding whether or not to burn.

Under these guidelines, authorization to use in-situ burning rests with the Unified Command (UC). The UC consists of federal, state and responsible party on-scene coordinators as well as local and tribal on-scene coordinators, as appropriate. The UC, as part of the Incident Command System (ICS), is

responsible for overseeing the entire response effort, which includes the decision to use in-situ burning. The decision process is greatly expedited by the use of the unified command structure, by the establishment of a single application (see attached checklist and worksheet located after the decision process flowchart), and mutually agreed upon operational controls. Figure 4.1 summarizes the In- situ burn decision process.

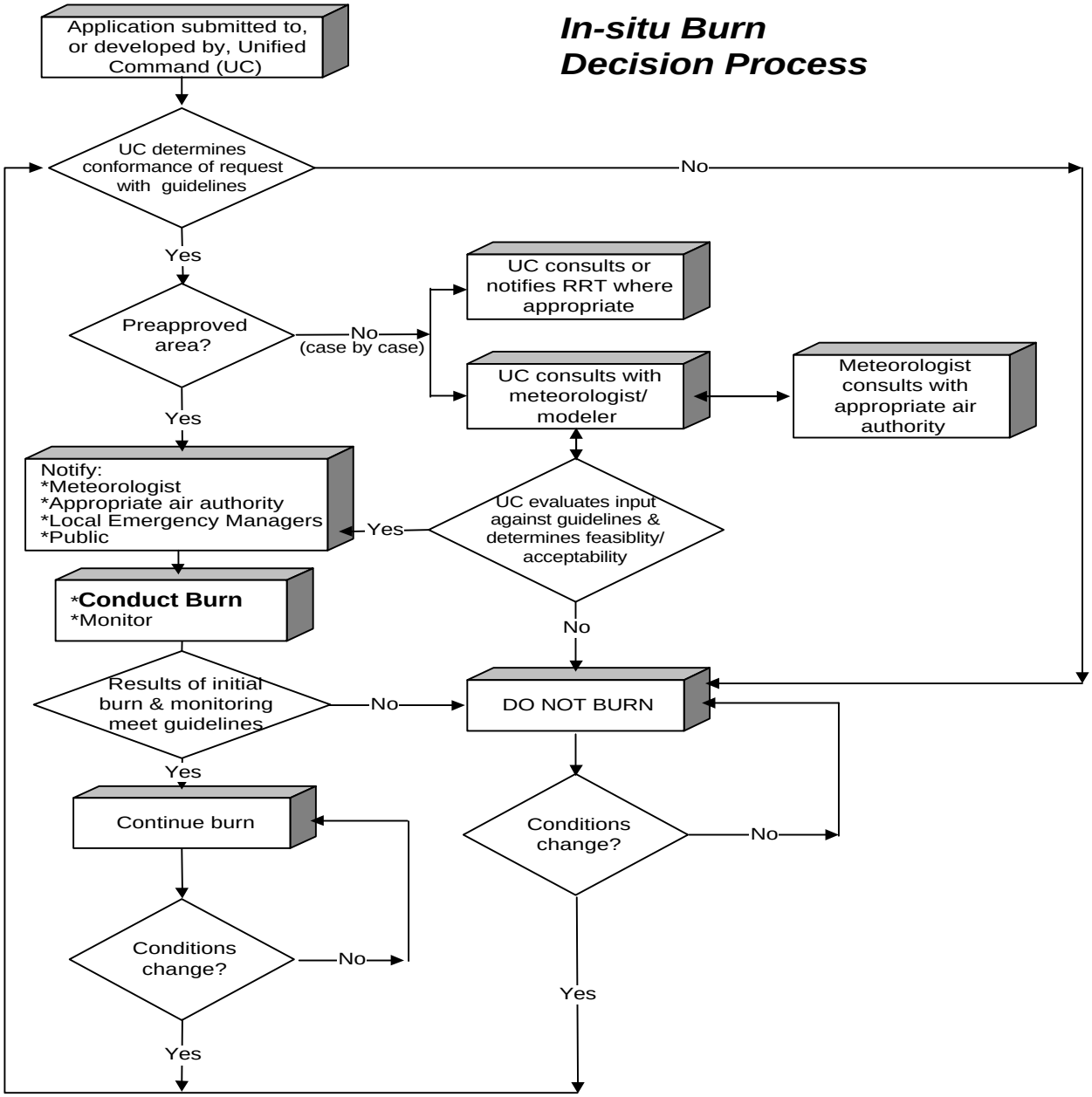


Figure 4.1

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In-Situ Burning Application

The following checklist and worksheet are provided as a summary of important information to be considered by the Unified Command in reviewing any request to conduct in-situ burning in response to an oil spill in Washington, Oregon, and Idaho waters. The flowchart shown in figure 4.1 summarizes the process for making a burn decision. The decision to burn involves three basic factors. If the oil has ignited due to collision or another means, allowing continued burning may be unavoidable or beneficial. Second, the decision to burn must consider whether this tool will offer a greater level of efficiency in removing oil on water and/or reducing oil impacts to sensitive resources. Third, the decision must evaluate whether it is practical, feasible, and safe to burn given the spill and conditions involved.

The application process begins with a simple preliminary feasibility analysis. If that analysis concludes that in-situ burning may be feasible, the application checklist and window-of-opportunity worksheet should be completed. The checklist is divided into several sections of information about the spill, weather, proposed burning plan, and potential impacts. Most checklist questions reference items on the worksheet. When completed, the checklist and worksheet will identify the window-of-opportunity when in-situ burning would be allowed based on environmental, public health, and operational constraints. Note that the checklist must be updated for each new burn scenario proposed. It is important to note that even if the checklist and worksheet fail to show that in-situ burning is appropriate at one point in time (i.e., a "NO" answer), changes in environmental or other factors may make in-situ burning a feasible option at a later time.

A. Preliminary Feasibility Analysis

1. Is the spilled oil already burning? Yes __ No ___
➔ If yes, skip remaining questions and proceed with the rest of application.

2. Are prevailing and forecasted winds and atmospheric conditions likely to cause heavy smoke exposure to populated areas? Yes___ No ___ ➔ If no, proceed with question 3.

3. Do natural resource managers concur that in-situ burning will cause less overall harm to marine resources (e.g., heat, burn residue) than the harm to those resources anticipated if in-situ burning does not occur (e.g., oiling of shorelines, wildlife, kelp, etc)? Yes___ No ___
➔ If yes, proceed with question 4.

4. Are equipment and trained personnel available to conduct in-situ burning operations? Yes___ No ___
➔ If yes, proceed with question 5.

5. Is the oil concentration and type suitable for containment and burning?. Yes___ No___
➔ If yes, proceed with rest of application.

If any answer to the above questions does not result in instructions to proceed with the application, approval of an in-situ burning application is very unlikely <u>at this point of time</u> until conditions change.

B. Application Checklist

1. Spill Data

a. Date of incident (month/date/year): _____ Time of incident: _____

b. Name of incident/responsible party :

c. Location of incident _____ Latitude: _____ N Longitude _____ W

d. Type(s) of oil spilled:

e. Estimated volume of oil spilled into water: _____

f. Estimated volume of oil at risk of spilling: _____

g. Release status: Stopped __ Intermittent __ Continuous __ Outflow Rate:

h. Forecasted surface area of spill at time of projected burn: _____
Continuous slick ___ Large patches ___ Ribbons/streamers ____

i. Will oil concentration be sufficient to burn? Yes ___ No ___ ➔ **See #1 on worksheet**

j. Anticipated oil trajectory (attach NOAA forecasts if available):

k. Forecasted oil distance/direction to nearest land at time of projected burn:

l. Expected areas and times of shoreline oil impact:

➔ **See #2 on worksheet**

m. Estimated percentage of natural dispersion and evaporation during:
first 24 hours _____ second 24 hours _____

n. Oil emulsification at this time: Unknown ___ None ___ Light (*0-20%)* ___
Moderate (*21-50%)*___ Heavy (*over 50%)* ___

o. Will emulsification likely be less than 50% at projected time of burn?
Yes __ No __ Unknown __ ➔ **See #3 on worksheet**

p. Distance (*in miles*) and direction to nearest population center (> 100 people per sq. mile):

q. Name of nearest population center:

2. Weather/Environmental Conditions **at time of projected burn**

a. Temperature: Air = _____ F Water = _____ F

b. Weather: Clear __ Partly cloudy __ Overcast __ Rain __ Fog __
Snow __ Freezing __

c. Surface visibility _____ Ceiling level _____

d. Is prevailing and forecasted visibility more than 500 ft. vertically and 0.5 mile horizontally? Yes ___ No ___ ➔ **See #4 on worksheet**

e. Surface current: Speed _____ Direction _____

f. Wind conditions: Speed _____ Direction (from) _____

g. Are prevailing and forecasted winds less than 25 knots? Yes ___ No ___
➔ **See #5 on worksheet**

h. Tide state: Flood ____ Ebb ____ Slack Water ____

i. Sea State: Calm ___ Choppy ____ Swell (in feet) ____

j. Waves: Less than 1 ft __ 1-3 ft __ More than 3 ft __ Direction (from) ____
➔ **See #6 on worksheet**

k. Other weather/sea condition information:

3. Proposed Burning Plan

a. Location of the proposed burn relative to the spill site:

b. Location of the proposed burn relative to nearest ignitable slick(s):

c. Location and direction of the proposed burn relative to nearest land:

d. Can accidental fires be avoided? Yes ___ No ____ If yes, what actions are planned:

e. Can ignition/burn occur at a safe distance from other response operations and public, recreational, and commercial activities? Yes ___ No ___ ➔ **See #7 on worksheet**

f. Method(s) used to notify residents living within the potential smoke plume trajectory:

➔ **See #8 on worksheet**

g. Method(s) used to notify mariners and aircraft pilots:

h. Method(s) used to avoid impacts to marine life in vicinity of burn:

i. Type of ignition system proposed for use:

j. When will ignition system, fire-resistant boom, and deployment equipment/vessels be on-scene and available for use?

➔ **See #9 on worksheet**

k. How will ignition be carried out:

l. If a helitorch ignition system is to be used, is the helicopter qualified for offshore flight and does it meet FAA certification requirements? Yes ___ No ____

m. Method used to collect/concentrate oil, if any:

n. Amount of fire boom available for use at time of projected burn: _____ feet

➔ **See #9 on worksheet**

o. Number of boom-towing vessels and support vessels available:

p. Proposed location of oil containment relative to spill source:

q. Proposed burning strategy:

___ Immediate ignition at or near source
___ Ignition away from source after containment and movement to safe location
___ Controlled burning in boom or natural collection site at or near shore
___ Possible need for multiple ignition attempts.

r. Are floating debris and other safety hazards acceptable? Yes ___ No ___

s. Are sufficient numbers of trained personnel available on-scene to conduct safe and effective burn? Yes ___ No ___ ➔ **See #10 on worksheet**

t. Estimated amount of oil to be burned:

u. Estimated duration of burn:

v. Method of collecting burned oil residue:

w. Estimated amount of burned oil residue to be collected:

x. Proposed interim storage and disposal of burned oil residue:

y. Back-up plan for collecting contained oil if burn fails:

4. Burn Impacts

a. Is adequate air modeling support available? Yes ___ No ___

b. Do prevailing conditions and air modeling results indicate that PM-10 standards can be met? Yes ___ No ___ ➔ **See #11 on worksheet**

c. Will visibility remain safe at sensitive locations (e.g., airports, freeways)? Yes __ No __

d. Are adequate air support and burn monitoring equipment on-scene and available?
Yes ___ No ___ ➔ **See #12 on worksheet**

e. How will operational impacts to wildlife in vicinity be monitored?

Name of Application Preparer:

Date/Time Submitted to Planning Section Chief: _____

Approval by Planning Chief: _____

Unified Command Decision:

____ Approval to implement burn plan

____ Approval to conduct small pilot burn

____ Burn plan disapproved at this time

Window of Opportunity Worksheet

Spill Name: **Spill Time and Date:**

This worksheet should be filled out in conjunction with the In Situ Burning Application Checklist. Fill in top row based on time of incident (e.g., if incident is at 0300, fill that in for hour 1; 0400 for hour 2, etc.). For each worksheet item, mark in each time segment where the item applies. The likely window-of-opportunity equates to those time segments where all items are marked.

Window of Opportunity / Feasibility Factors	Hr. 1 Time:	Hr. 2 Time:	Hr. 3 Time:	Hr. 4 Time:	Hr. 5 Time:	Hr. 6 Time:	Hr. 7 Time:	Hr. 8 Time:	Hr. 9 Time:	Hr. 10 Time:	Hr. 11 Time:	Hr. 12 Time:	Hr. 14 Time:	Hr. 16 Time:	Hr. 18 Time:	Hr. 20 Time:	Hr. 22 Time:	Hr. 24 Time:	Hr. 28 Time:	Hr. 32 Time:	Hr. 36 Time:	Hr. 40 Time:	Hr. 44 Time:	Hr. 48 Time:	Hr. 52 Time:	Hr. 56 Time:	Hr. 60 Time:	Hr. 64 Time:	Hr. 68 Time:	Hr. 72 Time:
Spill Data/Environmental Conditions																														
1. Oil concentration is suitable for containment & burning																														
2. Burning can still reduce significant shoreline impacts																														
3. Oil emulsification is less than 50%																														
4. Visibility > 500 ft. vertically & > 0.5 mile horizontally																														
5. Wind speed is less than 25 knots																														
6. Wave height less than 3 feet																														
Proposed Burning Plan																														
7. Burn can occur at safe distance from public & activities																														
8. Public notification needs have been addressed																														
9. All burn equipment on-scene and ready																														
10. Trained personnel on-scene & ready																														
Burn Impacts																														
11. PM-10 standards can be met																														
12. Air monitoring equipment & support are set up & ready																														

Authorization procedures will differ depending upon whether the spill location is in a preapproval area or is decided on a case-by-case basis. Regardless of location, the UC directs actions that will provide for maximum environmental protection while ensuring human safety.

4632.1 Exposure Limits for Emissions

Since burning will almost always provide for the greatest degree of environmental protection, a key issue is for the UC to ensure that pollutants from in-situ burning emissions do not have a significant adverse impact to human health. The primary pollutant of concern is PM-10, the small particulate matter contained in the smoke plume. It is generally accepted that other pollutants dissipate, reaching background levels well before PM-10 does. An in-situ smoke plume usually stays well above ground level, hundreds to thousands of feet, but can reach the ground under certain atmospheric conditions. An exposure standard for PM-10 has been established for these guidelines. In-situ burning will not be approved if there is significant risk that the standard would be exceeded where people are located. Background levels will be taken into consideration when determining risk.

As general guidance, people should not be exposed to concentrations greater than 150 micrograms per cubic meter averaged over one hour. A meteorologist, responsible for evaluating weather data and information in the area proposed for an in-situ burn, will incorporate this standard in assessing health risks. However, some flexibility and professional judgment may be necessary. Therefore, the standard incorporates a cap for PM-10 exposure not to exceed 150 micrograms per cubic meter averaged over a 24-hour period. The UC should ensure that an approved burn is within this standard. The UC must also weigh the risk to people of the volatiles that evaporate from unburned oil. In some cases, it may be less harmful to people to burn the oil rather than let part of it evaporate.

4632.2 Preapproval

Once the UC determines that the application to burn conforms to the PM-10 standard, then the UC determines if the spill location is in a “preapproval area.” Preapproval areas include any area that is more than three miles from human population. Human population is defined as 100 people per square mile. If a potential burn site is in a preapproval area, then the meteorologist, appropriate air pollution control authority, local emergency manager and the public are notified. Preparations will be made for monitoring the burn immediately following notification. (Note: Preapproval refers to certain locations where burning is allowed with minimal steps to be taken to conduct the burn. Several prior procedures must still be undertaken, including application submittal and approval, and notifications.)

4632.3 Case-by-Case

If the UC determines that the application conforms with the guidelines but is not in a preapproval area, then approval to burn is considered on a case-by-case basis. The UC notifies the Regional Response Team (RRT). In cases where the RRT's expertise is needed, then the RRT will be consulted. At this stage, the UC consults with the meteorologist to obtain weather data and information on the potential concentrations of pollutants that may reach a populated area from both burned and unburned oil. The meteorologist consults with the appropriate air pollution control authority for more information. Data will also be obtained from a predictive smoke plume model whenever possible. Modeling information will not be relied upon exclusively but considered as part of the information package. The UC then evaluates all available information and determines the feasibility and acceptability of in-situ burning based on these guidelines. If the decision is yes, then the same procedures apply as those for preapproval areas. If the decision is no, then the burn will not be conducted. If conditions change, the application will be re-evaluated.

4632.4 Not Allowed

If the application to burn is not in conformance with these guidelines, in-situ burning will not be allowed. Conditions will be monitored in case there is a change which would make in-situ burning appropriate and feasible. While no geographic areas have been excluded from the consideration to use in-situ burning, it is very unlikely that it would be approved in a heavily populated area such as inner Puget Sound or on the Columbia River near Portland because of the increased potential for exposing people to high levels of particulates. However, even in highly populated areas, burning may still be approved in unique circumstances, especially when the volatiles from the unburned oil pose a serious threat to human health.

4632.5 Monitoring

Monitoring should always be incorporated as part of standard in-situ burning operations, however in some cases, especially in remote areas, it may be difficult or not possible to monitor. Information from monitoring, sampling, and computer modeling will be continuously evaluated to ensure the burn is conducted safely and to gather historical data to enhance our knowledge of in-situ burning. Weather and sea conditions will also be continuously monitored, and, if conditions become unfavorable, the burn may be extinguished.

4640 Decanting

When oil is spilled on the water, mechanical recovery of the oil is the principal approved method of responding. However, the mechanical recovery process and associated systems necessarily involve placing vessels and machinery in a floating oil environment. Incidental returns of oil into the response area, such as oil that falls back

into the recovery area from vessels and machinery that are immersed and working in the oil, are an inevitable part of the mechanical recovery process. Similarly, separation or "decanting" of water from recovered oil and return of excess water into the response area can be vital to the efficient mechanical recovery of spilled oil because it allows maximum use of limited storage capacity, thereby increasing recovery operations.

This practice is currently recognized as a necessary and routine part of response operations that is appropriately addressed in Area Contingency Plans. (See National Contingency Plan Revisions, 59 F.R. 47401, Sept. 15, 1994.) In addition, some activities, such as those associated with oil recovery vessels, small boats and equipment cleaning operations, may result in incidental discharges. These activities may be necessary to facilitate response operations on a continuing basis, and all of these activities are considered to be "incidental discharges."

4641 Decanting Policy

This policy addresses "incidental discharges" associated with spill response activities. "Incidental discharge" means the release of oil and/or oily water within the response area in or proximate to the area in which oil recovery activities are taking place during and attendant to oil spill response activities. Incidental discharges include, but are not limited to, the decanting of oily water, oil and oily water returns associated with runoff from vessels and equipment operating in an oiled environment and the wash down of vessels, facilities and equipment used in the response. "Incidental discharges" as addressed by this policy, do not require additional permits and do not constitute a prohibited discharge. See 33 CFR 153.301, 40 CFR 300, RCW 90.56.320(1), WAC 173-201A-110, ORS 468b.305 (2)(b).

4641.1 Criteria

During spill response operations, mechanical recovery of oil is often restricted by a number of factors, including the recovery system's oil/water recovery rate, the type of recovery system employed and the amount of tank space available on the recovery unit to hold recovered oil/water mixtures. In addition, the longer oil remains on or in the water, the more it mixes to form an emulsified mousse or highly mixed oil/water liquid, which sometimes contains as much as 70% water and 30% oil, thus consuming significantly more storage space. Decanting is the process of draining off recovered water from portable tanks, internal tanks, collection wells or other storage containers to increase the available storage capacity of recovered oil. When decanting is conducted properly most of the petroleum can be removed from the water.

The overriding goal of mechanical recovery is the expeditious recovery of oil from water. In many cases, the separation of oil and water and discharge of excess water is necessary for skimming operations to be effective in maximizing the amount of oil recovered and in minimizing overall environmental damages. Such actions should be considered and in appropriate circumstances authorized by the FOSC and/or SOSC

because the discharged water will be much less harmful to the environment than allowing the oil to remain on the water and be subject to spreading and weathering. During a response, it will likely be necessary for response contractors or a responsible party to request from the FOSC and/or SOSC authority to decant while recovering oil so that response operations do not cease or become impaired. Expeditious review and approval, as appropriate, of such requests is necessary to ensure a rapid and efficient recovery operation. In addition, such incidental discharges associated with mechanical recovery operations should not be considered prohibited discharges. Therefore, the Area Committee adopts this policy to provide for an expeditious approval process and provide guidance to OSCs, responsible parties, response contractors and other members of the spill response community relating to incidental discharges and decanting.

The Federal and State OSCs will consider each request for decanting on a case by case basis. Prior to approving decanting, the OSCs should evaluate the potential effects of weather including the wind and wave conditions, the quantity of oil spilled and the type of oil as well as available storage receptacles. The OSC should also take into account that recovery operations as enhanced by decanting will actually reduce the overall quantity of pollutants in a more timely and effective manner to facilitate cleanup operations. The following is the Oil Spill Decanting Authorization Form:

Northwest Area Contingency Plan

7.3.2 Oil Spill Decanting Authorization Form

The federal and state OSCs, under authority of RCW 90.56.320(1) and WAC 173-201A-110 (in Washington), or ORS/OAR _____ (in Oregon), hereby approve the use of decanting as a means of expediting the recovery of oil during the following spill cleanup operation:

Date(s) Approval Effective:

Name of Spill Incident:

Federally Defined Response Area:

Name of Requester:

Location and Description of Proposed Decanting Operation: (continue on reverse, if necessary)

The decanting operation must meet the following conditions:

1. All decanting should be done in a designated "Response Area" within a collection area, vessel collection well, recovery belt, weir area, or directly in front of a recovery system.

2. Vessels employing sweep booms with recovery pumps in the apex of the boom shall decant forward of the recovery pumps.

3. Vessels not equipped with an oil/water separator should allow retention time for oil held in internal or portable tanks before decanting commences.

4. Containment boom must / need not (circle one) be deployed around the collection area to prevent loss of decanted oil or entrainment.

5. Visual monitoring of the decanting shall be maintained at all times so that discharge of oil in the decanted water is detected promptly.

6. Decanting in areas where vacuum trucks, portable tanks, or other collection systems are used for shore cleanup will be subject to the same rules as vessels.

7. Additional conditions: (continue on reverse if necessary)

SIGNATURE: Date:
Federal OSC

SIGNATURE: Date:
State OSC

NOTE: When verbal authorization is given, a copy of this form must be immediately expedited to the requester (must be a person of authority in the cleanup organization) to ensure that the conditions and limitations are clearly understood by all parties.

The following criteria should be considered by the FOSC and/or SOSC in determining whether to approve decanting unless circumstances dictate otherwise:

All decanting should be done in a designated “Response Area” within a collection area, vessel collection well, recovery belt, weir area, or directly in front of a recovery system.

Vessels employing sweep booms with recovery pumps in the apex of the boom should decant forward of the recovery pump.

All vessels, motor vehicles and other equipment not equipped with an oil/water separator should allow retention time for oil held in internal or portable tanks before decanting commences.

When deemed necessary by the FOSC and/or SOSC or the response contractor a containment boom will be deployed around the collection area to minimize loss of decanted oil or entrainment.

Visual monitoring of the decanting area shall be maintained so that discharge of oil in the decanted water is detected promptly.

Decanting in areas where vacuum trucks, portable tanks or other collection systems are used for shore cleanup will be subject to the same rules as vessels.

The response contractor or responsible party will seek approval from the FOSC and/or SOSC prior to decanting by presenting the Unified Command with a brief description of the area for which decanting approval is sought, the decanting process proposed, the prevailing conditions (wind, weather, etc.) and protective measures proposed to be implemented. The FOSC and/or SOSC will review such requests promptly and render a decision as quickly as possible. FOSC authorization is required in all cases and in addition SOSC authorization is required for decanting activities in state waters.

The FOSC and/or SOSC will review and provide directions and authorization as appropriate to requests to wash down vessels, facilities and equipment to facilitate response activities.

Other activities related to possible oil discharges associated with an oil spill event such as actions to save a vessel or protect human life which may include such actions as pumping bilges on a sinking vessel are not covered by this policy.

4650 Bioremediation

The use of bioremediation in open water is an unproven technology that currently shows little or no promise of removing significant quantities of oil from the surface of the water prior to shoreline impact or natural dispersion. Bioremediation by nutrient enhancement or

seeding of biodegrading organisms is therefore not allowed on the surface of open water. This policy can be reviewed by the RRT if there is new and significant evidence that bioremediation can be a significant factor in oil removal on open water.

Bioremediation of Shorlines

Seeding of exotic organisms for pollution response is prohibited in Response Region Ten. This is due to unproven efficacy of such procedures and the unknown ecological effects resulting from the implementation of such.

Bioremediation is an effective technique for the encouragement of oil biodegradation on some contaminated shorelines. Nonetheless, this strategy is unlikely to lead to rapid decontamination of beaches. Consequently, bioremediation should be used as the primary treatment only when oil concentrations are low (less than 15 grams of oil for every kilogram of sediment) and conventional forms of cleanup (heavy equipment use or manual cleaning) are likely to do more damage than good. Bioremediation should be considered as a polishing technique after gross contamination is removed by conventional means.

The use of bioremediation for oil spill clean up will be allowed only on a case-by-case basis.

4700 Reserved for Future Use

4800 Reserved for Future Use

4900 Reserved for Future Use

CHAPTER 5000

LOGISTICS

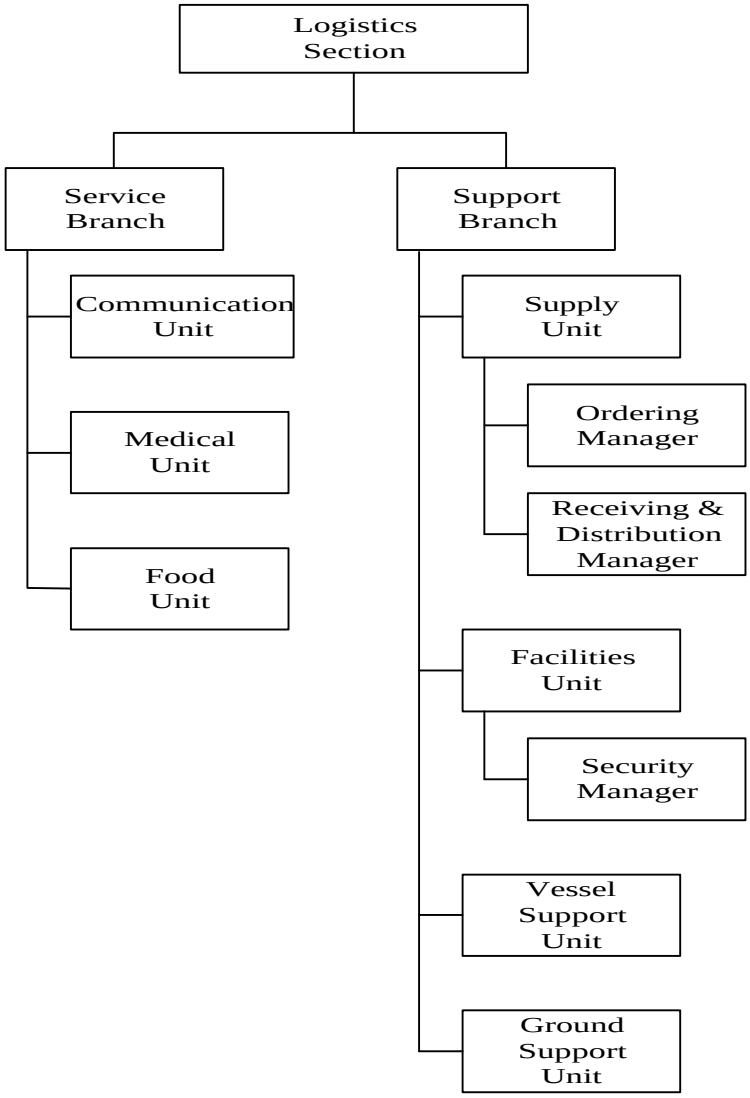
Chapter 5000 Table of Contents

5000 LOGISTICS

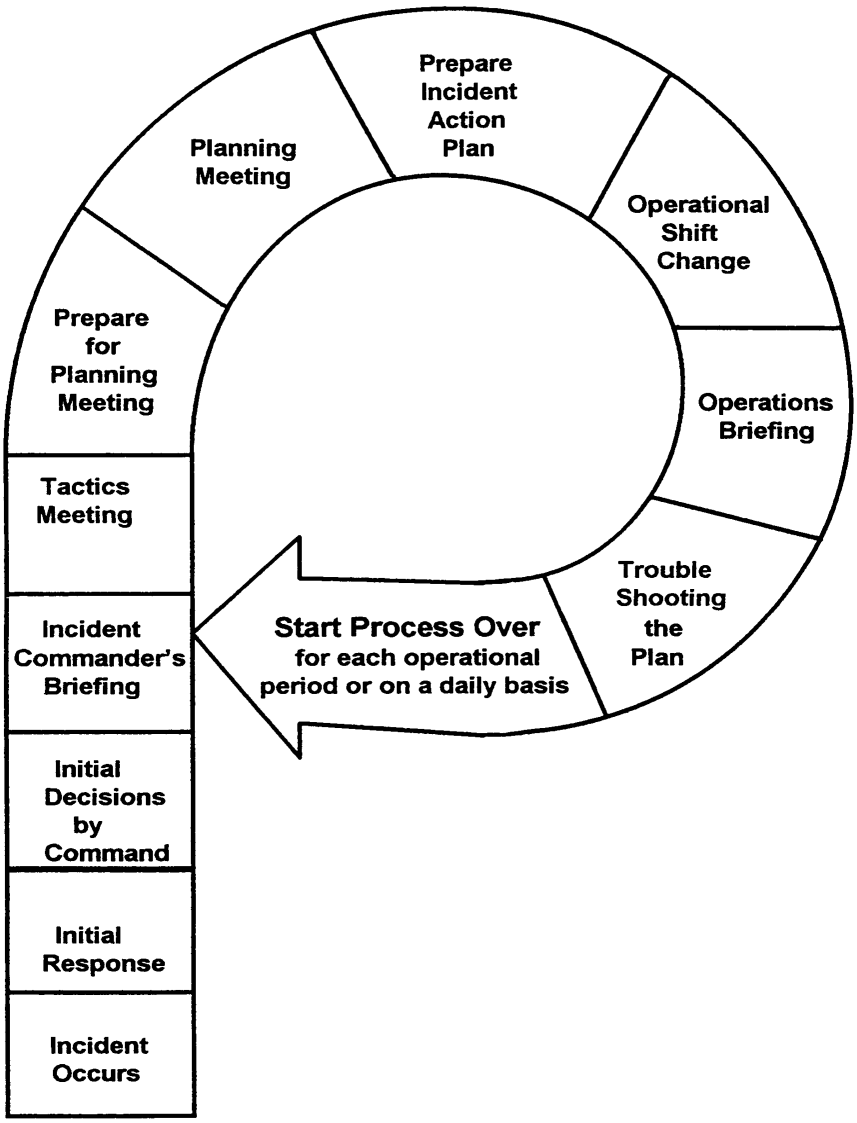
5100 Logistics Section Organization

The following is an organizational chart of the Logistics Section and its subordinate units. It serves as an example and is not meant to be all inclusive. The functions of the Logistics Section must be accomplished during an incident, however, they can be performed by one individual or can be expanded, as needed, into additional organizational units with appropriate delegation of authority.

Information regarding the Logistics Section and Staff positions within the command can be found in the Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996.



5110 Logistics Section Planning Cycle Guide



5200 Roles and Responsibilities

The Logistics Section is responsible for providing services and support to meet all incident or event needs. This is accomplished under the direction of the Logistics Section Chief. Logistics service and support to an incident or event are important functions. Early recognition of the need for a separate logistics

function and section can reduce time and money spent on an incident. All Functions not assigned by the Section Chief remain the responsibility of the Section Chief.

5210 Logistics Section Chief Responsibilities

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

5220 Service Branch Director

The Service Branch Director, when activated, is under the supervision of the Logistics Section Chief, and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical, and Food Units.

5230 Communications Unit Leader

The Communications Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.

5240 Medical Unit Leader

The Medical Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for the development of the Medical Emergency Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparation of reports and records. The Medical Unit may also assist Operations in supplying medical care and assistance to civilian casualties at the incident, but is not intended to provide medical services to the public.

5250 Food Unit Leader

The Food Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is responsible for determining feeding requirements at all incident facilities; menu planning; determining cooking facilities required; food preparation; serving; providing potable water; and general maintenance of the food service areas.

5260 Support Branch Director

The Support Branch Director, when activated, is under the direction of the Logistics Section Chief, and is responsible for development and implementation of logistics plans in support of the Incident Action Plan, including providing personnel, equipment, facilities, and supplies to support incident operations. The Support Branch Director supervises the operation of the Supply, Facilities, Ground Support and Vessel Support Units.

5270 Supply Unit Leader

The Supply Unit Leader is primarily responsible for ordering personnel, equipment and supplies; receiving, and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.

5280 Facilities Unit Leader

The Facilities Unit Leader is primarily responsible for the layout and activation of incident facilities (e.g. Base, Camp(s) and Incident Command Post). The Facilities Unit provides sleeping and sanitation facilities for incident personnel and manages base and camp operations. Each facility (base or camp) is assigned a manager who reports to the Facilities Unit Leader and is responsible for managing the operation of the facility. The basic functions or activities of the Base and Camp Manager are to provide security service and general maintenance. The Facility Unit Leader reports to the Support Branch Director.

5290 Ground Support Unit Leader

The Ground Support Unit Leader is primarily responsible for 1) support out of service resources 2) coordination of transportation of personnel, supplies, food, and equipment, 3) fueling, service, maintenance and repair of vehicles and other ground support equipment, and 4) implementing the Traffic Plan for the incident.

5300 Communications

This is a frequency and communications resource summary taken from the Communications Manual provided in section 9660 Communications Manual provides further detail on topics such as communications terminology, equipment setup, types of communications systems, and more.

5310 Frequencies

The following is a list of frequencies that Government, State, and Private agencies will be using in the event of an oil spill:

5311 Government Frequencies

5311.1 Coast Guard Frequencies:

Group	Channel/Frequency	Purpose
Port Angeles	81A (157.075 Mhz)	Working (Primary)
Port Angeles	83A (157.175 Mhz)	Working (Secondary)
Seattle	21A 157.05 Mhz)	Working
Astoria	23A (157.15 Mhz)	Working
Portland	83A (157.175 Mhz)	Working
Northbend	21A (157.05 Mhz)	Working
Non-Coast Guard Ships	22A (157.100 Mhz)	Coast Guard Liason,
Marine		
		Information Broadcasts

Note: Channel 81A shall be preempted for oil discharge removal operations whenever necessary.

5312 State Frequencies

5312.1 Wildlife Operations:

147.5800MHz	Wildlife Response	Beach Crew Wildlife Cleanup
146.4400MHz	Wildlife Response Relay	Beach Crew Wildlife Cleanup
Relay		

5312.2 Fish & Wildlife:

151.4150MHz	DNR Common (WDOE)	Branch Tactical

5312.3 CEMNET (Comprehensive Emergency Management Network):

The CEMNET system utilizes base stations and repeaters controlled through the Washington State Patrol microwave system. It operates on four frequencies:

- **Lo Band Channel F1** transmits on 45.200 MHz.
- **Lo Band Channel F2** transmits on 45.360 MHz.
- **Lo Band Channel F3** transmits on 45.480 MHz. The primary contact channel for the state EMD.
- **Lo Band Channel F4 Repeater** transmits on 45.200 MHz and receives on 45.740 MHz.

5312.4 Search and Rescue (SAR):

The Search and Rescue frequency transmits on 155.160 MHz and is also managed by the Emergency Management Division.

5312.5 Law Enforcement Radio Net (LERN):

The Law Enforcement Radio Net which operates on 155.37 MHz is a mutual frequency used strictly by state/local law enforcement agencies.

5312.6 On-Scene Command and Coordination Radio (OSCCR):

The On-Scene Command and Coordination Radio operates on 156.135 MHz.

5312.7 Department of Natural Resources (DNR):

- **DNR State channel** transmits on 151.295 and receives on 159.420.

5312.8 Department of Environmental Quality (DEQ):

The State of Oregon Department of Environmental Quality (DEQ) utilizes the Oregon State Fire Net during a pollution incident or potential pollution incident.

- **Fire Net** transmits on 154.280 MHz.

5312.9 Maritime Fire and Safety Association Columbia River Communication System (MFSA):

MODE	CHANNEL	DESCRIPTION	TRANSMIT	TX-TONE	RECEIVE	RX-TONE
A	1	WEATHER				
A	2	WEATHER				
A	3	WEATHER				
A	4	WEATHER				
A	5	WEATHER				
A	6	WEATHER				
A	7	WEATHER				
A	8	WEATHER				
A	9	WEATHER				
A	10	WEATHER				
A	11	CORRESPONDS TO MARINE CHANNEL 16	156.800		156.800	CSQ
A	12	CORRESPONDS TO MARINE CHANNEL 11	156.550		156.550	CSQ
A	13	CORRESPONDS TO MARINE CHANNEL 13	156.650		156.650	CSQ
A	14	CORRESPONDS TO MARINE CHANNEL 14	156.700		156.700	CSQ
A	15	CORRESPONDS TO MARINE CHANNEL 18A	156.900		156.900	CSQ
A	16	CORRESPONDS TO MARINE CHANNEL 80	157.025		157.025	CSQ

MODE	CHANNEL	DESCRIPTION	TRANSMIT	TX-TONE	RECEIVE	RX-TONE
B	1	OIL SPILL WORKING FREQUENCY CHANNEL 81	157.075		157.075	CSQ
B	2	C.R.C. OIL SPILL COMMAND	157.445	100	150.075	CSQ
B	3	SPILL TAC 1 REPEATER @ 200 MARKET BLDG	154.585	100	159.480	100
B	4	SPILL TAC 2 REPEATER @ GREEN MT. -2 MILES EAST KAL	154.585	127.3	159.480	100
B	5	SPILL TAC 3 REPEATER @ NICOLA MT. -2 M. WEST CLATSKANIE	154.585	141.3	159.480	100
B	6	SPILL TAC 4 REPEATER @ MEGLER MT. -NORTH END AST/MEGLER BLDG.	154.585	151.4	159.480	100
B	7	USCG MARINE CHANNEL 16	156.800		156.800	CSQ
B	8	USCG MARINE CHNL. 22A	157.100		157.100	CSQ
B	9	PORTLAND FIRE BUREAU 1	154.010		154.010	CSQ
B	10	PORTLAND FIRE BUREAU 2	154.250		154.250	173.8
B	11	PORTLAND FIRE BUREAU 3	154.145		154.145	173.8
B	12	PORTLAND FIRE BUREAU 4	154.175		154.175	173.8
B	13	PORTLAND FIRE BUREAU 5	154.355		154.355	173.8
B	14	COWLITZ 2-5	154.235		154.235	5A
B	15	COWLITZ - YELLOW	154.115		154.115	5A
B	16	COWLITZ RED	154.370		154.370	5A
C	1	LONGVIEW FIRE BUREAU WORKING CHANNEL-GREEN	154.415		145.415	5A
C	2	KALAMA COUNTY FIRE WORKING CHANNEL	153.920		153.920	CSQ
C	3	CLARK COUNTY FIRE DIST. 6 WORKING CHNL	154.070		154.070	3A
C	4	CLARK COUNTY FIRE DIST. 8 WORKING CHNL	154.370		154.370	3A
C	5	VANCOUVER FIRE DIST. 9 WORKING CHNL	154.310		154.310	3A
C	6	VANCOUVER FIRE DIST. 10 WORKING CHNL	153.950		153.950	3A
C	7	ST. HELENS FIRE - 1	154.400		154.400	107.2
C	8	ST. HELENS FIRE - 2	154.130		154.130	CSQ
C	9	ASTORIA FIRE 1	158.955		158.955	CSQ
C	10	ASTORIA FIRE 2	154.325		154.325	CSQ
C	11	ASTORIA FIRE 3	154.385		154.385	127.3
C	12	CLATSKANIE TACTICAL FREQUENCY	154.295		154.295	P.L. 107.2
C	13	COLUMBIA COUNTY FIRE	154.130		154.130	P.L 107.2
C	14	REIDEL WORKING CHNL.	159.480		159.480	CSQ
C	15	C.R.C WORKING FREQ.	158.445		158.445	CSQ

5313 Private/Commercial Frequencies

5313.1 Clean Sound Cooperative:

454.0000MHz TX Ch. 1 Internal Comms
459.0000MHz RX

In addition, Clean Sound has all normal marine VHF and SSB frequencies on its operating vessels as well as 16 cellular phones assigned to individuals.

5313.2 MSRC:

150.9800MHz	S	Ch. 1	Internal Comms	
150.9800MHz	TX	Ch. 2	Internal Comms	
154.5850MHz	RX			
159.4800MHz	S	Ch. 3	Internal Comms	
159.4800MHz	TX	Ch. 4	Internal Comms	
158.4450MHz	RX			
454.0000MHz	TX	Ch. 8	Internal Comms	PL 100
459.0000MHz	RX			PL 136

5313.3 FOSS Telecommunications Network:

All Foss Maritime vessels have VHF-FM capability. Operating tugs and tank barges monitor the appropriate VHF-FM channel for the house/working frequency as denoted below.

Foss Maritime Location		Channel	Frequency
WA	Seattle	7A	156.350MHz
	North Sound	7A	156.350MHz
	Everett	18A	156.900MHz
	Tacoma	18A	156.900MHz
	Port Angeles	7A	156.350MHz
OR	Portland	10A	156.500MHz
	Astoria	10A	156.500MHz

Ocean and coastwise tugs, while at sea, monitor single sideband radio, and standby on channel 8B (8297.000Khz). Foss Maritime tugs also monitor the following frequencies:

- **SSB** 2182.000KHz International Distress
- **VHF** 156.800MHz International Distress
  156.650MHz Bridge to Bridge

The following Single Sideband radio frequencies are available aboard all Foss ocean-going tugs and shoreside base stations for conducting private communications iaw 47 CFR 80.373©.

- 2182.000KHz 8297.000KHz
- 4149.000KHz 12353.000KHz
- 8294.000KHz 16534.000KHz

5313.4 The Petroleum Radio Service:

47 CFR Part 90.65 designates the frequencies listed below as available for use

in oil spill containment and cleanup operations.

Frequency (MHz)	Mode PL Tone		Use
25.040	simplex		Base/Mobile
25.080	simplex		Base/Mobile
36.250	simplex		Base/Mobile
41.710	simplex		Base/Mobile
150.980	simplex or repeater transmit 103.5	Pair 1	Base/Mobile
154.585	repeater receive	Pair 1	Mobile
158.445	simplex or repeater receive 103.5	Pair 2	Mobile
159.480	simplex or repeater transmit	Pair 2	Base/Mobile
454.000	simplex or repeater transmit 103.5	Pair 3	Base/Mobile
459.000	repeater receive	Pair 3	Base/Mobile

5313.5 Amateur Radio Emergency Services:

146.5400MHz ARES Communications GEN Hailing & Emergency Notifications
145.6300MHz ARES Packet Operations Packet Communications

5314 International Frequency Listing:

For a listing of frequencies between the U.S. and Canada, see Exhibit 29 in the Communications Manual located in section 9670.

5320 Federal/State/Commercial Communication Resources

The following is a list of some of the major companies in which government, state, or commercial industries can either rent or purchase various types of communications equipment.

5321 Commercial Communication Resources

- **COMPANY -** U.S. West
  EQUIP – Telephones/Lines/Service
  POC - Any U.S. West Rep.
  PHONE # - 1-800-403-3174 (commercial), 1-800-879-2807 (Gov.)

  FAX # - 1-800-252-6418
  E-MAIL – N/A

- **COMPANY -** AT&T Wireless

EQUIP - Cell Phones
POC - Mr. Dave Matthias/Gov. Sales Rep
PHONE # - (206) 389-5186
FAX # - N/A
E-MAIL – N/A

- **COMPANY -** Puget Sound Instrument
  EQUIP - Briefcase, Marine, and fixed site Satphones for sale.
  POC - Mr. Jeff Thomassen
  PHONE # - (206) 789-1198
  FAX # - (206) 789-7391
  E-MAIL - N/A

- **COMPANY -** AMSC (American Mobile Satellite Company)
  EQUIP - Satellite service
  POC - Customer service
  PHONE # - (800) 405-6543
  FAX # - (800) 455-6543
  E-MAIL - N/A

- **COMPANY -** PageNet
  EQUIP - Large selection of pagers for rent or sale
  POC - Mr. Christopher Wood
  PHONE # - (425) 747-9646, ext. 3106
  FAX # - (425) 641-9259
  E-MAIL - N/A

- **COMPANY -** Ratelco
  EQUIP - Offer approx. 400 programmable handheld VHF & UHF radios and 5 mobile base stations (UHF/VHF) available for rent. Can acquire a variety of other types of comms gear available for rent or sale.
  POC - Mr. Ben Ohashi (Sales)
  Mrs. Kristi Gabrielse (Rentals)
  PHONE # - (800) 244-5231
  FAX # - N/A
  E-MAIL - N/A

- **COMPANY -** Motorola
  EQUIP - Various types of radios
  POC - Mr. Steve Hilliar/Gov. Sales Rep
  PHONE # - (425) 646-0340
  (800) 562-9090 (parts depart.)
  FAX # - N/A
  E-MAIL - N/A

5322 Government/State Communication Resources

- **COMPANY -** USCG PACAREA PacArea (pt)
  EQUIP - TCC (Transportable Communication Center) The TCC is a self-contained, rapidly deployable Coast Guard manned and maintained Communications Module. It provides the following communications capabilities:
  - Point to point, air/ground, ship/shore, and shoreside radio comms in the HF, VHF, and UHF bands.
  - Different types of antennas for best propagation and coverage in remote and uneven terrain.
  - Cellular telephone (secure, non-secure, and computer/data link)
  - INMARSAT (satellite telephone system)
  - Landline phonebank of over 100 lines.

  POC - CWO2 Scott Nystrom
  PHONE # - (510) 437-3855, (510) 437-3224
  After hours contact the Pacarea Command center at (510) 437-3700
  FAX # - (510) 437-5342
  E-MAIL - Snystrom@D11.uscg.mil

- **COMPANY -** CCGD13(dt)
  EQUIP - Repeater site/equipment
  POC - CWO4 Don Estok
  PHONE # - (206) 220-7147
  FAX # - (206) 220-7187
  E-MAIL - Destok@Pacnorwest.uscg.mil

- **COMPANY -** FEMA (Federal Emergency Management Agency)
  EQUIP When deployed, FEMA maintains a large self-propelled, self-contained radio van. The Multi-Radio Van (MRV) contains:

KU Band SATCOMM (High Power)	24 channels, point-to-point or used to extend circuits from the telephone central office
VHF Highband/Lowband (FM)	Two radios, 128 channel, Data Encryption Standard (DES) capable, PC programmable
VHF/UHF Radios (AM/FM)	Six radios (Federal, State and Local) DES/DES-XL Digital Voice Protection (DVP-XL)
HF Radios	Two radios (Federal, State and Local)
Line of Sight Wideband/Microwave	24 channels, used to extend or terminate the circuits from the telephone central office, or as point-to-point
Citizens Band Radio	General public radio system

C-Band (800 MHz) Radio Trunking programmable or Conventional (Motorola Spectra)	Police and Fire frequencies - PC
Data capability or point-to-point	Via the telephone central office circuits over radio links
Merlin Legend Portable Switch office circuits (up to 60)	Used to terminate the telephone central office circuits and to extend telephones to subscribers
Completely Self-contained (ECU's), antennas, etc	Two power generators (27 Kilowatts) Six Environmental Control Units
General Capabilities at Voice Frequency very versatile	Radios can be patched to one another (VF) level making cross-band patching
	Air transportable (via C-5 Only) Can run up to seven days on existing fuel tank (200 gals)
	All radios (except KU and LOS) can be operated in transit
Cellular Phone interface	One mobile cellular phone for local cell
FAX capabilities	One Omni-FAX G3 compatible FAX One PC FAX
AM/FM Receive-Only Commercial commercial broadcast	Two AM/FM radios providing interface with local broadcast stations
Onboard Audio Taping	Two studio quality cassette recorders
Onboard test equipment equipment	Testing and repair capabilities for all
Deployable Antennas RX/TX radio system	Field deployable antennas to enhance
Deployable rear locking axle	On all semi-improved roadways. Dual
Winch	10,000/20,000 lbs capability

POC - Watch desk
PHONE # - (800) 395-6042, (425) 487-4448

FAX # - N/A
E-MAIL - N/A

- **COMPANY -** National Interagency Fire Center (NIFC)
  EQUIP - Maintains a large cache of portable radio and satellite communications equipment.

POC - Mr. Steve Jenkins
PHONE # - (208) 387-5485
FAX # - (208) 387-5560
E-MAIL - Sjenkins@NIFC.BLM.GOV

- **COMPANY -** USCG Reserve
  EQUIP - Manpower/Watchstanders
  POC - CWO Kotch
  PHONE # - (206) 217-6321
  FAX # - N/A
  E-MAIL - N/A

- **COMPANY -** USCG Auxiliary
  EQUIP - Have available fixed base stations, land mobiles, boats, and aircraft
  POC - Mr. Lenny Ryerson/DSO-CM13
  Mr. Roger Attwell
  PHONE # - (425) 736-6534 (Ryerson)
  (425) 337-5053 (Attwell)
  FAX # - For Mr. Attwell (425) 337-5053, 5**
  E-MAIL - Rogerwn7m@juno.com (Mr. Attwell)

- **COMPANY -** Environment Canada
  EQUIP - Canadian/U.S. liaison for communications
  POC - Mr. Christopher LaRock
  PHONE # - (604) 606-6100
  FAX # - N/A
  E-MAIL - N/A

- **COMPANY -** GSA
  EQUIP - various
  POC - Mr. Jack Strahan - Regional manager for national communications systems.
  PHONE # - (206) 850-9415
  FAX # - (206) 931-7507
  E-MAIL - N/A

5330 Memorandums of Understanding (MOU)

The U.S. Coast Guard has established various memorandums of understanding with other government and state agencies. These agency MOU's were established to share resources which the Coast Guard may not have and require in an emergency.

The following communication MOU's are currently inplace:

Serial #	Date	Description	Unit Responsible

94-5	28 MAR 94 CCGD13(dre)	CG & FEMA Region X: For requesting Emergency Communications Support involving resources of the local Mobile Emergency Response Support (MERS) detachment.
NONE	15 SEP 95 CCGD13(dt)	CG & FCC Procedure for USCG watchstanders when radio interference is experienced
NONE	NONE CCGD13(oax)	CG Aux & NavMarCorMARS: Interoperability guidelines and joint communications operations
Under Development	NONE CCGD13(dt)	CG & US Forest Service: Emergency Communications support involving resources of the National Incident Fire Center (NIFC), Boise, ID.

5400 Area Resources: Infrastructure

5410 Incident Facilities

Designated incident facilities, such as a Command Post (CP), an incident base, or a staging area, may be established based on the requirements of the incident. The Incident Commander or Unified Command determines when these facilities are established and where they are located.

The CP is the location from which all incident operations are directed. Only one CP is required per incident. Government and private entities should be co-located at the CP to make planning and communications easier. The communications center is usually established at the CP. Incident bases(s) are used for large oil spills affecting a large geographical area and provide staging areas for equipment and personnel (i.e., small craft launching area, shoreline cleanup access point).

5411 Pre-designated Command Post Locations in the Puget Sound Area

In the Puget Sound Area, major metropolitan areas which have been pre-designated for command post locations are:

- Port Angeles
  (Strait of Juan de Fuca GRP & Outer Coast GRP)
- Bellingham
  (North Puget Sound/SanJuan Islands GRP)
- Anacortes/Mt. Vernon
  (North Puget Sound/SanJuan Islands GRP)
- Everett
  (North Central Puget Sound GRP)
- Seattle

(Central Puget Sound GRP)

- Bremerton
  (Central Puget Sound GRP)
- Tacoma
  (Central Puget Sound GRP)

5412 Pre-designated Command Post Locations in the Portland Area

In the Portland Area, major metropolitan areas which have been pre-designated for command post locations are:

- Portland
  (Lower Columbia GRP)
- Astoria or Grays Harbor
  (Grays Harbor GRP)
- Yaquina Bay
  (Northern Oregon Coast GRP)
- Coos Bay
  (Southern Oregon Coast GRP)

5413 Pre-designated Command Post Locations in the Inland Area

In the Inland Area, major metropolitan areas which have been pre-designated for command post locations are:

- Kennewick
  (Mid Columbia River GRP)
- Others T

5420 Regional Resource Listing for Puget Sound Area

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
AIRPORTS									
Arlington Municipal Airport	18204 59th Drive NE		Arlington	WA	98223		206-435-8554	Snohomish	
Auburn Municipal Airport	400 23rd Avenue		Auburn	WA	98002		206-931-3026	King	
Bellingham International Airport	4255 Mitchell Way	Suite 2	Bellingham	WA	98226		206-676-2500 x332	Whatcom	
Boeing Field/King County International Airport	P.O. Box 80245		Seattle	WA	98108	206-296-7392	206-296-7380	King	206-296-0190
Bowerman Field	P.O. Box 148		Hoquiam	WA	98550		206-533-6655	Grays Harbor	
Bremerton National Airport	8850 SW State Hwy 3		Port Orchard	WA	98366		206-674-2381	Kitsap	
Chehalis-Centralia Airport	900 NW Airport Road	P.O. Box 1344	Chehalis	WA	98532		206-748-0035	Lewis	
Crest Airport	29300 179th Place S		Kent	WA	98042		206-631-7100	King	
Fairchild International Airport	Port of Port Angeles	P.O. Box 1350	Port Angeles	WA	98362		206-457-8527	Clallam	206-452-3959
Friday Harbor Airport	800 Franklin Drive		Friday Harbor	WA	98250		206-378-4724	San Juan	
Harvey Airfield	9900 Airport Way		Snohomish	WA	98290		206-568-1541	Snohomish	
Jefferson County International Airport	Port of Port Townsend	P.O. Box 1180	Port Townsend	WA	98368		206-385-2323	Jefferson	
Olympia Airport	P.O. Box 827		Olympia	WA	98507		206-586-6164	Thurston	
Pierce County Airport	Thun Field	9112 Lakewood Drive SW	Tacoma	WA	98499		206-593-4698	Pierce	
Port of Anacortes Airport	P.O. Box 297		Anacortes	WA	98221		206-293-3134	Skagit	
Renton Municipal Airport	616 W Perimeter Road		Renton	WA	98055		206-235-2591	King	
Sanderson Field	P.O. Box 517		Shelton	WA	98584		206-426-1151	Mason	
Seattle-Tacoma International Airport			Sea-Tac	WA			206-433-4645	King	
Skagit Regional Airport	Bay View	P.O. Box 348	Burlington	WA	98233		206-757-0011	Skagit	
Snohomish County Airport	Paine Field		Everett	WA	98204		206-353-2110	Snohomish	

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Tacoma Narrows Airport	1022 26th Avenue NW		Gig Harbor	WA	98335		206-591-5759	Pierce	
BARGE COMPANIES	**UPDATE**								
James River/Western Transportation	3710 NW Front Ave. Fort James (97210)	P. O. Box 3869	Portland	OR	97208	503-294-8211 P.M. 720-6085	503-226-6901	Multnomah	503-294-8265 800 Megahertz
Knutson Towboat Company	400 N. Front Street	P. O. Box908	Coos Bay	OR	97420		541-267-3195	Coos	541-267-5675
Sause Bros. Ocean Towing Company Sause@Coos.Mail.**COM**	155 E. Market		Coos Bay	OR	97420	541-269-5841	541-269-5841	Coos	541-269-5866
Shaver Transportation	4900 NW Front	P. O. Box 10324	Portland	OR	97296	888-228-8850	503-228-8847	Multnomah	503-274-7098 VHF: Ch 10, 65
Tidewater Barge Lines	6305 NW Old Lower River Vancouver, WA 98660	P. O. Box 1210	Portland	OR	98660	503-289-4274	503-281-0081	Multnomah	360-694-8981
Foss Maritime	9030 NW St. Helen Rd.	P. O. Box 83018	Portland	OR	97231	503-286-0631	503-285-0511	Multnomah	503-289-7385 900 Megahertz
Ross Island Sand and Gravel	4315 SE McLaughlin	P. O. Box 82249	Portland	OR	97282		503-239-5504	Multnomah	503-235-1350
Zidell's	3121 SW Moody		Portland	OR	97201		503-228-8691	Multnomah	503-228-6750
Foss Maritime	660 W. Ewing Street		Seattle	WA	98119	206-281-3800 800-562-2856Dis 800-562-2711Wa 800-426-2885 - Outside of WA			
CANADIAN AGENCIES	**Update**								
B.C. Environment	Lands and Parks	Parliament Building	Victoria	BC	V8V 1X4		250-387-9422		250-356-6464
Canadian Coast Guard ROC3@DFO-MPO.GC.CA	Regional Operations Center	25 Huron St.	Victoria	BC	V8V 4V9	250-413-2800	250-413-2800		250-413-2810
Transport Canada CULLENL@TC.GC.CA	Regional Manager-Marine Safety	800 Burrard	Vancouver	BC	V6Z 2J8	604-666-6011	604-666-3636		604-666-5444

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Environment Canada HTTP://WWW.TOR.EC.GC.CA	1200 W. 73rd Ave. Suite 370, Airport Sq.		Vancouver	BC	V6P 6H9	604-666-6100	604-664-9100		604-664-9195
Canadian Coast Guard	Marine Communications & Traffic Service	100 Park Royal	W. Vancouver	BC	V7T 1A2	604-666-6012	604-666-6012		604-666-8453
Environment Emergency Service	224 West Esplanade St.	Pacific & Yukon Region	N. Vancouver	BC	V7M 3H7	604-666-6100	604-666-6100		604-666-1140
CITY GOVERNMENT	Update								
Albany Emergency Services		P. O. Box 490 Darrell Tedisch, Fire Chief	Albany	OR	97321	541-928-6911	541-967-4333	Linn	541-917-7716
Anacortes City Hall	904 6th St.	P. O. Box 547	Anacortes	WA	98221	360-293-4684 Police	360-293-1900	Skagit	360-293-1928
Astoria Department of Emergency Management	(Sheriff's Office)	P. O. Box 658 Sheriff John Raichl	Astoria	OR	97103	206-325-2061	503-325-8635	Clatsop	503-325-8675 Pri. 155.550
Auburn Department of Emergency Services	1101 D Street, NE	Charles Booth, Mayor	Auburn	WA	98002-4025	253-852-2121	253-931-3060	King	253-931-3055
Bellevue Emergency Preparedness Division	11501 Main Street	P. O. Box 90012	Bellevue	WA	98009-9012	425-452-2048	425-452-6813	King	425-452-7923
Bellingham City Hall	210 Lottie St.	T. Gunsaulf-Dir Fire Sv	Bellingham	WA	98225	360-676-6979 Voice Mail	360-676-6979	Whatcom	360-738-7312
Board of Commissioners	San Juan County	360 Court Street	Friday Harbor	WA	98250	360-378-4151 Sheriff Julie Knight (oil spill) 360-378-5322 360-378-3293	360-378-2898	San Juan	360-378-7208
Bremerton City Hall	239 Fourth Street		Bremerton	WA	98337	See Kitsap County	360-478-5266	Kitsap	360-478-5200
Buckley Department of Emergency Management	Police Department	P. O. Box 640 Arthur McGehee, Police chief	Buckley	WA	98321	253-862-9059	253-862-9059	Pierce	253-829-0133
Centralia Fire Department	512 N. Pearl St.	Craig Nelson, City Mgr.	Centralia	WA	98531	360-330-7681	360-330-7674	Lewis	360-330-7673

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Cheney Department of Emergency Services	611 fourth Street	Gary Hartford, Coor.	Cheney	WA	99004	509-235-7291 509-235-7292	509-235-7291 509-235-7292	Spokane	509-235-7244
City of Sea-Tac WWW.SEATAC.WA.GOV	17900 International Blvd	Suite 401	Seattle	WA	98188	206-296-3311 Fire 253-839-4621	206-241-9100	King	206-241-3999
Ellenburg Department of Emergency Services	102 N. Pearl St.	Steve Alder, Chief	Ellensburg	WA	98926	509-925-8533	509-962-7274 509-962-7247	Kittatas	509-962-7254
Eugene Emergency Management Services	777 Pearl Street	Ruth Obadal, Planning Chief	Eugene	OR	97401	541-710-3039 Pager	541-683-6818	Lane	541-682-6882
Everett City Hall	2930 Wetmore Ave	3002 Wetmore Jeanette Postma	Everett	WA	98201	425-257-8400 Police	425-257-8701	Snohomish	425-257-8729
Federal Way Department of Emergency Management	% Federal Way City Hall, 33530 1st Way S	Cary Roe	Federal Way	WA	98003	253-946-6416	253-661-4131 253-661-4136	King	253-661-4129 253-661-4024
Hood River Emergency Services Kyesch@SheriffHRC.Linkport.Com	309 State Street Courthouse	Karl Tesch, Dir.	Hood River	OR	97031-2093	541-386-2711	541-386-1213 509-427-8076 (Skamania Co., WA)	Hood River	509-427-7555
Issaquah Department of Emergency Management		P. O. Box 1307 Joseph Dawson, Coor.	Issaquah	WA	98027	425-391-1007	425-391-1006	King	425-391-1036
Kirkland DEM	123 Fifth Avenue	Jeff Blake, Fire Chief	Kirkland	WA	98033	425-828-1183	206-828-1143	King	425-828-1292
Lacey Department of Emergency Services	P. O. Drawer B	Ed Sorger, Asss't Dir.	Lacey	WA	98503	360-786-5449	360-459-4333	Thurston	360-456-7798
Lake Oswego Emergency Management Services Goff@ci.oswego.OR.US	300 B Street	P. O. Box 369 Larry Goff, Emer. Mgr.	Lake Oswego	OR	97034	503-636-5601 503-796-4073 Pager	503-697-7403	Clackamas Multnomah Washington	503-635-0376
Mercer Island Department of Emergency Services	9611 SE 36th St.	Mr. Jan Deveny	Mercer Island	WA	98040	206-236-3500	206-236-3576	King	206-236-3659
Normandy Park	801 SW 174th Street	Rock Kieffer	Normandy Park	WA	98166	206-248-7600	206-248-7600	King	206-246-9732
Olympia City Hall tisd@olywa.net	100 Eastside St. NE	Don Warner, Bat. Chief	Olympia	WA	98506	360-753-8348	360-753-8348	Thurston	360-753-8054
Port Angeles Department of Emergency Services	102 East 5th St.	Dan McKleen	Port Angeles	WA	98362-3014	360-417-4970	360-417-4655	Clallam	360-417-4659
Port Angeles DEM (Police Dept.) COPFA@OLYMPUS.NET	102 East 5th	Bruce Becker, Fire Chief	Port Angeles	WA	98362	360-417-4970	360-452-4545	Clallam	360-417-4909

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Portland Office of Emergency Management BMorris@Fire.CI.Portland.OR.US	55 SW Ash	George Houston, Div. Chief	Portland	OR	97204	503-823-3873	503-823-3736	Multnomah	503-823-3903
Puget Sound Council of Govmts PSRC@PSRC.WA.**COM**	1011 Western Ave. Suite 500	Mary McCumber 464-7515	Seattle	WA	98104	206-464-7090	206-464-7090	King	206-587-4825
Renton	211 Mill Avenue S	A. Lee Wheeter, Fire Chief	Renton	WA	98055	425-852-2121	425-255-1567	King	425-255-1629
Salem Emergency Management TCarden@Open.Org	370 Trade St SE	Rick Cook, Emerg. Mgr.	Salem	OR	97301	589-33335 Pager	503-588-6245	Marion	503-588-6371
Seattle City Hall	600 Fourth Avenue	Jim Mullen	Seattle	WA	98121	911	206-386-1234	King	206-684-5529
Office - Emergency Services King County. Kevin.Kearns@metrokc.gov	7300 Perimger Road S. Room 128		Seattle	WA	98108-3848	206-296-3830	206-296-3830	King	206-205-8133 206-296-3838
St. Helens Emergency Management	265 The Strand	Brian Little City Admin	St. Helens	OR	97051	503-397-1532	503-397-6272	Columbia	503-397-4016
Sequim	152 W. Cedar	Tom Lawell, City Manager	Sequim	WA	98382	360-681-4015 (Home)	360-683-4139	Clallam	360-681-3448
Tacoma City Hall	747 Market Street	Vicky Chasco	Tacoma	WA	98402	None	253-591-5100	Pierce	253-591-5123
Tacoma Dir. of Emergency Mangt SBailey@co.Pierce.WAUS	930 Tacoma S. Room 336	Ed Reed,Pro. Mgr	Tacoma	WA	98402-2102	253-798-6069	253-591-7470	Pierce	253-798-6624
The Dalles Emergency Services WascoEOC@Linkport.Com	502 E. 5th St., Top Floor, Annex B	707 E. 18th St. Hugh Holte, Dir.	The Dalles	OR	97058	541-296-6424	541-296-6424 Voice Mail Rec.	Wasco	541-296-5445
Seattle Emergency Management	2320 4th Street	Jim Mullen	Seattle	WA	98121-1718	206-233-7040	206-233-5076	City of Seattle	206-684-5998
CITY POLICE	**Update**								
Aberdeen Police Department apd@seanet.com	210 E. Market Street	Robert Maxfield	Aberdeen	WA	98520	911	360-533-3180 360-533-4966	Grays Harbor	360-533-4786
Anacortes City Police	1011 12th Street	Michael King	Anacortes	WA	98221	911	360-293-4684	Skagit	360-293-1935
Bainbridge Island Police	625 Winslow Way East	John Sutton	Bainbridge Island	WA	98110	911	206-842-5211	Kitsap	206-780-8596

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Bellingham City Police dpierce@cob.org	505 Grand Avenue	P. O. Box 1278 Don Pierce	Bellingham	WA	98225	911	360-676-6920 360-676-6916 - (Admin.)	Whatcom	360-738-7322
Bremerton City Police	239 Fourth Street	Paul Du Fresne	Bremerton	WA	98337	911	360-478-5224	Kitsap	360-478-5395
Edmonds Police Department	250 fifth Avenue North	Robin Hickok	Edmonds	WA	98020	911	425-771-0200	Snohomish	425-771-0208
Everett City Police	3002 Wetmore	Jim Scharf	Everett	WA	98201	911	425-259-8402	Snohomish	425-257-6500
Ferndale Police Department		P. O. Box 1257 Dale Baker	Ferndale	WA	98248	911	360-384-3390	Whatcom	360-384-3345
Hoquim Police Department	215 10th Street	Rickey Thomas	Hoquim	WA	98550	911	360-532-0892	Grays Harbor	360-532-0899
Long Beach Police Department		P. O. Box 795 James Blaze	Long Beach	WA	98631	911 360-642-2911	360-642-3416	Pacific	360-642-5273
Makah Tribal Police		P. O. Box 192 Lionel Ahdunko	Neah Bay	WA	98357	360-645-2701	360-645-2701	Clallam	360-645-2707
Oak Harbor Police Department	860 SE Barrington Dr.	Tony Barge	Oak Harbor	WA	98277	911	360-679-5551	Island	360-675-4842
Ocean Shores Police Department	577 Point Brown Ave.	P. O. Box 100 Michael Wilson	Ocean Shores	WA	98569	911	360-289-3331	Grays Harbor	360-289-3333
Olympia City Police	900 Plum St. SE	P. O. Box 1967 Gary Michel	Olympia	WA	98507	360-753-8300 Dispatch 360-786-5449	360-753-8300	Thurston	360-753-8143
Port Angeles City Police	321 E. 5th St.	Stephen Ilk	Port Angeles	WA	98362	911	360-457-7836	Clallam	360-417-4909
Port Orchard Police Department	546 Bay Street	Joe Matthews	Port Orchard	WA	98366	360-478-5330	360-876-1700	Kitsap	360-867-5546
Port Townsend City Police	607 Water St.	Jim Newton	Port Townsend	WA	98368-5726	911	360-385-2322	Jefferson	360-379-9842
Poulsbo Police Department	367 NE Hostmark	P. O. Box 98 Jeffrey Doran	Poulsbo	WA	98370	911	360-779-3113	Kitsap	360-779-4433
Pullman Department of Emergency Services		P. O. Box 249 Ted Weatherly, Police Chief	Pullman	WA	99163	509-334-0802	509-332-2521	Whitman	509-332-08289
Puyallup Department of Emergency Services	902-Seventh St. NW	Merle Frank, Fire Chief	Puyallup	WA	98371	253-841-5432	253-845-6666	Pierce	253-770-3333 253-840-6675 24 hr.
Redmond Department of Emergency Management	8450 161st Ave. NE	Robert Schneider	Redmond	WA	98052-3584	425-885-3131	425-556-2200 425-556-2130 (Schneider)	King	425-556-2227

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Renton Department of Emergency Services	211 Mill Avenue So.	Ray Barilleaaux, Coor.	Renton	WA	98055	425-852-2121	425-235-2643 425-235-2636	King	425-235-2644
Seattle Department of --Emergency Management	2320 Fourth Ave.	Jim Mullen, Dir.	Seattle	WA	98121-1718	206-386-1498	206-233-5076	King	206-684-5998
Seattle- Police Department Harbor Patrol Unit	1717 N. North Lake Place	Steve Brown	Seattle	WA	98103	206-684-4071	206-684-4071	King	206-684-4878
Seattle Police Department	610 Third Avenue #1001	Norm Stamper	Seattle	WA	98104-1886	206-684-8640	206-684-5577	King	206-684-5525
Sequim Police Department	609 W. Washington St.	Byron Nelson	Sequim	WA	98382	911	360-683-7227	Clallam	360-683-4556
Shelton Department of Emergency Management	122 W. Franklin	P. O. Box 1277 Dan Ward	Shelton	WA	98584	360-426-3348	360-426-3348	Mason	360-426-3301
Skykomish Department of Emergency Management	Town Hall 107 Old Cascade Highway	P. O. Box 311 Chifford W. Davidson, Fire Chief	Skysomish	WA	98288	360-677-2686	360-677-2686	King	360-677-2574
Snoqualmie Department of Emergency Services		P. O. Box 337 Randy Fletcher, Coor.	Snoqualmie	WA	98065-0337	425-390-4136 425-390-4141	425-888-3333	King	425-831-6121
Tacoma Emergency Services	747 Market St., Room 408, City Municipal Building	Diane M.Schurr, CEM	Tacoma	WA	98402	253-591-5733	253-591-5798 253-591-5003	Thurston	253-591-5746 253-591-5097
Tacoma Police Department	930 Tacoma Avenue S	Philip Arreola	Tacoma	WA	98402	253-591-5952	253-591-5900	Pierce	253-591-5991
Tukwila Department of Emergency Services	444Andover Park E.	Tom Keefe, Fire Chief	Tukwila	WA	98188	206-852-2121	206-575-4404	King	206-575-4439
Tumwater Department of Emergency Services	555 Israel Road SW	John Carpenter, Coor.	Tumwater	WA	98501	360-754-4170	360-754-4170	Thurston	360-754-4179
Westport Police			Westport	WA		911	360-268-9197		
Woodinville Community Development & Services	13203 NE 175th	Ray Sturtz, Dir. Com. Serv.	Woodinville	WA	98072	425-486-0794	425-489-2700	King	425-489-2705
Yelm Police Department	118 Mosman Ave.	P. O. box 479 Glenn Duncan, Chief	Yelm	WA	98597		360-458-5701 360-786-5449	Thurston	360-458-3188

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
CONSULATES									
Afghanistan			Washington	DC			206-234-3770		
Argentina			San Francisco	CA			415-982-3050		
Australia			San Francisco	CA			415-362-6160		
Austria			Seattle	WA			206-633-3606		
Bahamas			Washington	DC			202-944-3390		
Bangladesh			Beverly Hills	CA			213-275-4024		
Belgium			Portland	OR			503-228-0465		
Bermuda			Chicago	Il			312-782-5486		
Bolivia			Seattle	WA			206-244-6696		
Brazil			San Francisco	CA			415-981-8170		
Bulgaria, People's Republic of			Washington	DC			202-387-7969		
Canada			Seattle	WA			206-443-1777		
Chile			San Francisco	CA			415-982-7662		
China (Taiwan)							202-667-9000		
China, Republic of			San Francisco	CA			415-563-4885		
Columbia			San Francisco	CA			415-362-0080		
Costa Rica			San Francisco	CA			415-392-8488		
Cyprus, Republic of			Portland	OR			503-227-1411		
Czechoslovakia, Socialist Rep.							202-363-6315		
Denmark			San Francisco	CA			415-294-0513}		
Dominican Republic			San Francisco	CA			415-982-5144		
Ecuador			San Francisco	CA			415-391-4148		
Egypt			San Francisco	CA			415-346-9700		
El Salvador							415-781-7924		
Estonia			Los Angeles	CA			213-389-0209		
Ethiopia			Washington	DC			202-234-2281		
Finland			San Francisco	CA			415-772-6649		
France			Portland	OR			503-245-9311		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Germany			Portland	OR			503-222-0490		
Great Britain			Portland	OR			503-227-5669		
Greece			San Francisco	CA			415-775-2102		
Greenland			See Denmark						
Guatemala			San Francisco	CA			415-781-0118		
Haiti			San Francisco	CA			415-469-5629		
Honduras			San Francisco	CA			415-392-0076		
Hong Kong			San Francisco	CA			415-781-4582		
Hungary			Washington	DC			202-362-6730		
India			San Francisco	CA			415-668-0662		
Indonesia			San Francisco	CA			415-474-9571		
Iraq			Washington	DC			202-483-7500		
Ireland			San Francisco	CA			415-392-4214		
Israel			San Francisco	CA			415-775-5535		
Italy			San Francisco	CA			415-931-4924		
Ivory Coast			Portland	OR			503-244-2293		
Japan			Portland	OR			503-221-1811		
Korea, Republic of			Seattle	WA			206-441-1011		
Kuwait			Washington	DC			202-966-0702		
Laos (People's Democratic Republic)			Washington	DC			202-332-6416		
Liberia			San Francisco	CA			415-922-2232		
Libya (Arab Republic)			Los Angeles	CA			213-680-0190		
Lithuania			Los Angeles	CA			213-889-7724		
Malaysia			San Francisco	CA			415-468-4321		
Mexico			Portland	OR			503-233-5662		
Morocco			Washington	DC			202-462-7979		
New Zealand			San Francisco	CA			415-477-8241		
Nicaragua			Los Angeles	CA			213-629-4367		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Nigeria			San Francisco	CA			415-552-0334		
Norway			Portland	OR			503-221-0870}		
Pakistan			San Francisco	CA			415-435-3597		
Panama, Republic of			Portland	OR			503-284-1189		
Paraquay			San Francisco	CA			415-982-9242		
Peru			Seattle	WA			206-485-2619		
Philippines			San Francisco	CA			415-433-6666		
Poland			Chicago	IL			312-337-8166		
Portugal			San Francisco	CA			415-346-3400		
Romania			Washington	DC			202-232-4748		
Saudi Arabia			Washington	DC			202-483-2100		
Saudi Arabia			Los Angeles	CA			213-274-7777		
Singapore			Washington	DC			202-667-7555		
South Africa, Republic of			Seattle	WA			206-842-8651		
Spain			San Francisco	CA			415-922-2995		
Sri Lanka			Washington	DC			202-483-4025		
Sudan			Washington	DC			202-338-8565		
Sweden			Portland	OR			503-224-4155		
Taiwan			See China						
Thailand			Portland	OR			503-226-1430		
The Netherlands			Portland	OR			503-228-0131		
Turkey			San Francisco	CA			415-362-0912		
Uruguay			Washington	DC			202-331-1313		
USSR			San Francisco	CA			415-922-6642		
Venezuela			San Francisco	CA			415-421-5172		
Virgin Islands (British)			New York	NY			212-582-4520		
Yugoslavia			San Francisco	CA			415-776-4941		
			Portland	OR			503-224-0103		
CONSULTANTS	**Update**								
American Petroleum Institute NameaAPI.ORG	11200L Street NW		Washington	DC	20005	202-682-8000	202-682-8000	DC	202-682-8096

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Beak Environmental Consultants BEAKWA. HALCYON.**COM**	12931 NE 126th Place		Kirkland	WA	98034		206-823-6919	King	206-820-9399
Chemical Emergency Transport Center CHEMTREC @Mail.CMAHQ.**COM**	1300 Wilson Blvd.		Arlington	VA	22209	800-424-9300	800-424-9300	Arlington	703-741-6089
Philip Services	1100 Oakesdale Ave. SW	Corporate Office	Renton	WA	98055		425-223-0500	King	425-204-7164
Philip Services	1701 E. Alexander	Tacoma Facility	Tacoma	WA	98421	253-872-7859	253-627-7568	Pierce	253-572-5607
Coastal Environmental Systems	316 Second Ave South		Seattle	WA	98104		206-682-6048		206-682-5658
ENSR Consulting and Eng. @ENSR.**COM**	9521 Willows Road. NE		Redmond	WA	98052	206-881-7700	206-881-7700	King	206-883-4473
Hart Crowser Inc hcrowser@hartcrowser.**COM**	1910 Fairview Avenue E		Seattle	WA	98102	206-324-9530	206-324-9530	King	206-328-5581
Native American Spill & Environmental Protection Inc.	7575 44th Avenue SW		Seattle	WA	98136		206-938-3550	King	
Paulson & Associates	4501 Shilshole Ave NW		Seattle	WA	98107	206-782-4427	206-783-0730	King	206-783-0434
Poison Control Center RMSINFO@MEASURE.CO	155 NE 100 th Street	Suite 400	Seattle	WA	98125	800-732-6985	206-526-2121	King	
S L Ross Environmental Research Ltd ALL@SLROSS.**COM**	717 Belfast Road	Suite 200	Ottawa	ONT	K1G0Z 4		613-232-1564		613-232-6660
School of Marine Affair	3707 Brooklyn Ave. NE	University of Washington	Seattle	WA	98105-6715	206-543-7004 Voice Mail	206-543-7004	King	206-543-1417
Spiltec	19220 NE 143rd Place		Woodinville	WA	98072	425-869-7881	425-869-0988	King	425-869-7881
Washington Sea Grant SEAGRANT@U.WASHINGTON.EDU	Marine Advisory Services	3716 Brooklyn Avenue NE	Seattle	WA	98105	206-543-6600	206-543-6600	King	206-685-0380
Woodward Clyde Consultants	1501 Fourth Ave.,	Suite 1500	Seattle	WA	98101		206-343-7933	King	206-343-0513
Woodward-Clyde Consultants	500 12th Street	Suite 100	Oakland	CA	94607		510-874-3187		510-874-3268
CONTRACTORS	**Update**								
Airo Services, Incorporated	4110 East 11th Street		Tacoma	WA	98421-4286	800-666-2476	253-383-4916	Pierce	

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Foss Maritime	9030 NW St. Helens Rd	P. O. Box 97283	Portland	OR	97231-0018	800-882-4143	503-286-0631	Multnomah	503-289-7385
Burrard Clean Operations LTD	Unit 110 80 Orwell St.		N. Vancouver	BC	V7J 3R5	604-980-3901	604-985-0855		604-985-0955
Environmental Protection Machines Ltd. AMACA@AMUG.ORG	P. O. Box18599		Fountain Hill	AZ	85269	800-347-7745	602-186-1092		602-816-0938
Environment Protection Machines Ltd.	23590 South Day Hill Road		Estacada	OR	97023		503-630-6644	Clackamas	503-630-6644
Foss Environmental	7440 W. Marginal Way S.		Seattle	WA	98108	800-FESPILL	206-767-0441	King	206-767-3460
Global Diving and Environmental	2763 13th Avenue SW	Harbor Island	Seattle	WA	98134	206-623-0621	206-623-0621	King	206-340-8984
Marine Pollution Control Corporation MPCMR@MSN.COM	8631 West Jefferson		Detroit	MI	48209	313-849-2333	313-849-2333	Wayne	313-849-1623
Marine Spill Response Corporation (MSRC)	1105 13TH St		Everett	WA	98155	(425)252-1300	425-304-1520 425-304-1526	Snohomish	425-339-1229 425-304-1518
Northwest EnvorService, Inc.	54 South Dawson St.		Seattle	WA	98134		206-622-1090	King	206-467-7358
Marine Salvage Consortium, Inc.	Fred Devine Diving & Salvage Company	6211 NE Ensign	Portland	OR	97217	503-283-5285	503-283-5285	Multnomah	503-286-2871
Sausalito Towing/Parker Diving Service	P. O. Box 192		Forest Knolls	CA	94933	415-258-1224	415-331-0329	Marin	415-488-4831
Smith Technology Corp. Radio 159.480 (Riedel Env.)	Portland Office	P. O. Box5007	Portland	OR	97203	800-334-0004	503-286-4656	Multnomah	503-240-2258
Spencer Environmental	914 South Molalla Avenue		Oregon City	OR	97045	503-655-0896	503-655-0896	Clackamas	503-657-3395
Tidewater Environmental Services Radio Pri.-7 Alpha; Sec. 67 7 U.S.	6305 NW Old Lower River Road	P. O. Box 1210 98666	Vancouver	WA	98660	503-289-4274	360-695-8088 503-289-4274	Clark	360-694-8981
COOPERATIVES									
Alaska Clean Seas	12350 Industry Way - Suite 200	P.O. Box 196010	Anchorage	AK	99519		907-345-3142		907-345-2435
Clean Bay	2070 Commerce Avenue		Concord	CA	94520		510-685-2800		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Clean Rivers Cooperative	200 SW Market Street	Suite 190	Portland	OR	97201	503-220-2040	503-220-2040	Multnomah	503-295-3660
Clean Seas Cooperative	1180 Eugenia Place	#204	Carpinteria	CA	93013		805-684-3838		805-684-2650
Clean Sound Cooperative	110 W Dayton	Suite 202	Edmonds	WA	98020	206-744-0948	206-744-0948	Snohomish	206-771-3244
Island Oil Spill Association	P.O. Box 2316		Friday Harbor	WA	98250		206-378-5322	San Juan	none
COUNTY DEM	**Update**								
Asotin County Department of Emergency Management	135 2nd	P. O. Box 250 Butch Aiken	Asotin	WA	99402	509-758-1668	509-243-2088 O 509-758-5129 H	Asotin	509-243-2003 Pri. 154.190
Adams County Dept. of Emergency Services	2069 W. Hwy 26	Don Edson, Dir.	Otello	WA	99344	509-488-3704	509-488-3704	Adams	509-488-6090 Cim Net 45.200, 45.360, 45.480
Benton County Emergency Management		P. O. Box 6144 Judy Herbert	Kennewick	WA	99336	509-582-3575	509-586-1451	Benton	509-582-9238 Pri. 154.175 Sec. 155.310
Benton County Emergency Services	180 N. W. Fifth	Jim Swinyard	Corvallis	OR	97330	541-757-6911	541-757-6864	Benton	541-754-1661
Chelan County Dept. of Emergency Management	350 Orondo	Scott Lowers, Dir.	Wenatchee	WA	98801	509-664-5243	509-664-5347	Chelan	509-664-5510 Pri. 153.995 Tx Pri. 154.995 Rx Sec. 154.430
Clackamas County Emergency Management CCEM@HEVANET.COM	2200 Kaen	Ris Bradshaw, Dir.	Oregon City	OR	97045	503-655-8211	503-655-8378	Clackamas	503-655-8531
Clallam County DEM	223 E 4TH Street	Steve Hauff, Dir.	Port Angeles	WA	98362	360-417-2459	360-417-2305	Clallam	360-417-2511 Pri. 155.370 Sec. 45.48
Clark County Department of Emergency Management CCES@PACIFIER.COM	710 W. 13th Street	Thomas Griffith, Ass't Dir.	Vancouver	WA	98660-2810	360-696-4461	360-737-1911 X 3951	Clark	360-694-1954 Pri. 154.070 (Fire)
Clatsop County Emergency Management (Sheriff's Office)	355 7th Street	John Raichl, Dir.	Astoria	OR	97103	206-325-2061	503-325-8635	Clatsop	206-325-8675 Pri. 155.550
Columbia County Emergency Services (St. Helens' Office)	Courthouse. Room 158	Susi Rolf-Tooley	St. Helens	OR	97051	911	503-397-2100	Columbia	503-397-7248 Pri. 154.980 Road Dept.
Columbia County Em. Serv.	535 Cameron St.	P. O. Box 5 Roger Trump	Dayton	WA	99328	509-382-2518	509-382-2534	Columbia	509-382-4724

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Coos County Emergency Services	2nd & Baxter	Pierce Co. Courthouse Lisa Wampole	Coquille	OR	97424	541-396-2106 (Dispatch)	503-396-3121	Coos	541-396-5932 Pri. 155.790 Tx Sec.155.190 Rx
Cowlitz County Dept. if Emergency Management CCEOC@AONE.COM	312 SW First Ave.	Trudy Winterfeld	Kelso	WA	98626	360-577-3090	360-577-3130	Cowlitz	360-577-3009
Crook County Emergency Services	300 E. 3rd Street	Greg Hinshaw	Prineville	OR	97754	541-447-8155 X157	541-309-3027 (Pager)	Crook	541-447-1051
Curry County Emergency Services ALLEJERI@WAVE.NET		P O Box 746 Jeri Allemand	Gold Beach	OR	97444	541-247-7011	541-247-7011	Curry	541-247-2705 Pri. 155.730 Tx Pri. 155.010 Rx (Sheriff) No Tone Sec. ARES 144.950 600 No Tone
Deschutes County Emergency Services	1100 N. W. Bond	Deputy Mackey	Bend	OR	97701	541-388-0170 541-388-6502 Home-Mackey			
Douglas County Emergency Management	Justice Building	Wayne Stinson	Roseburg	OR	97470	541-440-4471	541-440-4448	Douglas	541-440-4470 Pri. 154.950 Tx Pri. 155.700 Rx Pl. 151.4 Sec. 154.650 Tx Sec. 155.550 Rx
Douglas Department of Emergency Management	110 3rd Avenue	Dan LaRoche, Sheriff	East Wenatchee	WA	98802	509-884-1535	509-884-0941	Douglas	509-886-1045
Ferry County (Sheriff)		P. O. Box 1099 Peter Werner	Republic	WA	99166-0327	509-775-3136	509-775-3136	Ferry	509-775-2127 Pri. 156..090
Franklin County Emergency Management FCEM@3-CITIES.COM	502 Boeing Street	John Scheer, Dir.	Pasco	WA	99301	509-545-3510	509-545-3546	Franklin	509-545-2139
Garfield County Department of Emergency Management		P. O. Box 885 Clay Barr	Pomeroy	WA	97347	509-843-3494 Sheriff	509-843-3369	Garfield	509-843-3567 Pri. 156.150 (law Enforcement) Sec. 154.235 (fire)
Gilliam County Emergency Services		P. O. Box 685 Christina Sitsimmons	Condon	OR	97823	541-676-5317 Morrow Co Disp	541-384-2851	Gilliam	541-384-2878 Pri. 155.655 Tx Pri. 154.725 Rx
Grant County Department of Emergency Management	6500 32nd Ave. NE, Suite 911	Sam Lorenz	Moses Lake	WA	98837	509-762-1160	509-762-1462	Grant	509-762-1465 Pri. 154.830 Tx Pri. 155.700 Rx Pri. Tone 156.7
Grants Pass Emergency Services	104 NE Morgan	Lonny Leonard	Grants Pass	OR	97526	541-479-5001	541-479-5001	Josephine	541-479-8691

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Grays Harbor County Dept. of Emergency Management		P. O. Box 630 Darlena Wilson, Deputy Dir.	Montesano	WA	98563	360-533-8765 911	360-249-3911	Grays Harbor	360-249-3805 Pri. 155.565 Sec.155.910 SAR 155.16
Harney County Emergency Services	485 North Court	Andy Seebart	Burns	OR	97720	541-573-6156	541-573-6156	Harney	541-573-8383
Hood River County Emergency Management KTESCH@PACIFIER.COM	200 Vancouver Ave.	Karl Tesch	Stevenson	OR		541-386-2711	509-427-8076	Hood River	360-892-0131 Pir. Sheriff UHF & Marine Radio on 2 boats
Island County Dep't of Emergency Services WAYNELE@CO.ISLAND. WA.US	P.O. Box 5000	Michael Hawley, Sheriff Div.; Wayne Lewis, Marine Div.	Coupeville	WA	98239-5000	360-678-4422	360-678-4422	Island	360-679-7314 Pri. 453.675 Rx Pri.458.675 Tx Tone 2B
Jackson County Emergency Management Jacsosar@cdsnet.net	620 Antelope Road	Sandra Eccker	White City	OR	97503	541-776-7208	541-826-6670	Jackson	541-826-3714
Jefferson County Emergency Services George@JusticeNET.Net	66 S. E. D Street	P. O. Box 265 Rodney Blake, Coor.	Madras	OR	97741	541-475-2202	541-475-7476	Jefferson	541-475-7654
Jefferson County Department Emergency Management	81 Elkins Rd	Bob Minty	Port Hadlock	WA	98339	360-385-3831 X 529 (VM)	360-385-3831 X 529 DO 360-379-7057	Jefferson	360-379-0513 Law Enforcement Pri. 458.575 Rx Pri. 453.575 Tx (Car to Car) Fire 153.860
King County Emergency Management Division Robbin.Taylor@Metrokc.Gov Website: KCWEB.METROKC. GOV/PREPARE	7300 Perimeter Rd. SO, Room 128	Kevin Kearns, Div. Mgr.	Seattle	WA	98108-3848	206-296-3311	206-296-3830	King	206-296-3838 Pri. 800 Mhz Trunked
King County Dept't of Natural Resources	Discovery Park, 1400 Utah Street West	Barbara Badger (West Point Treatment Plant)	Seattle	WA	98199	206-689-3801	206-689-3801	King	206-689-3850
Kitsap County Department Emergency Management KITSAP@Silverlink.Net	1720 Warren Avenue	Phyllis Mann, Ass't Dir.	Bremerton	WA	98337	911	360-876-7119	Kitsap	360-478-9802

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Kittitas County Department Emergency Services	205 W. 5th	Bob McBride, Sheriff	Ellensburg	WA	98926	509-925-8534	509-962-7525	Kittitas	509-962-7599 Law Enforcement Pri. 155.655 Tx Pri. 154.650 Rx Repeater PL'S 151.4, 100.0, 141.3, 200.5 Sec. 155.160 No Tone (SAR)
Klamath County Emergency Services	808 South 5th	Bill Thompson	Klamath Falls	OR	97601	541-885-5348 (Pager)	541-883-5130 X215 (Voice)	Klamath	541-883-4271
Klickitat County Department Emergency Kcdem@Gorge.Net	205 South Columbia	P. O. Box1162, Larry Luloff	Goldendale	WA	98620	509-773-4036 Pgr 541-506-1045 **Sec. Tactical** 154.70 Rx Tx 154.355 155.400	509- 773-4036 **Sec. Fire EAST** 154.130 Tx Rx Tx 162.2 PL **WEST** 154.130 Rx 154.770 Tx Tx 162.2 PL	Klickitat **Sec. Medical Dispatch** 155.385 91.5 PL (Aid Car) **Power EAST** 158.250 Tx 153.455 Rx 100 PL **Power WEST** 158.250 Tx Rx 127.3	509-773-6242 **Pri. Sheriff** Use Requires special Permission **EAST** 158.910 Rx 154.025 Tx 192.8 **WEST** 158.835 Rx 153.845 Tx 114.8 PL
Lake County Emergency Services LakeCOEMS@Triax.COM	11 N. G Street	Don Cates, Dir.	Lakeview	OR	97630	541-947-2504 541-947-3680 Home	541-947-6012	Lake	541-947-6085
Lane County Emergency Services (Sheriff) Ike.Jensen@Co.Lane.Or.US North Coast Florence Scalioncous	125 E. 8th Avenue County Courthouse Receive 460.175 460.175 460.175	Ike Jensen, Coor. Transmit 465.175 465.175 465.175	Eugene PL 167.9 5Z 151.4 6Z	OR	97401	541-682-4141 Inland (Metro) Siuslaw Rominos	541-682-4160 Receive 460.225 (6A) 460.252 (6A) 466.225 (5Z)	Lane Transmit 465.225 465.425 465.225	541-682-2366 PL 6A 173.8 6A 173.8 5Z 151.4
Lewis County Division of Emergency Management	350 N. Market Blvd.	Jean Massingham	Chehalis	WA	98532	360-740-1105	360-740-1151	Lewis	360-740-1471 Pri. RX 155.715 Pri. TX 156.000 Sec. RX 155.100 Sec. TX 155.475

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Lincoln County Emergency Services LCODOES@ Pioneer.Net	22 SW Olive Street, Room 103	James Hawley, Dir.	Newport	OR	97365	541-265-4231	541-265-4199	Lincoln	541-265-4197 Pri. 155.070 Sec. State Sar 155.805
Lincoln		P. O. Box 118 Jack Buck, Judge	Davenport	WA	99122	509-725-3501	509-725-2281	Lincoln	509-725-6481
Linn County Emergency Services		P. O. Box 100 James Howell, Coor.	Albany	OR	97321	541-967-3911	541-967-3911	Linn	541-967-8169
Malheur County Emergency Services	Courthouse, 251 B Street W.	Tim McMena-min, Coor.	Vale	OR	97918	541-	541-473-5113	Malheur	541-473-5116
Marion County Emergency Management Agency BVISSER@OPEN.ORG	5155 Silverton Road, NE	Bob Hansen	Salem	OR	97305	503-588-5036	503-588-5036	Marion	503-588-7970 RX 453.5 TX 458.5 PL 100.0
Mason County Dep't of Emergency Services MCDCS@Dgs.Co.Mason.Wa.US	W. 410 Enterprise Rd.	Joseph Murray	Shelton	WA	98584	360-427-7757	360-427-7535	Mason	360-427-7756
Mercer Island DEM	9611 SE 36th Street	Mr. Jan Deveny, Dir.	Mercer Island	WA	98040	206-236-3500	206-236-3576	King	206-236-3659 Pri. 800 MHZ
Morrow County Emergency Management CBEARD@Morsrv.Dem.State.OR.US		P. O. Box 622 Casey Beard	Heppner	OR	97836	911	541-676-5161	Morrow	541-676-9454 Pri. TX 154.725 (S17) Pri. RX 154.725 PL 162.2 Sec. TX 155.655 (S18) Sec. 154.725 PL 162.2
Multnomah County Office of Emergency Management	12240 NE Gilsan St.	Mike Gildorf, Dir.	Portland	OR	97230	Gresham Police # Unk.	503-618-2526	Multnomah	503-253-2663 Pri. 800 MHZ
Nez Perce County Emergency Management		P. O. Box 896 Mel Johnson	Lewiston	ID	83501	208-746-0171	208-799-3084	Nez Perce	208-799-3152
Okanogan County Dep't of Emergency Services		P. O. Box 1490 Tom Windsor, Dir	Okanogan	WA	98840	509-422-7232	509-422-7206	Okanogan	509-422-7236 Pri. 155.640 Sec. 155.370
Pacific County Emergency Management Agency Pcema@Williapabay.ORG		P. O. Box 101 Stephanie Fritts	South Bend	WA	98586	360-875-9397	360-875-9340	Pacific	360-875-9342 Pri. 460.075 Sec. 460.225

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Pend Oreille Emergency Management	231 S Garden Avenue	P. O. Box 5035 Joann Boggs	Newport	WA	99156	509-447-3151	509-447-3731		509-447-0286 Pr. 155.310 Pr. PL 4Z Sec. 155.790
Pierce County DEM SBAILEY@Co.Pierce.WA.US	930 Tacoma Ave. S Room B-36	Steve Bailey, Pgm Mgr. Bill Lokey, Dir.	Tacoma	WA	98402	253-798-7470 V - 253-798-6069	253-798-7470	Pierce	25798-6624 Pri. F1 45.200 Pri. F2 45.360 Pri. F3 45.480 Pri. F4 45.20
San Juan County DEM SJMEDS@RockIsland.Com	c/o Dep't of Emergency Services	P.O. Box 578 Chris DeStaffany	Friday Harbor	WA	98250	360-378-4151	360-378-4117	San Juan	360-378-5339 Pri. 155.100
Sherman County Emergency Services		P. O. Box 424 Elmer Buttons	Moro	OR	97038	541-565-3622	503-565-3622	Sherman	541-565-3312
Skagit County DEM	227 N 4th Street Room 107	Thomas Sheahan, Dir.	Mt Vernon	WA	98273	360-336-9450	360-336-9403	Skagit	360-336-9469 Pri. TX 156.060 Pri. RX 151.055 Sec. TX 155.730 Sec. RX 155.310
Skamania County Emergency Services (Same as Hood River County)	200 Vancouver Avenue	P. O. Box 790 Karl Tesch	Stevenson	WA	98648	509-427-9490	509-427-8076	Skamania	360-892-0131 509-427-7555
Snohomish County DEM	2623 Oakes Avenue	Al Amonson	Everett	WA	98201	911	206-258-6461	Snohomish	206-259-4034 Pri. 154.055 Pri. PL 127.3 Sec. 146.92 Sec. PL 123.
(South Snohomish County DEM) Emerg. Serv. Coor. Agency - ESCA	23607 Highway 99, Suite 3C	Lyn Gross, Dir. Bothell, Brier, Edmonds, Lake Forest Park, Lynnwood, Mill Creek, Mount Lake Terrace, Woodway	Edmonds	WA	98026-9272	425-775-4545	425-776-3722	South Snohomish	425-775-7153 Pri. 223.5 Call Sign: ESCA EOC Sec. **ARES** HF 3987 LSB State Disaster Net VHF 143.34 +600 203.5 PL
Spokane Co. Dep't of Emergency Management DByrnes@Spokanecounty.Org	W. 1121 Gardner	Dave Byrnes, Deputy Dir.	Spokane	WA	99201	509-456-2233	509-456-2204	Spokane	509-456-5759 Pri. 155.130 Sec. 154.740
Stevens County Department of Emergency Services		P. O. Box 186 Craig Thayer, Sheriff	Colville	WA	99114	509-684-2555	509-684-5296	Stevens	509-684-7536

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Thurston County DEM Karlm@Co.Thurston.WA.US	2000 Lakeridge Dr. SW	Mike Karl	Olympia	WA	98502	360-786-5449	360-754-3360	Thurston	360-754-2898 Pri. 155.145
Tillamook County Emergency Services Mpickett@Co.Tillamook.Or.US	5995 Long Prairie Rd.	Mike Pickett	Tillamook	OR	97141	503-842-3441	503-842-3412	Tillimook	503-842-1801
Umatilla County Emergency Management Dennis.@Uma1.Co.Umatilla.Or.US	216 SE 4th Street	Dennis Olson, Dir.	Pendleton	OR	97801	541-276-5943 541-564-0104	541-278-6246 541-278-6753	Utatilla	Pri. RX 154.755 Pri. TX 154.595 PL 173.8
Wahkiakum County Emergency Services		Dan Kisler, PIO	Cathlamet	WA	98612	360-795-3242	206-795-3242	Wahkiakum	360-795-3145
Walla Walla Department of Emergency Management	310 W. Poplar, Room 117	Ed George	Walla Walla	WA	99362	509-527-3750	509-527-3223	Walla Walla	509-527-3263 Pri. 155.250 Sec. 155.565
Wallowa County Department of Emergency Services MDM@Oregontrail.NET	101 S. River, Room 202	Matthew Marmor, Dir.	Enterprise	OR	97828	541-426-3131	541-426-3131	Wallowa	541-426-4685
Wasco County Emergency Management	707 E 18th St.	Hugh Holte, Dir.	The Dalles	OR	97058	541-296-6424	541-296-6424	Wasco	541-296-5445 Pri. Ch 815
Washington County Emergency Management PorterrMS@TVFR.COM	20665 SW Blanton St.	Scott Porter, Dir.	Aloha	OR	97007	503-629-0111	503-642-0391	Washington	503-642-4814 Pri. 800 MHZ Trunked
Whatcom County Division of Emergency Management WCDEM@AZ.COM	311 Grand Avenue	Neil Clement, Deputy Dir. Or Don Boyd	Bellingham	WA	98225	360-676-6681 911	360-676-6681	Whatcom	360-738-2518 Pri. 155.610 (100.0 Tone) Sec. 155.160 (100.0 Tone)
Whitman County Department of Emergency Services		P. O. Box 470 Rita Konzal	Colfax	WA	99111	509-397-4341	509-397-4341	Whitman	509-397-2099 Pri. 155.190
Yakima Valley Emergency Management	128 N. 2nd Street, Room B-10	Don Thompson, Dir.	Yakima	WA	98901	509-574-2500	509-574-1900	Yakima	509-574-0919
Yamhill County Emergency Services JACOXN@Co.Yamhill.OR.US	535 E. 5th Street, Room 143	Neil Jacox, Mgr.	McMinnville	OR	97128	503-434-6500	503-434-7506 503-434-4584	Yamhill	503-472-5330 Pri. 461 (LAW 1)
Kitsap County Central Communications	1720 Warren Ave		Bremerton	WA	98310			Kitsap	
Shelton Communications Center	P.O. Box 1610		Shelton	WA	98584			Mason	
COUNTY GOVERNMENTS									
COUNTY SHERIFF	**Update**								

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Asotin County Sheriff	838 5th St.	John Jeffers	Clarkston,	WA	99403	509-758-2331	509-243-4171	Asotin	509-751-5946
Benton County Sheriff	7320 W. Quinault Ave.	Jim Kennedy	Kennewick	WA	99336	509-628-0333	509-735-6555	Benton	509-783-5852
Clackamas County Sheriff	2223 S. Kaen Road	Ris Bradshaw	Oregon City	OR	97045	503-655-8218	503-655-8218	Clackamas	503-655-8549
Clallam County Sheriff	223 E. 4th St.	P. O. Box 863 Joe Hawe	Port Angeles	WA	98362-0149	360-417-2459	360-417-2459	Clallam	360-417-2470
Clark County Sheriff	707 W. 13th St.	P. O. Box 410, 98666 Garry Lucas	Vancouver	WA	98666	360-696-4461	360-699-2211	Clark	360-737-6004
Clatsop County Sheriff	355 7th St.	John Raichl	Astoria	OR	97103	503-325-2061}	503-325-8645	Clatsop	503-325-8675
Columbia County Sheriff	Courthouse Bldg	Phil Derby	St. Helens	OR	97051	503-397-5010	503-397-2511	Columbia	503-397-7224
Columbia County Sheriff	341 E. Main	James La Tour	Dayton	WA	99328		509-382-2518	Columbia	509-382-4765
Coos County Sheriff	Courthouse 2nd & Baxter	Mile Crook	Coquille	OR	97423	541-396-2106 541-396-2107	541-396-3121 X371	Coos	541-396-5932 Adm 541-396-4290 Com
Cowlitz County Sheriff	312 1st Ave	P. O. Box 390 Bryan D. Pedersen	Kelso	WA	98626	360-577-3130	360-577-3130	Cowlitz	360-423-1047
Curry County Sheriff		P. O. Box 681 Charles Denny	Gold Beach	OR	97444	541-469-3132	541-469-3132	Curry	541-247-6893
Douglas County Sheriff	Justice Bldg.	JohnPardon	Roseburg	OR	97470	541-440-4463	541-440-4463	Douglas	541-440-4470
Franklin County Sheriff	1015 N. 5th Ave.	Richard Lathim	Pasco	WA	99301	509-545-3501	509-545-3501	Frannklin	509-546-5820
Garfield County Sheriff	789 W. Main	P. O. Box 338 Larry Bowles	Pomeroy	WA	99347	509-843-3494	509-843-3493	Garfield	509-843-1347
Gilliam County Sheriff	221 S Oregon St	P. O. Box 685 Paul Barnett	Condon	OR	97823	541-384-2851	541-384-2851	Gilliam	541-384-2878
Grays Harbor County Sheriff	Broadway & Main	P. O. Box 630 Michael Whelan	Montesano	WA	98563	360-249-3711	360-249-3711	Grays Harbor	360-249-3288 Adm 360-249-3722 Ev &Weekends
Hood River County Sheriff	309 8th Street	Joseph A. Wampler	Hood River	OR	97031	541-386-2711	541-386-2098	Hood River	541-386-3141
Jefferson County Sheriff	81 Elkins Road	Pete Piccini	Port Hadlock	WA	98339	360-385-3831 Ext. 1	360-385-3831	Jefferson	360-379-0513
King County Sheriff	516 Third Ave.	David Reichert	Seattle	WA	98104	206-296-3311	206-296-4155	King	206-296-0168
Kitsap County Sheriff	614 Division St.	Pat Jones	Port Orchard	WA	98366	360-478-5330 Disp 308-5400	360-337-7101	Kitsap	360-337-4923
Kittitas	205 W. 5th	Robert McBride	Ellensburg	WA	98926	509-925-8534	509-962-7525	Kittitas	509-962-7599

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Klickitat County Sheriff kcso@gorge.net	205 S. Columbus, Room 108	Karen von Borstel	Goldendale	WA	98620	509-773-4545	509-773-4547	Klickitat	509-773-6575
Lane County Sheriff	125 E. 8th Ave.	Jan Clements	Eugene	OR	97401	541-682-4150	541-682-4150	Lane	541-465-2366
Lincoln County Sheriff	251 W. Olive St.	John O'Brien	Newport	OR	97365	541--9271/2/3	541-265-9272	Lincoln	541-265-3533
Mason County Sheriff		P. O. Box Steve Whybark	Shelton	WA	98584	360-427-9670 X 226	360-427-9670 X313	Mason	360-427-0567
Morrow County Sheriff	325 Willowview Dr.	P. O. Box 159 Roy Drago	Heppner	OR	97836	541-676-5317	541-676-5317	Morrow	541-676-5577
Marion County Sheriff	100 High St. NE	P. O. Box Raul Ramirez	Salem	OR	97308	503-588-5032	503-588-5094	Marion	503-588-7931
Multnomah County Sheriff katherine.m.moyer@co.multnomah.or.us	12240 NE Glisan St.	Dan Noelle	Portland	OR	97230	503-255-3600	503-255-3600	Multnomah	503-251-2428
Nez Perce County Sheriff	1221 F St.	P. O. Box 896 Randy Askingbury	Lewiston	ID	83501	208-799-3131	208-799-3131	Nez Perce	208-799-3144
Pacific County Sheriff		P. O. Box 27 Jerry Benning	South Bend	WA	98586	360-875-9397	360-875-9395	Pacific	360-875-9393
Pierce County Sheriff	930 Tacoma Ave. S.	Mark French	Tacoma	WA	98402	253-798-4721	253-591-7540	Pierce	253-798-6712
San Juan County Sheriff		P. O. **Box 669 Bill Cumming**	Friday Harbor	WA	98250	360-378-4151	206-378-4!51	San Juan	360-378-7125
Sherman County Sheriff	500 Court	P. O. Box 424 Gerry Massey	Moro	OR	97039	541-565-3622	541-565-3622	Sherman	541-565-3312
Skagit County Sheriff	600 South 3rd, Room100	Ed Goodman	Mt. Vernon	WA	98273	360-336-9450	360-336-9450	Skagit	360-336-9455
Skamania County Sheriff scs0@gorge.net	200 Vancouver Ave.	P. O. Box 790 H. Dennis Warren	Stevenson	WA	98586	509-427-5626	509-427-9490	Skamania	509-427-4369
Snohomish County Sheriff	3000 Rockerfeller	Rick Bart	Everett	WA	98201	425-388-3839	425-388-3393	Snohomish	425-388-3885
Thurston County Sheriff	2000 Lakeridge Drive	Gaary Edwards	Olympia	WA	98507	360-786-5449	360-786-5500	Thurston	360-786-5275
Tillamook County Sheriff	5995 Long Prairie Rd.	Thomas Dye	Tillamook	OR	97141	503-815-1911	503-842-2561	Tillamook	503-815-3399
Umatilla County Sheriff	216 SE 4th	John Trumbo	Pendleton	OR	97801	541-278-6350	541-276-7111	Umatilla	541-276-2540
Wahkiakum County Sheriff		P. O. Box 65 Gene Strong	Cathlamet	WA	98612	360-795-3242	360-795-3242	Wahkiakum	360-795-3145

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Walla Walla County Sheriff		P. O. Box 518 Bill Jackson	Walla Walla J. Michael Humphreys	WA	99362-0220	509-527-3265	509-527-3265	Walla Walla	509-527-3245
Wasco County Sheriff	511 Washington	Darrell Hill	The Dalles	OR	97058	451-296-5454	360-676-6650	Wasco	360-738-2494
Washington County Sheriff	215 SW Adams	Jim Spinden	Hillsboro	OR	97123	503-846-2700	503-846-2700	Washington	503-846-2719
Whatcom County Sheriff	311 Grand Ave.	Dale Brandland	Bellingham	WA	98225	360-676-7722	360-676-6811	Whatcom	360-738-2494
Wheeler County Sheriff	Courthouse	P. O. Box 345 Craig Ward	Fossil	OR	97830	541-676-5317	541-763-4101	Wheeler	541-763-2026
Whitman County Sheriff		P. O. Box 470 Steven Tomson	Colfax	WA	99111	509-397-6266	509-397-6266	Whitman	509-397-6266
Yamhill County Sheriff	535 NE 5th	Norman Hand	McMinnville	OR	97128	503-434-6500	503-434-6500	Yamhill	503-472-5330
CRANES									
Port of Portland				OR			503-231-5000		
Columbia Helicopters, Inc.				OR			503-657-1111		
Transwestern Helicopter				OR			503-226-4731		
DISPOSAL									
Chem Waste Management	Star Route		Arlington	OR	97812		503-454-2742		
West Pac Environmental Inc.	54 South Dawson Street		Seattle	WA	98134		206-762-1190	King	
DIVING									
Fred Devine Diving and Salvage	6211 N Ensign	Swan Island	Portland	OR	97217	503-283-5285	503-283-5285	Multnomah	503-286-2871
Global Diving and Salvage Inc.	2763 13th Avenue SW	Harbor Island	Seattle	WA	98134	206-623-0621	206-623-0621	King	206-340-8984
M.A.S.T. Towing and Salvage & Tug Co	P. O. Box #25001		Portland	OR	97225			Multnomah	
USN Supervisor of Salvage Directorate	Naval Sea Systems Command	Operations & Ocean Engineering				703-602-7527	703-607-2758		
DRY DOCK									
Lake Union Drydock Company	1515 Fairview Avenue E.		Seattle	WA	98102			King	
ENVIRONMENTAL									

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
American Oceans Campaign	3004 Northwest 93rd Street		Seattle	WA	98117		206-783-6676	King	206-783-1799
EMCON Northwest	18912 North Creek Parkway	Suite 100	Bothell	WA	98011		206-485-5000	King	206-486-9766
Landau Associates Inc	P. O. Box 1029		Edmonds	WA	98020		206-778-0907	Snohomish	206-778-6409
People for Puget Sound	1326 Fifth Avenue	Suite 450	Seattle	WA	98101		206-382-7007	King	206-382-7006
Washington Environmental Council (WEC)	5200 University Way NE	Suite 201	Seattle	WA	98105		206-527-1599	King	
Washington Environmental Council (WEC)	1063 South Capitol	Suite 212	Olympia	WA	98501		206-357-6548	Thurston	
FEDERAL GOVERNMENT									
Army Corp of Engineers	Hazards to Navigation	P.O. Box C3755	Seattle	WA	98124		206-764-3754	King	206-764-6602
Army Corp of Engineers gordon.n.taxer@usace.army.mil	Northwest-ern Division	POB 2870 220 NW 8th Ave.	Portland	OR	97208	503-808-3903	503-808-3903	Multnomah	503-808-3904
Army Corp of Engineers thomas.f.muller@usace.army.mil	Regulatory	POB 3755 4735 E. Marginal Way S.	Seattle	WA	98124-3755	206-764-3495 Wkg Freq-163.000 (Lake Washington Ship Canal)	206-764-3495	King	206-764-6602
Bureau of Indian Affairs	Portland Area Office	911 NE 11th Avenue	Portland	OR	97232		503-231-2326	Multnomah	
Bureau of Indian Affairs Bia@GTE.Net	Puget Sound Agency	3006 Colby Avenue	Everett	WA	98201	425-2651	425-258-2651 X236	Snohomish	425-258-1254
Bureau of Indian Affairs	4735 E Marginal Way S	Building 1206 Alan E. Mather	Seattle	WA	98134	206-243-6179 800-836-7926	206-764-3328	King	206-764-6881
Coast Guard	USCG Headquarter s	2100 Second Street SW	Washington	DC	20593		202-267-0440		
Coast Guard	Coast Guard Pacific Area	Coast Guard Island	Alemeda	CA	94501-5100		510-437-3700	Alameda	
Coast Guard	D13 Command Center	915 Second Avenue	Seattle	WA	98174		206-220-7001	King	206-220-7009

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Coast Guard	D13 District Commander	915 Second Avenue	Seattle	WA	98174		206-220-7090	King	206-220-7092
Coast Guard	D13 Legal	915 Second Avenue	Seattle	WA	98174		206-220-7110	King	206-220-7119
Coast Guard	D13 mep	915 Second Avenue	Seattle	WA	98174		206-220-7210	King	206-220-7225
Coast Guard	D13 Public Affairs	915 Second Avenue	Seattle	WA	98174		206-220-7237	King	206-220-7245
Coast Guard podoub/gruastoria04	Group Astoria/ Grays Harbor	2185 SE 12th Pl.	Warrenton	OR	97146	503-861-6220	503-861-6220	Clatsop	503-861-6355
Coast Guard	Group Port Angeles		Port Angeles	WA			360-457-2226	Clallam	
Coast Guard	Group Seattle	1519 Alaskan Way South	Seattle	WA	98134-1192	206-217-6000	206-217-6120	King	
Coast Guard	Marine Safety Center	USCG Headquarters	Washington	DC			202-366-6480		
Coast Guard	Marine Safety Office Portland	6767 North Basin Avenue	Portland	OR	97217	503-240-9300	503-240-9300	Multnomah	
Coast Guard	Marine Safety Office Puget Sound	1519 Alaskan Way South	Seattle	WA	98134-1192	206-217-6232	206-217-6200	King	206-217-6345
Coast Guard	MLCPAC Seattle Office	915 Second Avenue	Seattle	WA	98174		206-553-5155	King	
Coast Guard	National Pollution Funds Center (NPFC)	4200 Wilson Boulevard Suite 1000	Arlington	VA	22203	800-424-8802	703-235-4717		202-267-4085
Coast Guard	National Response Center (NRC)	USCG Headquarters	Washington	DC		800-424-8802			
Coast Guard	National Strike Force Coordination Center		Elizabeth City	NC		800-424-8802	919-331-6001		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Coast Guard	Pacific Strike Team	Hanger 2 Building 390 Hamilton AFB	Novato	CA	94947		415-883-3311		
Coast Guard	Public Information Assist Team	USCG Headquarters	Washington	DC	20593		202-267-0431		
Coast Guard	USCGC Active			WA		206-452-2342	206-452-2342		
Coast Guard	USCGC Mellon	1519 Alaskan Way South	Seattle	WA	98134-1192	206-217-6290	206-217-6290	King	
Coast Guard	USCGC Midgett	1519 Alaskan Way South	Seattle	WA	98134-1192	206-217-6280	206-217-6280	King	
Coast Guard	USCGC Polar Sea	1519 Alaskan Way South	Seattle	WA	98134-1192	206-217-6270	206-217-6270	King	
Coast Guard	USCGC Polar Star	1519 Alaskan Way South	Seattle	WA	98134-1192	206-217-6260	206-217-6260	King	
Coast Guard	Vessel Traffic Service Puget Sound	1519 Alaskan Way S.	Seattle	WA	98134-1192	206-217-6050	206-217-6040	King	
Customs Service	South Satellite	SeaTac International Airport	Seattle	WA	98174		206-553-0517	King	
Customs Service	Vessel Clearance/ Investigations	909 First Street	Seattle	WA	98174	206-553-7531	206-553-1135/ 206-645-2236	King	
Customs Service	909 First Street		Seattle	WA	98174	800-562-5943 or 206-645-2236	206-553-1135	King	
Drug Enforcement Administration	220 W Mercer		Seattle	WA	98119		206-553-5443	King	
Environmental Protection Agency Region 10	CERCLA Accounting		Seattle	WA	98101		206-553-2144	King	
Environmental Protection Agency Region 10	Chemical Preparedness\Safety		Seattle	WA	98101		206-553-4349	King	
Environmental Protection Agency Region 10	Hazardous Waste Division	1200 Sixth Avenue	Seattle	WA	98101		206-553-1261	King	
Environmental Protection Agency Region 10	Public Information Center	1200 Sixth Avenue	Seattle	WA	98101		206-553-0149/ 800-424-4372	King	

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Environmental Protection Agency Region 10	RCRA/CERCLA hotline	1200 Sixth Avenue	Seattle	WA	98101	800-424-9346	800-424-9346	King	
Environmental Protection Agency Region 10	Response and Investigation	1200 Sixth Avenue	Seattle	WA	98101	206-553-1263	206-553-1200	King	206-553-0175
Environmental Protection Agency	Washington State Ops	PV-11	Olympia	WA	98504		206-753-9083	Thurston	
Federal Aviation Administration	Automated Flight Service	Weather Briefing	Seattle	WA		206-767-2726		King	
Federal Aviation Administration	3101 Auburn Way South		Auburn	WA	98002	206-931-5300	206-931-5222	King	
Federal Bureau of Investigation	710 Federal Building	915 2nd Avenue	Seattle	WA	98174		206-622-0460	King	
Federal Communication Commission	11410 NE 122nd Way	Suite 312	Kirkland	WA		206-354-4892	206-821-9037	King	
Federal Communication Commission	1330 Loomis Trail		Custer	WA	98240	206-354-4892		Whatcom	
Federal Communication Commission	Licensing Division		Gettysburg	PA	17326		717-337-1212		717-337-1541
Federal Emergency Management Agency	130 228th Street SW		Bothell	WA	98021		206-481-8800	Snohomish	
Federal Highway Administration	711 S Capitol Way	Suite 501	Olympia	WA	98501		206-753-9875	Thurston	206-753-9889
Federal Highway Administration	708 SW Third Street		Portland	OR	97204		503-326-2061	Multnomah	503-326-3928
Federal Protection Service	915 Second Avenue	Suite 2610	Seattle	WA	98174		206-553-2520	King	
Fish and Wildlife Service	Transiplex Building A #206	2580 S 156th	Seattle	WA	98158	206-937-9562	206-764-3463 206-553-5670	King	
Fish and Wildlife Service	121 107th NE	#127	Bellevue	WA	98004		206-553-5543	King	
Fish and Wildlife Service Olympia Field Office	3704 Griffin Lane SE	Suite 102	Olympia	WA	98501		206-753-9440	Thurston	206-753-9008
Fish and Wildlife Service Portland Field Office	2600 SE 98th Avenue	Suite 100	Portland	OR	97266	503-636-7946	503-231-6179	Multnomah	
Fish and Wildlife Service Regional Office	911 NE 11th Avenue		Portland	OR	97232	503-636-7946	503-231-6223	Multnomah	
Forest Service	21905 64th Ave W		Mountlake Terrace	WA	98043			Snohomish	
General Services Administration	GSA Center (9FBS-10B)		Auburn	WA	98001		206-931-7516	King	

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Government Printing Office/ Bookstore	194 Federal Building	195 Second Avenue	Seattle	WA	98174		206-553-4270	King	
Immigration and Naturalization Service	South Satellite	SeaTac International Airport		WA	98158		206-553-0466	King	
Interior Department	911 NE 11th Avenue	Suite 354	Portland	OR	97232-4181	503-621-3682	503-231-6157	Multnomah	
Justice Department	U.S. District Attorney			WA			206-553-7970		
Justice Department	U.S. Marshal - Western Washington			WA			206-553-5500		
National Marine Fisheries Service	Regional Director	7600 Sand Point Way NE	Seattle	WA	98115		206-526-6317 206-775-2104	King	
National Park Service			Seattle	WA		206-937-9562	206-553-5670	King	
National Park Service-Olympic National Park	RT1 Box 5749		Forks	WA	98331		206-374-5450	Clallam	206-956-2350
National Park Service-Pacific Northwest Region Office	83 South King	Suite 212	Seattle	WA	98104		206-553-5565	King	
National Park Service-San Juan Island Park	P.O. Box 429		Friday Harbor	WA	98250		206-378-2240	San Juan	206-378-2615
Navy	Puget Sound Naval Shipyard		Bremerton	WA	98314	206-476-3466 CDO	206-476-4421 206-476-3711	Kitsap	
Navy	U.S. Naval Station Puget Sound	Code 1740	Seattle	WA	98115			King	
Navy	Naval Submarine Base Bangor		Silverdale	WA	98315			Kitsap	
Navy	Naval Base Seattle	7500 Sand Point Way NE Code 204	Seattle	WA			206-526-3225	King	
Navy	Indian Island Ammunition s Depot		Indian Island	WA			206-385-0100		
Navy	Fire Station #1	Bldg. 1300	Silverdale	WA	98315			Kitsap	
Navy	Manchester Fuel Pier		Manchester	WA			206-476-2145	Kitsap	
Navy Supervisor of Salvage SUPSALV	Preliminary Notification		Washington	DC		202-692-7527	202-697-7403 202-692-7527		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Navy Supervisor of Salvage SUPSALV	Official request for Response		Washington	DC		202-695-0231	202-695-0231		
NOAA Hazmat Response Branch	NOAA/OAD (N/OMA34)	7600 Sand Point Way NE	Seattle	WA	98115	206-526-6317	206-526-6317	King	206-526-6329
NOAA-DART	Room 422 WSC #1	6001 Executive Boulevard.	Rockville	MD	20852		301-227-6332		(301)231-0157
NOAA-National Marine Fisheries Service	Regional Director Northwest	7600 Sand Point Way NE	Seattle	WA		206-775-2104 Nights	206-526-6150	King	
NOAA-National Weather Service	State Forecast Office	7600 Sand Point Way NE	Seattle	WA	98115	206-526-6087		King	
NOAA-National Weather Service	Port Meteorologis t	7600 Sand Point Way NE	Seattle	WA	98115	206-526-6100		King	
NOAA-National Weather Service	Continuous Weather Broadcast	162.55 MHz	Seattle	WA	98115			King	
NOAA-National Weather Service	River Forecast Office		Portland	OR		503-423-3720		Multnomah	
NOAA-Pacific Marine Center	1801 Fairview Avenue E		Seattle	WA	98102			King	
NOAA-SSC Staff - Trajectories	SSC	7600 Sand Point Way NE	Seattle	WA	98115		206-526-6317	King	
Occupational Safety and Health Administration	1111 Third Avenue		Seattle	WA	98101			King	
Public Health Service	2201 Sixth Avenue		Seattle	WA	98121		206-553-0502	King	206-553-0757
States/BC Oil Spill Task Force	P.O. Box 476000		Olympia	WA	98504		206-459-6000	Thurston	
FIRE DEPARTMENTS	**Update**								
Aberdeen Fire Department	700 W. Market	Steve Mitchell	Aberdeen	WA	98520	360-532-1253	360-532-1254	Grays Harbor	360-533-8136
Anacortes Fire Department	1016 13th Street	Richard Curtis	Anacortes	WA	98221	360-293-1925	360-293-4684	Skagit	360-299-1965
Arlington Fire Department		P.O. Box 429 Brian Foster	Arlington	OR	97812		503-454-2793/2621	Gilliam	
Astoria Fire Department lwinterm@orednet.org	555 30th Street	Lane Wintermute	Astoria	OR	97104	503-325-4411	503-325-4237	Clatsop	503-325-2346

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Bellevue Fire Department	766 Bellevue Way SE	Peter Lucarelli	Bellevue	WA	90012	425-885-3131	425-455-6892	King	425-637-5287
Bellingham City Fire Dept.	1800 Broadway	Jay Gunsauls	Bellingham	WA	98225	911	360-676-6814	Whatcom	360-738-7312
Blaine Fire Department fire@ci.blaine.wa.us	344 H Street	P. O. Box 490 William Elfo	Blaine	WA	98231	360-332-8781	360-332-6960	Whatcom	360-332-7255
Boardman Fire Department	300 Wiolson Lane	P. O. Box 166 Mark Rogelstad	Boardman	OR	97818	541481-3473	541-481-3473	Morrow	541-481-0909
Bremerton Fire Department firedept@ci.bremerton.wa.us	817 Pacific Ave	Allison Duke III	Bremerton	WA	98337-1921	911	360-478-5380	Kitsap	360-478-5397
Clallam County Fire District #1	11 Spartan Ave. & Division	P. O. Box 118 Phil Arbeiter	Forks	WA	98331	360-374-2223 360-374-5561	360-374-5561	Clallam	360-374-5613
Clallam County Fire District #2	700 Power Plant Road	P. O. Box 1391 Jon Bugher	Port Angeles	WA	98362	911	360-452-7725	Clallam	360-452-9235
Clallam County Fire District #3	323 N 5th Ave	Thomas Lowe	Sequim	WA	98382	911	360-683-4242	Clallam	360-683-6834
Clallam County Fire District #4	51-250 Highway 112 W.	P. O. Box 106 Mike Evans	Joyce	WA	98343	360-460-2097 **(Cellular)**	360-928-3132	Clallam	
Clallam County Fire District #5	Bogachiel Street	P. O. Box 530 Brian Richardson	Clallam Bay/Sekiu	WA	98326		360-963-2371	Clallam	
Clark County District #5	7110 NE 63rd St.	Dan Fraijo	Vancouver	WA	98661	911	360-892-4323	Clark	360-892-4801
Clarkston Fire Department	820 Fifth St.	Robert Berreman	Clarkston	WA	99403	509-758-8681	509-758-8681	Asotin	509-758-1670
Clatskanie Fire Department Dlong@clatskanie.com	280 SE Third	P. O. Box 807 Dick Long	Clatskanie	OR	97016	503-728-2025	503-728-2025	Columbia	503-728-4388
Coos Bay Fire Department Cbfire@mail.coos.or.us	150 S Fourth Street	Stan Gibson	Coos Bay	OR	97420	541-269-1191	541-269-1191	Coos	541-267-0378
Cow-litz County Fire District #2	701 Vine Street	Joe Valenzuela	Kelso	WA	98626	360-578-5221	360-578-5221	Cowlitz	360-578-5220
Depoe Bay Fire Department Dbfire@newportnet.com		P. O. Box 332 Ropp	Depoe Bay	OR	97341	541-765-2202	503-765-2202	Lincoln	541-765-2691
DuPont Fire Department	303 Louviers	P. O. Box 455 Lee Chase	DuPont	WA	98327-0455	911	253-964-8121	Pierce	2539643554
Edmonds Fire Department	121 5th Ave N	Michael Springer	Edmonds	WA	98020	425-774-3583	425-771-0215	Snohomish	425-775-7721

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Everett Fire Department	2811 Oakes Ave	Terry Ollis	Everett	WA	98201	425-258-2484	425-257-8100	Snohomish	425-257-8139
Ferndale Fire Department wcfd7aol.com	2020 Washington Street	P. O. Box 1599 Gary Russell	Ferndale	WA	98248	911	360-384-0303	Whatcom	360-384-4509
Fircrest Fire Department	320 Regents Blvd	Richard Moore	Fircrest	WA	98466	253-591-5737	253-591-5737	Pierce	253-591-5746
Fire Department Dispatch Center (S. Whidbey Island)	2874 E. Verlane St.	Don Smith	Langley	WA	98260	800-294-1956	360-321-1533	Island	360-321-9385
Fire Department Dispatch Center (Central Whidbey Is.)	215 E. Race St.	Joseph Biller	Coupville	WA	98239	800-294-1956	360-678-3602	Island	360-678-4615
Fire Marshal	301-2nd Avenue South	Gerald Birt	Seattle	WA	98104	911	206-386-1400	King	206-386-1412
FIRECOM	5000 Steilacoom Blvd SW		Tacoma	WA	98499			Pierce	
Florence Fire Department		P. O. Box 340 Verne Passenger	Florence	OR	97439	503-997-3564	541-997-3564	Lane	541-997-4100
Friday Harbor Fire Department sjifire@rockisland.com	260 West St.	P. O. Box 219 Howard Rosenfeld	Friday Harbor	WA	98250	360-378-4151	360-378-4183	San Juan	360-378-5339
Gearhart Volunteer Fire Department	698 Pacific Way	P. O. Box 2530 Jim Pefonen	Gearhart	OR	97138	503-738-5501	503-738-5501	Clatsop	503-738-9385
Hood River Fire Department	P.O. Box 27	Ed Sherrill	Hood River	OR	97031	541-386-3939	541-386-3939	Hood River	541-387-4590
Island County Fire District #1	525 W. North Camano Dr.	Scott Koehler	Camano Island	WA	98292	360-629-3008	360-629-3008	Island	360-629-4192
Island County Fire District #2	2720 N. Heller Rd.	N.-Michael Lamar S.-Marvin Koorn	Oak Harbor	WA	98277	360-675-1131	360-675-1131	Island	360-675-0762
-Island County Fire District #3	2874 E. Verlane St.	Don Smith	Langley	WA	98260	360-321-1533	360-321-1533	Island	360-321-9385
Island County Fire District #5 cwfire@shidbey.net	215 E. Race St.	Joseph Biller	Coupeville	WA	98239	360-678-3602	360-678-3602	Island	360-678-4615
Jefferson County Fire District #1	9193 Rhody Dr.	P. O. Box 537 Chuck Boggs	Chimacum	WA	98325	360-732-4533	360-732-4533	Jefferson	
Jefferson County Fire District #2	Herbert St.	P. O. Box 433 Bob Wilson	Quilcene	WA	98376	360-4765-3333	360-765-3333	Jefferson	360-765-3960
Jefferson County Fire District #3 jcfd33@waypt.com	101 South Point Dr.	Wayne Kier	Port Ludlow	WA	98365	360-437-2899	360-437-2899	Jefferson	360-437-0117

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Jefferson County Fire District #4	151 Corey Lane	P. O. Box 42 Mel Herod	Brinnon	WA	98320	360-796-4711	360-796-4711	Jefferson	360-796-3999
Jefferson County Fire District #5	2000 Old Gardiner Rd	John Brown	Gardiner	WA	98382	360-797-7711	360-797-7711	Jefferson	360-797-7258
Jefferson County Fire District #6	3850 Cape George Rd	Robert Larson	Port Townsend	WA	98368	360-385-4721	360-385-4721	Jefferson	360-385-1133
Jefferson County Fire District #7	W. Jefferson Shop	Clifford Hay	Forks	WA	98331	360-962-2651	360-962-2651	Jefferson	No Fax
Kalama Fire Department kalfire@pacifier.com	382 NE Frontage Rd.	P. O. Box 322 Dave Bourdage	Kalama	WA	98625	360-673-2222	360-673-2222	Cowlitz	360-673-3389
Kelso Fire Department See Cowlitz County #2	701 Vine St.	Joe Valenzuela	Kelso	WA	98626	360-578-5221	360-578-5221	Cowlitz	360-578-5220
Kennewick Fire Department bobby-kirk@ci.kennewick.wa.us	600 S. Auburn	P. O. Box 6108 Bobby Kirk	Kennewick	WA	99336	509-585-4231	509-585-4231	Benton	509-586-4617
King County Fire District #11 nhoffice@newway.com	1243 SW 112th	Russ Pritchard	Seattle	WA	98146	206-243-0330	206-243-0330	King	206-244-8418
King County Fire District #13	10020 SW Bank Rd.	P. O. Box 1150 Craig Harmeling	Vashon	WA	98070-1150	206-463-2405 206-463-9191 (Emergency)	206-463-2405	King	206-463-6494
King County Fire District #16	18030 73rd Ave NE	Fred Baker	Bothell	WA	98011	425-486-2784	425-486-2784	King	425-483-6598
King County Fire District #2	15100 8th Ave SW	Gary Hobbick	Seattle	WA	98166	206-242-2040	206-242-2040	King	206-433-6042
King County Fire District #20	12424 76th Ave S	Mark Fitzgerald	Seattle	WA	98178	206-772-1430	206-772-1430	King	206-772-6095
King County Fire District #26	2238 S 223rd	Jim Polhamous	Des Moines	WA	98198	None	206-878-2210	King	206-878-2113
King County Fire District #39 info@fwfd.bess.net	31617 1st Ave S	Al Church	Federal Way	WA	98003	253-839-6234	253-839-6234	King	253-946-2086
King County Fire District #4 www.shorelinefire.com	1016 N 175th	J. B. Smith	Shoreline	WA	98133	206-546-5716	206-546-5716	King	206-546-5719
Kirkland Fire Department	123 5th Ave	Jeff Blake Lynn Oliver Deputy Ch.	Kirkland	WA	98033	425-885-3131	425-828-1143	King	425-828-1292
Kitsap County Fire District #1 ckfr@telebyte.com	10955 Silverdale Way NW	R. E. West	Silverdale	WA	98383	360-692-2551	360-692-2551	Kitsap	360-698-0092
Kitsap County Fire District #10	11171 NE Hwy. 104	P. O. Box 41 Paul Nichol	Kingston	WA	98346	360-478-5330 (Dispatch)	360-297-3619	Kitsap	360-297-2653
Kitsap County Fire District #12 kcfd12@tscnet.com	4071 Chico Way NW	P. O. Box 4365 Eugene Ellis	Bremerton	WA	98312	360-377-4744	360-377-4744	Kitsap	360-373-7852

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Kitsap County Fire District #14	7549 NE Twin Spits Rd.	P. O. Box 134 Paul Renbeck	Hansville	WA	98340	360-478-5330 (Dispatch)	360-638-2263	Kitsap	360-638-1809
Kitsap County Fire District #15	7600 Old Military Rd NE	Steven Bigelow	Bremerton	WA	98311	360-478-5254 (Dispatch) Do Not Publish	360-692-0880	Kitsap	360-698-2620
Kitsap County Fire District #18	911 NE Liberty Rd.	Jim Shields	Poulsbo	WA	98370	360-697-8303	360-779-3997	Kitsap	360-779-4697
Kitsap County Fire District #2	8895 Madison Ave. NE	Kirk Stickels	Bainbridge Island	WA	98110	206-842-7686 206-780-2537	206-842-7686	Kitsap	206-842-7695
Kitsap County Fire District #6	1947 Fircrest Dr. SE	P. O. Box 1517 Mike Brown	Port Orchard	WA	98366	360-871-2411	360-871-2411	Kitsap	360-871-2426
Kitsap County Fire District #7	1974 Fircrest Dr. SE	P. O. Box 1517 Mike Brown	Port Orchard	WA	98366	360-871-2411	360-871-2411	Kitsap	360-871-2426
La Conner Fire Department	204 Douglas	P. O. Box 581 Tom Zimmerman	La Conner	WA	98257	360-293-4686 (Anacortes)	360-466-3125`	Skagit	360-466-3901
Langley Fire Department	112 Second	P. O. Box 366 Don Fowler	Langley	WA	98260	No 24 Hr. #	360-221-4246	Island	360-221-4265
Lewiston Fire Department	300 13th Street	P. O. Box 617 Thomas J. Tomberg	Lewiston	ID	88501	208-743-3554	208-743-3554	Nez Perce	208-746-3801
Longview Fire Department rudy.weyland@ci.longview.wa.us	740 Commerce	Rudy Weyland	Longview	WA	98632	360-577-3098	360-577-3340	Cowlitz	360-577-3338
Lynnwood Fire Department	19100 44th Ave. N	P. O. Box 5008 Robert Meador	Lynnwood	WA	98046	425-774-3583	425-775-3473	Snohomish	425-771-7977
Marysville Fire Department	1635 Grove Street	Greg Corn	Marysville	WA	98270	360-659-2777	360-659-2777	Snohomish	360-659-1382
Mason County Fire District #1 badjack@hotmail.com	N. 331 Finch Creek Dr.	P. O. Box 354 Jack Janda	Hoodsport	WA	98548	360-877-5186	360-877-5186	Mason	None
Mason County Fire District #2 mcfdtwo@hctc.com	NE 460 Old Belfair Hwy.	P. O. Box 277 Michael Greene	Belfair	WA	98528-0277	360-275-6711 360-275-2889 (Dispatch)	360-275-6711	Mason	3690-275-6224
Mason County Fire District #17	N. 34571 Hwy. 101	P. O. Box 4 David Robbins	Lilliwaup	WA	98555			Mason	
Mason County Fire District #3	E. 4350 Grapeview Loop Rd.	P. O. Box 129 Dennis “Mike” Uglow	Grapeview	WA	98546		360-275-4483	Mason	360-427-6421
Mason County Fire District #4 masonfire4@aol.com	SE 2970 Arcadia	Cliff Cowling	Shelton	WA	98584	360-426-4441 (Dispatch)	360-426-7222	Mason	360-427-6120

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Mason County Fire District #5 mcfd5@aol.com	E. 2520 Mason-Benson Rd.	P. O. Box 127 R. A. Knight	Allyn	WA	98524	360-426-5533	360-426-5533	Mason	360-426-8959
Mason County Fire District #6	E. 50 Seattle St.	P. O. Box 39 Mike Greene (Interim)	Union	WA	98592	360-898-4871	360-898-4871	Mason	360-898-4870
Mason County Fire District #8	NE 14880 Northshore Rd.	P. O. Box 299 Steven Olsen	Tahuya	WA	98588		360-275-6478	Mason	
Mercer Island Fire Department	3030 78th Ave SE	Al Provost	Mercer Island	WA	98040	206-236-3500 (Dispatch)	206-236-3600	King	206-236-3622
Mid-Columbia Fire & Rescue Department jrichardson@gorge.net	1400 W. 8th	Joe Richardson	The Dalles	OR	97058	541-296-8656	541-296-9445	Wasco	541-296-8656
Mukilteo Fire Department	10400 47th Pl. W.	Jack Colbath	Mukilteo	WA	98275	425-348-3591	425-348-3591	Snohomish	425-513-2764
Multnomah Co. Fire Dept. 20	9735 NW Slyline Blvd.	Martyn Wheller	Portland	OR	97231		503-286-5030	Multnomah	
Neah Bay Fire Department		P. O. Box 115 Champ McCarty	Neah Bay	WA	98357		360-645-2201	Clallam	
Newport Fire Department	245 NW Tenth Street	Rick Crook	Newport	OR	97365	541-265-9461	541-265-9461	Lincoln	541-265-9463
North Bend Department	1880 McPherson	Scott Graham	North Bend	OR	97459	503-756-3135	503-756-3135	Coos	503-756-1033
Oak Harbor Fire Department ohfire@whidbey.net	855 E. Whidbey Ave.	Mark Soptich	Oak Harbor	WA	98277	360-679-9567 (Dispatch)	360-240-1608 360-679-5551	Island	360-679-4541
Olympia City Fire Dept.	100 Eastside St. NE	Larry Dibble (Acting)	Olympia	WA	98506-4081	360-753-8348	360-753-8348	Thurston	360-753-8054
Pasco Fire Department tamimathews@3-cities.com	404 West Clark	P. O. Box 293 Gregory Garcia	Pasco	WA	99301	509-545—3471 509-545-3510 (Dispatch)	509-545-3426	Franklin	509-545-3439
Pierce County Fire District #10 (See Tacoma Fire Department)	2015 54th Ave E		Tacoma	WA	98424			Pierce	
Pierce County Fire District #13	4815 Wa-Tau-Ga Ave. NE	5011 Hyada Blvd. David Strasser	Tacoma	WA	98422	253-581-3888 253-552-4776 X4 (Fire Marshall-Sean McDonald)	253-952-4776	Pierce	253-925-8889
Pierce County Fire District #16	9811 Key Peninsula Hwy	Gary Franz	Lakebay	WA	98349	253-884-2222 253-884-1217	253-884-2222	Pierce	253-884-9437

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Pierce County Fire District #27	10011 Lake Josephine Blvd	David Sheets	Anderson Island	WA	98303	253-581-3888 Dispatch	253-884-4040	Pierce	253-884-4057
Pierce County Fire District #5	10222 Bujacich Rd. NW	Larry Claiborne	Gig Harbor	WA	98332-8540	253-851-3111	253-851-3111	Pierce	253-851-9606
Port Angeles Fire Department pafire@cl.port-angeles.wa.us	102 E 5th	Bruce Becker	Port Angeles	WA	98362	360-417-4655	360-417-4655	Clallam	360-417-4659
Port Orchard Fire Department	1974 Fircrest SE	Mike Brown	Port Orchard	WA	98366	360-871-2411	360-871-2411	Kitsap	360-871-2426
Port Townsend Fire Department	1310 Lawrence Street	Tom Aumock, Acting	Port Townsend	WA	98368	360-385-2626	206-385-2626	Jefferson	360-385-1122
Portland ANG Base Fire Dept.	6801 NE Cornfoot Drive	Asllen Rousch	Portland	OR	97218-2797	503-335-4890	503-335-4890	Multnomah	503-335-4472
Portland Fire Bureau	55 SW Ash	Robert Wall	Portland	OR	97204	503-823-3700	503-823-3700	Multnomah	503-823-3710
Portland Int'l Fire Dept.	7000 NE Airport Way	Kenneth Cook	Portland	OR	97218	503-460-4600	503-460-4600	Multnomah	503-460-4673
Poulsbo Fire Department	911 NE Liberty Rd.	Jim Schields	Poulsbo	WA	98370	360-697-8303	360-779-3997	Kitsap	360-779-4697
Rainier Rural Fire Department	211 W. 2nd St.	Terry Grice	Rainier	OR	97048	503-556-3672	503-556-3732/3672	Columbia	503-556-0247
Reedsport Fire Department	124 North 4th	Ed Connor	Reedsport	OR	97467	541-271-2423	541-271-2423/2685	Douglas	541-271-4735
Renton Fire Department	1900 Lind Ave. SW	P. O. Box 2925 Lee Wheeler	Renton	WA	98056-0925		425-235-2643	King	425-204-5790
Richland Fire Department craigw@ci.richland.wa.us	1000 George Washington Way	P. O. Box 190 Craig Williamson	Richland	WA	99352	509-942-7550	509-942-7550	Benton	509-942-7575
San Juan County Fire District #2	217 Prune Alley	P. O. Box 217 Gary D. Bennett	Eastsound (Orcas Island)	WA	98245	360-378-4151	360-376-2331	San Juan	360-376-4463
San Juan County Fire District #3 sjifire@rockisland.com	310 Carter Ave.	P. O. Box 764 Glen Potter, Jr.	Friday Harbor	WA	98250	360-378-4151 (Dispatch)	360-378-5334	San Juan	360-378-5891
San Juan County Fire District #4	Fisherman Bay Rd.	P. O. Box 1 Gary Schultz	Lopez	WA	98261	360-468-2991 360-468-2333 (Dispatch)	360-468-2991	San Juan	
San Juan County Fire District #5		P. O. 432 Tim Nelson	Shaw Island	WA	98286	360-468-3715	360-468-3715	San Juan	
San Juan County Fire District #6	Star Rt. Stuart Island		Friday Harbor	WA	98250			San Juan	

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
San Juan Fire Dept.	260 West Street	P.O. Box 219 Howard Rosenfeld	Friday Harbor	WA	98250		360-378-5334	San Juan	360-378-2591
Scappoose Fire Department		PO. Box 625 Michael Greisen	Scappoose	OR	97056	503-543-5029	503-543-5026	Columbia	503-543-2670
Seaside Fire Department	150 South Lincoln	Jim Puckett	Seaside	OR	97138	503-738-6311	503-738-5420	Clatsop	503-717-9318
Seattle Fire Department Battalion Office	2139 Ferry Avenue SW		Seattle	WA	98106		Unlisted	King	
Seattle Fire Department Fire Boat Officer	925 Alaskan Way		Seattle	WA	98104		Uhnlisted	King	
Seattle Fire Department Fire Station #36	3600 23rd Avenue SW		Seattle	WA	98106			King	
Seattle Fire Department	301 Second Avenue South	James Sewell	Seattle	WA	98104-2680	206-386-1400	206-386-1400	King	206-386-1412
Sequim Fire Department	323 N. Fifth Ave.	Thomas Lowe	Sequim	WA	98382	360-683-4242 X-6	360-683-4242	Clallam	360-683-6834
Shelton Fire Department	122 W. Franklin	P. O. Box 1277 Dan Ward	Shelton	WA	98584	360-426-3348 360-426-4441 (Dispatch)	360-426-3348	Mason	360-426-3301
Skagit County Fire District #11	Deception Rd.	1493 State Route 20 Jim Stewart	Anacortes	WA	98221	360-293-4684 (Dispatch)	360-293-8367	Skagit	None
Skagit County Fire District #12	1019 “C” St.	Richard Fair	Mt Vernon	WA	98273			Skagit	
kagit County Fire District #13 Hope Island/Summit Park	615 E. Morris (District Office)	P. O. Box 532 Bill Clothier; Mike Hernandez	LaConner	WA	98257		360-466-3181	Skagit	360-466-1702
Skagit County Fire District #17	530 Guemes Island Rd.	Carl Meinzinger	Anacortes	WA	98221		360-293-8681	Skagit	360-293-8681
Skagit County Fire District #2	1544 Beavermarsh Rd.	1390 McLean Rd. Rolla “Skip” Ritchey	Mount Vernon	WA	98273		360-424-7296	Skagit	360-428-7983
Skagit County Fire District #3 Conway / Cedardale		P. O. Box 753 Steve Skrinde; Glenn Harman	Conway	WA	98238		360-445-3617 (Steve Skrinde)	Skagit	
Skagit County Fire District #5 Allen Station/Edison Station/ Samish Island Station		559 Chuckanut Dr. Loren Dahl; John Leander; Tim Ratfield	Bow	WA	98232		360-766-6325	Skagit	

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Snohomish County Fire District #111 (1 & 11 merged)	12310 Meridian Ave.	Chauncey Sauer	Everett	WA	98208	425-551-1200	425-551-1200	Snohomish	425-551-1249
Snohomish County Fire District #14	#1: 18902 Marine Dr. NW; #2: 3231 300th NW Freedom	P. O. Box 184 Ronald Barton	Warm Beach; Stznwood	WA	98292	360-652-8119	360-652-8119 (Dist. Office) 360-652-1246 #1 360-629-3011	Snohomish	
Snohomish County Fire District #15	7812 Waterworks Rd.	Brad Lutthans	Marysville	WA	98271		360-659-2416	Snohomish	360-653-7387
Snohomish County Fire District #27	100-F Saratoga Dr., Hat Isl.	P. O. Box 1846 Allen Kosko	Everett	WA	98206-1846		360-444-6886	Snohomish	
St. Helens Fire Department	270 Columbiaa Blvd.	George Dunkel	St. Helens	OR	97051	503-397-2990	503-397-2990	Columbia	503-397-3198
Stanwood Volunteer Fire Department	10220 270th Street NW	Scott Koehler	Stanwood	WA	98292		360-629-2184	Snohomish	360-629-4192
Steilacoom Fire Department	601 Main Street	Michael Campbell	Steilacoom	WA	98388	253-581-0111 253-798-4721	253-581-0110	Pierce	253-581-2437
Tacoma Fire Department	901 S Fawcett	Richard Moore	Tacoma	WA	98402-5699	253-591-5733	253-591-5737 X5738	Pierce	253-591-5746
The Dalles Fire - See Mid-Columbia Fire & Rescue			The Dalles	OR					
Thurston County Fire District #13	3707 Steamboat Loop Rd NW	Louis Hayvaz	Olympia	WA	98502	360-866-9000	360-866-9000	Thurston	360-866-6927
Thurston County Fire District #3	5608 Pacific Ave. SE	P. O. Box 3366 James Broman	Lacey	WA	98509	360-491-2803	360-491-2410	Thurston	360-491-2806
Thurston County Fire District #7	5046 Boston Harbor Rd.	Ray Harry	Olympia	WA	98506		360-705-0234	Thurston	360-705-0208
Thurston County Fire District #8	3349 South Bay Rd NE	Brian Van Camp	Olympia	WA	98506	360-491-5320	360-491-5320	Thurston	360-438-0523
Thurston County Fire District #9	4131 Mud Bay Rd SW	Michael Peters	Olympia	WA	98502	360-866-1000 X3 Disp-360-786-5603	360-866-1000	Thurston	360-867-0508
Tukwila Fire Department	444 Andover Park E	Thomas Keefe	Tukwila	WA	98188	206-575-4404 206-575-4407	206-575-4404	King	206-575-4439
Umatilla Fire Department	921 6th St.	P. O. Box 456 Mike Roxbury	Umatilla	OR	97882	541-922-3718	541-922-3718	Umatilla	541-922-3914

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Vancouver Fire Department	7110 NE 63rd St.	Dan Fraijo	Vancouver	WA	98661	360-892-4323	360-892-4323	Clark	360-892-4801
Walla Walla Fire Department	200 S. 12th St.		Walla Walla	WA	99362		509-527-4429	Walla Walla	
Warrenton Fire Department	35 SW 2nd St.	P. O. Box 250 Ted Ames	Warrenton	OR	97146	503-861-2494	503-861-2494	Clatsop	503-861-2351
Westport Fire Department	170 W. Spokane	P. O. Box 728 Bill Crowell	Westport	WA	98595	360-268-9235	360-268-9235	Grays Harbor	360-268-1880
Whatcom County Fire District #11	3809 Legoe Bay Road	P. O. Box 130 Capt.Rupe	Lummi Island	WA	98262	360-758-2411 Car 1101 Car 1102	360-758-2411	Whatcom	360-758-2041
Whatcom County Fire District #13 dwe@pacificrim.net	4581 Birch Bay Lynden Road	David England	Blaine	WA	98230	360-371-2533	360-371-2533	Whatcom	360-371-7001
Whatcom County Fire District #17 wcfd17@az.com	4332 Sucia Drive	Jim Petrie	Ferndale	WA	98248	360-384-1480	360-384-6101 360-384-1480 Staation #!1; 360-384-2619 Station #2	Whatcom	
Whatcom County Fire District #5 dgag@whidbey.com	2030 Benson Road, Suite A	Scott Chehawk	Point Roberts	WA	98281	360-945-3473	360-945-3473	Whatcom	360-945-2526
Whatcom County Fire District #6	686 Chuckanut Drive	P. O. Box 5423 Ray Chenvert	Bellingham	WA	98227-5423	360-671-1749	360-671-1749	Whatcom	360-671-
Whatcom County Fire District #7 wcfd@aol.com	2020 Washington St	P. O. Box 1599 Gary Russell	Ferndale	WA	98248-1599	360-384-0303	360-384-0303	Whatcom	360-384-4509
Whatcom County Fire District #8	2913 Bennett Drive	Gary Crawford	Bellingham	WA	98225	360-733-6612	360-733-6612	Whatcom	360-733-1803
FISHERIES									
Aleutian Spray Fisheries	4039 21st Avenue W	Suite 401	Seattle	WA	98199			King	
Arctic Alaska Fish Corporation	Fisherman's Terminal	P. O. Box 79021	Seattle	WA	98119		206-298-4099	King	206-443-3839
Arctic King Fisheries	1216 Pine Street #200		Seattle	WA	98101			King	
Arica Fishing Company	4215 23rd Avenue W.		Seattle	WA	98199			King	
Birting Fisheries Inc.	121 5th Avenue N	Suite 302	Edmonds	WA	98020			Snohomish	

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Buhlow Fisheries Inc.	7212 34th NW		Seattle	WA	98117			King	
Deep Sea Fisheries Inc.	5305 Shilshole Avenue N.W.	Suite 200	Seattle	WA	98107			King	
Deep Sea Fisheries Inc.	5305 Shilshole Avenue NW		Seattle	WA	98107			King	
Glacier Fish Company Ltd.	4601 11th Avenue NW		Seattle	WA	98107			King	
Golden Age Fisheries	111 Queen Anne Avenue N.	Suite 201	Seattle	WA	98109			King	
Golden Alaska Seafoods Inc.	2001 Western Avenue	Suite 400	Seattle	WA	98121			King	
Golden H. Fisheries	111 Queen Ann Avenue N.	Suite 201	Seattle	WA	98109			King	
Karluk Fisheries Inc	2442 NW Market	Room # 397	Seattle	WA	98107			King	
Lafayette Fisheries	4259 22nd Avenue W.		Seattle	WA	98199			King	
Lummi Nation/Fisheries Department	2616 Kwina Road		Bellingham	WA	98226		206-647-6230	Whatcom	206-384-4737
National Marine Fisheries Service	7600 Sand Point Way NE		Seattle	WA	98115			King	
New Day Fisheries	4210 NE Parish Lane		Poulsbo	WA	98370			Kitsap	
New ERA Fisheries	F/V Aleutian No. 1	10221 Belgrove Court NW	Seattle	WA	98177			King	
New West Fisheries Inc	601 W. Chestnut Street		Bellingham	WA	98225			Whatcom	
North Pacific Fishing Inc.	4039 21st Avenue W	Suite 201	Seattle	WA	98199			King	
NorthWest Indian Fisheries Commission	6730 Martin Way East		Olympia	WA	98506			Thurston	
Northwest Indian Fisheries Commission	P.O. Box 1029		Forks	WA	98331		206-374-5501	Clallam	206-374-5592

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Northwest Indian Fisheries Commission	6730 Martin Way E		Olympia	WA	98506		206-438-1180	Thurston	206-753-8659
Pacific Fishing	1515 NW 51st Street		Seattle	WA	98107			King	
Palisades Fisheries Inc	180 Nickerson	Suite 309	Seattle	WA	98109			King	
Puget Sound Gillnetters	Fisherman's Terminal		Seattle	WA	98119			King	
Regal Fish LTD	4025 21 Avenue West		Seattle	WA	98199			King	
Royal Seafoods Inc	1226 16th Avenue W		Seattle	WA	98119			King	
Sea Frozen Fisheries Inc	7710-236 SW		Edmonds	WA	98020			Snohomish	
Trident Seafoods Corporation	5303 Shilshole Avenue NW		Seattle	WA	98107			King	
Westward Trawlers Inc.	P.O. Box 11721		Bainbridge Island	WA	98110			Kitsap	
Wizard Fisheries F/V North Wind Inc	4574 W Cramer		Seattle	WA	98199			King	
Wizard Fisheries F/V TRAVELER	106 NW Nye Street		Newport	OR	97365			Lincoln	
Wizard Fisheries F/V Wizard	7212 34th NW		Seattle	WA	98117			King	
LABORATORIES									
Analytical Resources Inc	333 Ninth Avenue N		Seattle	WA	98109		206-621-6490	King	206-621-7523
Analytical Services Inc	12277 134th Court NE		Redmond	WA	98052		206-820-4551	King	206-820-6337
Analytical Technologies Inc	560 Naches Avenue SW	Suite 101	Renton	WA	98055		206-228-8335	King	206-228-8498
Battelle NW			Sequim	WA			206-683-4151	Clallam	
Biomed Research Laboratory			Seattle	WA			206-324-0380	King	
Cascade Analytical Inc	3019 G.S. Center Road		Wenatchee	WA	98801		509-662-1888	Chelan	509-662-8183
Ecology & Environment Inc			Seattle	WA			206-624-9537	King	
Federal Testing Laboratories	29-1/2 Dravus		Seattle	WA	98109	206-283-4202	206-283-4202	King	
Friedman & Bruya Inc			Seattle	WA			206-285-8282	King	

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Lauck's Testing Laboratory	940 South Harney		Seattle	WA	98108		206-767-5060	King	206-767-5063
Northwest EnvironServices Inc	1700 Airport Way South	PO Box 24443	Seattle	WA	98134	800-441-1090	206-622-1090	King	206-467-7358
	911 Western		Seattle	WA	98104		206-622-8353	King	
Olympic Scientific Inc	911 Western Avenue	Suite 422	Seattle	WA	98104		206-623-5998	King	206-623-8268
Pacific Northwest Laboratories	P.O. Box 999		Richland	WA	99352		509-375-2121	Benton	509-376-3876
Pacific Testing Laboratories	20 17th Avenue W		Seattle	WA	98119		206-282-0666	King	
Science Applications International Corp			Seattle	WA			206-485-5800	King	
Sound Analytical Services Inc	4813 Pacific Highway East		Tacoma	WA	98424		206-922-2310	Pierce	206-922-5047
Sound Testing	4608 36th Avenue SW		Seattle	WA	98126		206-932-0206	King	
MEDIA-MAGAZINE									
48 North	6327 Seaview Avenue NW		Seattle	WA	98107		206-789-7350	King	206-789-6392
Alaska Fisherman's Journal	Waterfront Press Co.	1115 NW 46th Street	Seattle	WA	98107		206-789-6506	King	206-789-9193
Atlantic Salmon Journal	1435 Suite Alexandre	Suite 1030	Montreal	PQ	H3A 2G4		514-842-8059		
Marine Digest and Transportation News	1201 First Avenue S Suite 305	P.O. Box 3905	Seattle	WA	98124		206-682-3607	King	
Marine Response Bulletin	1202 First Avenue S Suite 305	P.O. Box 3905	Seattle	WA	98124		206-682-3607	King	
MEDIA-NEWSPRINT - DAILY									
Albany Democrat Herald	138 Sixth Avenue SW	P.O. Box 130	Albany	OR	97321		503-926-2211		503-926-5298
Bellevue Journal American	P.O. Box 90130		Bellevue	WA	98009		206-453-4252	King	206-635-0603
Bellingham Herald	P.O. Box 1277		Bellingham	WA	98227	206-676-7113	206-676-2620	Whatcom	206-676-7113
Bremerton Sun	P.O. Box 259		Bremerton	WA	98301		206-377-3711	Kitsap	206-377-9237
Business Journal			Portland	OR			503-274-8733	Multnomah	

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Columbia Basin Herald	P.O. Box 910		Moses Lake	WA	98837		509-765-4561	Grant	
Columbia Press			Astoria	OR			503-861-3331		
Columbian			Vancouver	WA			206-694-3391	Clark	
Daily Astorian	P.O. Box 210		Astoria	OR	97103		503-325-3211	Clatsop	503-325-6573
Daily Chronicle			Centralia	WA			206-736-3311	Lewis	
Daily Index	P.O. Box 1303		Tacoma	WA	98401		206-627-4853	Pierce	206-627-2253
Daily Journal- American	P.O. Box 90130		Bellevue	WA	98401		206-455-2222	King	
Daily Journal of Commerce			Portland	OR			503-226-1311	Multnomah	
Daily Journal of Commerce	83 Columbia		Seattle	WA			206-622-8272	King	
Daily News	South 107 Grand		Pullman	WA	99163		509-334-6397	Whitman	
Daily News			Longview	WA			206-577-2500	Cowlitz	
Daily Record	P.O. Box 248		Ellensburg	WA	98926		509-925-1414		
Daily Shipping News			Portland	OR			503-255-2142		
Daily Sun- World	P.O. Box 878		Sunnyside	WA	98944		206-837-4500		
Daily World	315 South Michigan		Aberdeen	WA	98520		206-532-4000	Grays Harbor	206-532-8378
East Oregonian	P.O. Box 1089		Pendleton	OR	97801		503-276-2211		503-276-8314
Grants Pass Daily Courier	P.O. Box 1468		Grants Pass	OR	97526		503-474-3716		503-474-3814
Great Falls Tribune	P.O. Box 5468		Great Falls	MT	59403		406-761-6666		406-791-1431
Idaho Statesman	P.O. Box 40		Boise	ID	83707		208-377-6400		208-377-6449
Inter Lake	P.O. Box 8		Kalispell	MT	59903		406-755-7000		406-752-6114
Lynden Tribune			Lynden	WA			206-354-4444	Whatcom	206-734-3709
Missoulian	P.O. Box 8029		Missoula	MT	59807		406-721-5200		406-523-5221
Montana Standard	P.O. Box 627		Butte	MT	59703	800-877-1074	406-782-8301		406-496-5551
Moring News Tribune	32050 23rd Avenue S		Federal Way	WA			206-941-9700	Pierce	
Peninsula Daily News	P.O. Box 1330		Port Angeles	WA	98362		206-452-2345	Clallam	206-452-7032
Renton Record- Chronicle	P.O. Box 130		Kent	WA	98035		206-873-6600	King	206-854-1006

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Seattle P.I. City Desk	101 Elliott Avenue W	P.O. Box 1909	Seattle	WA	98111		206-448-8303	King	206-448-8166
Seattle P.I. City Desk	John Hahn						206-448-8317		206-448-8174
Seattle Times	P.O. Box 70		Seattle	WA	98111		206-464-2204	King	206-464-2261
Spokane Chronicle	P.O. Box 2160		Spokane	WA	99210		509-459-5430	Spokane	206-459-5482
Statesman Journal	P.O. Box 13009		Salem	OR	97309		503-399-6611		503-399-6706
Tacoma News Review	P.O. Box 11000		Tacoma	WA	98411		206-597-8686	Pierce	206-597-8764
The Billings Gazette	P.O. Box 36300		Billings	MT	59107		406-657-1241		406-657-1345
The Bulletin	1526 NW Hill Street		Bend	OR	97701		503-382-1811		503-385-5802
The Columbian	P.O. Box 180		Vancouver	WA	98666		206-694-3391		
The Corvallis Gazette	600 SW Jefferson	P.O. Box 368	Corvallis	OR	97339		503-753-2641		503-758-9505
The Daily Astorian			Astoria	OR			503-325-3211		
The Daily Bee	P.O. Box 159		Sandpoint	ID	83864		208-263-9534		208-263-9091
The Daily News	P.O. Box 189		Longview	WA	98632		206-577-2550		206-577-2538
The Daily World			Grays Harbor	WA			206-532-4000		
The Herald	P.O. Box 930		Everett	WA	98206		206-339-3400	Snohomish	206-339-3464
The Herald & News	P.O. Box 788		Klamath Falls	OR	97601		503-885-4410		503-883-4007
The Independent Record	P.O. Box 4249		Helena	MT	59604		406-447-4071		406-447-4052
The Mail Tribune	P.O. Box 1108		Medford	OR	97501		503-776-4411		503-776-4376
The Montesano Vidette			Grays Harbor	WA			206-249-3311		
The News	P.O. Box 1330		Port Angeles	WA	98362		206-452-2345	Clallam	206-452-7032
The News Review	P.O. Box 1248		Roseburg	OR	97470		503-672-3321		503-673-5994
The Ocean Observer			Grays Harbor	WA			206-289-4576		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
The Oregonian	1320 SW Broadway		Portland	OR	97201		503-221-8195	Multnomah	503-227-5306
The Post-Register	P.O. Box 1800		Idaho Falls	ID	83401		208-522-1800		208-529-3142
The Register-Guard	P.O. Box 10188		Eugene	OR	97440		503-485-1234		503-683-7631
The Tribune	505 C Street		Lewiston	ID	83501		208-743-9411		208-746-7341
The World	P.O. Box 1840		Coos Bay	OR	97420		503-269-1222		503-267-0294
Tri City Herald	P.O. Box 2608		Kennewick	WA	99302		509-582-1500		
Valley Daily News	P.O. Box 130		Kent	WA	98035		206-872-6600	King	206-854-1006
Vancouver Columbia			Portland	OR			503-224-0654		
Wenatchee World	P.O. Box 1511		Wenatchee	WA	98801		509-663-5161		509-662-5413
Western Front			Bellingham	WA			206-676-3160	Whatcom	
Yakima Herald- Republic	P.O. Box 9668		Yakima	WA	98909		509-248-1251		509-453-7995
MEDIA-NEWSPRINT - WEEKLY									
Adams County Journal- Thursdays	P.O. Box 288		Ritzville	WA	99169		509-659-1020		
Advocate- Thursdays	P.O. Box 327		Sprague	WA	99032		509-257-2311		
Anacortes American- Wednesdays	P.O. Box 39		Anacortes	WA	98221		206-293-3122	Skagit	206-293-5000
Bainbridge Review- Wednesdays	P.O. Box 10817		Bainbridge Island	WA	98110		206-842-6613	King	206-842-5867
Ballard News Tribune- Wednesdays	2208 Market Street NW		Seattle	WA	98107		206-783-1244	King	206-789-2455
Beacon Hill News- Wednesdays	4730 32nd Avenue South		Seattle	WA	98118		206-723-1300	King	206-723-9151
Camas-Washougal Post-Recorder- Tuesdays	P.O. Box 1013		Camas	WA	98607		206-892-2000		206-834-3423
Capital Hill Times- Wednesdays	2314 Third Avenue		Seattle	WA	98121		206-461-1300	King	206-461-1318
Channel Town Press	P.O. Box 575		La Conner	WA	98257		206-466-3315		
Chronicle	P.O. Box 6		Dayton	WA	98328		509-382-2221		
City Herald	1320 South 324th Street	Suite 108	Federal Way	WA	98003		206-839-7478	King	206-927-1140

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County Chronicle	P.O. Box 1115		Port Angeles	WA	98362		206-452-8444	Clallam	206-683-6670
Courier	14941 NE 95th		Redmond	WA	98052		206-883-7187	King	206-881-9567
Courier Herald- Thursdays	P.O. Box 157		Enumclaw	WA	98022		206-825-2555	King	206-825-1092
Cowlitz County Advocate	P.O. Box 368		Castle Rock	WA	98611		206-274-6663		
Deer Park Tribune- Thursdays	P.O. Box 400		Deer Park	WA	99006		509-276-5043		
Desert Press	P.O. Box 1782		Matawa	WA	99344		509-932-4779		
Douglas County Empire-Press- Thursdays	P.O. Box 430		Waterville	WA	98858		509-745-8782		
Eastside Review	14941 NE 95th		Redmond	WA	98052		206-861-4660	King	206-881-9567
East Washingtonian	P.O. Box 70		Pomeroy	WA	99347		509-843-1313		
Echo- Wednesdays	P.O. Box 39		Leavenworth	WA	98826		509-548-5286		
Enterprise- Wednesdays	P.O.Box 977		Lynnwood	WA	98046		206-775-7521	Snohomish	206-774-8622
Enterprise- Thursdays	P.O. Box 218		White Salmon	WA	98673		509-493-2112		
Forks Forum Peninsula Herald- Wednesdays	P.O. Box 300		Forks	WA	98331		206-374-2281	Clallam	206-374-5739
Fort Lewis Ranger- Thursdays	P.O. Box 98801		Tacoma	WA	98498		206-584-1212	Pierce	206-581-5962
Franklin County Graphic	P.O. Box 160		Connell	WA	99326		509-234-3181		
Free Press- Thursdays	P.O. Box 218		Cheney	WA	99004		509-235-6184		
Gazette- Thursdays	P.O. Box 770		Colfax	WA	99111		509-397-4333		
Globe	P.O. Box 145		Marysville	WA	98270		206-659-1300	Snohomish	206-658-0350
Grant County Journal- Mondays & Thursdays	P.O. Box 988		Ephrata	WA	98823		509-754-4636		
Grays Harbor Beacon- Wednesdays	P.O. Box 1207		Ocean Shores	WA	98569		206-289-3359		
Herald- Wednesdays	107 Division		Grandview	WA	98930		509-882-3712		
Highline Times	P.O. Box 518		Burien	WA	98166		206-242-0100	King	206-241-2718
Independent- Wednesdays	P.O. Box 5		Chewelah	WA	99109		509-935-8422		
Independent- Wednesdays	P.O. Box D		Tenino	WA	98589		206-264-2500		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Independent- Wednesdays	P.O. Box 67		Wapato	WA	98951		509-877-3322		
Journal	7676 196th SW		Lynnwood	WA	98036		206-775-2400	Snohomish	206-670-0511
Journal	P.O. Drawer M		Morton	WA	98356		509-496-5993		
Journal of the San Juan Island- Wednesdays	P.O. Box 519		Friday Harbor	WA	98250		206-378-4191	San Juan	206-378-4103
Kenmore/Northlake News- Tuesdays	P.O. Box 587		Woodinville	WA	98072		206-483-0606	King	206-486-7593
Kitsap County Herald- Wednesdays	P.O. Box 278		Poulsbo	WA	98370		206-779-4464	Kitsap	206-682-1107
Lake Chelan Mirror- Wednesdays	P.O. Box 249		Chelan	WA	98816		509-682-2213		
Lewis County News	P.O. Box 10		Winlock	WA	98596		509-785-3151		
Lewistown News-Argus- Sundays & Wednesdays	P.O. Box 900		Lewistown	MT	59457		406-538-3401		406-538-2185
Madison Park Times	2314 Third Avenue		Seattle	WA	98121		206-461-1300	King	206-461-1340
Magnolia News- Wednesdays	225 West Galer		Seatle	WA	98199		206-282-0900	King	206-285-1085
Masonic Tribune	225 West Galer Street		Seattle	WA	98199		206-285-1505	King	206-283-1816
Medium	2600 South Jackson		Seattle	WA	98122		206-323-3070	King	206-322-6518
Mercer Islander	P.O. Box 1358		Mercer Island	WA	98040		206-232-5840		
Methow Valley News- Thursdays	P.O. Box 97		Twisp	WA	98856		509-997-7011		
Monitor/Valley News- Wednesdays	P.O. Box 399		Monroe	WA	98272		206-794-7116		206-794-6202
Navy News	P.O. Box 259		Bremerton	WA	98310		206-373-7841		206-682-3378
Newport News Times- Wednesdays	P.O. Box 965		Newport	OR	97365		503-265-8571		503-265-3103
News	1634 South 312th		Federal Way	WA	98003		206-869-0700	King	206-941-2641
News-Miner	P.O. Box 438		Republic	WA	99466		509-775-3558		
News-Standard- Thursdays	P.O. Box 488		Coulee	WA	99115		509-632-5402		
News Tribune- Wednesdays	P.O. Box 499		Snohomish	WA	98290		206-568-4121	Snohomish	206-568-0835

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Nisqually Valley News- Thursdays	P.O. Box 597		Yelm	WA	98697		206-458-2681		
North Beach Beacon- Wednesdays	P.O. Box 1207		Ocean Shores	WA	98569		206-289-3359		206-289-4219
North Bend Valley Record	P.O. Box 300		Snoqualmie	WA	98065		206-888-2311		206-888-2427
North-Central Outlook- Wednesdays	2314 Thrid Avenue		Seattle	WA	98121		206-		
North Coast News	P.O. Box 272		Ocean Shores	WA	98569		206-289-2441		
Northern Kittitas County Tribune	P.O. Box 308		Cle Elum	WA	98922		509-674-2511		
Northshore Citizen- Wednesdays	P.O Box 647		Bothell	WA	98041		206-486-1231	King	206-483-3286
North Snohomish Weekly	P.O. Box 3187		Arlington	WA	98223		206-653-8000		
Northwest Guardian	P.O. Box 99867		Tacoma	WA	98499		206-584-5818	Pierce	206-584-6098
Oak Harbor NAS Whidbey Crosswind- Fridays	P.O. Box 10		Oak Harbor	WA	98277		206-675-6611		
Okanogan County Chronicle- Wednesdays	P.O. Box 553		Omak	WA	98841		509-826-1110		
Okanogan County Gazette-Tribune	P.O. Box 250		Oroville	WA	98844		509-476-3602		
Olympian	P.O. Box 407		Olympia	WA	98507		206-754-5400	Thurston	206-357-0202
Optimist	111 West Naches Ave		Selah	WA	98942		509-697-8505		
Outlook- Wednesdays	P.O. Box O		Othello	WA	99344		509-488-3342		
Peninsula Gateway- Wednesdays	P.O. Box 407		Gig Harbor	WA	98335		206-851-9921		206-851-3939
Pierce County Herald- Tuesdays & Saturdays	P.O. Box 517		Puyallup	WA	98371		206-841-2481		206-840-8231
Port Orchard Independent	P.O. Box 27		Port Orchard	WA	98366		206-876-4414		206-292-9521
Port Townsend Leader- Wednesdays	P.O. Box 522		Port Townsend	WA	98368		206-385-2900		206-385-3422
Press- Wednesdays	P.O. Box 1328		Issaquah	WA	98027		206-392-6434		
Quad City Herald	P.O. Box 37		Brewster	WA	98812		509-689-2507		
Queen Anne News- Wednesdays	225 West Galer		Seattle	WA	98199		206-		
Record- Thursdays	P.O. Box 458		Odessa	WA	99159		509-982-2632		

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Record-Journal- Wednesdays	P.O. Box 750		Prosser	WA	98350		509-786-1711		
Reflector- Wednesdays	P.O. Box 2020		Battle Ground	WA	98604		206-687-5151		
Register- Thursdays	P.O. Box 186		Wilbur	WA	99185		509-647-5551		
Reporter- Wednesdays	7845 SE 30th		Mercer Island	WA	98040		206-232-1215	King	206-232-1284
Review	P.O. Box 511		Sunnyside	WA	98948		509-865-4055		
Royal Review	P.O. Box 219		Royal City	WA	99357		509-346-9723		
Sammamish Valley News- Wednesdays	14941 95th		Redmond	WA	98052		206-883-7187	King	206-881-9567
Seattle Medium & Tacoma True Citizen- Fri	2600 South Jackson		Seattle	WA	98144		206-323-3070	King	
Seattle Weekly- Wednesdays	1931 Second Avenue		Seattle	WA	98101		206-441-5555	King	206-441-6213
Sentinel- Thursdays	117 West Main		Goldendale	WA	98620		509-773-3777		
Sequim Gazette	P.O. Box 1750		Sequim	WA	98382		206-683-7238		
Sequim Sun	P.O. Box 2049		Sequim	WA	98382		206-683-3311		206-683-6670
Shelton-Mason County Journal & Belfair Herald	P.O. Box 430		Shelton	WA	98584		509-426-4412		
Siuslaw News- Wednesdays	P.O. Box 10		Florence	OR	97439		503-997-3441		503-997-7979
Silverdale Community Style	P.O. Box 2588		Bremerton	WA	98310		206-373-7969	Kitsap	206-682-3378
Skagit Argus- Tuesdays	P.O. Box 739		Mount Vernon	WA	98273		206-336-6555	Skagit	
Skagit Valley Herald	P.O. Box 578		Moutn Vernon	WA	98273		206-424-3251	Skagit	
Skamania County Pioneer	P.O. Box 219		Stevenson	WA	98648		509-427-8444		
South District Journal- Wednesdays	4730 32nd Avenue South		Seattle	WA	98118		206-		
South Pierce County Dispatch	P.O. Box 248		Eatonville	WA	98328		206-832-4411	Pierce	206-832-6606 DISPATCH
South Whidbey Record- Tuesdays	P.O. Box 387		Langley	WA	9826		206-321-5300		206-321-6474

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Spokesman- Review	P.O. Box 2160		Spokane	WA	99210		509-459-5000	Spokane	
Standard-Register- Fridays	P.O. Box 988		Tekoa	WA	99033		509-284-5782		
Stanwood/Camano News- Wednesdays	P.O. Box 999		Stanwood	WA	98292		206-629-2155		
Statesman-Examiner- Wednesdays	220 South Main Street		Colville	WA	99114		509-684-4567		509-684-3849
The Banner	P.O. Boxx 1712		Blaine	WA	98230		206-332-6397		
The Citizen Newspapers- Wednesdays	P.O. box 706		Bothell	WA	98041		206-486-1231	King	206-483-3286
The Chronicle	321 North Pearl		Centralia	WA	98531		206-736-3311		
The Daily of the University of Washington	144 Communications	DS-20	Seattle	WA	98195		206-543-7666	King	206-543-2345
The Facts	1019 South 12th		Tacoma	WA	98405		206-627-5862		
The Impact	910 Sleater-Kinney Rd		Lacey	WA	98503		206-352-0326		
The Islands Sounder- Wednesdays	P.O. Box 758		Eastsound	WA	98245		206-376-4500		206-376-4501
The Lakewood Journal	9105 Bridgeport Way SW		Tacoma	WA	98499		206-584-8080	Pierce	206-584-6098
The Lewis River News & Kalama Bulletin- Wed	P.O. Box 39		Woodland	WA	98674		206-225-8287		
The Rainier Independent	22802 Meridian East		Graham	WA	98338		206-847-4322		
The Skagit River Post/ Courier-Times	P.O. Box 32		Sedro Woolley	WA	98284		206-855-1641		
The Star- Thursdays	P.O. Box 150		Grand Coulee	WA	99133		509-633-1350		
The Times- Thursdays	P.O. Box 97		Waitsburg	WA	99361		509-337-6631		
Times	P.O. Box 67		Arlington	WA	98223		206-435-5757		
Times	P.O. Box 66		Davenport	WA	99122		509-725-0101		
Tribune	P.O. Box 153		Lynden	WA	98264		206-354-4444		
University Herald- Wednesdays	2314 Third Avenue		Seattle	WA	98121		206-461-1300	King	206-461-1318
Valley Post-Register- Thursdays	P.O. Box 217		Quincy	WA	98848		509-787-4511		

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Valley Record- Wednesdays	P.O. Box N		Cashmere	WA	98815		509-782-3781		
Valley Reporter	P.O. Box 1954		Snoqualmie	WA	98065		206-888-9435		206-888-9439
Valley Times- Thursdays	P.O. Box 370		Beaverton	OR	97095		503-684-0360		503-620-3433
Vashon-Maury Island Beachcomber- Thurs	P.O. Box 447		Vashon	WA	98070		206-463-9195	King	206-463-2916
Voice of the Valley	23207 Lower Dorre Don Way SE		Maple Valley	WA	98038		206-432-9696		206-432-0701
Wahkiakum County Eagle	P.O. Box 368		Cathlamet	WA	98612		206-795-3391		
Walla Walla Union Bulletin	P.O. Box 1358		Walla Walla	WA	99362	`	509-525-3300		509-525-1232
Wednesday Magazine	P.O. Box 874		Poulsbo	WA	98370		206-697-2225		
West Seattle Herald- Wednesdays	3500 SW Alaska		Seattle	WA	98126		206-932-0300	King	206-937-1223
Westside Record Journal	P.O. Box 38		Ferndale	WA	98248		206-384-1411	Whatcom	206-671-9083
Whidbey News Times- Wednesdays	P.O. Box 10		Oak Harbor	WA	98277		206-675-6611		206-679-2695
Willamette Week- Wednesdays	2 NW Second Avenue		Portland	OR	97209		503-243-2122	Multnomah	503-243-1115
Willapa Harbor Herald- Wednesdays	P.O. Box 706		Raymond	WA	98577		206-942-3466		
Woodinville Weekly- Tuesdays	P.O. Box 587		Woodinville	WA	98072		206-483-0606	King	206-486-7593
MEDIA-NEWSPRINT: BIMONTHLY									
International Examiner	622 South Washington		Seattle	WA	98104		206-624-3925	King	206-624-3046
Oregon Historical Quarterly	1230 SW Park Avenue		Portland	OR	97205		503-222-1741		503-221-2035
Oregon Magazine	421 SW Fifth	Suite 520	Portland	OR	97204		503-274-4393	Multnomah	503-222-1154
The Scanner	2800 First Avenue		Seattle	WA	98121		206-441-7102		
MEDIA-RADIO									
			Bellingham	WA		206-371-5550	206-734-4221	Whatcom	206-371-5500
KALE (Pasco)			Pasco				509-586-2151		
KARR- AM 1460			Kirkland	WA			206-827-1460	King	

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KAST			Astoria	OR			503-325-2911		503-325-5570
KAYO			Grays Harbor	WA			206-532-1450		
KBAM			Longview	WA			206-423-1210		
KBBR			Coos Bay	OR			503-756-5108		
KBFW			Bellingham	WA		Use Fax #	206-734-8555	Whatcom	206-734-8557
KBLE- AM 1050	114 Lakeside		Seattle	WA			206-324-2000	King	
KBLV- AM 1540	14400 Bel-Red Road	Suite 106	Seattle	WA			206-957-1540	King	
KBOO			Portland	OR			503-223-1155 or 231-8032		
KBPS			Portland	OR			503-280-5828		
KDUX/KKRO			Grays Harbor	WA			206-533-1320		
KEDO/KLYK			Longview	WA			206-425-1500		
KEX			Portland	OR			503-225-1190		
KEZX- AM 1150			Seattle	WA			206-441-6323	King	
KGAL			Newport	OR			503-926-8683		
KGHO			Grays Harbor	WA			206-532- 1200		
KGMI / KISM			Bellingham	WA		206-733-4564	206-734-9790	Whatcom	206-733-4551
KGON			Portland	OR			503-223-1441		
KGW			Portland	OR			503-226-5095		
KHSN			Coos Bay	OR			503-267-2121		
KING- AM 1090	333 Dexter North		Seattle	WA	98109		206-443-0171	King	206-448-0928
KINK			Portland	OR			503-226-5168		
KIOK (Pasco)			Pasco				509-586-2151		
KIRO- AM 710	2807 Third Avenue		Seattle	WA	98121		206-728-9637	King	206-441-4180
KJR- AM 95	190 Queen Anne Avenue North	P.O. Box 3726	Seattle	WA	98124		206-285-2295	King	206-286-2376
KKEY			Portland	OR			503-222-1150		
KKSM			Portland	OR			503-226-9791		
KLOG			Longview	WA			206-636-0110		
KLYN			Bellingham	WA		206-384-5596	206-734-5596	Whatcom	206-734-5596
KMPS- FM 94.1	113 Dexter Avenue N		Seattle	WA	98109		206-448-0902	King	206-448-4038
KNPT			Newport	OR			503-265-2266		

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KNTR			Bellingham	WA		206-734-1550	206-734-1550	Whatcom	206-384-5166
KOAP			Portland	OR			503-293-1905		
KOLU (Pasco)			Pasco				509-547-2062		
KOMO- AM 1000	100 Fourth Avenue N		Seattle	WA	98109		206-443-4101	King	206-443-3422
KONA (Pasco)			Pasco				509-547-1618		
KORD (Richland)			Richland				509-547-9791		
KOTY (Kennewick)			Kennewick				509-586-4165		
KPDQ			Portland	OR			503-231-7800		
KPLU- FM 88	603 Stewert		Seattle	WA			206-340-0230	King	
KPUG / KAFE			Bellingham	WA		206-384-5784	206-734-1170	Whatcom	206-734-5697
KRDR			Portland	OR			503-667-1230		
KSWB			Astoria	OR			503-738-5555		503-738-7479
KTDO			Newport	OR			503-265-5000		
KUFO/KEFI			Portland	OR			503-222-1841		
KUGN			Newport	OR			503-485-5846		
KUGS / KZAZ			Bellingham	WA		206-671-1912	206-671-1912	Whatcom	206-676-1435
KUOW- FM 94.9		University of WA	Seattle	WA			206-543-2710	King	
KUPL			Portland	OR			503-297-3311		
KVAS			Astoria	OR			503-325-6222		503-325-6145
KWJJ			Portland	OR			503-228-4393		
KWJJ			Portland	OR			503-228-4393		
KXL			Portland	OR			503-231-0750		
KXRX- FM 96.5	3131 Elliott	Seventh Floor	Seattle	WA			206-283-5979	King	
KYNG			Coos Bay	OR			503-267-7055		
KYTT			Coos Bay	OR			503-269-2022		
MEDIA-TELEVISION									
CNN- Northwest News Desk	9805 NE 116th Street	Suite 7113	Kirkland	WA	98034		206-821-6935	King	206-823-4907
KAPP-TV ABC: Ch. 35			Yakima	WA			509-453-0351	Yakima	
KATU-TV ABC: Ch. 2	P.O. Box 2		Portland	OR	97207		503-231-4260	Multnomah	503-231-4263
KATU-TV ABC: Ch. 2	Cindy Brown PA Rep		Portland	OR	97207		503-231-3546		
KCBY-TV			Coos Bay	OR			503-269-1111		
KCPQ-TV Ind: Ch. 13			Tacoma	WA			206-582-8613	Pierce	
KCTS-TV PBS: Ch. 9			Seattle	WA			206-728-6463	King	
KCWT-TV Ind: Ch. 27			Wenatchee	WA			509-662-5298	Chelan	
KEPR-TV (Pasco)			Pasco	WA			509-547-0547		
KEPR-TV CBS: Ch. 19							509-575-0029		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
KEZI-TV	P.O. Box 7009		Eugene	OR	97401	503-485-5778	503-485-5611		503-342-1568
KGW-TV NBC: Ch. 8	1501 SW Jefferson		Portland	OR			503-226-5000	Multnomah	503-226-5059
KGW-TV NBC: Ch. 8	Heidi Berger PA Rep		Portland	OR	97201		503-226-5184		
KGW-TV NBC: Ch. 8	"Good Evening"		Portland	OR	97201		503-220-3755		503-226-3195
KHQ-TV NBC: Ch. 6			Spokane	WA			509-448-6000	Spokane	
KIMA-TV CBS: Ch. 29			Yakima	WA			509-575-0029	Yakima	
KING-TV NBC: Ch. 5	P.O. Box 24525		Seattle	WA	98019		206-448-3850	King	206-448-4525
KING-TV NBC: Ch. 5	Evening Magazine		Seattle	WA	98019		206-448-4575		
KIRO-TV CBS: Ch. 7	2807 Third Avenue		Seattle	WA	98121		206-728-8307	King	206-441-4840
KMTR	3825 International Court		Springfield	OR	97477		503-741-2097		503-747-0866
KNDO-TV NBC: Ch. 23			Yakima	WA			509-248-2300	Yakima	
KNDU-TV (Kennewick)			Kennewick	WA			509-783-6151		
KNDU-TV NBC: Ch. 25							509-248-2300		
KOIN-TV CBS: Ch. 6	222 SW Columbia		Portland	OR			503-464-0600	Multnomah	503-464-0806
KOIN-TV CBS: Ch. 6	Michael Gottlieb PA Rep		Portland	OR			503-464-0677	Multnomah	
KOMO-TV ABC: Ch. 4	100 Fouth Avenue N		Seattle	WA	98119		206-443-4145	King	206-443-3422
KOPB-TV PBS: Ch. 10			Portland	OR			503-244-9900	Multnomah	
KPTV (Ch. 12)			Portland	OR			503-222-9921		
KPTV-TV Ind: Ch. 12			Portland	OR			503-222-9921	Multnomah	
KREM-TV CBS: Ch. 2			Spokane	WA			509-448-2000	Spokane	
KSPS-TV PBS: Ch. 7			Spokane	WA			509-353-3777	Spokane	
KSTW-TV Ind: Ch. 11	P.O. Box 11411		Tacoma	WA	98411		206-572-5789	Pierce	206-272-0733
KTPS-TV PBS: Ch. 28							206-596-1528		
KTVR-TV OPB: Ch. 13			Portland	OR			503-244-9900	Multnomah	
KVAL-TV	P.O. Box 1313		Eugene	OR	97440		503-342-4961		
KVEW-TV (Pasco)			Pasco	WA			509-735-8369		
KVEW-TV ABC: Ch. 42							509-735-8369		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
KVOS-TV Ind: Ch. 12			Bellingham	WA		206-671-1274	206-671-1212	Whatcom	206-647-0824
KWSU-TV PBS: Ch. 10			Pullman	WA			509-335-6588	Whitman	
KXLY-TV ABC: Ch. 4			Spokane	WA			509-328-9084	Spokane	
KYVE-TV PBS: Ch. 47			Yakima	WA			509-452-4700	Yakima	
Northland Cable	725 East First		Port Angeles	WA	98362		206-452-1257	Clallam	206-457-5401
MEDIA-WIRE SERVICE									
Associated Press			Portland	OR			503-228-2169		
Associated Press	P.O. Box 2144		Seattle	WA	98111		206-682-1812	King	206-621-1948
United Press International	101 Elliott Avenue West		Seattle	WA	98119		206-283-3262	King	206-283-0408
MEDICAL CENTERS									
Airlift Northwest	6987 Perimeter Road		Seattle	WA	98108	800-426-2430	206-329-2569	King	
Auburn General Hospital	20 Second Street NE		Auburn	WA	98002		206-833-7711	Pierce	
Ballard Community Hospital	NW Market and Barnes		Seattle	WA	98107		206-782-2700	King	
Bremerton Naval Hospital			Bremerton	WA			206-476-6600	Kitsap	
Capital Medical Center	3900 Capital Mall Drive SW		Olympia	WA	98502		206-754-5858	Thurston	
Cascade Valley Hospital	330 S Stillaguamish		Arlington	WA	98223		206-435-2133	Snohomish	
Children's Hospital and Medical Center	4800 Sand Point Way NE		Seattle	WA	98105		206-526-2000	King	
Dayton General Hospital	1012 S Third Street		Dayton	WA	99328		509-382-2531	Columbia	
Evergreen Hospital	12040 NE 128th Street		Kirkland	WA	98034		206-821-1111	King	
Fifth Avenue Hospital	10560 Fifth Avenue NE		Seattle	WA	98125		206-364-2050	King	
Forks Community Hospital	Bogachiel Way and Fifth Avenue SW		Forks	WA	98331		206-374-6271	Clallam	

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General Hospital Medical Center	14th and Colby		Everett	WA	98206		206-258-6301	Snohomish	
Grays Harbor Community Hospital	915 Anderson Drive		Aberdeen	WA	98520		206-532-8330	Grays Harbor	
Group Health Central Hospital	201 16th Avenue E		Seattle	WA	98112		206-326-3000	King	
Group Health Eastside Hospital	2700 152nd NE		Redmond	WA	98052		206-883-5151	King	
Harborview Medical Center	325 Ninth Avenue		Seattle	WA	98104		206-223-3074	King	
PORT AUTHORITIES									
Port of Anacortes		P.O. Box 297	Anacortes	WA	98221		206-293-3134		
Port of Astoria	Director of Operations		Astoria	OR			503-325-4521		
Port of Bellingham	625 Cornwall Ave.l	P.O. Box 1737	Bellingham	WA	98227		206-676-2500		
Port of Bremerton	Director of Operations	8850 SW State Hwy 3	Port Orchard	WA	98366		206-674-2381		
Port of Cascade Locks	Director of Operations	P.O. Box 307	Cascade Locks	OR	97014				
Port of Edmonds		336 Admiral Way	Edmonds	WA	98020		206-774-0549		
Port of Everett	Director of Operations	P.O. Box 538	Everett	WA	98206		206-259-3164		
Port of Fraser	Director of Operations		New Westminister	BC			604-524-6655		
Port of Grays Harbor	Director of Operations	P.O. Box 660	Aberdeen	WA	98520		206-533-9528		
Port of Portland	Director of Operations		Portland	OR			503-231-5000		
Port of Olympia	Manager Marine Terminals	P.O. Box 827	Olympia	WA	98507		206-586-6160		
Washington Public Ports Association		P.O. Box 1518	Olympia	WA	98507				
Port of Port Angeles		P.O. Box 1350	Port Angeles	WA	98362		206-457-8527		
Port of Port Townsend	Director of Operations	P.O. Box 1180	Port Townsend	WA	98368		206-385-2355		

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Port of Seattle	Director of Marine Services	P.O. Box 1209	Seattle	WA	98121		206-728-3372		
Port of Seattle	Director of Operations	P.O. Box 1209	Seattle	WA	98121		206-728-3372		
Port of Seattle	Environmental Management Specialist	P.O. Box 1209	Seattle	WA	98121		206-728-3372		
Port of Tacoma	Director of Environmental Affairs	P.O. Box 1837	Tacoma	WA	98401		206-383-5841 (Ext 203)		
Port of Tacoma	Director of Operations	P.O. Box 1837	Tacoma	WA	98401		206-383-5841 (Ext 203)		
Port of Vancouver			Vancouver	BC			206-666-3226		
Port of Willapa Harbor	Director of Operations	1725 Ocean Avenue	Raymond	WA	98577		206-942-3422		
PUBLIC WORKS									
Whatcom County		Bill Englander	Bellingham	WA			(360)647-6357		
SHIPBUILDING									
Western Shipbuilding Asoc		P.O. Box 46409	Seattle	WA	98126				
STATE GOVERNMENT	**Update**								
Alaska Department of Environmental Conservation Ldietric@Environcon.State.Ak.US	410 Willoughby Avenue	Michele Brown, Commissioner	Juneau	AK	99801	800-478-9300	907-465-5430		907-465-5262
California Environmental Protection Agency	555 Capitol Mall, Suite 525	Val Siebal, Ass't to Secretary	Sacramento	CA	95814	916-445-3846	(916) 445-3846		916-445-6401
Idaho Department of Health and Welfare Coryw@Dhw.State.ID.US	Division of Environmental Quality 1410 N. Hilton	Wallace Cory	Boise	ID	83706		208-334-5879		208-373-0417
Idaho Bureau of Disaster Services	4040 Guard St, Bldg. 600	Robert Baumgartner	Boise	ID	83705-5004	208-334-4570	208-334-3460 Hazmat -3263		208-334-2322
Oregon Department of Environmental Quality Marsh.Langdon@Deq.State.OR.US	811 SW Sixth Avenue	Langdon Marsh, Dir.	Portland	OR	97204-1390	800-452-0311	503-229-5696	Multnomah	503-229-6124

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Oregon Emergency Management	595 Cottage St. NE	Myra Lee, Dir.	Salem	OR	97310	503-378-6377	503-378-6377	Marion	503-588-1378 Pri. 154.280 (fire net) Sec. 46.58 Sec. 155.805 (SAR)
Washington Sea Grant Program SeaGrant@U.WA.Edu	3716 Brooklyn Ave. NE	Eric Olson 360-650-1529	Seattle	WA	98105		206-543-6600		
Washington State Department of Agriculture	P. O. Boi 42560	Jim Jesernig Dir.	Olympia	WA	98504	None	360-902-1801	Thurston	360-902-2092
Washington State Department of Ecology	P.O. Box 47600	Mr. Butler	Olympia	WA	98504-7600	360-407-6900	360-407-6900	Thurston	360-407-6900
Washington State Department of Ecology (Central)	15 W. Yakima	Debbie Smith	Yakima	WA	98902-3401	509-575-2490	509-575-2490	Yakima	509-575-2809
Washington State Department of Ecology (Eastern)	4601 N. Monroe, Suite 202	Jeff Dill	Spokane	WA	99205-1295	509-456-2926	509-456-2926	Spokane	509-456-6170
Washington State Department of Ecology (NW Region)	3190 160th Ave. SE	Wayne Oda	Bellevue	WA	98008	425-649-7000	425-649-7000	King	425-649-7098
Washington State Emergency Management Divisiion Mailroom@Gate.EMD.Wa.Gov	4220 E. Martin Way	Duty Officer	Olympia	WA	98504	800-258-5990	800-258-5990	Thurston	360-438-7395 Pri. 45.480
Washington Department of Fish and Wildlife (Habitat Program)	600 Capital Weay N.	Karen Terwilleger	Olympia	WA	98501	360-352-6735	206-515-3400	Thurston	360-902-2946
Washington State Ferries (Colman Dock & Pier 52) GreenP@WSDot.WA.Gov	801 Alaskan Way, Pier 52	Paul Greenm, Dir./CEO	Seattle	WA	98104	205-464-6400	206-515-3400 Hood Canal Bridge-360-437-2288	King	206-515-3404
Washington State Ferries Bainbridge Is. Terminal	Highway 305 - East End	Zuarri or Rosbach	Bainbridge Island	WA	98110	206-464-7676		Kitsap	206-464-6260 Pri. Marine Ch. 79 (to vessel from terminal)
Washington State Fire Marshall Gotto@WSP.WA.GOV	210 11th Ave. Gen. Admin. Bldg.	Lt. Otto	Olympia	WA	98501	360-705-0400 Ext. 110	360-705-0400	Thurston	360-753-0395
Washington State Historical Preservation Office DavidH@cted.WA.Gov	111 21st Ave. SW	David Hansen, Ass't Dir.	Olympi	WA	98504	None	360-753-4011	Thurston	360-586-0250
Washington State Department of Labor and Industries Gept235@LNT.WA.Gov	P. O. Box 44610	John Geppert	Olympia	WA	98504-4610	360-902-5431	360-902-5431	Thursston	360-902-5438
Washington State Maritime Commission	2701 First Avenue Suite 110	Roger Mowery	Seattle	WA	93121	206-448-7551	206-448-7551	King	206-443-3839

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Washington State Department of Natural Resources http://WWW.Wa.Dnr.Gov	1111 Washington St.	P. O. Box 47037 Randy Acker	Olympia	WA	98504-7037	360-902-1000 800-562-6010	360-902-1000 800-527-3305	Thurston	360-902-1757 360-902-1781 Fire Dispatch **State DNR** Pri. 159.415 Rx Pri. 151.295 **Common DNR** Sec. 151.415 Rx Sec. 151.415 Tx
Washington State Office of Marine Safety (OMS) SeeWS Department of Spill Pevention, Preparedness & Response		P.O. Box 47600	Olympia	WA	98504			Thurston	
Washington State Parks and Recreation Commission Cindyj@parks.WA.gov	7150 Cleanwater Lane	P. O. Box 42650 Cleve Pinnix	Olympia	WA	98504	360-902-8563	360-902-8500	Thurston	360-753-1594
Washington State Patrol, Dist. 2 Headquarters	2803 156th Ave. SE	Timothy Quenzer	Bellevue	WA	98007	425-649-4370 X Communications	425-649-4650	King	360-438-7124
Washington State Department of Water & Land Resources	700 5th Ave.	Nancy Hansen	Seattle	WA	98104-5022	206-296-6519	206-296-6519	King	206-296-0192
Washington State Department of Social and Health Services Simpsje@wa.gov.dshs	14th & Jefferson	P. O. Box 45821 Lyle Quasim	Olympia	WA	98504-5821	360-902-8331	360-902-8400	Thurston	360-902-7771
Washington State Department of Spill Prevention, Preparedness & Response	300 Desmond Dr.	P. O. Box 47600 Joe Stohr	Olympia	WA	98504-7600	360-407-7455	360-407-7455	Thurston	360-407-6042
Washington State Department of Transportation	310 Maple Park SE	P. O. Box 47300 Sid Morrison	Olympia	WA	98504	360-705-7000	360-705-7000	Thurston	360-705-6800
Washington State Department of Fish & Wildlife WWW.wa.gov\wgfw	1111 Washington St. SE	660 Capitol Way N Larry Peck	Olympia	WA	98501-1091		360-902-2200	Thurston	360-902-2947
University of Washington Program on the Environment Wallace@atmos.washihgton.edu; Jpalka@u.washington.edu	211 A Electrical Engineering	Mail Stop 351720Mike Wallace, John Palka	Seattle	WA	98195-1720		206-616-3310	King	206-221-5910
Washington National Guard Headquarters Public Affairs Paowa@cpmurray.army.mil	Building 1	Lt. Col. Michael McCaffree	Camp Murray	WA	98430	(Pager)-253-512-8481	253-512-8000	Pierce	253-512-8401
STATE POLICE	**Update**								
Idaho State Police Dbunders@dle.state.id.us	2700 North & South Highways	Capt. Bunderson	Lewiston	ID	83501	208-799-5150 Dispatch 208-799-5144	208-799-5150		208-799-5146

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Oregon State Police	3710 Portland Rd. NE	Jerold Martin	Salem	OR	97301	503-378-2575	503-378-2575	Marion	503-585-6635
Washington State Patrol District 2	2803 156th Ave. SE	Timothy Quenzer	Bellevue	WA	98007	425-649-4650	425-649-4650	King	425-649-4370
Washington State Patrol District 8	4811 Werner Rd.	Maurice C. King	Bremerton	WA	98312-3333	360-478-4646	360-478-4646	Kitsap	360-405-6666
Washington State Patrol District 7	2700 116th St. NE	Helmet Steele	Marysville	WA	98271-9425	425-339-1700 360-658-2588	425-339-1700 360-658-2588 425-455-7700	Snohomish	360-438-7129
Washington State Patrol Administrative Headquarters	210 11th NW	P. O. Box 26800	Olympia	WA	98504-2600	360-753-6540	360-753-6540	Thurston	360-664-0663
Washington State Patrol District 4	W. 6403 Rowand Rd.	Michael Dubee	Spokane	WA	99224-5325	509-456-4101	509-456-4101	Spokane	360-438-7126
Washington State Patrol District 1	2502 112th St. E	John Batiste	Tacoma	WA	98445-5104	253-536-6210	253-536-6210	Pierce	360-438-7123
Washington State Patrol District 5	605 E. Evergreen Blvd.	Rick Phillips	Vancouver	WA	98661-3812	360-696-6161 X-0	360-696-6161	Clark	360-992-4059
Washington State Patrol District 6	2822 Euclid Ave.	Thomas Robbins	Wenatchee	WA	98801-5916	509-663-9721	509-663-9721	Chelan	360-438-7128
Washington State Patrol District 3	2715 Rudkin Rd.	David Karnitz	Union Gap	WA	98903	509-575-2320	509-575-2320	Yakima	360-438-7125
TOWING COMPANIES									
Brusco Tug & Barge Co	P.O. Box 1060		Longview	WA	98632		206-636-3341		
Crowley Marine Services	2401 Fourth Avenue	P.O. Box 2287	Seattle	WA	98111		206-443-7809		
Duff Tugboat Company	4244 33rd West		Seattle	WA	98199		206-284-1613		
Foss Maritime	660 West Ewing Street		Seattle	WA	98119		206-281-3800		
Island Tug and Barge Co.	14789 Sunrise Drive NE		Bainbridge Is	WA	98110		206-842-1585		
Navy Supervisor of Salvage	Naval Sea Systems	Operations/Ocean				703-602-7527			
Northwest Towboat Assoc	145 NW 85th Street	Suite 103	Seattle	WA	98117				
Olympic Towing Company	P.O. Box 436		Olympia	WA	98507		206-357-4854		

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Olympic Tug & Barge	2536 Alki Avenue SW	Suite 206	Seattle	WA	98116		206-937-8480		
Sause Brothers Ocean Towing Company Inc.	155 E. Market Ave		Coos Bay	OR	97420		503-269-5841		
Sause Brothers Ocean Towing Company Inc.	700 N.E. Multnomah	1480 Lloyd Building	Portland	OR	97232				
Sea Coast Towing Inc	P.O. Box 81161		Seattle	WA	98108		206-443-9418		
Shiveley Tugboat Company	7190 Eagle Harbor Dr		Bainbridge Is	WA	98110				
Western Towboat Company	617 NW 40th		Seattle	WA	98107		206-789-9000		
Westminster Tug Boats	617-713 Columbia Street		New Westminster	BC	V3M1B 2		604-522-4604		
TRIBAL GOVERNMENTS	**Update**								
Confederated Tribes of Coos, Lower Umpqua, and Suislaw **Indians**	338 Wallace Ave.		Coos Bay	OR	97420-1570		541-888-9577	Coos	541-888-5388
Confederated Tribes of the Grand Ronde Community of Oregon	9615 Grand Ronde Road		Grande Ronde	OR	97347-0038		503-879-5211	Polk	503-879-5622
Coqille Indian Tribe		P.O. Box 783	North Bend	OR	97459		541-756-0904	Coos	541-756-0847
Cow Creek Band of Umpqua Tribe of Indians	2371 N.E. Stephans St	Suite 100	Roseburg	OR	97470		541-672-9405	Douglas	541-673-0432
Siletz Tribal Council		P.O. Box 549	Siletz	OR	97380-0549		541-444-2532 800-922-1399	Lincoln	541-444-2307
Confederated Tribles of the Umatilla Indian Reservation		P.O. Box 638	Pendleton	OR	97801-0638		541-276-3165	Umatilla	541-276-3095
Burns Paiute Tribe	H.C. 71, 100 Pasigo St		Burns	OR	97720		541-573-2088	Harney	541-573-2323
Confederated Tribes of the Warm Springs Reservation		P.O. Box C	Warm Springs	OR	97761-3001	541-553-1161 or 1171	541-553-1161	Jefferson	541-553-1924
Klammath General Council		P.O. Box 436	Chiloquin	OR	97624-0436		541-783-2219 800-524-9787	Klammath	541-783-2029
Chehalis Business Council	420 Howanut Drive	P. O. Box 536	Oakville	WA	98568		360-273-5911	Grays Harbor	360-273-5914
Colville Business Council Mathew-Dick@MSN.COM	Tribal Agency	P. O. Box 150	Nespelem	WA	99155	800-551-5800	509-634-4711	Okanogan	509-634-4116
Hoh Tribal Business Committee	2464 Lower Hoh Road		Forks	WA	98331	360-374-9634	360-374-6582	Jefferson	360-374-6549

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Jamestown S'Klallam Tribal Council	1033 Old Blyn Highway		Sequim	WA	98382		360-683-1109	Clallam	360-681-4643
Kalispel Business Committee	1981 N. Lecerc Rd.	P. O. Box 39	Usk	WA	99180	509-445-1147	509-445-1147	Pend Oreille	509-445-1705
Lower Elwha Tribal Community Council	2851 Lower Elwha Road		Port Angeles	WA	98363	360-452-8471	360-452-8471	Clallam	
Lummi Indian Business Council	2616 Kwina Road		Bellingham	WA	98226		360-384-1489	Whatcom	360-384-5521
Lummi Nation/Fisheries Department	2616 Kwina Road		Bellingham	WA	98226		360-647-6230	Whatcom	360-384-4737
Makah Tribe Council	Highway 112 West	P. O. Box 115	Neah Bay	WA	98357	360-645-2201	360-645-2201	Clallam	360-645-2863
Muckleshoot Indian Tribal Council	39015 172nd SE		Auburn	WA	98092		206-939-3311	King	206-939-5311
Native American Spill & Environ Protection	7575 44th Ave. SW		Seattle	WA	98136		206-938-3550	King	
Nisqually Indian Community Council	4820 She-Nah-Num Drive SE		Olympia	WA	98513	253-456-5221	253-456-5221	Thurston	253-407-0125
Nooksack Indian Tribal Council	P.O. Box 157		Deming	WA	98244		360-676-2002		
Northwest Indian Fisheries Commission LALLEN@NWIFC.WA.GOV	6730 Martin Way East		Olympia	WA	98516		360-438-1180	Thurston	360-753-8659
Northwest Indian Fisheries Commission	549 Tillicum Lane	P. O. Box1029	Forks	WA	98331	360-374-5501	360-374-5501	Clallam	206-374-5592
Olympic Peninsula Bureau of Indian Affairs	1216 Skyview Dr.	P. O. Box 48	Aberdeen	WA	98520		360-533-9100	Grays Harbor	360-533-9141
Point No Point Treaty Council	7999 NE Salish Lane		Kingston	WA	98346	360-297-3422	360-297-3422	Kitsap	360-297-3413
Port Gamble Community Council	31912 Little Boston Rd. NE		Kingston	WA	98346	360-297-2646	360-297-2646	Kitsap	360-297-7097
Puyallup Tribal Council	2002 E. 28th Street		Tacoma	WA	98404	253-597-6200	253-597-6200	Pierce	253-593-0197
Quileute Tribal Council	River & Main	P. O. Box279	La Push	WA	98350		360-374-6163	Clallam	360-374-6311
Quinault Business Committee	1214 Aalis		Taholah	WA	98587		360-276-8211	Grays Harbor	360-276-4191
Sauk-Suiattle Tribal Council RWILL@Sauk-Suiattle.Com	5318 Chief Brown Lane		Darrington	WA	98241	360-436-1400	360-435-8300 360-436-0131	Skaagit	360-436-0242
Shoalwater Bay Tribal Council	2373 Old Tokeland Rd.		Tokeland	WA	98590	360-267-6766	360-267-6766	Pacific	360-267-6778

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Skagit Systems Co-Op	P.O. Box 368		La Conner	WA	98257		360-466-3450	Skagit	
Skokomish Tribal Council	North 80 Tribal Center Road		Shelton	WA	98584	360-426-4232	360-426-4232	Mason	360-877-5943
Spokane Tribal Business Council	6208 Ford Wellpinit Rd.	P. O. Box 100	Wellpinit	WA	99040	509-258-4581	509-258-4581	Stevens	509-258-9243
Squaxin Island Tribal Council	SE 70 Squaxin Lane		Shelton	WA	98584	360-426-9781	360-426-9781	Mason	360-426-6577
Swinomish Indian Tribal Community	950 Moorage Way	P. O. Box 817	LaConner	WA	98257	360-466-3163	360-466-3163	Skagit	360-466-5309
Stillaguamish Board of Directors	3439 Stoluckquamish Lane	P. O. Box 277	Arlington	WA	98223-0277	360-652-7362	360-652-7362	Snohomish	360-435-7689
Suquamish Tribal Council	15838 Sandy Hook Rd.	P. O. Box 498	Suquamish	WA	98392	360-598-3311	360-598-3311	Kitsap	360-598-6295
Tulalip Tribes of WA	6700 Totem Beach Road		Marysville	WA	98271	360-651-4000	360-651-4000	Snohomish	360-651-4032
Upper Skagit Tribal Council	2284 Community Plaza Way		Sedro Woolley	WA	98284	360-856-5501	360-856-5501	Skagit	360-856-3175
Yakima Tribal Council	401 Fort Road	P. O. Box 151	Toppenish	WA	98948	509-8665-5121	509-865-5121	Yakima	509-865-5528
Wildlife Rescue									
Humane Society of the U.S.	National Headquarters	2100 L Street NW	Washington	DC	20037		202-452-1100		
International Bird Rescue	699 Potter Street	Aquatic Park	Berkeley	CA	94710	510-841-9086	818-951-3656		
National Audubon Society	Washington State Office	2631 12th Court SW	Olympia	WA	98502		206-786-8020		
National Parks & Conservaiton	618 South 223rd		Des Moines	WA	98198		206-824-8808		
Pacific Energy Institute	400 Pioneer Building	600 First Avenue	Seattle	WA	98104		206-628-0460		
Seattle Bird Rescue			Seattle	WA			206-824-6249		
Tri-State Bird Rescue			Newark	DE			302-737-9543		
Washington Wildlife Rescue Coalition	Habitat Division	600 Capitol Way	Olympia	WA	98501		206-753-3318		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Wildlife Care Center of Everett	P.O. Box 2083		Everett	WA	98203		206-435-4817		
Wolf Hollow Wildlife Rehab	P.O. Box 391		Friday Harbor	WA	98250	206-378-5000			
Uncategorized									
ABS Marine Services Inc	16855 Northchase Drive		Houston	TX	77060		713-73-0700		
Admanthos Shipping Agency	3 Stamford Landing	46 Southfield Avenue Suite 320	Stamford	CT	06902		203-58-2380		
AK-WA Incorporated	401 Alexander Avenue		Tacoma	WA	98421		206-272-0108		
AKC Corporation	8523 15th Avenue NE		Seattle	WA	98115				
Alaska Maritime Agencies	300 Elliott Avenue West		Seattle	WA	98119		206-286-1700		206-286-1709
Aleutian Speedwell Inc	Market Place Two	Suite 250	Seattle	WA	98121				
Alexander Gow Fire Equipment Company	456 N 35th Street		Seattle	WA	98103				
Amerex Corporation	5118 14th Avenue NW		Seattle	WA	98107				
American Bureau of Shipping	5950 Sixth Avenue	Suite 110	Seattle	WA	98108				
American President Lines	3443 W Marginal Way SW	Terminal 5	Seattle	WA	98106		206-993-4597 206-993-4599		
American Waterways Operators	5615 W Marginal Way South		Seattle	WA	98106				
Anacortes Yacht Club	P.O. Box 5139		Anacortes	WA	98221				
Army Corps of Engineers	2200 NW Eigth Avenue		Portland	OR			503-326-6021		
Anancortes Port Log Dock			Anacortes	WA			206-293-3134		
Arco Cherry Point			Cherry Point	WA			206-371-1500		
Artic Select Seafoods	Squalicum Mall	Suite 14	Bellingham	WA	98225				

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Astral Internatinoal Shipping	592 Industry Drive		Tukwilla	WA	98188-3404		206-575-6626		206-5758507
Ato Chem North America	2901 Taylor Way		Tacoma	WA	98421		206-627-9101		
B.R. Anderson & Company	1001 Klickitat Way South	Suite 104/P.O. Box 3501	Seattle	WA	98134		206-623-1346		206-623-1848
Blackball Transport	Foot of Laurel Street		Port Angeles	WA	98362				
Boyer Alaska Barge Line	7318 Fourth Avenue SE		Seattle	WA	98108				
BP Marine	320 Dayton Street		Edmonds	WA	98020		206-775-0444		
BP Refinery			Ferndale	WA			206-384-1011		
Brix Maritime	Foot of 14th Street		Astoria	OR	97103		503-325-6621		
Brix Maritime	9030 NW St Helens Rd	P.O. Box 83018	Portland	OR	97283		503-286-0631		
Burlington Environmental	1011 Western	Suite 700	Seattle	WA	98104		206-223-0500		
Buckeye Pipeline			Tacoma	WA			206-627-3236		
CAPCOM	2000 Lakeridge Drive		Olympia	WA	98052				
Catalyst Cruises	515 S 143rd Street		Tacoma	WA	98444				
CDR District Engineer	P.O. Box C-3755	4735 E Marginal Way S	Seattle	WA	98124				
Chatham Marine Consultation	2633 Eastlake Avenue E	2203 Airport Way S	Seattle	WA	98102				
Chevron Point Wells			Point Wells	WA			206-542-2131		
Clipper Navigation	2701 Alaskan Way		Seattle	WA	98121		206-443-2560		
CMS	P.O. Box 2287		Seattle	WA	98111				
Coastal Island Tours	1611 East Street		Lake Bay	WA	98349				
Continental Grain			Tacoma	WA			206-572-3511		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
d'Elegant Cruises	2501 N Northlake Way		Seattle	WA	98103				
D & V Boat Company	655 NE Northlake Way		Seattle	WA	98105				
Dakota Creek Industries	115 Q Avenue	P.O. Box 218	Anacortes	WA	98221				
Department of Interior	500 NE Multnomah	Suite 600	Portland	OR	97232	503-684-4082	503-231-6157		
Duwamish Shipyard	5658 W Marginal Way S		Seattle	WA	98106		206-767-4880		
E. A. Drake LTD	408 Second Avenue W		Seattle	WA	98119				
E.H. G.	208 N 54th Street		Seattle	WA	98103				
EAC Transport Agencies	1000 Second Avenue	Suite 1800	Seattle	WA	98104				
ED'sCharters	Box 4040		South Colby	WA	98384				
Environmental Services			Coos Bay	OR		503-269-5050			
Envirosorb Company	8128 187th SW		Edmonds	WA	98026		206-778-7485		
Exxon Shipping Company	P.O. Box 1512		Houston	TX	77251		713-56-9944		
Fire Equpment Company	456 N 35 Street		Seattle	WA	98103				
Foss Shipyard			Seattle	WA			206-281-3872		
Fremont Boat Company Inc.	1059 N Northlake Way		Seattle	WA	98103				
Fremont Maritime Inc.	501 N 36th Street	Suite 217	Seattle	WA	98103				
Fritz Companies Inc	6805 South 217th Street		Kent	WA	98032				
General Steamship Corp. Ltd	300 Elliot Avenue West	Suite 310	Seattle	WA	98119		206-286-4400		
Georgia Pacific Corporation	P.O. Box 1236	Acid & Lignum	Bellingham	WA	98225		206-733-4410		
Grizzly Ventures Inc	P.O. Box 804		Bothell	WA	98041				

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Holland American Line	300 Elliot Avenue W		Seattle	WA	98119				
Horluck Transportation	P.O. Box 87		Port Orchard	WA	98366				
Husky Terminals	Terminal 7D		Tacoma	WA			206-627-6963		
Icicle Seafoods Inc.	P.O. Box 79003		Seattle	WA	98119				
Inland Boatmans Union	2700 First Avenue	Room 203	Seattle	WA	98121				
International Submarine Engineering LTD	1734 Broadway Street		Port Coquitlam	BC	V3C2M8		604-942-5223		
ITT Rayonier Dock	Port Angeles Harbor	Caustic/Chlorine	Port Angeles	WA	98362		206-457-3391		
Jensen Maritime Consultants Inc.	4241 21st Avenue West	Suite 404 or Suite 308	Seattle	WA	98199				
Kansal Steamship Company	217 Pine Street	Suite 800	Seattle	WA	98101				
Kim Marine Documentation	Smith Tower 13th Floor		Seattle	WA	98104				
Kingsley Navigation LTD	1500 West Georgia		Vancouver	BC	V6G2Z6				
Kitsap Barging Inc	P.O. Box 147		Port Orchard	WA	98366				
Lake Union Shipyard			Seattle	WA			206-323-6400		
Leclercq Marine Construction	1080 W Ewing		Seattle	WA	98119				
Lovric's Sea Craft	3022 Oakes Avenue		Anacortes	WA	98221				
Maersk	Terminal 3		Tacoma	WA			206-593-8750		
Manna Seafoods	13233 SE Shannon View		Clackamas	OR	97015				
Manson Construction and Eng. Company	5209 E. Marginal Way S.		Seattle	WA	98134				
Marco Seattle Inc.	2300 W. Commodore Way		Seattle	WA	98199		206-285-3200		
Marine Consultant	16613 SE Tenth Street		Bellevue	WA	98008				

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Marine Exchange of Puget Sound	2701 1st Avenue	Suite 110	Seattle	WA	98121		206-443-3830		
Marine Firemans Union	2505 1st Avenue		Seattle	WA	98121				
Marine Industries Northwest			Tacoma	WA			206-627-9136		
Maritime Administration	915 Second Avenue	Room 3196	Seattle	WA	98174				
Maritime Fire & Safety Admin	200 SW Market Street	Suite 190	Portland	OR	97201		503-220-2040		
Maritime Overseas Corporation	43 W 42nd Street		New York	NY	10036				
Mobil Shipping & Transportation Comany	3225 Gallows Road	Room 5C007	Fairfax	VA	22037		703-846-2761		
Mundt MacGregor	4200 1st Interstate Center		Seattle	WA	98104				
Munson Manufacturing Inc	150 West Dayton		Edmonds	WA	98020				
National Cargo Bureau	1011 SW Klicktat Way	Suite 200	Seattle	WA	98134				
National Weather Service	2200 NW Eigth Avenue	Room 121	Portland	OR	97209		503-281-1911		
NC Engine Power	P.O. Box 88338	16711 W. Valley Hwy	Seattle	WA	98138				
Nichols Brothers Boatbuilders	5400 S Cameron Road		Freeland	WA	98249				
Northwest Marine Chemist	P.O. Box 7084		Tacoma	WA	98401				
NUWEC	Indian Is Detachment	Code 0142	Hadlock	WA	98339				
Occidental Chemical			Tacoma	WA			206-383-2661		
Occupational Safety & Health Administration			Portland	OR	97232		503-326-2251		
Ocean Construction Supplies	P.O. Box 2300		Vancouver	BC	V6B3W6				
Oceanic Seafood Company	8221 44th Avenue W		Mukilto	WA	98275				
Oceans P.E.	5610 - 40th West		Seattle	WA	98199				

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Oceantrawl Inc.	1200 market Place Tower	2025 1st Avenue	Seattle	WA	98121				
Odyssey Cruise & Yacht Sales	P.O. Box 423		Anacortes	WA	98221				
Offshore Navigators	5140 Ballard		Seattle	WA	98107				
Olympic Steamship Agencies Inc.	P.O. Box 24023		Seattle	WA	98124				
Orca Yacht & Ship Service	2318 2nd Avenue	Suite 336	Seattle	WA	98121				
Orient Overseas Container	1218 Third Avenue	Suite 710	Seattle	WA	98101				
Osal Marine Services Co	1541 29th Street		Port Townsend	WA	98368				
Pacific Bounty Inc.	130 Nickerson Street	Suite 31	Seattle	WA	98109				
Pacific Charters	1911 SW Campus Drive	Suite 117	Federal Way	WA	98023				
Pacific Marine Testing Company	5807 4th Avenue South		Seattle	WA	98108				
Pacific Maritime Association	P.O. Box 9348	301 West Republican	Seattle	WA	98109				
Pacific Penobscot Marine Services	1900 W. Emerson Place	Room 20	Seattle	WA	98119				
Pacific Resources			Tacoma	WA			206-927-9316		
Pacific Western Services Inc.	3594 NW Byron Street	P.O. Box 3043	Silverdale	WA	98383		206-692-2602		
Pan Pacific Seafoods Inc.	150 Nickerson	Suite 103	Seattle	WA	98109				
PCCI Marine & Environmental Enginerring	1201 Abingdon Drive	Suite 201	Alexandria	VA	22314		703-684-2060		
Pier 11	Atlantic Richfield		Seattle	WA			206-623-4637		
Pier 15	Texaco USA		Seattle	WA			206-623-6101		
Pier 18	Shell Oil		Seattle	WA			206-363-6419		
Pier 18-20	Harbor Island		Seattle	WA			206-223-3700		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Pier 25	Matson Terminal		Seattle	WA		`	206-223-2497		
Pier 28	Break Bulk Facility		Seattle	WA			206-728-3735		
Pier 30	Trans Pacific Container		Seattle	WA			206-340-0180		
Pier 34	GATX		Seattle	WA			206-622-0920		
Pier 37	NYK		Seattle	WA			206-382-8450		
Pier 46	Hanjin		Seattle	WA			206-622-9130		
Pier 86	Cargill Grain Terminal		Seattle	WA			206-284-4851		
Pier 91	Chemical Processors		Seattle	WA			206-767-0350		
Pier 90-91	Port of Seattle		Seattle	WA			206-728-3750		
Pierce County Terminal	Break Bulk/Military		Tacoma	WA			206-838-0142		
PenCom	321 East Fifth		Port Angeles	WA	98362				
Pennwalt Corporation Engineering Office	P.O. Box 1297		Tacoma	WA	98401				
Pentec Environmental	120 West Dayton	Suite A7	Edmonds	WA	98020				
PLEION Corporation	10600 129th Place NE		Kirkland	WA	98033		206-827-3614		(987) 908-0978
Port Angeles Port Dock			Port Angeles	WA			206-457-8527		(987) 908-0978
Poulsbo Yacht Club	P.O. Box 115		Poulsbo	WA	98370				
Puget Sound Alliance	4516 University Way NE		Seattle	WA	98105		206-548-9343		
Queen City Yacht Club	2608 Boyer Avenue East		Seattle	WA	98102				
S/V Adventress	P.O. Box 243		Port Townsend	WA	98368				
Sailors Union of the Pacific AFL-CIO	2505 First Avenue		Seattle	WA	98121				
San Juan Island Yacht Club	P.O. Box 67		Friday Harbor	WA	98250				

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Scott Paper Company		Caustic & Chlorine	Everett	WA			206-259-7422		
Seafarers International Union	2505 First Avenue		Seattle	WA	98121				
Sealand Service Inc.	1002 Milwaukee Way		Tacoma	WA	98421				
Sealand Services Inc.	3600 Port of Tacoma Road	Suite 405/Terminal 3	Tacoma	WA	98424		206-922-8800		
Seaport Maritime Consultants	3600 15th Avenue West	Suite 302	Seattle	WA	98119				
Seattle Harbor Tours	Pier 55 Suite 201		Seattle	WA	98101				
Seattle Sailing Association	7001 Seaview Northwest		Seattle	WA	98103				
Shell Refining		Bulk Oil	Anacortes	WA			206-293-3111		
Simpson Tacoma Kraft Company	P.O. Box 2133	801 Portland Avenue	Tacoma	WA	98401		206-596-0257		
Skaugen Petro Trans Inc	5847 Sam Fellpe Plaza	Suite 4300	Houston	TX	77057				
Skyline Marine Inc	Flounder Bay		Anacortes	WA	98221				
SNOCOM	6204 215th SW		Mountlake Terrace	WA	98043				
SNOPAC	3000 Rockefeller		Everett	WA	98201				
Society of Boat and Yacht Designers	13526 Wallingford North		Seattle	WA	98133				
South Sound Sailing Society	P.O. Box 1102		Olympia	WA	98507				
Star Shipping Inc.	300 Elliot Avenue W	Suite 310	Seattle	WA	98118				
Stevedoring	7245 W. Marginal Way SW		Seattle	WA	98106				
Tacoma Boat			Tacoma	WA			206-593-8800		
Tacoma Terminal 4	Containers/Break Bulk		Tacoma	WA			206-383-9441		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Tacoma Terminal 7	Containers/Break Bulk		Tacoma	WA			206-383-0142		
Texaco Refining & Marketing	P.O. Box 622		Anacortes	WA	98221		206-293-0819 206-293-0800		
Tilbury Cement Company	741 Marine Drive	P.O. Box 37	Bellingham	WA	98225				
Time Oil Company	P.O. Box 24447	Terminal Station	Seattle	WA	98124		206-285-2400		
Todd Shipyard	Harbor Island		Seattle	WA			206-623-1635		
Totem Ocean Trailer Express	11100 Olive Way 11th Floor		Seattle	WA	98101				
Totem Ocean Trailer Express	500 Alexander Avenue	Terminal 7	Tacoma	WA	98421		206-597-8800		
Trans-Marine Navigation	9750 3rd Avenue NE	Suite 308	Seattle	WA	98115				
Tricom Shipping Agencies	900 4th Avenue	Suite 2480	Seattle	WA	96164				
Trident Seafoods Corporation	5303 Shinshole Avenue NW		Seattle	WA	98107				
Tyee Yacht Club	3229 Fairview Avenue E		Seattle	WA	98102				
UNOCAL			Edmonds	WA			206-774-2251		
U.S. Oil & Refining	UNOCAL		Tacoma	WA			206-383-1651		
Vessel Safety Program	1800 W. Emerson Suite 1	Fishermen's Terminal	Seattle	WA	98119				
Victory Marine	6700 W Marginal Way SW		Seattle	WA	98106				
Viking Star Charters	2442 NW Market St		Seattle	WA	98107				
Washington Divers	903 N State St		Bellingham	WA	98225				
Western Prince Cruises	P.O. Box 418		Friday Harbors	WA	98250				
Weyerhaeuser Paper Co.	101 E Marine View Dr		Everett	WA	98201		206-339-2868 206-339-2800		

Company	Street	Address	City	ST	Zip	24-hour #	Dayphone	County	FAX
Weyerhaeuser Log Dock			Tacoma	WA			206-924-3476		
WHATCOM	620 Alabama		Bellingham	WA	98225				
Wilderness Cruises	1415 Western Avenue	Suite 505	Seattle	WA	98101				
Wilkens Distribution	PO Box 147		Port Orchard	WA	98366				
Zodiac Hurricane Technologies	110-5940 No 2 Road		Richmond	BC	V7C4R				

VESSEL AGENTS

Alaska Maritime Agencies	
300 W. Elliott , Suite 315	**206-286-1700**
Seattle, WA 98119-4151	**206-286-1709 FAX**
Astral International Shipping Services, Inc.	
592 Industry Drive	**206-575-6626**
Tukwila, WA 98188-3404	**206-575-8507 FAX**
B.R Anderson & Company	
1001 Klickitat Way, Suite 104	
***Mail:* P.O. Box 3501**	**206-623-1346**
Seattle, WA 98134	**206-623-1848 FAX**
Barber Wilhelmsen Agencies	
Westside Center Bldg. A	**206-838-9305 (Seattle)**
33309 1st Way S., Suite 212	**206-952-2484 (Tacoma)**
Federal Way, WA 98003	**206-952-2489 FAX**
Cascade Marine Agencies, Ltd.	
800 Olympic Tower, 217 Pine	**206-441-4245**
Seattle, WA 98101	**206-292-2044 FAX**
Compass Marine (USA)	
16040 Christensen Rd., Suite 208	**206-431-8777**
Seattle, WA 98188	**206-431-9663 FAX**
Emerald Maritime Services	
4700 42nd S.W., Suite 550	**206-932-9503**
Seattle, WA 98116	**206-932-9498 FAX**
FESCO Agency (USA), Inc.	
6300 Southcenter Blvd., Suite 204	**206 243-7991**
Seattle, WA 98188	**206-243-8405 FAX**
Fritz Maritime Agencies	
651 Strander Blvd., #B-209	**206-575-6618**
Tukwila, WA 98188	**206-575-6624 FAX**
General Steamship Corporation, Ltd.	
300 Elliott Ave. W., Suite 310	**206-286-4400**
Seattle, WA 98119-4151	**206-286-4407 FAX**
Hapag-Lloyd (America), Inc.	
2505 2nd Ave., Suite 705	**206-448-6789**
Seattle, WA 98121	**206-448-6778 FAX**
IMT Agencies	
1200 5th Ave., Suite 1210	**206-441-9100**
Seattle, WA 98101-1127	**206-441-0418 FAX**
International Shipping Co., Inc,	
111 Third Ave, Bldg., Suite 1825	**206-623-5511**
Seattle, WA 98101	**206-682-5113 FAX**
Interocean Steamship Corporation	
1011 Western Ave., Suite 920	**206-682-9820**
Seattle, WA 98104	**206-343-7421 FAX**
Kerr Steamship Co., Inc.	
800 5th Ave., Suite 3880	**206-628-6700**

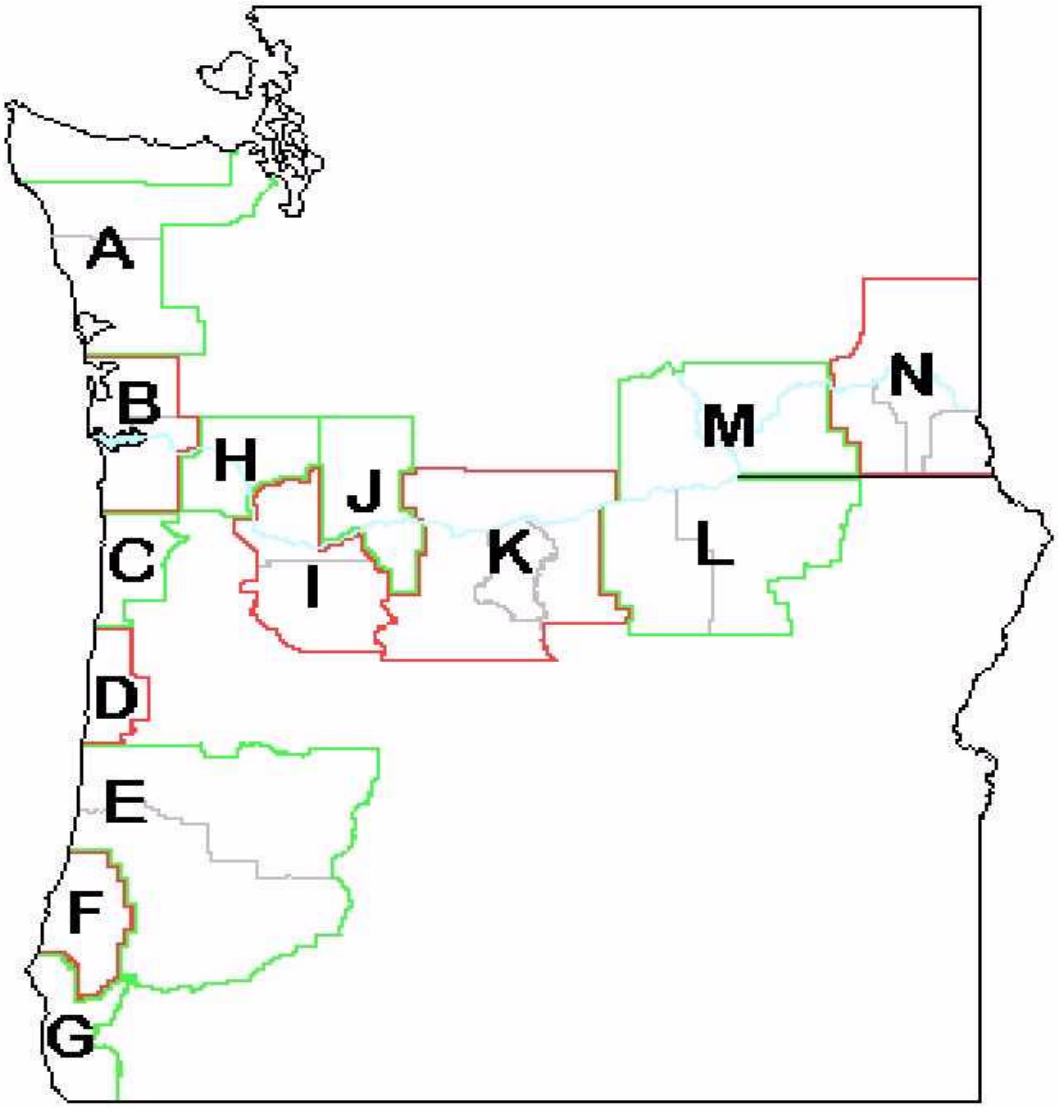
Seattle, WA 98104	**206-628-6719 FAX**
Merit Steamship Agency	
1111 3rd Ave., Suite 2850	**206-682-2671**
Seattle, WA 98101	**206-682-6023 FAX**
The Myers Group (US)	
5200 Southcenter Blvd., Suite 9	**206-244-0928**
Seattle, WA 98188	**206-433-0483 FAX**
Norton Lilly International	
1601 5th Ave., Suite 850	**206-623-0930**
Seattle, WA 98101	**206-382-4894**
Olympic Steamship Agencies, Inc.	
8220 S. 212th	**206-872-7223**
Kent, WA 98032	
***Mail:* P.O. Box 24023**	
Seattle, WA 98124	
Pacific Shipping Services, Inc.	
2401 4th Ave., Suite 750	**206-728-9411**
Seattle, WA 98321	**206-441-1934 FAX**
Pacific Steamship Corporation	
1001 Klickitat Way, Suite 104	
Mail: P.O. Box 3501	**206-624-3493**
Seattle, WA 98134	**206-623-1848 FAX**
Pan Pacific Shipping Co,	
219 1st Ave. S., Suite 201	**206-622-6699**
Seattle, WA 98104	**206-622-1344 FAX**
Rainier Shipping Company	
800 Koll Center Bellevue, 500 108th Ave. N.E.	**206-646-7367**
Bellevue, WA 98004-5060	**206-646-0260 FAX**
Southern Steam Agency	
1000 2nd Ave., Suite 1330	**206-682-6961**
Seattle, WA 98104	**206-622-6432 FAX**
Sunrise Shipping Agency, Inc.	
2401 4th Ave., Suite 750	**206-441-8180**
Seattle, WA 98121	**206-441-6597**
Transmarine Navigation Corp.	
9750 3rd Ave. N.E., Suite 308	**206-525-2051**
Seattle, WA 98115	**206-525-6352 FAX**
Tricom Shipping Agencies, Inc.	
900 4th Ave., Suite 2480	**206-682-0900**
Seattle, WA 98164	**206-682-9827 FAX**
Western United Shipping Agencies	
240 4th Ave., Suite 750	**206-448-8837**
Seattle, WA 98121	**206-441-7011 FAX**
Williams, Dimond, & Co.	
1000 2nd Ave., Suite 1330	**206-622-8568**
Seattle, WA 98104	**206-622-1864 FAX**

STEAMSHIP LINES

American President Lines (APL), Ltd.	
Terminal 5	
3443 W. Marginal Way S.W.	**206-933-4646**
Seattle, WA 98106	**206-933-4510 FAX**
Evergreen Marine Corportation	
999 3rd Ave., Suite 1002	**206-622-9966**
Seattle, WA 98104	**206-623-6611 FAX**
Hanjin Shipping Co., Ltd.	
Terminal 46	
401 Alaskan Way	**206-447-9422**
Seattle, WA 98014	**206-447-9428**
"K" Line America, Inc.	
601 Union St., Suite 4600	**206-389-6800**
Seattle, WA 98101	**206-389-6801 FAX**
Maersk Inc.	
999 3rd Ave., Suite 2101	**206-461-1200**
Seattle, WA 98104	**206-461-1239 FAX**
Matson Navigation Company	
Terminal 25	
3225 E. Marginal Way S.	**206-461-9230**
Seattle, WA 98134	**206-461-9220 FAX**
Mitsui O.S.K. Lines (America), Inc.	
4555 Columbia Center, 701 5th Ave.	**206- 464-3930**
Seattle, WA 98104	**206-467-8192 FAX**
NORAM Ocean Transport, Ltd.	
83 S. King, Suite 605	**206-621-1621**
Seattle, WA 98104	**206-467-9445 FAX**
NYK Line (North America), Inc.	
1001 4th Ave. Plaza, Suite 3700	**206-287-0300**
Seattle, WA 98154	**206-625-9412 FAX**
Orient Overseas Container Line (OOCL)	
1218 3rd Ave., Suite 710	**206-624-8914**
Seattle, WA 98101	**206-624-7234 FAX**
Sea-Land Service, Inc.	
5100 AT&T Gateway Tower	
700 5th Ave.	**206-622-1700**
Seattle, WA 98104	**206-233-3605 FAX**
Sunmar Shipping, Inc.	
2615 4th Ave., Suite 700	**206-443-0200**
Seattle, WA 98121	**206-443-0207 FAX**

Wallenius Lines	
5007 Pacific Highway E., Suite 18	**206-926-2353**
Tacoma, WA 98424-2646	**206-926-2404 FAX**
Westwood Shipping Lines	
505 S. 336th Street	**206-924-4399**
Federal Way, WA 98003	**206-924-5956**
Weyerhaeuser Line	
33405 8th Ave. S.	**206-924-3617**
Federal Way, WA 98003	**206-924-3671 FAX**

MSO Portland Response Resource Guide



A Jefferson County
Grays Harbor County
B Pacific County
Wahkiakum County
Clatsop County
C Tillamook County
D Lincoln Coutny
E Lane County
Douglas County
F Coos County
G Curry County
H Cowlitz County
Columbia County
I Clark County
Multnomah County
Clackamas County
J Skamania County
Hood River County
K Klickitat County
Wasco County
Sherman County
Gilliam County
L Morrow County
Umatilla County
M Benton County
Franklin County
Walla Walla County
N Columbia County
Garfield County
Asotin County
Whitman County

5430 MSO Portland Resource List

VESSEL AGENTS

Asean Corporation
3279 Duncan Drive
Lake Oswego, OR 97305
Phone: (503)635-8127
Fax: (503)635-4049

Astral Int'l Shipping
522 S.W. 5th Ave. Suite 822
Portland, OR 97204
Phone: (503)323-6200
Fax: (503)323-6299

Atlantic Richfield Company (ARCO)
9930 N.W. St Helens
Portland, OR 97231
Mail: P.O. Box 83409
Portland, OR 97283
Phone: (503)286-8250
Fax: (503)289-3961

Barber Wilhelmsen Oceanic
BarWil/IMT/Hoegh
1750 N.W. Front St., Suite 104
Portland, OR 97204-2618
Phone: (503)222-1561
Fax: (503)222-2542

Bluewater Pacific
1650 N.W. Front St.
Portland, OR 97204
Phone: (503)274-8944
Fax: (503)274-9021

Cascade Marine Company
511 Professional Building
511 S.W. 10th Ave., Suite 1004
Portland, OR 97205
Phone: (503)226-4018
Fax: (503)224-4128

Chevron Light Product Division
P.O. Box 4168
Portland, OR 97208
Phone: (503)221-7714
Fax: (503)221-7711

Coos Bay Shipping
P.O. Box 1435
Coos Bay, OR 97420

Evergreen Marine Corp
111 S.W. 5th Ave., Suite 1050
Portland, OR 97204
Phone: (503)243-5040
Fax: (503)248-6365

Fesco 1800 S.W. First Ave., Suite 165 Portland, OR 97204	Phone: (503)294-9794 Fax: (503)294-7982
Fred Noonan Co., Inc 421 S.W. 6th Ave, Suite 411 Portland, OR 97204-1697	Phone: (503)222-1073 Fax: (503)227-7826
Fritz Maritime Agency P.O. Box 2964 Portland, OR 97208-2964	Phone: (503)222-2847 Fax: (503)228-1799
Fujitrans Inc 1 S. W. Columbia, Suite 440 Portland, OR 97258	Phone: (503)222-1598 Fax: (503)222-6830
General Steamship Corp 421 S. W. 6th Ave., Suite 402 Portland, OR 97201-5824	Phone: (503)228-7214 Fax: (503)225-9310
George W. Bush & Co. 600 N.W. Front Ave. Portland, OR 97209	Phone: (503)226-4410 Fax: (503)294-0432
Green Ocean Agencies 1618 S.W. 1st Ave., Suite 417 Portland, OR 97201-5707	Phone: (503)248-9480
Gulf & Atlantic 3556 N.W. Front Ave., Suite 350 Portland, OR 97210	Phone: (503)243-1919 Fax: (503)243-6731
Hanjin Shipping 1500 NE Irving, Suite 300 Portland, OR 97232	Phone: (503)234-4133 Fax: (503)223-0899
Hapag-Lloyd Agency 4700 S.W. Macadam Portland, OR 97219	Phone: (503)224-8230 Fax: (503)224-0455
Hoegh Line Agencies/BarWil 3556 N.W. Front Street Portland, OR 97210	Phone: (503)227-2101 Fax: (503)222-2542
	Hyundai America Shipping

One World Trade Center, Suite 830
121 S.W. Salmon St.
Portland, OR 97204
Fax: (503)224-3434

IMT/BarWil
1750 N.W. Front St., Suite 104
Portland, OR 97204-2618
Phone: (503)227-2101
Fax: (503)222-2542

Inchcape Ship Services
See Williams Diamond

International; Shipping Company
421 S.W. 6th Ave., Suite 1000
Portland, OR 97204-1615
Phone: (503)226-7681
Fax: (503)226-7378

Interocean Steamship Corp.
3556 N.W. Front St., Suite 355
Portland, OR 97210
Phone: (503)295-0515
Fax: (503)295-0565

Jones Oregon Company
2323 N.W. Suffolk
Portland, OR 97210
Phone: (503)228-6601
Fax: (503)228-0273

Jones Stevedoring Services
P.O. Box 450
North Bend, OR 97459-0043
Phone: (541)756-4113
Fax: (541)756-1385

K-Line America Inc
121 S.W. Salmon Street, Suite 900
Portland, OR 97204-2919
Phone: (503)220-3700
Fax: (503)220-3701

Kerr Norton Marine/Norton Lily
1500 S.W. 1st Ave., Suite 940
Portland, OR 97201
Phone: (503)224-6612
Fax: (503)274-9692
Coos Bay (541)249-7447/269-5338

Keystone Shipping (see Myers Group)

Lasco Steamship Company
P.O. Box 1004
Clackamas, OR 97015
Phone: (503)227-7447
Fax: (503)658-2105

Lloyd's Maritime
1725 S.E. Royer
Phone: (503)224-1112

Portland, OR 97210-0047

Phone: (503)227-1621
Fax: (503)227-2710

Merit Steamship Company
101 S.W. Main St., Suite 1060
Portland, OR 97204-3278

Coos Bay (541)267-5620
Fax (541)269-2821

Phone: (503)253-7581
Fax: (503)253-4926

Myers Group/FT Dow/Hobleman
Myers-Livingstone International
6645 N.E. 78th Court, Suite C6
Portland, OR 97218

Phone: (503)222-3577

Newman Wilson
421 S.W. 6th Ave., Suite 902
Portland, OR 97204

Phone: (503)295-3676(PDX)
Fax: (360)737-3611

North American Shipping
1330 Washington St.
Vancouver, WA 98660

Phone: (503)224-6612
Fax: (503)274-9692

N.Y.K.
121 S.W. Salmon, Suite 1220
Portland, OR 97204

Coos Bay (541)269-7447
Fax: (541)269-5338

Phone: (253)872-7223
Fax: (253)872-8160

Olympic Steamship Agents, Inc.
P.O. Box 24023
Seattle, WA 98124
Coos Bay Rep

(541)267-7848

Phone: (541)756-4115
Fax: (541)756-1385

Oregon Coast Agencies
P.O. Box 450
North Bend, OR 97450

Phone: (503)229-4474

Orion Ship Agency
4380 S.W. Macaden, Suite 210-E
Portland, OR 97201

Phone: (503)225-9357
Fax: (503)225-9310

Pan Ocean Shipping Co. LTD
421 S.W. 6th Ave. #402
Portland, OR 97204

PM&O
3556 N.W. Front St., Tower Building
Portland, OR 97210

Phone: (503)658-3389
Fax: (503)323-2794

Ships Service Company
101 9th
Astoria, OR 97103
Phone: (503)325-3721
Fax: (503)325-3732

Star Shipping Inc.
1 S.W. Columbia St. Room 920
Portland, OR 97258
Phone: (503)223-7191
Fax: (503)223-6519

Stevedore Services of America
2275 N. 8th
Coos Bay, OR 97240-2697
Phone: (541)269-9351
Fax: (541)267-5959

Stream Steamship Agency
717 Levee St.
Hoquiam, WA 98550-2508
Phone: (360)532-0837 (Grays Harbor)
Fax: (360)533-3115

Sunrise Shipping Company
1515 S.W. 5th Ave., Suite 1050
Portland, OR 97201-5471
Phone: (503)227-2631
Fax: (503)226-6597

Transmarine Navigation Corp.
1200 N.W. Front St., Suite 390
Portland, OR 97209
Phone: (503)242-3864
Fax: (503)241-4075

Transversal International
120 N. Main
Banks, OR 97106
Phone: (503)324-1871
Fax: (503)324-2626

Will Green
Seattle, WA
Phone: (206)623-5394

Williams Dimond & Company/
Inchcape Ship Services
1750 S.W. Harbor Way, Suite 360
Portland, OR 97201
Phone: (503)226-3093
Fax: (503)223-9121

Inchcape (503)223-6151

Phone: (503)274-4033
Fax: (503)274-4035

PILOTS

Columbia River Pilots (Portland)

	(503)698-4449 (cellular)
Dispatcher (Sundays)	
	Phone: (503)224-5161
Columbia River Bar Pilots (Portland)	Fax: (503)325-5630
	Phone: (503)325-2641
Columbia River Pilots (Astoria)	Fax: (503)325-2643
Columbia River Pilots (Astoria/ night)	
	Phone: (541)267-6555
Coos Bay Pilots	Fax: (541)267-5256
	Phone: (503)267-6555
Yaquina Bay Pilots (Newport)	Fax: (503)267-5256
	Phone: (360)673-2277
Lewis & Clark Pilotage, Inc.	
	Phone: (360)532-2761
Grays Harbor Pilots	

Phone: (503)289-9922
Fax: (503)289-9955

5500 Area Resources: Response Equipment

5510 Summary of Area Resource

5511 Oil Response Equipment

COTP ZONE: MSO Portland, OR
GRP Area: Grays Harbor, Washington GRP

Port/Harbor Area: **Aberdeen, WA.**

Owner/POC	Equipment		Quantity	Location	Lat.	Long.
Foss Environmental	30″	Curtain Boom, Zoom Boom Stored in 20 ft. Container	3000 ft.	Terminal 1 Corps of Engineers Float 111 South Wooding Street	46.968333	-123.858333
	30″	Curtain Boom, Zoom Boom Onboard 32 ft. FRV	1000 ft.			
	-	Brush Skimmer, Larsen Marine Model OPC2	1 ea.			
	32′	Fast Response Vessel, Kvichak	1 ea.			
	-	DLE-4, Pillow Tank, 1,000 gal.	1 ea.			

COTP ZONE: MSO Puget Sound, WA
GRP Area: San Juan Islands/North Puget Sound

Port/Harbor Area: **Bellingham, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Marine Spill Response Corp.	67″ Curtain Boom, Sea Sentry II Slide Connector	1320 ft.	210 Harris Ave.	48.7175	-122.501667
	26″ Tidal Seal, Inter Tidal STXB -26	2000 ft.			
	24″ Curtain Boom, MK 7-24″	2000 ft.			
Foss Environmental	30″ Curtain Boom, Zoom Boom Stored in 20 ft. Chassis	4000 ft.	Whatcom International Shipping Terminal 625 Cornwall Ave.	48.745	-122.488056
	20″ Curtain Boom, BHD81208RF Stored in 20 ft. Chassis	1000 ft.			
	20″ Curtain Boom, BHD81208RF Stored onboard 32 ft. FRV	1000 ft.			
	- DLE-4, Pillow Tank, 1,000 gal.	3 ea.			
	- Morris Disc Skimmer, MI-30	1 ea.			
	32′ Fast Response Vessel, Kvichak	1 ea.			
Clean Sound Cooperative, Inc.	20″ Curtain Boom, Sea Curtain Onboard SRV Eagle	3000 ft.	Port Of Bellingham Squalicum Harbor #22 Squalicum Mall	48.511667	-122.611667
	20″ Curtain Boom, Sea Curtain In Trailer #40	1000 ft.			
	30″ Curtain Boom, Zoom Boom Onboard SRV Pintail	200 ft.			
	30″ Curtain Boom, Zoom Boom Onboard Barge Pelican	200 ft.			
	- OSRV Western Gull, JBF Dip 5001 Submersion Belt	1 ea.			
	- SRV Pintail, Lori Chain Brush	1 ea.			
	- SRV Eagle, Morris Disc/Adhesion	1 ea.			
	- Tank Barge, Pelican 504,000 gal. Cap.	1 ea.			

COTP ZONE: MSO Puget Sound, WA.
GRP Area:

Port/Harbor Area: **Blaine, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Sound 122.733889	30" Curtain Boom, OK Coral	2000 ft.	ARCO Products Company	48.866667	-
	Stored in Gooseneck Trailer # 4		4519 Grandview Road		
	30" Curtain Boom, Zoom Boom	2000 ft.			

COTP ZONE: MSO Portland, OR.
GRP Area:

Port/Harbor Area: **Brownsville, OR.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Frac-Tanks, Inc.	Portable Tank 21000 gal.	22 ea.	Frac-Tanks, Inc.	44.333333	-123
	Portable Tank 16800 gal.	15 ea.	27025 Weber Road		
	Portable Tank 6000 gal.	9 ea.			
	Portable Tank 6000 gal.	5 ea.			
	Portable Tank 4000 gal.	4 ea.			

COTP ZONE: MSO Puget Sound, WA
GRP Area:

Port/Harbor Area: **Edmonds, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Sound	Home Office		110 West Dayton, Suite 202	47.575	-122.358056
	Maintenance Site		150 West Dayton		
	20" Curtain Boom, Sea Curtain Stored in CSCI Trailer #42	1000 ft.			
	30" Curtain Boom, Zoom Boom Onboard SRV Loon	800 ft.			
	- Belt/Adhesion Skimmer, Marco Pollution Marco Filter Belt 1 ft.	1 ea.			
	- Disc/Adhesion, DE Smithske A/S Desmi 150	1 ea.			
	- Disc/Adhesion, Morris International MI 11/24	1 ea.			
	- Wier/Suction, Poscon Model 150	1 ea.			
	- Wier/Suction, Slickbar Products Co. Slurp Skimmer	1 ea.			
	- Oleophilic/Rope/Adhesion, Containment Sys. MW41	1 ea.			
	- Disc/Adhesion, Morris International LTD. MI 30	1 ea.			
	30' SRV Loon, Uniflite Inc. 800 ft. Zoom Boom	1 ea.			
	18' Utility Work Boat, Snipe, Brown Marine	1 ea.			
	31' OSRV Curlew, Marco Pollution Control Marco Filter Belt 1 ft.	1 ea.			
	14' John Boat, Sea Nymph, Inc.	1 ea.			

COTP ZONE: MSO Puget Sound, WA
GRP Area: **North Central Puget Sound**

Port/Harbor Area: **Everett, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
MSRC	26″ Tidal Seal Boom, Intertidal STXB - 26	2000 ft.	MSCR Region 5 1105 13th Street	48.0025	-122.2025
	67″ Curtain Boom, Sea-Sentry II	10560 ft.			
	24″ Curtain Boom, MK 7	4000 ft.			
	83″ Curtain Boom, NOFI 800	675 ft.			
	43″ Curtain Boom, Hydra Boom	1216 ft.			
	20″ Curtain Boom,	1000 ft.			
	- Weir/Disc/Belt, Transrec 350	1 ea.			
	- Weir/Vortex, Walosep W	1 ea.			
	- Weir/Suction, GT-185	1 ea.			
	- Drum Separator, WP-1	1 ea.			
	- Weir/Suction,3 Weir	1 ea.			
	- Weir/Suction, AARD-VAC 800	1 ea.			
	- Disc/Adhesion, Seawolf	1 ea.			
	- Weir/Suction. Desmi Ocean	1 ea			
	208′ OSRV, Washington Responder, OSRV 168,000 gallons storage	1 ea.			
	48′ Shallow Water Barge System 67,200 gallons storage	1 ea.			
	32′ Utility Work Boat	1 ea.			
	- Bladders, Storage 7,000 gallons each	3 ea.			
Foss Environmental	20″ Curtain Boom, BHD81208F Stored onboard 32′FRV	1000 ft.	Foss Maritime Co. 2730 Federal Ave.	47.98	-122.22
	32′ Fast Response Vessel, Kvichak	1 ea.	Pier 3 North		

COTP ZONE: MSO Puget Sound, WA.
GRP Area: San Juan Island/North Puget Sound

Port/Harbor Area: **Ferndale, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Sound	30" Curtain Boom, OK Coral Stored in Gooseneck Trailer #1	2000 ft.	TOSCO Northwest Company 3901 Unick Road	48.841667	122.710556
	30" Curtain Boom, OK Coral Located in trailer #26	4000 ft.			

COTP ZONE: MSO Portland, OR.
GRP Area: **Lower Columbia River**

Port/Harbor Area: **Longview, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Grove Cowlitz Clean Sweep	18" Curtain Boom, Sea Curtain	4000 ft.	340 Oregon Way Suite C	46.25	-122.75
	15 Storage Tanks	2184 gal.	340 Oregon Way Suite C	46.25	-122.75
		19992 gal.			
		1008 gal.			
		1008 gal.			
		8988 gal.			
		1008 gal.			
		1008 gal.			
		1470 gal.			
		3360 gal.			
		3360 gal.			
		3024 gal.			
		1008 gal.			
		1008 gal.			
		3360 gal.			
		1470 gal.			
Clean Rivers			Weyerhauser Paper 3401 Industrial Way	46.18333	-122.883333
			Fowlers Boat Dock 6703 Willow Road	46.18333	-122.883333

COTP ZONE: MSO Puget Sound, WA.
GRP Area: **Straight of Juan de Fuca**

Port/Harbor Area: **Neah Bay, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Sound	42" Curtain Boom, Sea Curtain	2000 ft.	Makah Indian Reservation	48.2	-124.6
	20" Curtain Boom, Sea Curtain	500 ft.	Makah Indian Reservation		
MSRC 124.623056	67" Curtain Boom, Sea Sentry	3960 ft.	Highway 112	48.202778	-
	- Weir/Suction Skimmer, GT-185	1 ea.			
	- Inflatable Bladder,	21000 gal.			
Foss Environmental	20" Curtain Boom,BHD81208RF Stored in 45 ft. trailer	2400 ft.	Far West Landing	48.366667	-124.53333
Clean Pacific	43" Curtain Boom, Expandable Ocean Boom	4000 ft.	P.O. Box 115	48.333333	-124.66667
	- Vortex/Suction Skimmer, Cascade	1 ea.			
	- Vortex/Suction Skimmer, Cascade LP 3000	1 ea.			
USCG MSO Puget Sound	- Response Trailer, 8 foot	1 ea.	CG Station Neah Bay	48.3	-124.6

COTP ZONE: MSO Puget Sound, WA.
GRP Area: **Straight of Juan de Fuca**

Port/Harbor Area: **Port Angeles, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Sound	30″ Curtain Boom, OK Coral	4000 ft.	Port of Port Angeles	48.125	-123.441667
	Stored in Van # 29		Foot of Cedar Street		
	30″ Curtain Boom, Zoom Boom	1000 ft.			
	Stored onboard OSRV Shearwater				
	20″ Curtain Boom, Sea Curtain	1000 ft.			
	Stored onboard SRV Scoter				
	43″ Fire Boom, 3M 18″ Fire Boom	500 ft.			
	Stored in Van # 38				
	30″ Curtain Boom, Zoom Boom	400 ft.			
	Stored onboard SRV Heron				
	30″ Curtain Boom, Zoom Boom	2400 ft.			
	Stored onboard TB Kittiwake				
	42″ Curtain Boom, Sea Curtain	2000 ft.			
	Stored in Van # 35				
	264′ Oil Barge Kittiwake, Bergeron Ind.	1 ea.			
	32′ SRV Scoter, Kvickhak	1 ea.			
	42′ SRV Heron	1 ea.			
	Weir/Suction Skimmer, Desmi 250				
	115′ OSRV Shearwater	1 ea.			
	Submersion Belt Skimmer JBF 6001 Dip				
	18′ Utility Work Boat Willet, Brown Marine	1 ea.			
	14′ John Boat, Sea Nymph, Inc.	1 ea.			
MSRC	67″ Curtain Boom, Sea Sentry II	1320 ft.	338 W. 1st Street	48.118056	-123.418333
	26″ Tidal Seal Boom, Intertidal STXB	2000 ft.			
	24″ Curtain Boom, MK7	2000 ft.			
	250′ Tank Barge, MSCR Barge 380	1596000 gal.			
	Todd Houston				
	Vessel of Opportunity	8 ea.			
Foss Environmental	20″ Curtain Boom, BHD81208RF	1000 ft.	Port Angeles Boat Haven	48.126667	-123.45
	Stored onboard 32′ FRV		Slip C-6		
	32′ FRV	1 ea.	832 Boat Haven Drive		
	30″ Curtain Boom, BHD81208RF	2000 ft.	Foss Maritime Company	48.126667	-123.45
	Stored in 20′ trailer		937 Boat Haven Drive		
	30″ Curtain Boom, Zoom Boom	3000 ft.			
	Stored in 20′ trailer				
	20″ Curtain Boom, Optimax	400 ft.			
	Stored at dock near FRV				
	42″ Curtain Boom, Ocean Boom	1000 ft.			
	Stored in 40 ft. container				
	42″ Curtain Boom, Inflatable Ocean Boom	1000 ft.			
	195′ Tank Barge, Sundial Marine Tug&Barge	629958 gal.			

Harbor Transport	-	Vacuum Transfer Unit	1000 gal.	1014 Marine Drive	48.116667	-123.43333
USCG MSO Puget Sound	-	Response Trailer	1 ea.	CG Group Port Angeles	48.1	-123.4

COTP ZONE: MSO Puget Sound, WA.
GRP Area: Hood Canal/Admiralty Inlet

Port/Harbor Area: **Port Hadlock, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Sound	71' OSRV, Arctic Tern	1 ea.			
	JBF DIP 5001 System		Port Hadlock		
	34' SRV, Puffin	1 ea.			
	800' of 30" Zoom Boom Onboard				
	30" Curtain Boom, Zoom Boom	800 ft.			
	Pressure Inflatable				

COTP ZONE: MSO Portland, OR.
GRP Area: **Lower Columbia River**

Port/Harbor Area: **Portland, OR.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Foss Environmental	20″ Curtain Boom, BHD81208RF Stored in 20 ft. container	700 ft.	5420 North Lagoon Ave.	45.56	-122.711667
	20″ Curtain Boom, BHD81208RF Stored in 18 ft. container	1600 ft.			
	20″ Curtain Boom, Optimax Stored in 20 ft. container	1200 ft.			
	12″ Curtain Boom, Super Swamp Stored in 8x4x4 ft. box	400 ft.			
	30″ Curtain Boom, Zoom Boom Stored in 20 ft. container	3500 ft.			
	- Belt/Adhesion Skimmer, Marco IC	1 ea.			
	- Disc/Adhesion Skimmer, Komara 12K	1 ea.			
	- Rope Mop Skimmer, CSI II-A3	1 ea.			
	- Rope Mop Skimmer, MKII-4VE	1 ea.			
	- Rope Mop Skimmer, MKI-4E	1 ea.			
	- Rope Mop Skimmer, A-14-G	1 ea.			
	- Weir/Suction Skimmer, SkimPak 2200SH	1 ea.			
	- Towable Pillow Tank, Canflex, 1000 gal.	4 ea.			
	18″ Curtain Boom, Simplex Stored onboard 25 ft. FRV	700 ft.	Portland Shipyard Work Boat Moorage	45.566667	-122.725
	25′ FRV, Munson	1 ea.	5555 N. Channel Ave.		
	20″ Curtain Boom, Optimax Stored on Various tank barges	5300 ft.	Foss Maritime Company 9030 NW St. Helens Road	45.585	-122.768333
	20″ Curtain Boom, Optimax Stored on Response Boat	500 ft.			
	- Tug Boat	5 ea.			
	- Tug Boat	28 ea.			
	178′ Tank Barge, Dravo Corp.	510720 gal.			
	210′ Tank Barge, Avondale Marine	619416 gal.			
	240′ Tank Barge, Nashville Bridge, Co.	798000 gal.			
	120′ Tank Barge, Kyle & Co., Inc.	234360 gal.			
	204′ Tank Barge, Not Specified	420000 gal.			
	166′ Tank Barge, Not Specified	327600 gal.			
Pacific Northern Oil	- Fixed Facility Tank	20000 gal.	7900 NW St. Helens Road	45.58	-122.758333
Baker Tanks	- Portable Tank 20000 gal. Portable Tank 6500 gal.	30 ea. 10 ea.	6637 SE 100th Avenue	45.516667	-122.716667
Olympic Tug & Barge	145′ Tank Barge, C&M Ship Building Co.	357000 gal.	2720 NW 35th #5	45.523056	-122.6675
	230′ Tank Barge, Zidell Marine Corp.	987000 gal.			

Clean Rivers Cooperative				Clean River Cooperative, Inc.	45.483056	-122.55
				200 SW Market #190		
				CRC/MFSA Maintenance Facility	45.583333	-122.55
				9420 NW St. Helens Road		
Clean River Cooperative (Continued)				A-1 Moorage	45.633333	-122.55
				12950 NW Marina Way		
				Port of Portland	45.633333	-122.55
				12950 NW Marina Way		
USCG MSO Portland	-	Response Trailer, 10 foot	1 ea.	MSO Portland		
				6767 N. Basin Avenue	45.5	-122.5
	-	Response Trailer, 12 foot	1 ea.	CG Station Grays Harbor		
				Westport, OR.		
	-	Response Trailer, 24 foot	1 ea.	CG Aids to Navigation Team Astoria		
				Tongue Point		
				Astoria, OR.		
	-	Response Trailer, 10 feet	1 ea.	CG Station Tillamook Bay		
				Garibaldi, OR.		
	-	Response Trailer, 12 foot	1 ea.	CG Station Yaquina Bay		
				Newport, OR.		
	-	Response Trailer, 20 foot	1 ea.	CG Group North Bend		
				200 Connecticut Ave.		
				North Bend, OR.		

COTP ZONE: MSO Puget Sound, WA.
GRP Area: Hood Canal/Admiralty Inlet

Port/Harbor Area: **Port Townsend, WA.**

Owner/POC	Equipment		Quantity	Location	Lat.	Long.
Foss Environmental	20”	Curtain Boom, BHD81208RF Stored in 20 ft. container	1000 ft.	Port Townsend Paper 100 Paper Mill Hill Road	48.091667	-122.796667
	-	Wier Skimmer, Skimpac 2200SH	1 ea.			
USCG MSO Puget Sound	-	Response Trailer, 20 foot	1 ea.	USCG Point Bennett	48.0	-122.7

COTP ZONE: MSO Portland, OR.
GRP Area: Lower Columbia River

Port/Harbor Area: **Rainier, OR.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Foss Environmental	18" Curtain Boom, Optimax Stored onboard 34 ft. FRV	1000 ft.	Foss Maritime Company	46.09	-122.928333
	20" Curtain Boom, Optimax Stored on Dock	1000 ft.			
	20" Curtain Boom, Optimax	1000 ft.			
	34' Fast Response Vessel, Raider	1 ea.			
	- Belt/Adhesion Skimmer, Marco IC	1 ea.			

COTP ZONE: MSO Puget Sound, WA.
GRP Area:

Port/Harbor Area: **Seattle, WA.**

Owner/POC	Equipment		Quantity	Location	Lat.	Long.
Clean Sound	30″	Curtain Boom, Zoom Boom Stored onboard SRV Teal	800 ft	Harbor Marina Corp. Center 1021 SW Klickatat Way	47.575	-122.35805
	30″	Curtain Boom, Zoom Boom Stored onboard SRV Coot	800 ft.			
	30″	Curtain Boom, Zoom Boom Stored in CSCI Boom Box #31	3800 ft.			
	-	Fixed Facility Tank	273,000 gal.	Arco Products, Harbor Island		
	-	Submersible Belt Skimmer, JBF 5001, onboard OSRV Royal Tern	1 ea.			
	71′	OSRV Royal Tern, Dakota Creek Ind. JBF 5001 skimmer onboard	1 ea.			
	34′	SRV Teal, Raider Stored onboard 800 ft. Zoom Boom	1 ea.			
	34′	SRV Coot, Raider Stored onboard 800 ft. Zoom Boom	1 ea.			
	30″	Curtain Boom, OK Coral Stored onbaord CSCI unit #5	2000 ft.	Chevron USA, Inc.	47.76667	-122.383056
	-	Fixed Tank Facility	651,000 gal.			
	-	Belt/Adhesion Skimmer, Bennet MK 6F	1 ea.	Time Oil Company 2737 West Commodore Way	47.6625	-122.391667
	40′	OSRV Auklet, Weldit Corp.	1 ea.			
Foss Environmental	17″	Curtain Boom, Minimax Stored Onboard 32′ SRV	1000 ft.	Foss Maritime Co. 660 West Ewing Street	47.65333	-122.365
	17″	Curtain Boom, Simplex Stored in Warehouse	300 ft.			
	20″	Curtain Boom, BHD81208RF Stored in 20 ft. Container	3000 ft.			
	24″	Belt Boom, Petro Barrier Loaded on 20 ft. skiff	800 ft.			
	42″	Curtain Boom, Ocean Boom Stored in 20 ft. Container	1000 ft.			
	30″	Curtain Boom, Zoom Boom Stored in 10 ft. Cargo Box	500 ft.			
	20″	Curtain Boom, BHD81208RF Stored in 18 ft. Trailer	1000 ft.			
	20″	Curtain Boom, BHD81208RF Stored in yard	1000 ft.			
	-	Belt/Adhesion Skimmer, Marco Marco Pollution Control IC	2 ea.			
	-	Brush Skimmer, Larsen Marine	1 ea.			

		OY/AB, OPC2				
	-	Disc/Adhesion Skimmer, MI-30	1 ea.			
		Morris Industries, LTD.				
	-	Rope Mop Skimmer, MKII-4VE	2 ea.			
		Oil Mop, Inc.				
	-	Weir/Suction Skimmer, Oleo III	2 ea.			
Foss Environmental (Continued)	-	Weir/Suction Skimmer, SkimPak 2200 SH	1 ea.			
		Douglas Engineering				
	-	Weir/Suction, Desmi 250	1 ea.			
	-	Towable Pillow Tank, 1000 gal.	10 ea.			
		Canflex				
	18′	Utility Work Boat, Robolo	1 ea.			
	17′	Utility Work Boat, Boston Whaler	1 ea.			
	16′	Utility Work Boat, All Alaskan	1 ea.			
	12′	Skiff, Various	8 ea.			
	-	Tank Barges/Tugs Various Sizes				
	17″	Curtain Boom, Minimax	1000 ft.	Foss Environmental Services	47.54	-122.33333
		Stored in Warehouse		200 SW Michigan Street		
	-	Vacuum Trailer, 5040 gal.	3 ea.			
	-	Vacuum Truck, 2520 gal.	1 ea.			
	-	Disc/Adhesion Skimmer, Komara 12K	2 ea.			
		Vikoma International, LTD.				
	-	Rope Mop Skimmer, MKII-9D	1 ea.			
		Oil Mop, Inc.				
	20″	Curtain Boom, Optimax	1000 ft.	GATX Terminals Corp.	47.588056	-122.345
		Stored in 18 ft. Container		2720 13th Ave. SW		
				Harbor Island		
	20″	Curtain Boom, BHD81208RF	1000 ft.	Port of Seattle	47.631667	-122.381667
		Stored on 32′ FRV				
Global Environmental	20″	Curtain Boom, OK Corral	4700 ft.	Global Diving & Salvage	47.578056	-122.350833
	24″	Fence Boom	700 ft.			
	24″	Fence Boom	800 ft.			
	24″	Fence Boom	500 ft.			
	20″	Curtain Boom, Corral	1300 ft.			
	20″	Curtain Boom	900 ft.			
	24″	Curtain Boom, Corral 24	2400 ft.			
	24″	Curtain Boom, JPS Fence	500 ft.			
	24″	Curtain Boom, Perma	700 ft.			
	24″	Curtain Boom, Petro	700 ft.			
	20″	Curtain Boom, OK Corral	600 ft.			
	20″	Curtain Boom, OK Corral	700 ft.			
	20″	Curtain Boom	900 ft.			
	24″	Curtain Boom, OK Corral	2400 ft.			
	24″	Fence Boom	500 ft.			
	24″	Fence Boom, Perma	700 ft.			
	24″	Fence Boom, Petro	700 ft.			
	-	Oleophilic/Rope/Adhesion Skimmer	1 ea.			
		Nor-Marine VAB Foxtail 2-6				
	-	Oleophilic/Rope/Adhesion Skimmer	1 ea.			
		Oil Mop Inc., Mark I-4E				
	-	Oleophilic/Rope/Adhesion Skimmer	1 ea.			

		Containment Systems, Mop-Wringer 4				
	-	Weir Skimmer	1 ea.			
		Douglas Engineering, SkimPac 1800 SH				
	-	Disc/Adhesion Skimmer	1 ea.			
		Morris International, MI-2				
	-	Oleophilic/Rope/Adhesion Skimmer	1 ea.			
		H. Hendrickson, VAB Foxtail				
	-	Oleophilic/Rope/Adhesion Skimmer	1 ea.			
		Oil Mop Inc., MK I-4E				
Global Environmental (Continued)	-	Oleophilic/Rope/Adhesion Skimmer	1 ea.			
		Containment Systems, MW41				
	-	Weir/Suction Skimmer	1 ea.			
		Douglas Engineering, 18000 SH				
	50’	LCM, Crowley Marine	1 ea.			
	40’	Deck Barge	1 ea.			
	34’	Utility Work Boat, Raider Marine	1 ea.			
	26’	Utility Work Boat, Munson	2 ea.			
	22’	Utility Work Boat, Boston Whaler	1 ea.			
	17’	Utility Work Boat, Boston Whaler	1 ea.			
	-	Utility Work Boat, Various Makers	12 ea.			
		Ranging 14’ to 19’				
Clean Pacific	200’	Tank Barge, PS206	829878 gal.	Crowley Marine Services, Inc.	47.974167	-122.554167
		Gunderson Brothers Engineering		Pier 17		
	275’	Tank Barge, No. 17	1889832 gal.	1102 SW Massachusetts Ave.		
		Pacific Coast Engineering				
	250’	Tank Barge, No. 254	2079336 gal.			
		Gunderson Brothers Engineering				
	250’	Tank Barge, No. 255	2079336 gal.			
		Gunderson Brothers Engineering				
	300’	Tank Barge, No. 101	4366656 gal.			
Olympic Tug & Barge	145’	Tank Barge, Meghan 102	357000 gal.	910 SW Spokane Street	47.6	-122.333333
		C&M Shipbuilding Co.				
	296’	Tank Barge, David 120	2111718 gal.			
		Zidell Exploration Inc.				
	271’	Tank Barge, Norton	1764000 gal.			
		Cresent City Marine Co.				
	230’	Tank Barge, Max III	987000 gal.			
		Zidell Marine Corp.				
	230’	Tank Barge, Bernie 12	987000 gal.			
		Zidell Marine Corp.				
Pacific Northern	-	Fixed Facility Tank	210,000 gal.	Pacific Northern Oil Co.	47.631667	-122.381667
				Port of Seattle, Pier 91		
USCG MSO Puget Sound	-	Response Trailer, 20 foot	1 ea.	MSO Puget Sound	47.6	-122.3
				1519 Alaskan Way South		
				Bldg. 1		

	-	Response Trailer, 20 foot	1 ea.	CG Station Quillayute River La Push, WA.
	-	Response Trailer, 20 foot	1 ea.	CG Station Neah Bay Neah Bay, WA.
	-	Response Trailer, 8 foot	1 ea.	CG Group Port Angeles
	-	Response Trailer, 20 foot	1 ea.	USCG Point Bennett Port Townsend, WA.
	-	Response Trailer, 8 foot	1 ea.	TBD, Anacortes area
	-	Response Trailer, 20 foot	1 ea.	CG Station Bellingham 1101 Thomas J. Glenn Way
USCG District 13 (m)	-	USCG VOSS System	1 ea.	Manchester Fuel Depot Manchester, WA. Naval Ordnance Center Port Hadlock, WA.

COTP ZONE: MSO Puget Sound, WA
GRP Area: Straight of Juan de Fuca

Port/Harbor Area: **Seiku, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Foss Environmental	30" Curtain Boom, Zoom Boom Stored Onbaord 32 ft. FRV 32' Fast Response Vessel, Kvichak	1100 ft.	Olson's Resort Highway 101	48.263333	-124.2

COTP ZONE: MSO Portland, OR.
GRP Area: Lower Columbia River

Port/Harbor Area: **Skamokawa, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Rivers			Vista Park Port District 2 East SR 4	46.266667	-123.5

COTP ZONE: MSO Portland, OR.
GRP Area: **Lower Columbia River**

Port/Harbor Area: **St. Helens, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Rivers			St. Helens Marina 134 North River Street	40.166667	-122.8
			Dillards Marina North River Street	40.166667	-122.8
Foss Environmental	20" Curtain Boom, Optimax Stored in 18 ft. trailer	500 ft.	Boise Cascade 1300 Kaster Road	45.861667	-122.79666
	18' Utility Work Boat, Monarch	1 ea.			

COTP ZONE: MSO Puget Sound, WA.
GRP Area:

Port/Harbor Area: **Tacoma, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Sound	30” Curtain Boom, Zoom Boom Stored in Van #32	2400 ft.	U.S. Oil & Refining Company 1735 Port of Tacoma Road	47.575	-122.358056
	30” Curtain Boom, Zoom Boom Stored onboard SRV Mallard	800 ft.			
	30” Curtain Boom, OK Coral Stored in Van #30	4000 ft.			
	30” Curtain Boom, Zoom Boom Stored onboard SRV Grebe	800 ft.			
	- Fixed Facility Tank	420000 gal.			
	42’ OSRV Plover, Marco Pollution Control Marco Class II C Skimmer	1 ea.			
	30’ SRV Mallard, Fidalgo Fiberglass Corp.	1 ea.			
	33’ OSRV Sandpiper, Marco Pollution Control Marco Class II	1 ea.			
	30’ SRV Grebe, Fidalgo Fiberglass Corp.	1 ea.			
	14” John Boat, Sea Nymph	1 ea.			
	30” Curtain Boom, Zoom Boom Stored onboard SRV Widgeon	1000 ft.	UNOCAL 516 East D Street	46.26889	-122.451667
	32’ SRV Widgeon, Fidalgo Fiberglass	1 ea.			
Foss Environmental	30” Curtain Boom, BHD81208RF Stored onboard 32’ FRV	1000 ft.	Foss Maritime Company 225 East “F” Street	47.261667	-122.433333
	32’ FRV, Kvichak	32 ft.			
	- Pillow tank, 1000 gallons capacity	3 ea.			
	30” Curtain Boom, BHD81208RF Stored in 20 ft. container	3000 ft.	Totem Ocean Trailer Express 500 Alexander Ave.	47.26166	-122.4333
	- Disc/Adhesion Skimmer, Morris MI-30	1 ea.			
	- Pillow tank, 1000 gallons capacity	3 ea.			

COTP ZONE: MSO Portland, OR
GRP Area: **Grays Harbor, Washington**

Port/Harbor Area: **Tillamook, OR.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
USCG MSO Portland	12" Curtain Boom, River Stored in 10' Response Trailer	200 ft.	USCG Station		

COTP ZONE: MSO Portland, OR.
GRP Area:

Port/Harbor Area: **Troutdale, OR.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Rain for Rent	Portable Tank 21000 gal.	4 ea.	Rain for Rent 22601 NE Sandy Blvd.	45.55	-122.35
	Portable Tank 18100 gal.	2 ea.			
	Portable Tank 6900 gal.	2 ea.			
	Portable Tank 4900 gal.	2 ea.			
	Portable Tank 4000 gal.	1 ea.			
	Portable Tank 2400 gal.	1 ea.			
	Portable Tank 600 gal.	2 ea.			

COTP ZONE: MSO Portland, OR
GRP Area: Lower Columbia River

Port/Harbor Area: **Vancouver, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Rivers			**Tidewater Barge Lines 6305 NW Lower River Rd.**	**45.583056**	**-122.55**

COTP ZONE: MSO Portland, OR.
GRP Area: Lower Columbia River

Port/Harbor Area: **Wauna, OR.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Clean Rivers			James River Paper Wauna Mill	46.2	-123.2

COTP ZONE: MSO Portland, OR
GRP Area: Grays Harbor, Washington

Port/Harbor Area: **Westport, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Foss Environmental	30" Curtain Boom, Zoom Boom Onboard 34 ft. FRV 34' Fast Response Vessel, Raider	1000 ft.	Westport Marina Slip 21-D Westhaven Drive	46.888333	-124.083333
USCG MSO Portland	12" Curtain Boom, River Stored in 12 ft. response trailer	300 ft.	CG Station Grays Harbor	46.8	-124.0

COTP ZONE: MSO Puget Sound, WA.
GRP Area: Central Puget Sound

Port/Harbor Area: **Woodinville, WA.**

Owner/POC	Equipment	Quantity	Location	Lat.	Long.
Baker Tanks	Portable Tank 6500 gal.	15 ea.	Baker Tanks Continential, Inc.	47.75	-122.15
	Portable Tank 20000 gal.	48 ea.	6100 238th Street NE		

5512 Hazardous Substance Response Equipment

5600 Area Resources: Personnel and Services

5610 Federal Resources/Agencies

5611 Trustees for Natural Resources

5612 USCG

5612.1 USCG National Strike Force (NSF)

5612.2 USCG District Response Assist Team (DRAT)

5612.3 Public Information Assist Team (PIAT)

5612.4 USCG Reserve

5612.5 USCG Auxiliary

5612.6 USCG Vessel Traffic Service (VTS)

5613 NOAA

5613.1 Scientific Support Coordinator

5613.2 Spill/Discharge Trajectory Modeling

5613.3 Oceanic & Atmospheric Modeling

5614 US Navy Supervisor Salvage(SUPSALV)

5615 EPA Emergency Response Teams

5616 Agency for Toxic Substance and Diseases(ATSDR)

5617 Other Federal Agencies

5617.1 U.S. Department of Agriculture (USDA)

Has scientific and technical capability to measure, evaluate, and monitor, either on the ground or by use of aircraft, situations where natural resources including soil, water, wildlife and vegetation have been impacted by hazardous substances and

other natural or man-made emergencies. The USDA may be contacted through the U.S. Forest Service emergency staff officers who are the designated members of the RRT.

5617.2 U.S. Department of Commerce

The National Oceanic and Atmospheric Administration (NOAA) provides scientific support for response and contingency planning in coastal and marine area, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil and hazardous substances. In addition, NOAA provides expertise on living marine resources and their habitats, including endangered species, marine mammals, and National Marine Sanctuaries.

5617.3 U.S. Department of Defense (DOD)

Has responsibility to take all action necessary with respect to releases where either the release is on, or the sole source of the release is from, any facility or vessel under DOD jurisdiction, custody, or control. DOD may also provide, consistent with its operational requirements and upon request of the OSC, locally deployed Navy oil spill equipment and assistance to other federal agencies.

5617.4 U.S. Navy (USN)

Provides expertise in ship salvage, shipboard damage control and diving. The USN has an array of specialized equipment and personnel that can be used for collection, containment, and removal of oil and hazardous substances.

5617.5 U.S. Army Corps of Engineers (USACE)

Provides expertise in specialized equipment and personnel for maintaining navigation channels, removing navigation obstructions, and maintaining hydroelectric facilities. USACE oversees the permitting of moorage sites for response vessels.

5617.6 U.S. Department of Energy

Provides expertise in handling of radiological material.

5617.7 U.S. Federal Emergency Management Agency (FEMA)

Provides advice and assistance to the OSC on coordinating civil emergency planning and mitigation efforts to other federal agencies, state and local governments, and the private sector. FEMA also provides extensive rapid

deployment mobile communications capabilities for use in oil spill response on a not-to-interfere basis with other emergent situations. An MOU is being developed to specify the level and type of support available in a response. In the event of a major disaster declaration or emergency determination by the President, FEMA will coordinate all federal disaster or emergency action with the FOSC.

5617.8 U.S Department of Health and Human Services (HHS)

Responsible or providing assistance on matters related to the assessment of health hazards at a response and protection of response workers and public health.

5617.9 U.S. Department of Interior (DOI)

Has jurisdiction over the National Park System, National Wildlife Refuges, fish hatcheries, public lands, and certain water projects in western states. The Regional Environmental Officer (REO) manages the department's response programs for oil and hazardous materials spills and oversees the department's responsibilities as a trustee for natural resources. Trustee responsibilities include devising and carrying our a plan for restoration, rehabilitation, or acquisition of equivalent natural resources and to carry our damage assessment. The department may become involved in spill response once contacted through the REOs who are designated members of the RRT. In addition, bureaus and offices have relevant expertise as follows:

5617.10 U.S. Geological Survey (USGS)

Geology, hydrology (ground and surface waters), and natural hazards.

5617.11 Bureau of Land Management (BLM)

Minerals, soils, vegetation, wildlife, habitat, archaeology, wilderness, and hazardous materials.

5617.12 Minerals Management Service (MMS)

Staff facilities for Outer Continental Shelf oversight.

5617.13 Bureau of Mines (BOM)

Analysis and identification of inorganic hazardous substances and technical expertise in metals and metallurgy relevant to site cleanup.

5617.14 National Park Service (NPS)

Natural and cultural expertise, including wilderness, archaeology, Archaeological Resource Protection Act (ARPA), wildlife, fisheries, vegetation, air quality. Emergency Management: Incident Command System expertise.

5617.15 Bureau of Reclamation (BOR)

Operation and maintenance of water projects in the west, engineering, hydrology, and reservoirs.

5617.16 Bureau of Indian Affairs (BIA)

Coordination for activities affecting Indian lands, shellfish harvest areas, and cultural sites. Assistance in identifying Indian tribal government officials.

5617.17 U.S. Fish and Wildlife Service (FWS)

Anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; containments affecting habitat resources; and laboratory research facilities. This federal agency is also a member of the Washington Wildlife Rescue Coalition. and represents the Federal government's interests in fish and wildlife.

5617.18 U.S. Department of Justice (DOJ)

Can provide expert legal advice on complicated legal questions arising from discharges or releases and federal agency responses. DOJ represents the federal government, including its agencies, in litigation relating to discharges.

5617.19 U.S. Department of Labor (DOL)/Occupational Safety and Health Administration (OSHA)

Provides advice and assistance to the EPA and other NRT/RRT agencies as well as to the OSC regarding hazards to persons engaged in response activities. Technical assistance may include review of safety plans and work practices and help with other compliance questions. OSHA may also take any other action necessary to ensure that employees are properly protected at response activities. Questions about occupational safety and health at these sites should be referred to OSHA regional offices.

5617.20 U.S. Department of Transportation (DOT)

Provides response expertise pertaining to transportation of oil or hazardous substances by all modes of transportation. DOT's responsibilities also include:

- Reconstructing and repairing interstate highways as a result of accidental, natural, disaster, or other emergency
- Removing obstructions/encroachments from interstate highway rights of way
- Closing interstate highways and restricting travel when there is danger to traffic

5620 State Resources/Agencies

5621 Governmental Official Liaisons (Governor's Aide, County Executive)

5622 Trustees for Natural Resources

5622.1 Washington

Washington Department of Fish & Wildlife (WDFW) – trustee of fish, shellfish, wildlife, and associated habitats; also trustee of wildlife management lands and public access sites.

Washington Department of Natural Resources (WDNR) – trustee of state-owned aquatic lands and associated habitat, including kelp, eelgrass, and other aquatic plants, as well as sediments.

Washington State Parks and Recreation Commission – trustee of state park lands, including public recreation sites and associated natural resources.

Washington Department of Health – responsible for public health associated with shellfish beds.

Washington Department of Ecology – trustee of state water, air, and sediment quality.

Washington Office of Archaeology and Historic Preservation – responsible for protection of historic and archaeological sites.

5623 State Emergency Response Committees(SERC)

5623.1 Washington

5623.1.1 State Emergency Response Commission

SERC was formed in response to the federal "Emergency Planning and Community Right-to-Know Act" intended to increase public knowledge of hazardous chemicals in their communities and the dangers posed when releases occur to the environment.

5623.1.2 Military Department, Emergency Management Division

Responsible for:

- Developing and maintaining a Hazardous Materials Emergency Support Fuction
- Developing and maintaining a state Comprehensive Emergency Management Plan
- Maintaining a 24-hour capability to receive notification of incidents and requests for assistance and initial notification to local, state, and federal response agencies
- Activating the state Emergency Operations Center (EOC) as needed to coordinate state resource identification and acquisition in support of Ecology response.
- Deploying EMD liaison/coordinator to the Ecology Command Post to support Ecology response activities.
- Providing a Public Information Officer (PIO) to the Joint Information Center (JIC)
- Providing communications links via CEMNET and other EMD systems on a routine or emergency basis to Ecology and contractor personnel.
- Maintaining an updated list of NRDA team members as submitted by participating agencies
- maintaining and updating a notification list of federal, state and local agencies involved in emergency response
- Coordinating procurement of state resources for use by the OSC or as requested by local EMD or other designated local or state response agencies
- Coordinating and participating in emergency exercises and drills to the extent possible

5623.2 Oregon

5623.2.1 Oregon Emergency Response System (OERS) Council

A body of state agencies involved in emergency response which meets on a monthly basis to review the roles and responsibilities of state agencies in spill response, system needs and improvements, and communication capabilities.

5623.2.2 Interagency Hazard Communication Council (IHCC)

Functions as the State Emergency Response Commission (SERC) for Oregon. It is composed of government and industry officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Reauthorization Act (SARA) of 1986. The group approves Local Emergency

Response Plans. The group also designates emergency planning districts and provides oversight to the Local Emergency Planning Committee.

5623.2.3 Regional Marine Safety Committees

There are two Regional Marine Safety Committees in Oregon. The Columbia River committee operates jointly with the State of Washington, and the Oregon Coast committee has two subcommittees for Coos Bay and Yaquina Bay. The Regional committees develop safety plans and make recommendations to the Board of Maritime Pilots, the Coast Guard, and ports on maritime safety issues. The committees are managed by the Ports Division of the Economic Development Department.

5623.2.4 Emergency Management (OEM)

- Maintains 24-hour notification and coordination capability, OERS (Oregon Emergency Response System).
- Notifies lead state agencies, other notifications made as needed or upon request.
- Activates, operates and maintains the State's Emergency Operations Center.
- Provides and/or coordinates statewide communications systems.

5623.3 Idaho

5623.3.1 Idaho Bureau of Hazardous Material (BHM)

The Idaho Bureau of Hazardous Materials is designated by state law to carry out the functions of a state emergency response commission as described by the federal Emergency Planning and Community Right to Know Act (EPCRA). In addition there is formed, within the office of the governor, a broadly based Emergency Response Commission that advises the governor on all hazards facing Idaho's citizens, including hazardous materials.

5624 State Environmental Agencies

5624.1 Washington Department of Ecology

Ecology is the lead state agency for environmental pollution response within the state of Washington. As such, it has pre-designated On-scene Coordinators for spills occurring in state jurisdiction. In this role, Ecology effectively represents all state agencies and the interests of the state and its citizens. In the event of a spill occurring on a state highway, Ecology coordinates with the Washington State Patrol (WSP), which assumes responsibility as IC, and acts as the lead agency responsible for clean-up activities. The key responsibilities of Ecology include.

- Representing state laws and interests in spills by acting as the state On-scene Coordinator (SOSC) in the Unified Command System.
- Providing 24-hour emergency response to reported spill incidents.
- Notifying the EMD.
- Notifying the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA).
- Determining the source, cause, and responsible party.
- Assuming responsibilities of responsible party if spiller cannot be located or is unresponsive.
- Ensuring that containment, clean-up, and disposal are carried out in a timely and adequate manner.
- Monitoring the safety of Ecology spill response personnel.
- Initiating enforcement action as appropriate.
- Effectively coordinating spill response efforts with other state, federal, and local agencies.
- Establishing joint information center with federal, state, and local agencies, and the responsible party.
- Activating and coordinating the Natural Resource Damage Assessment (NRDA) team.
- Participating in the Washington Wildlife Rescue Coalition.
- Notifying the appropriate resource trustee agency if injury to fish, shellfish, habitat, wildlife or damage to cultural resources is noted or suspected as a result of a spill.
- Requesting from the National Guard, local fire crews, and prison facilities personnel and support equipment for response purposes if necessary via EMD.
- Additional responsibilities include:
- Acting as head of the state ICS (a role for the Director or designated representative of Ecology).
- Maintaining a list of clean-up contractors.
- Approving vessel and facility prevention and contingency plans.
- Developing certification procedures for key oil facility personnel.
- Serving as state lead agency under the National Contingency Plan (NCP).
- Serving as state representative on the Regional Response Team (RRT).
- Coordinating information management with federal agencies and the RP.
- Providing funding as appropriate for spill response activities.
- Coordinating and documenting the recovery of costs incurred by the state during a spill incident.
- Advising parties on the use of dispersants and in situ burning and coordinating their use with the Regional Response Team.
- Initiating (where Ecology is sole trust agency) a detailed resource damage assessment.
- Approving primary response contractors.
- Evaluating and developing clean-up and disposal options.
- Assisting in notification of state agencies.

- Notifying interested parties:
    - Local government
    - Tribes
    - Environmental groups
    - Volunteer organizations
    - State legislators
    - Oregon/British Columbia
    - Conduct on-site inspection of commercial vessels and oil handling facilities
    - Investigates the cause of commercial vessel and oil handling facility incidents
    - Provide maritime expertice, such as advice on vessel salvage operations
- Ecology will work with public and private parties whose land and other property may be affected by an oil or hazardous substance discharge and assume the following responsibilities:
- Identifying the RP (if known) and explain the role of the RP in responding to the incident.
- Identifying any hazards which exist or might exist as a result of the spill.
- Explaining the activities which Ecology can and cannot do in monitoring or responding to the incident.
- Providing technical assistance, if requested, on issues of clean-up, waste disposal, and other incident related activities.
- Identifying any necessary permits required for clean-up activities.Coordinating development/ maintenance of GRPs for Washington waters.

Ecology is a member of the Coalition and will be responsible for coordinating volunteer management with the Department of Fish and Wildlife and other agencies. Ecology is responsible for the development and maintenance of the Washington State Volunteer Management Plan.

5624.1.1 Washington State Department of Ecology Inland Responsibilities

Although EPA bears primary responsibility for inland spill incidents that occur within the inland zone of Washington, for certain spill responses Washington State Department of Ecology may be asked to act as an on-scene representative to EPA under Federal response authorities. Also, Ecology often responds to spills under state statutory authorities, making a federal response unnecessary. A draft Memorandum of Understanding (MOU) outlining this arrangement is currently the subject of discussions between EPA and Ecology.

5624.1.2 Washington State Department of Ecology Regions

Ecology is divided into four distinct regions across the state. Each region has predesignated SOSCs, and it is this SOSC that carries Ecology's primary

responsibility in spill response activities within the region in which the incident occurs.

5624.1.3 Washington State Department of Ecology SOSC Responsibilities

Once alerted to a spill, the SOSC/Ecology may engage in either a monitoring role or a response role, depending on the circumstances of the spill and on-going response efforts (in the event the spill occurs upon federal lands, the SOSC will respond and assist in clean-up as time and personnel allow, but only after federal agencies have exhausted their clean-up responsibility options).

In a monitoring capacity, the SOSC is responsible for ensuring that the spiller properly manages the initial response and containment effort, clean-up, disposal of contaminated debris and restoration of the environment in a manner that is acceptable to the state, the local jurisdictions, and the public. In addition, the SOSC/Ecology is responsible for coordinating clean-up efforts and representing other state agencies on the RRT.

In the event the SOSC/Ecology determines that the spiller's response is inadequate, or no spiller/responsible party can be located, it may take over response efforts and assume a clean-up role. In this role, Ecology effectively assumes the responsibilities of the responsible party including containment, clean-up, disposal of oily waste and debris, and the restoration of the environment. It is a responsibility of the regional OSC to become familiar with the capability of local responders, local emergency plans as they pertain to spills and to help develop workable local plans with the appropriate local planning agencies.

5624.1.4 Washington State Ecology Response Team

The Ecology Response Team consists of Washington State Department of Ecology regional office and headquarters personnel. This team is responsible for determining the source, cause, and responsible party, as well as initiating enforcement action as appropriate. Additional responsibilities include ensuring containment, clean up, and disposal are carried out adequately. The team coordinates its actions with other federal, state, and local agencies.

5624.2 Oregon Department of Environmental Quality (DEQ)

Lead State Agency for oil and hazardous materials incidents. Coordinates state assistance during oil spills and hazardous material incidents.

- Receives notification via OERS.
- Notifies OERS and local response personnel if first on scene or notified by other than OERS personnel.
- Provides technical assistance and advises on necessary protective actions.
- Evaluates the environmental implications of a spill. In coordination with the State Health Division, evaluates possible public health effects.

- Coordinates state support to on scene personnel in cooperation with Oregon Emergency Management.
- Identifies priority areas for protection and cleanup in consultation with other state and federal agencies.
- Coordinates public information with other PIOs in the JIC.
- Liaison with federal agencies, adjacent states, local governments, tribes, environmental groups, volunteers, private firms (shippers, carriers, etc.), as needed.
- Collects and analyzes water, soil, vegetation or tissue samples.
- Identifies cleanup requirements.
- Works with FOSC and RP to ensure that cleanup/restoration is done to specified standards.
- If necessary, coordinates with Governor to exercise Governor's authority to protect health, safety and the environment.
- Identifies potential interim storage sites for oiled debris.
- Identifies potential disposal sites and/or methods and ensures that contaminated materials are disposed of in appropriate manner.
- Investigates cause of spill and pursues enforcement actions.
- Carries out trustee responsibilities including development and implementation of a plan for restoration, rehabilitation, replacement or acquisition of equivalent natural resources and to carry out damage assessment.
- Serves as a state Natural Resource Damage Assessment trustee.
- Serves on the Regional Response Team.

5624.2.1 Department of Fish and Wildlife (ODFW)

- Notifies OERS and local emergency response personnel if first on scene or notified by other than OERS personnel.
- Responds to incidents that could degrade land or water to the point that fish or wildlife would be adversely affected, or their habitat degraded or destroyed.
- Evaluates and documents impact on fish and wildlife and scales payment of damages for losses of fish, wildlife or habitat.
- Serves as a state Natural Resource Damage Assessment trustee.
- Provides advice, counsel and logistics support, as necessary and if possible.
- Provides state oversight of wildlife rescue effort, including coordinator(s) for wildlife rehabilitation volunteer management.
- Provides public information regarding wildlife rehabilitation.
- Assists in determining priority areas for protection and cleanup.
- Liaison with federal agencies, as needed.

5624.2.2 Department of Forestry (ODOF)

- Notifies OERS and local emergency response personnel if first on scene or upon receiving a report from a forest operator.

- If requested by the lead state agency, the Department of Forestry is capable of mobilizing a substantial response organization to provide support to emergency responders (radio systems, dispatch and command center trailers, public information personnel, kitchens and other support services).

5624.3 Idaho Division of Environmental Quality

During a hazardous materials Incident, the Division will:

- Provide a Communications Moderator, Environmental Coordinator and Environmental Investigator in support of the Incident Commander. (In the case of radioactive or mixed wastes, the INEEL Oversight Program staff will staff the Communications Moderator, Environmental Investigator and Environmental Coordinator functions.)

- Assess and evaluate incident environmental risks.

- Coordinate environmental investigations and monitoring programs with involved agencies.

- Oversee cleanup and disposal of hazardous wastes, substances and materials, and deleterious materials.

- Develop and update the IDHW/DEQ information (Tab 2) portion of the state response plan.

- Develop and maintain a state-wide comprehensive emergency response roster.

- Maintain a record of all environmental emergency response incidents involving DEQ and its contractors.

- Notify and assist Department of Health and Welfare Public Information Officer. “

5625 Law Enforcement Agencies

5625.1 Washington

5625.1.1 State Patrol (WSP)

Acts as the designated Incident command agency for incidents on interstate and state highways, and other roads and jurisdictions as delegated. When a spill occurs on a state highway, Ecology joins the Unified Command and acts as the lead agency for clean-up response. Specifically, the WSP:

- Assist local authorities with local law enforcement operations and evacuations of all persons and property

- Coordinates and maintains liaison with the state Department of Corrections, WDW, licensing Commission, Military, WDNR, Liquor Control Board, WP&RC, and the Utilities and Transportation Commission for use of their available personnel and equipment, for reinforcement and special emergency assignments.

- Assists the EMD receive and disseminate of warning information to state and local government

- Provides communication resources in support of statewide emergency operational needs.

- Coordinates law enforcement and emergency traffic control throughout the state. Enforces emergency highway regulations

- Assumes the role of IC on all state, and inter-state highways, and a variety of political subdivisions:

    - Currently IC in over 400 political subdivisions, including cities, towns, ports, counties, and fire districts

    - The IC is required to function under federal regulations

    - The IC can offer immunity to liability under the “Good Samaritan” statute (RCW 70.136)

    - The WSP is required to provide supervisory assistance to other IC agencies when requested

- Provides radiological monitoring

- Provides security at the state Emergency Operations Center (EOC) during disaster operations

- Provides aircraft for reconnaissance of disaster impacted areas

- Serves as the lead agency in the state EOC for coordinating disaster law enforcement activities

- Provides PIO support to the office of the governor and the EMD during an emergency, and during recover operations

- Serves as one of the three members of the State Emergency Response Commission (SERC)

Serves as Chair of the Emergency Response sub-Committee of the State Hazardous Materials Advisory Committee

5625.2 Oregon

5625.2.1 State Police (OSP)

Receives initial OERS notification on weekends, holidays, and after hours; notifies Oregon Emergency Management Duty Officer. Acts as initial Incident Command Agency until local command agency or appropriate federal agency is on scene, or if no local agency is available. Provides Law Enforcement support including traffic control, crowd control and site security. Coordinates mortuary services.

5625.3 Idaho State Police (ISP)

The State Police have the statutory duty pursuant to Idaho Code Section 19-4804 to (a) enforce all of the penal and regulatory laws of the state; and (b) require the persons using the highways to do so carefully; and (c) protect the physical portions of the highways and enforce laws promoting highway safety. Additionally, Idaho Code Section 61-807 charges the State Police (together with the Public Utilities Commission and the Idaho Transportation Department) with the enforcement of the Public Utilities Commission's motor carrier safety regulations.

A member of the Idaho State Police is frequently the first law enforcement officer to arrive at the scene of a hazardous material incident on the highways of the State of Idaho. Upon notification of any hazardous material incident, ISP will respond according to its established policy. ISP will provide a Transportation Enforcement Coordinator.

The Transportation Enforcement Coordinator (TEC), appointed by the Incident Commander, is responsible for overseeing the investigation of the accident/incident relative to enforcement of transportation regulations. The TEC must possess the capability and authority to enforce the code of federal regulations and applicable state laws that govern the transportation of hazardous materials. Providing support to the Incident Commander, the TEC's primary concerns include protection of the accident/incident scene, obtaining information and collecting evidence necessary to support civil and/or criminal proceedings.

The State Police employ five hazardous materials specialists, and 10 Motor Carrier Safety Assistance Program (MCSAP) officers who are specially trained in motor carrier enforcement including hazardous chemical and radioactive material

response. ISP supervisors with the rank of Sergeant through Major, are trained in the hazmat first responder operations level and incident command. A hazmat awareness level course for the first responder is provided to Peace Officers Standards and Training by the Idaho State Police.

A telephone call to any Idaho State Police District office can initiate the Idaho State Police response. Verification of a hazardous materials incident will immediately be relayed to ISP Staff Headquarters in Meridian (884-7200). The appropriate response plans, local and/or state-wide, would be initiated."

5626 Hazardous Materials (HAZMAT) Response Teams

Federal, state, and private Hazardous Materials (HAZMAT) Response Teams provide specialized technical support to the UC. Contact each team to determine its capability and qualifications.

Under the direction of the UC these teams may verify or help establish the following:

* Spill containment.
* Hazard determination.
* Measurements of concentrations of materials.
* Contamination control.
* Control of exposure for emergency workers and the public.
* On-scene liaison.
* Initial decontamination (if necessary).
* Environmental protection measures.
* Support to hospital emergency room (if possible and necessary) for contamination control.

See additional Hazmat information in section 7000

5627 Other State Agencies

5627.1 Washington

5627.1.1 Department of Agriculture (WDOA)

Responsible for:

- Providing Technical Assistance
- Laboratory testing and sampling for spills involving pesticides
- Food product testing (e.g. milk, seaweed, etc.)

5627.1.2 Department of Community Development/Office of Archaeology and Historic Preservation

Responsible for taking all appropriate and necessary steps to protect the state's significant archaeological and cultural resources.

5627.1.3 Department of Health (WDOH)

Has responsibility for beach closures for human health and safety purposes, utilization of contaminated food organisms, and general health-related matters for the safety of the public. In addition, WDOH is to render all appropriate laboratory support and services to the SOSC. WDOH is a participant in the NRDA team.

5627.1.4 Department of Labor and Industries/Washington Industrial Safety and Health Administration (WISHA/DLI)

Primarily responsible for assuring that employers, including oil spill clean-up contractors. Ecology, and other state agencies, are providing safe and healthful workplaces for their employees. This responsibility is carried out through enforcement of rules promulgated under authority granted in RCW 49.17. WISHA also offers a consulting service to employers to assist in their efforts to comply with the above referenced regulations. Prior to an emergency, WISHA responsibilities include:

- Conducting inspections of oil storage and transit facilities
- Evaluating facility emergency response plans
- Determining whether first responders are properly trained
- Assisting in the development of plans and procedures which meet the requirement of WISHA regulations

With respect to oil spills, DLI's specific responsibilities under WAC 296-62-300 entail the performance of spill responder employers. DLI will evaluate the following:

- The development of a safety and health program
- Site characterization
- Site control
- Medical surveillance
- Decontamination procedures
- Emergency response procedures
- Personal protective equipment requirements

Additional responsibilities may involve:

- Providing information and technical assistance to the OSC and responsible party
- Conducting inspections of employers involved in spill response efforts by compliance officers

Stationing a compliance officer in the command post to assist the OSC make decisions relative to employee safety and worker training issues

L&I establishes and enforces safety requirements for emergency spill response, including for the use of volunteers.

5627.1.5 Parks and Recreation Commission (WP&RC)

Has the responsibility for maintaining the biological, cultural, natural, and structural resources of numerous underwater parks, beach properties, mooring buoys, boat launches, and related recreational facilities and assorted equipment, which may be damaged by large spills of oil or other hazardous materials. WP&RC may provide equipment and technical assistance in the spill response effort. WP&RC will conduct a small spill prevention and education program. WP&RC is an active participant in the NRDA team.

5627.1.6 Department of Transportation (WDOT)

May provide traffic control, equipment, and personnel for non-hazardous clean-up activities on state and interstate highways. The WDOT may provide and mobilize equipment necessary in a major spill incident.

5627.2 Oregon

5627.2.1 Department of Transportation (ODOT)

- Notifies OERS and local emergency response personnel if first on scene.
- Closes state highways and reroutes traffic when requested and necessary. Provides personnel and barricades to implement a closure and detour. Will direct spiller to start immediate cleanup if incident occurs on state highways. Can assist with logistics and equipment, as needed.
- For transportation incidents involving motor carriers, the ODOT Motor Carrier Transportation Branch provides investigation after the incident has been stabilized. ODOT regulates the transport of hazardous materials by motor carrier in Oregon.
- For transportation incidents involving rail, the ODOT Rail Section provides investigation after the incident has been stabilized. ODOT regulates the transport of hazardous materials by rail in Oregon.
- ODOT's Board of Maritime Pilots establishes pilotage grounds, licenses maritime pilots, sets pilotage fees, and conducts hearings. The Board also has

the authority to set requirements for certain vessels carrying oil in pilotage grounds.

5627.2.2 Parks and Recreation Department

- Notifies OERS and local emergency response personnel if first on scene.
- For an incident affecting a state park, Parks and Recreation personnel assist other agencies in crowd and/or traffic control and provide equipment and facilities, as possible.
- Assists in determination of site location for command post, access points, etc., as needed.
- Provide information on cultural resources.
- Evaluates and documents impacts to State Park land and scales payment of damages for losses.
- Provides advice, counsel, and logistics support as necessary and if possible.

5627.2.3 Division of State Lands (DSL)

- Notifies OERS and local emergency response personnel if first on scene.
- Lead state agency for removal and fill activities, including wetlands.
- For an incident affecting DSL lands, provides advice, counsel, and logistics support as necessary and if possible.

Evaluates and documents impacts to and scales payment of damages for losses.

5627.2.4 Department of Agriculture (ODOA)

- Provides some technical information on pesticides and fertilizers.
- Evaluates the adverse impact of an accident on agricultural resources (crops and dairy products)
- Provides laboratory analysis capability
- Provides assistance during incidents to prevent shellfish contamination.

5627.2.5 Health Division (OSHD)

- Lead Sate Agency for all radiation emergencies other than transportation accidents and maintains the State Radiation Emergency Response Field Team.
- Provides coordination and assistance during incidents involving hazardous materials and oil to protect public health and to prevent drinking water contamination.
- Notifies OERS if first notified or first on scene.
- Assures that Hazardous Substance training is provided to emergency medical personnel prior to spill response.
- Evaluates public health implications of incident.
- Recommends measures to protect public health.

- Coordinates emergency medical services within state.
- Collects and analyzes samples, as needed, for drinking water or radiological agents.
- Ensure that cleanup and restoration is done to specified standards for biological or radiological agents.
- Coordinates public information with local PIO.

5627.2.6 Occupational Safety and Health Administration

- Investigates employee injuries or fatalities
- Oversees training and administers OSHA safety standards to ensure health and safety of paid and volunteer workers.

5627.2.7 Office of Energy (OOE)

Lead State Agency for transportation emergencies involving radioactive materials, for radiation incidents involving nuclear facilities such as Trojan and Hanford, and for ensuring a coordination response to a pertoleum shortage. Office of Energy and the state Health Division work together to:

- Provide training, drills, and exercises for state and local responders.
- Distribute and maintain radiation detection equipment.
- Coordinate plans and procedures.
- Receive notification via OERS.
- Coordinate State response regarding radiation hazards.
- Provide technical assessment and protective action recommendations.
- Coordinate public information with local PIOs.
- Liaison with federal agencies, adjacent states, & private firms (shippers, carriers, etc.) as needed.

5627.2.8 Fire Marshal's Office (SFM)

- Notifies OERS if first on scene.
- Arranges for fire service response to on scene operations when Conflagration Act is initiated through the Governor, allowing him to call in resources from outlying fire districts.
- Coordinates response of Regional HAZMAT Teams.
- Through field deputies provides communications, logistics, and other support to local Incident Commander during conflagrations, as requested.
- Provides hazardous materials planning and response training assistance to all local and state government agencies.
- Provides fixed site information on oil and hazardous materials from hazardous substance survey database.
- Maintains hazardous materials incident reporting system, record incidents for informational and statistical purposes.
- Maintains Oregon State Fire Service HAZMAT Equipment Resource Directory.

- Maintains hazardous materials incident communications through the FIRE NET radio system.

5627.2.9 Military Department (National Guard, Army and Air)

When authorized by the Governor, in a major incident provides site security, administers first aid and care for evacuees, transports specialists, and assists in the recovery, identification and disposition of the deceased.

5627.2.10 Oregon State University

- Can call on a wide variety of expertise on a non-emergency basis.
- Operates the Extension Toxicology Network (http://ace.orst.edu/info/extoxnet) and the Oregon Toxicology Information Center which can provide specific information on toxicology.

5627.3 Idaho

5627.3.1 Idaho Transportation Department (ITD)

ITD's intended level of hazardous materials involvement is generally limited to transportation related spills or releases.

ITD employees attend a 4-hour Hazardous Materials Training Session, provided by the department, to become familiar with placarding, standard operating procedures, characteristics of chemicals, health hazards and emergency procedures.

ITD personnel can be utilized for traffic control, to include: signing, barricading, flagging and road closures.

ITD may aid State and/or Local organizations in evacuation if necessary to protect human life.

Only ITD has authority to close a state numbered or U.S. numbered highway. Call the ITD district office to request a road closure or to report that a road closure has been accomplished.

SPILL CONTAINMENT

ITD can cover and/or contain unknown material not immediately dangerous to life and health until appropriate disposal measures can be taken. ITD can attempt to contain spills which are not life threatening, based on materials and equipment availability by:

- Damming the material with fine ashes, sand, or earth.
- Trenching a hazardous substance to a hole or depression.
- Diverting a hazardous substance away from streams or sewers.
- Catching hazardous materials in containers.

CLEANUP

ITD can not engage in clean-up activities unless directed by the District Engineer or a higher authority. ITD may render emergency aid to contain a spill and undertake actions required to prevent injury and property damage.

ITD will not remove materials from a site without first knowing the identity of the materials, the proper disposal method, the identity of the responsible party and then only with an ITD supervisor approval.

5627.3.2 Idaho Department of Fish and Game

Functions of Department of Fish and Game:

1. Provide auxiliary police assistance to Idaho State Police. Conservation Officers will respond to requests from District State Police Dispatchers to assist with traffic control, evacuation and other related police duties in case of hazardous materials spill.

2. Provide assistance, as requested by the Incident Commander or Communications Moderator, in monitoring and evaluating possible impacts to fish and wildlife resources from a hazardous materials incident.

5627.3.3 Idaho Department of Agriculture

The Department of Agriculture conducts various activities which may provide some assistance to emergency response personnel.

Within the Division of Agricultural Technology, under the Bureau of Education and Compliance, there are a number of field personnel who investigate pesticide misuse. The investigators are located in various areas throughout the state and may be of assistance when information is needed relating to the distribution or use of pesticides or in locating licensed applicators and/or dealers.

The Bureau of Agrichemical Standards maintains a complete file of all registered pesticide labels sold or used in the state, as well as a file of all licensed applicators and dealers. Additionally, this bureau maintains a file of all licensed fertilizer dealers and registered fertilizer products sold in Idaho, maintains a file of labels for registered fertilizers, and has a field force of investigators knowledgeable in fertilizer distribution within the state.

The Division of Animal Industries has an inspection force knowledgeable in animal health related matters. Assistance may be valuable in the event of

suspected radiation exposure to animals. The State Veterinarian is the contact for information relating to these activities:

In addition, the State Veterinarian requests notification when domestic animals are involved in any emergency response call. Assistance may be valuable in the event of suspected radiation exposure to animals.

5627.3.4 Idaho Division of Health

The Division of Health will be responsible for: 1) contact and communication; 2) emergency medical response direction; 3) technical assistance; and, 4) laboratory support with regard to hazardous material incidents that occur in Idaho. The support will be coordinated by the Division Administrator through the Office of Environmental Health, Bureau of Emergency Medical Services, Bureau of Communicable Diseases, and Bureau of Laboratories."

5627.3.5 Idaho Department of Water Resources (IDWR)

The Department of Water Resources should be notified of any hazardous materials emergency (radioactive or non-radioactive) which will likely affect any surface water, dams, water wells, and waste disposal and injection wells.

- The Department may be able to forewarn water users of impending problems.

- Any stream channel alteration requires the approval of IDWR. This may be necessary during the clean-up process. An emergency waiver can be given if conditions warrant and it is requested.

- IDWR has administrative authority to enforce safety considerations at water and tailings impoundments.

- IDWR has administrative authority over operation and abandonment of waste disposal and injection wells, and monitoring and exploration holes.

- IDWR has administrative authority over construction, maintenance and abandonment of water wells including monitoring wells.

5627.3.6 Idaho Bureau of Disaster Services (BDS)

- BDS establishes and maintains a State EOC for coordinating, controlling and directing state emergency operations in support of local jurisdictions.

- BDS maintains continuity and congruence of this plan with the State Emergency Plan, Part II, Governor's Executive Order, and the various County Emergency Operations Plans.

- BDS, in support of this plan, assists in coordination of: communications, transportation, volunteers, logistics, planning, training and exercising.

- BDS coordinates state activities when a state declaration is eminent or declared.

- BDS coordinates the formation of Multi-Agency Damage Assessment Teams in support of this plan, local government and/or state Declaration as appropriate. (Annex L, Idaho Emergency Plan, Part II)

- BDS prepares state declaration and formal request for Federal assistance when appropriate. (Annex L and M, Idaho Emergency Plan, Part II.)

BDS coordinates requests for DOE-ID emergency radiological assistance pursuant to the MOU between the State of Idaho and the US Department of Emergency for radiological assistance response as prescribed under the DOE-ID Radiological Assistance Plan."

5627.3.7 Idaho National Engineering and Environmental Laboratory Oversight Program (INEEL-OP)

The Oversight Program (OP) monitors, assesses and responds to normal and abnormal operations of the Department of Energy=s (DOE) Idaho National Engineering Laboratory (INEL). In addition, the OP responds to radiological incidents throughout the State. Both the Boise and Idaho Falls offices can provide a variety of technical and administrative services to support the State.

The INEL-OP employs health physicists and other radiological experts at the Idaho Falls Office. These staff members will, in the event of a radiological incident:
1) serve as Communications Moderators to provide radiological expertise and support to incident characterization and classification,
2) provide dose assessment and risk information, and
3) depending upon the circumstances, assist or direct the states radiological environmental investigation in support of the incident commander. For radiological incidents, the OP will serve as Communications Moderator. For other incidents that may involve radiological materials or the INEL, the OP will provide a recommendation of an appropriate state agency or department to serve as Communications Moderator.

5628 Indian Tribes

Spills may affect tribes by either occurring on or near a reservation, or by threatening treaty reserved resources (including habitat) or cultural areas. There are 39 federally recognized Indian Tribes in the Northwest Area.

24 in Washington:
- ◊ Chehalis
- ◊ Colville
- ◊ Hoh
- ◊ Jamestown Klallam
- ◊ Kalispel
- ◊ Makah
- ◊ Muckleshoot
- ◊ Nisqually
- ◊ Nooksack
- ◊ Port Gambel - Klallam
- ◊ Puyallup
- ◊ Qulieute
- ◊ Quinault
- ◊ Sauk - Suiatle
- ◊ Shoalwater Bay
- ◊ Skokomish
- ◊ Spokane
- ◊ Squaxin Island
- ◊ Stillaquamish
- ◊ Suquamish
- ◊ Swinomish
- ◊ Tulalip
- ◊ Upper Skagit
- ◊ Yakima

Nine in Oregon:
- ◊ Burns Paiute
- ◊ Coos - Lower Umpqua - Siuslaw
- ◊ Coquille Indian Tribe
- ◊ Cow Creek Band of Umpqua Indians
- ◊ Grand Ronde, Confederated Tribes
- ◊ Klamath
- ◊ Siletz
- ◊ Umatilla
- ◊ Warm Springs

Four in Idaho:
◊ Coeur d'Alene
◊ Kootenai
◊ Nez Perce
◊ Shoshone Bannock

The reservations vary in size from those that own only the land where the tribal headquarters is located, to those like the Colville, Warm Springs, Yakima, Makah, and Fort Hall who each own very large reservations. Each Tribe has governmental responsibilities on their respective reservation. Most have active police departments and some system of emergency response, usually including trained volunteer first aid responders working in conjunction with a volunteer fire department.

In addition to land areas owned outright, many tribes have treaty rights to use of land and waters outside their reservation lands. Tribal lands but both marine and inland waterways. Treaty rights make tribes a partner in planning and often an impacted resource owner. Tribes have participated in developing Geographic Response Plans (GRPs). Tribes are considered sovereign entities when planning for and responding to oil spill or hazardous substance releases. The Unified Command system provides for tribal involvement during response activities. Initial notification of spills is made through the Department of Interior (DOI) and (WDOE). On-scene coordination is directly with tribal representatives. If a spill impacts tribal land, tribal governments will have authority over the use of volunteers.

5630 Local Resources/Agencies

Washington

Under state law and the State Comprehensive Emergency Management Plan, different local departments have different responsibilities and capabilities which may be utilized in a major oil or hazardous substance discharge. The following responsibilities are typically shared among local fire, law enforcement, emergency medical, public works, health departments, etc., for incidents involving oil or hazardous materials:

- Notification to EMD
- Initial hazard determination and containment
- Communications
- Search and rescue (SAR)
- Liaison with other local officials
- Provides evacuation/ shelter and mutual aid to other local EMD's

5631 Trustees for Natural Resources

5632 Local Emergency Planning Committees(LEPC)

5632.1 Washington

5632.1.1 Emergency Management Agencies

May be involved with planning, training and assisting with interagency coordination. During incidents, may activate the community Emergency Operations Center (EOC) to support on-scene operations and requests for resources and other assistance. May support each other under mutual aid to augment staff or provide liaison. May be involved with the Local Emergency Planning Committee under Title III of SARA.

The responsibilities of local government's EMD include:

- Acting as the coordinator for the various local emergency organizations and as the local liaison to Washington State EMD when that agency is involved.
- Contacting local landowners. (May also be performed by local Health Department).
- Establishing a Joint Information Center (JIC).
- Coordinating and maintaining liaison with local government units (fire, medical, public works, sheriff-law enforcement).
- Providing communications with local government and industry.

Most jurisdictions have identified an Emergency Operations Center from which local operations are coordinated and supported. The facilities are usually found in the basement of local courthouses or some other fixed facility and are managed by the local department of emergency management. Field Command Posts are established by Incident Command Agencies to direct operations from the field.

Local EMD in Washington state has developed a mutual aid system to assist each other, when needed, in an oil spill or other major emergency. An "overhead team" of local emergency managers with oil spill, incident command, and response planning and experience has been developed. It may be activated by contacting any team member or through the state EMD Duty Officer, by any local EMD needing assistance. The response is done on a concept of mutual aid with all costs being borne by the responder and their respective jurisdiction unless specific arrangements are made with the requesting jurisdiction. Assistance could include, but not be limited to, policy level representation in the unified command, liaison, emergency public information and/or communications.

The size of the local government, its resources, and available personnel will greatly influence the existence and scope of local plans. Plans that are developed or updated are to be reviewed by the regional OSC of Ecology. Local government Emergency Management Directors and staff may assist each other under mutual

aid to augment local responses staff and to provide liaison with other response agencies.

City or county governments may play a role in volunteer management during oil spills in providing support to the wildlife rescue effort or in implementing the State's Emergency Worker Program for other volunteer tasks.

5633 Local Environmental Agencies

5634 Law Enforcement Agencies

5634.1 Washington

Responsible for crowd control, traffic control, scene security, and in some cases, evacuation.

5635 Port Authority/Harbormaster

5636 Fire Departments

5636.1 Washington

Generally a primary local response agency. Many have designated themselves the "Incident Command Agency" as per RCW 70.136. As capabilities differ, this may range from fully equipped teams which do most response actions to just the fire command personnel providing incident management.

5637 Hazardous Substances Responses Teams

5638 Explosive Ordinance Details(EOD)

5639 Site Safety Personnel/Health Departments

5639.1 Washington

May deal with such issues as personnel protection, public health, environmental impacts and identification of unknown products. Also may assist the Incident Command Agency with information disposal techniques or identification of disposal contractors.

5640 Private Resources

5641 Clean-up Companies (BOA & Non-BOA)

5642 Media(Television, Radio, Newspaper)

5643 Salvage Companies/Divers

5644 Fishing Cooperatives and Fleets

5645 Wildlife Rescue Organizations
5645.1 Washington

5645.1.1 Wildlife Rehabilitation Contractors

Wildlife rehabilitation contractors play an important role in implementing the Wildlife Rescue and Response Plan. They will be hired by the Wildlife Rescue Coordinator to perform rescue and rehabilitation of oiled wildlife. Consequently, they should have experience in handling and treating large numbers of oiled wildlife, as well as managing large numbers of volunteers. The contractors will also manage and supervise wildlife rescue volunteers. The Department of Fish and Wildlife issues permits to wildlife rehabilitation contractors.

Once the Wildlife Rescue and Response Plan is activated, volunteers can be mobilized via the Notification System through a toll-free line, **1-800-22-BIRDS**.

5646 Maritime Associations/Organizations/Cooperatives

5647 Academic Institutions

5648 Laboratories

5649 Emergency Medical Services

5700 Reserved for Future Use

5800 Reserved for Future Use

5900 Reserved for Future Use

CHAPTER 6000

FINANCE/ ADMINISTRATION

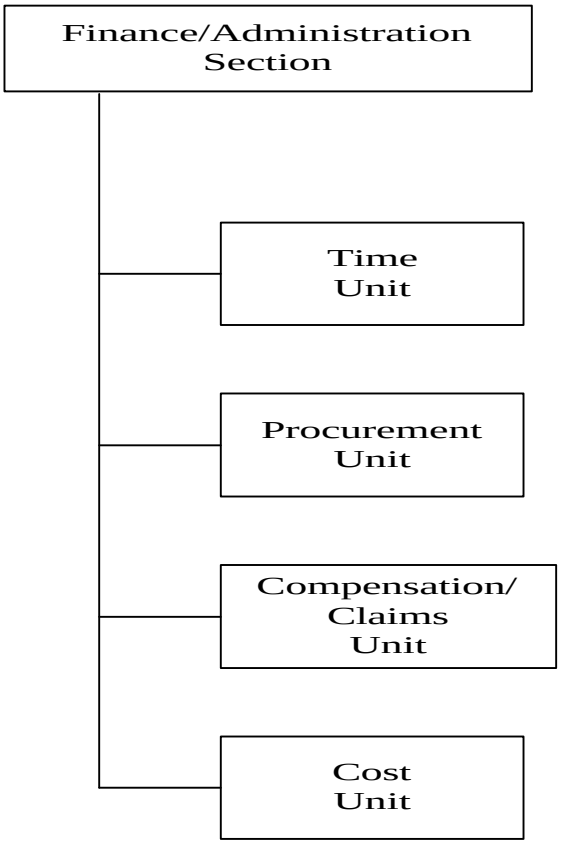
Chapter 6000 Table of Contents

6000 FINANCE/ADMINISTRATION

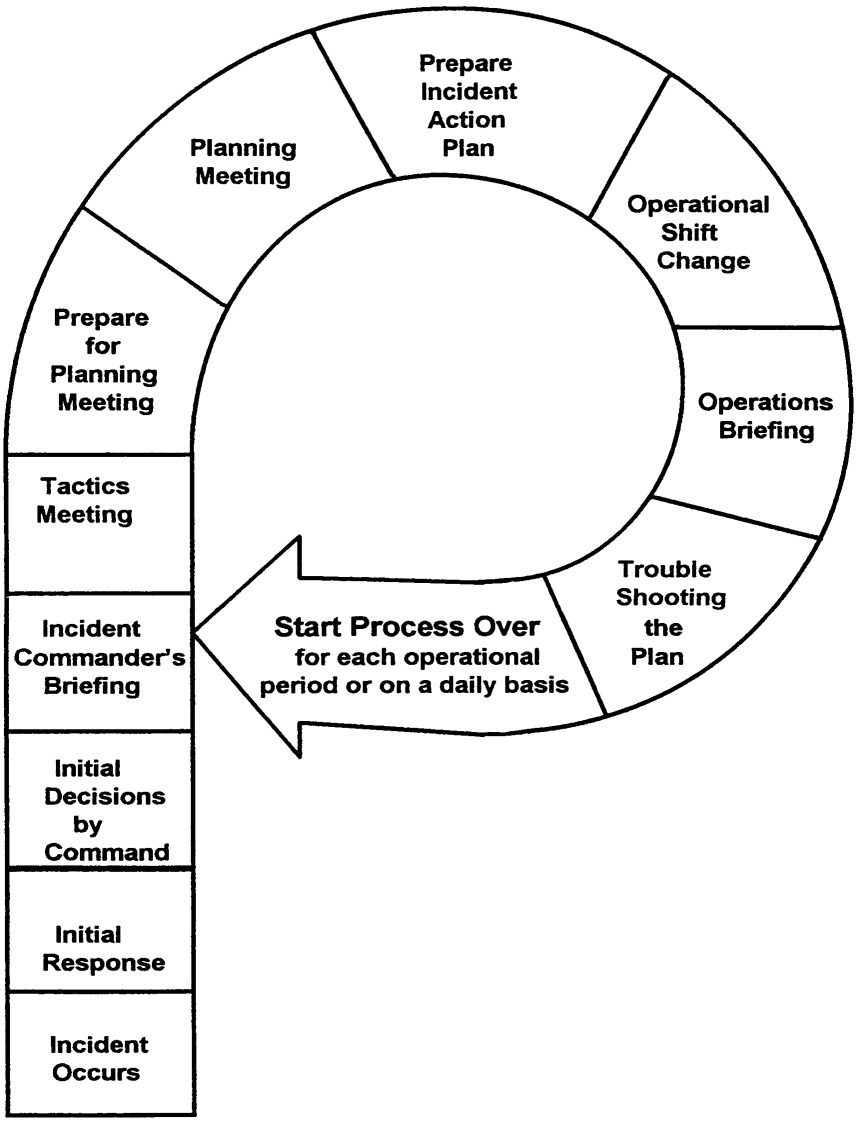
6100 Finance/Administration Section Organization

The following is an organizational chart of the Finance/Administrative Section and its subordinate units. It serves as an example and is not meant to be all inclusive. The functions of the Finance/Administrative Section must be accomplished during an incident, however, they can be performed by one individual or can be expanded, as needed, into additional organizational units with appropriate delegation of authority.

Information regarding the Finance/Administration Section and Staff positions within the command can be found in the Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996.



6110 Finance/Administrative Section Planning Cycle Guide



6200 Roles and Responsibilities

Finance is usually staffed in large-scale or complex incidents. Since most of the activities of Finance do not require face-to-face communication, these operations may be located remote from the incident site. All functions not assigned by the Section Chief remain the responsibility of the Section Chief.

6210 Finance Section Chief Responsibilities

The Finance Section Chief must provide for the documentation of all incident costs, and provide guidance to the IC on financial issues that may have an impact on incident operations. These responsibilities include:

- Future payments.
- Future budgeting.
- Payment of personnel costs.
- Cost recovery.
- Timely administration of contracts.

The Finance Section Chief is responsible for all finance functions needed for an incident. This individual should establish functional Units when needed to maintain an acceptable workload and span of control. Subordinate Finance functions may be combined when workload permits.

The Finance Section Chief should be assigned before implementation of subordinate units to prevent an excessive span of control or information overload for the ICS.

6220 Time Unit

The primary function of the Time Unit is the time keeping required for personnel working at an incident. To do this effectively each agency, the responsible party, and all contractors will need to address this function. To the degree it is integrated into a similar format and procedure, the entire system will work more smoothly. To ensure this happens, each agency, responsible party, contractor, etc., should have some formalized method of checking in and out for all personnel.

6230 Procurement Unit

When incident operations require procurement of goods or services from vendors, the Procurement Unit manages this function.

6240 Compensation/Claims Unit

The function of the Compensation/Claims Unit involves record-keeping and financial claims related to damages created by the spill.

6250 Cost Unit

The principal functions of the Cost Unit are tracking costs, analyzing cost data, making cost estimates, contracts, and recommending cost-saving measures.

Note: It is critical that all parties in the Unified Command adopt consistent cost documentation for later cost recovery from either the responsible party, Federal, and/or State funds.

6300 FOSC Access to the Federal Fund

Authority–Federal removal actions are authorized by the FWPCA and CERCLA if the required elements of jurisdiction exist. In the event of a discharge or release, if the spiller is not acting promptly or is not known, the FOSC may initiate federal removal under the authority of section 311 (o)(l) of the FWPCA or section 104(a) of the CERCLA. The responsible party is liable for government removal costs in accordance with section 311(f) of the FWPCA and section 107 of the CERCLA. Section 300.58 of the National Contingency Plan outlines the types of funds which may be available to remove certain oil and hazardous substances discharge.

6310 National Pollution Fund Center (NPFC)

6320 Revolving Fund/OSLTF

The Revolving Fund also known as the Oil Spill Liability Trust Fund (OSLTF) established by section 311 (k) of the FWPCA is administered by the Coast Guard. Title 33 CFR 153 outlines the uses of the fund. The Coast Guard Marine Safety Manual, Commandant Instruction M16000.11, section 7.B.7 addresses additional topics with regard to the fund.

6330 Hazardous Substance Response Trust Fund

A Memorandum of Understanding between the USCG and the EPA allows the USCG to access the Hazardous Substance Response Trust Fund when the USCG undertakes response activities pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Executive Order 12316, and the provisions of Subpart E of the NCP. When EPA provides the OSC, the EPA Regional Administrator has authority to approve Trust Fund expenditures not to exceed $2,000,000. Expenditures exceeding

$2,000,000 must be approved by EPA Headquarters. When the USCG provides the OSC, the USCG OSC has authority to approve Trust Fund expenditures not to exceed $50,000. USCG OSCs can receive approval for CERCLA Trust Fund expenditures up to $250,000 through the Commander, Thirteenth Coast Guard District. For additional expenditures, approval from the EPA Emergency Response Division is necessary. To access the fund, an account number must be obtained from EPA Headquarters.

Other Federal agencies have authority to expend Trust Fund money in accordance with Interagency Agreements (IAG) and Memoranda of Understanding (MOU) with EPA. Reimbursement of agency expenditures will be in accordance with the procedures specified in these IAGs and MOUs.

The Trust Funds may be used to undertake immediate removal actions when the agency providing the OSC determines that such action will prevent or mitigate immediate and significant risk of harm to human life or health or to the environment from such situations as:

Human, animal, or food chain exposure to acutely toxic substances.
Contamination of a drinking water supply.
Fire and/or explosion.
Similar acute situations.

6400 Other Access to Funds

6410 State Access to the OSLTF

OPA 90 allows state Governors to request payments of up to $250,000 from the Oil Spill Liability Trust Fund (the fund) for removal costs required for the immediate removal of a discharge, or the mitigation or prevention of a substantial threat of a discharge, of oil. Requests are made directly to the FOSC who will determine eligibility. If a state anticipates the need to access the Fund, they must advise the NPFC in writing of the specific individual who is designated to make requests. The designation must include their name, address, telephone number, and title and capacity in which employed.

6411 Eligibility for State Access to the OSLTF

To be eligible for funding, each removal action must be coordinated with the FOSC and meet the following criteria:

- Must be an incident, occurring after August 18, 1990, which resulted in a discharge, or the substantial threat of discharge, of oil into or upon the navigable waters or the adjoining shorelines.
- Must comply with the NCP.

- Must be an immediate removal action.

Upon receipt, the FOSC will determine whether the request meets the requirements for funding as established in 33 CFR 133.13. The FOSC will then notify the state and the NPFC Director of his or her decision.

6412 Required Record Keeping

The state shall maintain records of expenditures of fund moneys including:

- Daily expenditures for each individual worker, giving the individual's name, title or position, activity performed, time on task, salary or hourly rate, travel costs, per diem, out-of-pocket or extraordinary expenses, and whether the individual is normally available for oil spill removal.

- Equipment purchased or rented each day, with the daily or hourly rate.

- Miscellaneous materials and expendables purchased each day.

- Daily contractor or consultant fees, including costs for their personnel and contractor-owned or rented equipment, as well as that of any subcontractor.

The state shall submit a copy of these records and a summary document, stating the total of all expenditures made, to the NPFC within 30 days after completion of the removal actions. A copy of these documents shall also be submitted to the cognizant FOSC.

6420 Lead Administrative Trustee Access to the Fund

Additional details of this section to Be Developed in Coordination with NPFC, Natural Resources Trustees, G-MEP, and the DRATs.

6430 Claims Against Fund

6440 State Access to the CERCLA Fund

Expenditures of Trust Fund money by a State must be in accordance with a contract or cooperative agreement between EPA and that State.

6441 Cost Recovery

The EPA will make all decisions regarding recovery of expenditures from the Trust Fund. All agencies expending Trust Funds must submit an itemized account of all funds expended in accordance with provisions of contracts,

Interagency Agreements (IAG), or Cooperative Agreements with EPA. These agreements must be in place prior to the expenditure of funds.

6442 Reimbursement Procedures

Reimbursement of agency expenditures will be in accordance with procedures specified in contracts, Interagency Agreements (IAG), or Cooperative Agreements with EPA.

Local governments may request reimbursement of costs to carry out temporary measures without a contract or cooperative agreement. All costs for which local governments are seeking reimbursement must be consistent with the National Contingency Plan and Federal cost principles outlined by the Office of Management and Budget. Reimbursements are limited to $250,000 per hazardous substance response. in addition, reimbursement must not supplant local government funds normally provided for emergency response. States are not eligible for reimbursement and no state may request reimbursement on its own behalf or on behalf of political subdivisions within the state.

6450 Access to the Washington State Oil Spill Response Account

The Washington State Oil Spill Response Account is available to pay for response costs and marine resource damage assessment costs for oil spills in Washington State waters.

6451 Authority to Access to the Washington State Oil Spill Response Account

These procedures are written under the authority of RCW 90.56, the Oil Spill Prevention and Response Act of 1991. This law established a $25 million oil spill response fund, paid for by a two cent per barrel tax on the oil industry. The Department of Ecology is charged by Chapter 90.56 RCW to administer the oil spill response account (OSRA).

6452 Activating the Washington State Oil Spill Response Account

The Oil Spill Response Account may be activated by the director of Ecology or the assistant director over the Spill Management Section, Central Programs. The State On-scene Coordinator (SOSC) is authorized to request the account be opened. Funds are currently appropriated to this account and are ready to spend subject to proper approval. When requesting account activation the SOSC or NRDA chair must document what other funding sources were considered, a description of the spill and expected response activities. To qualify for funding through the state OSRA, a spill must fit three criteria:

- The spill must be crude oil or a petroleum into navigable waters of the state.
- Cleanup and/or NRDA response costs are likely to exceed $50,000.
- Funding for the response must not immediately be available from a responsible party or the Federal Oil Spill Liability Fund.

6453 Eligible OSRA Costs

Reimbursable costs include all direct spill related response, spill containment, cleanup, disposal, wildlife rescue, and costs associated with these actions. Additional costs include natural resource damage assessment and related activities. Activities indirectly related to spill response and damage assessment that are also eligible for reimbursement include interagency coordination, public information, appropriate travel, goods and services, contracts, and equipment. Given authorization by the SOSC, state and local agencies, tribes and private contractors may eligible for spill response reimbursement with all costs subject to review by Ecology. Ecology recognizes that groups which are not a part of state government may respond to emergency situations in conjunction with the spill for which it is not practicable to coordinate the response with the SOSC before responding (i.e. traffic control, fire response, emergency assistance). This type of response cost may be submitted to Ecology for reimbursement. Costs not pre-approved by the shall be subject to review by the SOSC.

6500 Federal Fund Documentation and Cost Recovery Procedures

Through Executive Orders the President has delegated certain functions and responsibilities vested to him by the FWPCA and CERCLA to the EPA and the United States Coast Guard. Under CERCLA the Hazardous Substance Response Trust Fund has been set up to fund federal responses to hazardous substances or pollutants or contaminants, as defined by CERCLA that may present an imminent or substantial threat to public health or the environment. Responses to discharges of petroleum products are specifically excluded from CERCLA. Section 311 of the Clean Water Act, as amended by the Oil Pollution Act of 1990, established the Oil Spill Liability Trust Fund (OSLTF) for response to discharges of petroleum products (see 11.3 below). Response includes conducting Natural Resource Damage Assessments and paying claims for removal costs or damages. The EPA and USCG both have access to both funds through memorandums of understanding established between both agencies. Only costs incurred during containment, countermeasures, cleanup and disposal (Phase III) during a Federal Response to an oil pollution incident are recoverable from the Pollution Fund (311 (k)) and must be certified as Phase III costs by the FOSC . The National Contingency Plan (NCP) contains information and procedures with regard to both the FWPCA and the CERCLA, and contains sections dealing with documentation and cost recovery for both acts. Coast Guard Commandant Instruction 16465.1 defines documentation for enforcement and cost recovery. The instruction is incorporated into this plan by reference.

6510 Letters

- Notice of Federal Interest for an Oil Pollution Incident (Form CG-5549)
- Notice of Federal Assumption
- Letter of Designation of Source

The OSC is responsible for notifying the NPFC of the source of a discharge, actual or potential. The NPFC must also be notified if the source is not identified. Notification may be made by letter, Rapidraft, or message (POLREP or SITREP). The NPFC should be contacted for guidance on procedures, or with any questions relating to this.

- Administrative/Directive Order (To be distributed under separate cover)

6520 Reports

- FOSC Reports will be submitted as determined necessary by the RRT for a particular incident.
- Pollution Reports (POLREPS) shall be submitted in accordance with the requirements outlined in Volume VI, Chapter 7.B.5.b of the Marine Safety Manual. The POLREP format can be found in Volume VII of the Marine Safety Manual

6530 Required Washington State OSRA Documentation

Expenditures for which reimbursement is claimed shall be documented with the understanding that cost recovery options from the responsible party and/or the federal Oil Spill Liability Trust Fund may be pursued. Cost documentation should be sufficient to withstand judicial review due to the potential for litigation with responsible parties. Daily resource reports should be completed as close to the time of activity as is reasonable; preferably on the day of the activity. Original resource documentation is preferred for cost recovery purposes and it should not be retyped, even if it is handwritten. The following documentation must be submitted with all claims against the account:

An authorization is required for each person for whom cost reimbursement is requested. The authorization shall include a description of that person's job duties specifically relating to the spill response or natural resource damage assessment.
A listing of all agency personnel and the total hours worked for which cost reimbursement is requested.

Copies of the time sheets and travel vouchers which support the information requested above.
Copies of invoices for any purchases or expenditures made.
A narrative description of the agency's involvement in the spills, including general geographic locations of activity and corresponding dates.
A contact person's name and phone number for Ecology's use if questions about billing arise.

Ecology will provide cost documentation forms which may be used to summarize the information listed above. These three forms are:

Spill Personnel Authorization
Spill Personnel Daily Accounting Sheet
Spill Response Daily Purchases/ Contractors/Agency Form

The signature authority for each form is not required to compute total costs, but rather must certify the activities conducted, then the fiscal or payroll officer for each agency may compute the total costs The forms are provided for convenience and as a clear method of demonstrating the information required. An agency may prefer to use another format, but the format must first be reviewed and accepted by the SOSC and Ecology's Finance Representative.

6540 Washington State OSRA Approval and Reimbursement Process

6541 State agencies

State agencies are responsible for preparing and submitting daily response or RDA cost estimates to the SOSC, NRDA chair or Ecology's Finance Representative in the Unified Command as appropriate. The SOSC and NRDA chair are responsible for review of source documentation submitted to determine that the work or services documented were authorized and received.

6542 Contractors

Contractors are responsible for preparing and submitting daily response costs to the Ecology's Finance Representative. This manager shall review the documentation daily to determine that the work or services documented were authorized and received

6543 Local government agencies, tribes and other groups not part of state government

Local government agencies, tribes and other groups not part of state government requesting reimbursement of expenses shall be responsible for

submitting claims on the correct forms to the SOSC. The claims shall be subject to review and approval by the SOSC.

After an agency's final costs have been approved by the Ecology's Finance Representative they shall be submitted to the cost recovery coordinator for final formatting and then to Ecology's Fiscal Office. The Fiscal Office shall make the appropriate payments the requesting agencies our of OSRA.

6544 OSRA Reimbursement Claims Time Limits

Ecology shall set a time frame for each spill incident during which claims may be submitted. Reimbursement claims submitted to Ecology past this date may be denied without review.

6545 OSRA Contracts

The SOSC or Ecology's Finance Representative shall award any cleanup/spill response contracts funded by OSRA. Ecology's NRDA team representative shall award any resource damage contracts funded by OSRA. The SOSC has signature authority for expenditures that can exceed $10,000 for emergency contracts. All expenditures by the NRDA chair must be approved by the Section Supervisor, Spill Policy & Planning Section. Any expenditures greater than $10,000 must be approved by Central Program's Manager and budget analyst.

All contracts need to follow the format of the sample contract shown in (figure to be provided at later date). It is identified as a Memorandum of Agreement (MOA). It is also required that Appendix "A" as noted in paragraph 1 of the MOA by completed by the SOSC, Ecology's NRDA team representative, or Ecology Headquarters staff, as appropriate. Appendix "A" must describe the work scope: why it is needed; what work is to be done or what service is provided; the work location; and the standard pay rate. The maximum dollar limit for the contract and the completion date shall be included.

Example Appendix "A":

Joe's Oil Skimmers is contracted to remove the petroleum products from Big Pond, Thurston County, Washington to prevent further contamination of the watershed. "Joe's" shall be reimbursed in accordance with the rate sheet attached and identified as "Standard Charges for Personnel and Equipment, Joe's Oil Skimmers"

All work shall be completed by Saturday, October 31, 1993. The maximum allowable charge against this contract is $2,400.

6546 OSRA Field Contracts

In an emergency situation it may be necessary to let a field contract on the spot. This is allowable. An emergency/field contract is required to contain the information noted in 302.4.7 above and is subject to the review detailed in 302.4.7.2 below. The SOSC or State Ecology's Finance Representative may request that the cost recovery coordinator complete this work at headquarters.

"Emergency contracts/amendments are to be filed with OFM and LBC within three working days following the date of execution or commencement of work, whichever occurs first. An emergency means a set of unforeseen circumstances beyond the control of the agency that either presents a real, immediate threat to the proper performance of essential functions or may result in material loss or damage to property, bodily injury, or loss of life if immediate action is not taken. The filing is to include an attachment which explains:

- The nature of the emergency.
- The threat to the health or safety of individuals, property, or essential state function if immediate action is not taken and an estimate of the potential material loss or damage; and
- How the services of the contractor will alleviate or eliminate the emergency."

– State of Washington Policies, Regulations, and Procedures, Part 4, Chapter 3; Effective date: July 1, 1991.

6547 Obtaining Supplies, Equipment or Services with a PPR through OSRA

Supplies, equipment, or services may be obtained by the SOSC or a spill responder for emergency spill response. Generally, a Preliminary Purchase Request (PPR) must be completed before the delivery of goods and services. Completing a PPR may be delayed until after the purchase <u>ONLY</u> when specific purchase authority or a unique situation occurs. Documentation must follow within three days. The PPR must contain a note explaining why an approved PPR could not be obtained prior to purchase. Unique situation as defined in Ecology's Policy and Procedure Manual as, "...one in which agency staff require an item or service within hours to protect public health and the environment, or to respond to citizen concerns that a situation affects public health or the environment." Once the SOSC or spill responder determines that a unique situation exists, the merchandise or service shall be obtained with an invoice from the vendor.

6548 OSRA Contract Review

Any contract over $2,500 needs State Office of Financial Management (OFM) approval. This generally takes ten working days. Emergency contracts over

$2,500 may be let and ten filed with OFM within three working days following the date of contract execution or the commencement of services, whichever occurs first. For assistance with OFM filing requirements, call the Management Services Division, OFM, at (206) 753-5448, SCAN 234-5448).

6600 Damage Assessment Procedures

CERCLA required the Department of the Interior to develop and promulgate regulations for use by trustees in establishing damages for injuries to natural resources for the purposes of CERCLA and Section 311(f)(4) and (5) of the Clean Water Act. These regulations have been promulgated as Type A and Type B procedures and are codified at 43CFR Part 11. The Department of the Interior's regulations are the only federal damage assessment procedures available for oil spills until NOAA's regulations are promulgated.

6610 Washington State Damage Assessment Procedures

Washington’s Natural Resource Damage Assessment (NRDA) team is dispatched whenever an oil spill or other water pollution incident involves damage to the State's natural resources. The assessments are conducted pursuant to WAC 173-183 which provides for three possible options: (1) actual studies of resource injuries; (2) estimation of injuries via the state’s Compensation Schedule; or (3) direct initiation of restoration activities proposed by the RP. Ecology chairs the state RDA Committee which also includes WDFW, WDNR, WSPR, WOAHP, WDH, and other ad hoc member agencies.

Most RDA payments are deposited into the state Coastal Protection Fund. A steering committee consisting of representatives of the Department of Ecology, Department of Fish and Wildlife, Department of Natural Resources, and Department of Parks and Recreation authorizes expenditures from this fund after consulting impacted local agencies and tribal governments. The moneys are usually used for restoration projects or studies related to the resource damaged and spent in the area where the damages occurred.

6700 Reserved for Future Use

6800 Reserved for Future Use

6900 Reserved for Future Use

CHAPTER 7000

HAZARDOUS SUBSTANCES (HAZSUB) UNIQUE INFORMATION

Chapter 7000 Table of Contents

7000 HAZARDOUS SUBSTANCE (HAZSUB) UNIQUE INFORMATION

7100 INTRODUCTION/PURPOSE

While the basic Incident Command System/Unified Command (ICS/UC) is unchanged whether the response is to an oil spill, hazardous substance spill, or wildland fire, there are a number of factors that are unique to hazardous substance spills. The purpose of this chapter is to provide NWACP users with information specific to response to hazardous substance spills. This chapter will provide general definitions, a framework for evaluating hazardous substance response, and contact names and numbers for teams specifically trained for response to hazardous substance spills.

7110 Definitions

Before the process of planning for a hazardous substance incident response can begin, there has to be a clear understanding of the types of materials that are to be covered under this plan. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by SARA of 1986, defines hazardous substances as "hazardous wastes" under the Resource Conservation and Recovery Act (RCRA), as well as substances regulated under the Clean Air Act, Clean Water Act, and the Toxic Substances Control Act. In addition, any element, compound, mixture, solution, or substance may also be specifically designated as a "hazardous substance" under CERCLA. CERCLA also applies to “pollutants or contaminants” that may present an *imminent or substantial danger to public health or welfare*. An imminent or substantial danger to public health or welfare is caused when the pollutant or contaminant will or may reasonably be anticipated to cause illness, death, or deformation in any organism. Additional definitions, acronyms, and abbreviations can be found in Section 9910.

Petroleum products such as diesel and gasoline are specifically excluded from the CERCLA and are not considered to be “hazardous substances” under Federal statue. State environmental statutes may, however, consider these materials hazardous substances. This chapter does not specifically deal with issues related to response to petroleum products.

7120 Authorities

Federal authorities for response to hazardous substance releases are outlined in the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. § 9604, CERCLA or commonly known as “Superfund”) and the National Contingency Plan (40 CFR Part 300, NCP). In the State of Washington, the response and cleanup authority is found in the Model Toxics

Control Act. In Oregon, the authority is found in the Oregon Revised Statute Chapter 453, Hazardous Substances; Radiation Sources, and Chapter 466, Hazardous Waste and Hazardous Materials II. In Idaho, the Idaho Bureau of Hazardous Materials (BHM) provides the authority for response to hazardous substance spills.

Similar to oil spills, federal response authorities are shared by the Environmental Protection Agency and the United States Coast Guard, with EPA maintaining jurisdiction of hazardous substance spills in the inland zone and the Coast Guard in the coastal zone.

7200 Command

7210 Command Structure

As outlined in Chapter 2000, the size, complexity, and jurisdictional characteristics of the incident will determine the level of involvement of federal, state, local, tribal, responsible party, and other responders. Hazardous substance spill response may differ somewhat from oil spill response because in the initial phase of a response, local responders typically play a much larger role. Oil spills also tend to be multi- jurisdictional and local responders tend to have less resources and expertise in dealing with the response. For this reason, many oil spills are elevated relatively quickly to the state or federal level. Most hazardous substance response, however, are handled from beginning to end by local responders and it is only when local resources are overwhelmed that state or federal resources are called in.

7220 Notifications

7220.1 Federal

Federal notification for hazardous substance spills or releases does not significantly differ from other type of spills.

7220.2 Washington

For spills or discharges of hazardous substances onto the ground or into ground water or surface water, any person who is responsible for a spill or non-permitted discharge must immediately notify all local authorities in accordance with the local emergency plan.
The appropriate regional office of the Department of Ecology must also be notified.

For spills or discharges which result in emissions to the air, notify all local authorities in accordance with the local emergency plan. Also in western

Washington notify the local air pollution control authority, or in Eastern Washington notify the appropriate regional Office of the Department of Ecology. The Forward of this Plan outlines the required notifications for spills, these numbers are summarized below.

National Response Center (NRC)	(800) 424-8802
USCG MSO Puget Sound	(206) 217-6232
USCG MSO Portland	(503) 240-9300
US Env. Protection Agency (Region 10)	(206) 553-1263
WA. Emergency Management Div. (EMD)	(800) 258-5990
WA. Dept. of Ecology - Bellevue (NWRO)	(425) 649-7000
WA. Dept. of Ecology - Olympia (SWRO)	(360) 407-6300
WA. Dept. of Ecology - Yakima (CRO)	(509) 575-2490
WA. Dept. of Ecology - Spokane (ERO)	(509) 456-2926
OR Emergency Response System (OERS)	(800) 452-0311 (within Oregon) (503) 378-OERS (6377)
Idaho	(800) 632-8000(within Idaho) (208) 334-4570

What We Need to Know

- Reporting Party
- Contact Phone(s)
- Responsible Party
- Material Released
- Resource Damages (i.e. dead fish)
- Quantity
- Concentration
- Location
- Cleanup Status

Notification of federal and state agencies does not guarantee notification of local responders. Notify local authorities in accordance with the local emergency plan.

7230 Public Information

As with any incident, it is very important to keep the public informed regarding the situation. For hazardous substance incidents, it may also be necessary to communicate information about evacuations, sheltering in place orders, testing

of water supplies, road closures, etc.. Therefore it is very important to establish procedures early in the response for dissemination of information. This may be done simply by the Unified Command or a Public Information Officer (PIO) appointed by the UC. In large, multi-jurisdictional incidents, it may be necessary to establish a Joint Information Center (JIC). Section 9610 of this plan outlines the procedures to be followed in the Northwest Area when establishing a JIC. Local media can also be used to quickly provide information to the public.

7240 Health and Safety

Section 9934 of this plan outlines health and safety requirements for responders at spill incidents. Ultimately, the Incident Commander is responsible for the health and safety of responders during a hazardous substance cleanup. The Unified Command, must identify a Safety Officer (SO) to ensure proper attention is paid to health and safety concerns. The appointed SO should be experienced with applicable regulations and have authority to enforce them. Health and Safety should be the main focus of the responders throughout the duration of the incident.

7300 Operations

7310 Specialized Emergency Response Teams

There are a number of specially trained hazardous materials teams (both public and private) throughout the states of Idaho, Oregon, and Washington, that will most likely be involved in hazardous substance spills. The following tables provide information on how to contact these various teams.

STATE OF WASHINGTON
HAZARDOUS MATERIALS RESPONSE TEAMS 1997

PUBLIC

Team Name	Base	Statewide if Requested*	Contact Person	Contact Phone	24-hr Phone	Address	Fax No.
Aberdeen[1]	Aberdeen	No	Dave Carlberg	(360) 532-1254	**(360) 532-1253**	Aberdeen Fire Dept. 700 W Market Aberdeen WA 98520	(360) 533-8136
Auburn	Auburn	Yes	Stan Laatsch Randy Shelton	(253) 931-3060	**(253) 852-2121**	Auburn Fire Department 1101 "D" St NE Auburn WA 98002	(253) 931-3055
SERP	Bellingham	No	Steve Lamoureaux	(360) 676-6832 (360) 676-6831	**(360) 676-6820**	Bellingham Fire Dept. 1800 Broadway Bellingham WA 98225	(360) 738-7312
C_3HC	Cowlitz	No	Deputy Chief Dave LaFave	(360) 578-5221	**(360) 578-5221** **(360) 577-3084**	Cowlitz Fire & Rescue 701 Vine St Kelso WA 98626	(360) 578-5220
Eastside	Bellevue	No	Mark Moulton	(425) 452-4306	**(425) 452-2048**	Bellevue Fire Department 766 Bellevue Way SE Bellevue WA 98004	(425) 452-5287
Everett	Everett	No	Deputy Chief Ralph Omlid	(425) 257-8109 (425) 257-8100	**(425) 259-8792**	Everett Fire Department 2811 Oakes Ave Everett WA 98201	(425) 257-8644 (425) 257-8139
Federal Way Fire Dept.	Federal Way Fire Dept.	Yes	B/C Pat Kettenring	(253) 839-4621	**(253) 314-8392**	31617 1st Ave S Federal Way WA 98003	(253) 946-2086

Team Name	Base	Statewide if Requested*	Contact Person	Contact Phone	24-hr Phone	Address	Fax No.
Graham Fire & Rescue	Central Pierce Fire & Rescue	No	Captain Robert Park	(253) 847-8811	**(253) 588-5217**	Graham Fire & Rescue 10012 - 187th St E PO Box 369 Graham WA 98338	(253) 846-6957
Puyallup Fire Department	Puyallup	Yes	Kurt Vondever	(253) 841-5487	**(253) 841-5432**	Puyallup Fire Department 902 7th St NW Puyallup WA 98371	(253) 770-3333
Tri-County	Richland	No	Dan Downs	(509) 943-7570	**(509) 943-9161 ext. 250**	Richland Fire Dept. PO Box 190 Richland WA 98352	(509) 942-7575
Kent	Kent	Yes	Assistant Chief Steve Hamilton	(253) 859-3322	**(253) 854-2005**	Kent Fire Department 24611 116th Ave SE Kent WA 98031	(253) 859-3281
Lynnwood Fire Department	Lynnwood	Yes	Bob Cain Gregg Sieloff	(425) 775-3473	**(425) 775-4545 Sno Com**	Lynnwood Fire Dept. 19100 44th Ave W PO Box 5008 Lynnwood WA 98046-5008	(425) 771-7977
Olympia	Olympia	No	Batt. Chief Larry Dibble	(360) 753-8348	**(360) 753-8348** **(360) 786-5449**	Olympia Fire Department 100 Eastside St NE Olympia WA 98506	(360) 753-8054
Port Angeles	Port Angeles	No	Fire Prevention Specialist Ed Bonollo	(360) 417-4655	**(360) 452-4545**	Port Angeles Fire Dept. 102 E 5th St Port Angeles WA 98362	(360) 417-4789
Renton	Renton	No	Batt. Chief of Trng & Support Services	(425) 430-2101	**(425) 854-2005**	Renton Fire Department 211 Mill Ave S Renton WA 98055	(425) 235-2644
Port of Seattle	SeaTac Airport	Yes	Lt. Rick Kruckenberg	(206) 431-4087	**(206) 433-5380**	Port of Seattle Fire Dept.	(206) 431-4908

Team Name	Base	Statewide if Requested*	Contact Person	Contact Phone	24-hr Phone	Address	Fax No.
Fire Dept.						2400 S 170th Street Seattle WA 98158	
Seattle	Seattle	No	Gerald Jones Captain Jeff Chikusa	(206) 386-1481 (206) 386-1410	**(206) 386-1481**	Seattle Fire Department 301 2nd Ave S Seattle WA 98104	(206) 386-1545 (206) 386-1412
City of Spokane	Spokane	Yes	District Manager Skip Powell	(509) 625-7091	**(509) 625-7100**	Spokane Fire Department 44 W Riverside Spokane WA 99201	(509) 625-7039
Tacoma	Tacoma	Yes	Assistant Chief/Fire Prevention Jeff Jensen	(253) 591-5798	**(253) 627-0151** **(253) 591-5733**	Tacoma Fire Department 901 S Fawcett Tacoma WA 98402-5699	(253) 591-5746
Tukwila	Tukwila	Yes	Chief Mike Alderson Jack Stevens	(206) 575-4404 (206) 242-4666	**(206) 575-4404** **Pager** **(206) 916-4183**	Tukwila Fire Department 444 Andover Park E Tukwila WA 98188	(206) 575-4439
Vancouver	Vancouver	Yes	Captain Dan Monaghan	(360) 892-4323	**(360) 892-4323**	Vancouver Fire Dept. 7110 NE 63rd St Vancouver WA 98661	(360) 892-4801
Walla Walla[1]	Walla Walla	Yes	Bob Scott Glenn Johnson	(509) 527-1960	**(509) 527-4429**	200 So. 12th Ave Walla Walla WA 99362	(509) 527-3765
WSU	Pullman	Yes	Fred Miller	(509) 335-5381	**(509) 335-8548**	Environmental Health & Safety PO Box 641172 Pullman WA 99164-1172	(509) 335-4442
NH3	Yakima Emergency Management	Yes	Don Thompson	(509) 574-1900	**(509) 248-2103**	Emergency Management Rm 10 128 N 2nd Street Yakima WA 98901	(509) 574-1901

FEDERAL

Team Name	Base	Statewide if Requested*	Contact Person	Contact Phone	24-hr Phone	Address	Fax No.
Fairchild	Fairchild AFB	No	Bob Mirasole	(509) 247-5215	**(509) 247-2643**	92 CES/CEF 1001 Boston Ave Fairchild AFB WA 99011	(509) 247-2238
Fort Lewis	Fort Lewis	Yes	Training Officer Ken Smith	(253) 967-4786	**(253) 967-5859** **(253) 967-4479**	Commander I Corps & Fort Lewis Attn: AFZH-PWQ (RCRA MGR) Box 339500 MS-17E Fort Lewis WA 98433-9500	(253) 967-9937
Hanford	Hanford	No	Batt. Chief Good	(509) 373-2745	**(509) 373-2745**	Hanford Fire Department _ Dyn Corp PO Box 1400 Richland WA 99352 S3-97	(509) 373-5846
McChord AFB	McChord	Yes	Lieutenant Brett Stohr	(253) 984-2603	**(253) 984-2603**	McChord AFB Fire Dept. 62 CES/CEF 555 "A" St McChord AFB WA 98438-1325	(253) 984-2666
Puget Sound Naval Shipyard	Puget Sound Naval Shipyard	No	Chief Ron Clark	(360) 476-5941	**(360) 476-5941**	Puget Sound Navel Shipyard Fire Department Code 1124 1400 Farragut Ave Bremerton WA	(360) 476-0282

Team Name	Base	Statewide if Requested*	Contact Person	Contact Phone	24-hr Phone	Address	Fax No.
						98314-5001	
Navy, Indian Island/Port Hadlock		Yes	Denise Lietz	(360) 396-5363	**(360) 385-0100**	Department of the Navy NAV ORD CEN-PACDIZ Port Hadlock DET 100 Indian Island Rd Port Hadlock WA 98339-9723	(360) 396-5366
NAVSTA Bangor	NAVSTA Bangor	Yes	Hayden Street	(360) 396-5089	**(360) 396-4864** **(360) 396-4662** **(360) 396-4800**	NAVSTA - Bangor Public Works Code #8E2 1101 Tautog Cir Silverdale WA 98315-1087	(360) 396-6122
				PRIVATE			
Boeing	Boeing	Limited	Gary Gordon	(253) 949-2529	**(253) 655-7700**	Boeing Company MS 3U-67 PO Box 3707 Seattle WA 98124	(253) 657-9988

STATE OF OREGON
HAZARDOUS MATERIALS RESPONSE TEAMS
All teams are activated by calling the Oregon Emergency Response System, (800) 452-0311 (in Oregon) or (503) 378-OERS (6377)

No.	TEAM NAME	BASE	TEAM LEVEL A	TEAM LEVEL B	STATEWIDE if requested	BUSINESS PHONE No.
HM01	Douglas County	Roseburg	X	X		(541)637-4459
HM02	Eugene	Eugene	X	X		(541)682-8375
HM03	Gresham/Multnomah	Gresham	X	X		(503)618-2590
HM04	Klamath/Lake	Klamath Falls	X	X		(541)885-2056
HM05	Linn/Benton Corvallis	Corvallis	X	X		(541)917-7704
HM06	Portland	Portland	X	X		(503)823-3946
HM07	Redmond	Redmond	X	X		(541)548-5921
HM08	Southern Oregon	Medford	X	X		(541)774-2307
HM09	Tualatin	Portland	X	X		(503)649-8577
HM10	Hermiston	Hermiston	X	X		(541)567-8822
HM11	Astoria	Astoria	X	X		(503)325-2345
HM12	LaGrande	LaGrande	X	X		(541)963-3123
HM14	Ontario	Ontario	X	X		(541)881-3230
HM15	Coos Bay	Coos Bay	X	X		(541)269-1191
OSFM	State Fire Marshal	Salem			Cell phone: Pager: Business:	(503)931-5732 (503)370-1488 (503) 378-3473
OERS	Oregon Emergency Response System					(800)452-0311 (503)378-6377
OSHD	Radiological Response Team	Portland			Yes	(503)731-4014

STATE OF IDAHO
REGIONAL RESPONSE TEAMS (RRT)
All teams are activated by calling (800)632-8000 within Idaho or (208)334-3263

No.	TEAM NAME	BASE	TEAM LEVEL A	TEAM LEVEL B	STATEWIDE if requested	24-hr PHONE No.
01	Southeast	Pocatello	X	X		(208)234-7072
02	Southwest	Boise Nampa	X	X		(208)384-3950 (208)485-2240
03	Northern	Lewiston Coeur d'Alene	X	X		(208)743-3554 (208)785-1112

OTHER SPILL RESPONSE TEAMS						
No.	TEAM NAME	BASE	TEAM LEVEL A	B	STATEWIDE if requested	24-hr PHONE No.
01	Fort Lewis	Fort Lewis	X	X	YES	(253)967-5859
02	Hanford	Hanford	X	X	YES	(509)373-2301
03	McChord AFB	McChord AFB	X	X	YES	(253)984-2603
04	Puget Sound Naval Shipyard	Bremerton	X	X	YES	(360)257-2631
05	Sub-Base Bangor	Bangor	X	X	YES	(360)396-4662
06	USCG Pacific Strike Team	Novato, CA	X	X	YES	(206)217-6232 (206)553-1263
07	Army Tech. Escort Unit		X	X	YES	(800)826-3461 (800)424-8802
08	EPA Rad Emergency Response Team	Las Vegas, NV	X	X	YES	(800)424-8802

7320 Contractor Support

There are a number of contractors in the Northwest Area with expertise in responding to hazardous substance releases. It is essential that any contractor retained have the appropriate training to meet the OSHA 1910.120 health and safety requirements and be capable of responding in the appropriate level of protection. The following are lists of potential contractors in the Northwest Area. This list is not all inclusive, nor does the appearance of a particular contractor in this list constitute the Northwest Area Committee's endorsement of that contractor.

WASHINGTON STATE DEPARTMENT OF ECOLOGY
HAZARDOUS WASTE SPILL ASSISTANCE LIST

Company Location	Company Name	Spill Number	Spill Type		Area Covered		Services					Other Services Provided	
			Oil	Haz Mat	Eastern	Western	Resp Team	Recycler	Treatment	Storage	Disposal	*Key At Bottom	
Aberdeen	Apex Environmental	(360) 532-3590	X			X		X			X	DD, O, S, SP, V	
Aberdeen	Coastal Containment	(360) 532-9051	X			X						DD, SD	
Aberdeen	Evergreen Environmental Inc.	(360) 533-6141	X	X		X	X	X				DD, O, S, SP,	
Auburn/Spokane/Portland	Olympus Environmental	1-800-551-8153	X	X	X	X	X					B, C, O,	PRC
Bellingham	COLT Construction Co.	(360) 676-4905	X	X		X	X						PRC
Centralia	Harold's Petroleum	(360) 736-0119	X			X						SD, TT	
Eugene, OR	First Strike Environmental	1-800-447-3558	X	X		X	X	X	X		X	B,C,DD,LT,O,TT,V	
Kent, WA/Arlington, OR	Chem. Waste Mgmt of NW	(253) 575-2250	X	X	X	X	X	X	X	X	X	B, D, DD, O, SP, V	TSD
Lacey	Eager Beaver Environmental	(360) 412-1968	X	X		X						SD	
Longview	All Out Industrial & Env. Serv.	(360) 414-8655	X	X		X	X	X	X	X	X	B, DD, O, V	PRC
Longview	Cowlitz Clean Sweep	(360) 423-6316	X	X	X	X	X				X	B, DD, SD, SP, V	PRC
Pacific	Laidlaw (Rollins)	(206) 939-9220		X	X	X	X	X	X	X	X	B, C, DD, S, SP, V	
Portland	Smith Environmental	1-800-334-0004	X	X	X	X	X		X		X	B, D, DD, O, S, SD, SP TR, V	PRC
Portland	Advance Disposal Tech.	(503) 499-6519	X	X		X	X	X	X	X	X	C,D,DD,O,V REACTIVES	
Portland	CET Environmental Service	(503) 227-5892	X	X	X	X	X		X	X		C,D,E,O,V	
Portland	Harbor Oil	(503) 285-4648	X		X	X		X		X		TR, (No Seattle Response)	
Portland	Smith Enviornmental	1-800-334-0004	X	X	X	X	X		X		X	B, D, DD, O, S, SD, SP TR, V	PRC
Schaumburg IL	ETSC Remedial Services	(847) 985-3872		X	X	X						C, REACTIVES & EXPLOSIVES	
Seattle/Astoria/Portland	Foss Environmental	1-800-FE-SPILL	X	X	X	X	X	X	X		X	B, DD, O, SD, V	PRC
Seattle	Coastal Tank Co.	(206) 624-9843	X	X	X	X	X	X	X	X	X	O, SP, TT, V	
Seattle	Envirotech Systems	1-800-922-9395	X	X	X	X	X					B, D, DD, O, S, SD, SP, V	
Seattle	Global Environmental	(206) 623-0621	X		X	X	X	X			X	DD, SD, TT, TR	PRC
Seattle	Marine Vacumn Service	(206) 762-0240	X	X	X	X	X	X	X	X	X	B, O, S, SP, V	
Seattle	Phillip Environmental	1-800-228-7872	X	X	X	X	X	X	X	X	X	D, DD, O, S, SP, V	TSD
Seattle	Protective Environmental Svs.	(206) 624-5503	X		X	X		X				DD, O, S, SD, SP, TR, TT, V	
Seattle	Safeco Waste Exchange	(206) 242-3388	X		X	X						DD, O, S, SD, SP	
Seattle/Portland	West Pac Environmental	(206) 762-1190	X	X	X	X						D, O, S, SP, V	
Spokane	RoarTech, Inc.	(509) 535-6757	X	X	X		X	X	X	X	X	B, DD, LT, O, S, SD, SP, TT, TR , V	PRC
Sumner/Portland	Spencer Environmental	(253) 863-3310	X	X	X	X	X	X	X	X	X	B, C, O, V	
Tacoma	Clean Care	(253) 627-3925	X	X	X	X		X	X	X	X	B, DD, O, S, SD, SP, TR, V	TSD
Tacoma	SolPro	(253) 627-4822	X	X	X	X	X	X				B, DD, O, S, SD, SP	
Tacoma	Airo Services	(253) 383-4916	X	X	X	X	X	X		X	X	D, DD, O, S, SD, SP V	PRC
Tacoma/Portland	S.M.E. Corp.	(253) 572-3822	X	X		X	X					LT, S, SD, SP, TT	
Vancouver	Tidewater Environmental	(360) 695-8088	X	X	X	X	X	X	X	X	X	O	PRC
Woodinville	Baker Tanks	(425) 487-6503	X	X	X	X						TR	

PRC: WAC 173-181 Approved Primary Response Contractor (oil) TSD: RCRA Permitted TSD Facility

***Keys to Other Services Provided -**

B: Hazardous Waste Broker **C:** Cylinder **D:** Services to Dry Cleaners **DD:** Drum Dealers **E:** Explosives **LT:** Liner Testing **O:** Other than Vacumn

S: Assistance to Small Quantity Generators **SD:** Sorbent Dealers **SP:** Pickup for Small Quantity GeneratorsTransport **TT:** Tank Testing **TR:** On-Site Tank Delivery/Rental **V:** Vacumn Transport

Note: **This ia a partial list and does not constitute an endorsement.** Information is current at the time of production and is acknowledged as being subject to change. Please contact Ecology's regional offices for information on compliance status of companies listed.

For copies of this list or to make updates, please contact Teresa Hedblum at (360) 407-6959. **Revised:** ***June 1997***

The following is the WDOE – Spill Operations Section Hazard Assessment Worksheet:

Department of Ecology - Spill Operations Section
Hazard Assessment Worksheet

Name(s) of Ecology Personnel:
_____

Date: _____ **Contact Person or Reference (s)**:
_____

I. Information as first reported

Location/Site Name:
_____

Type of Incident:
_____

Owner of Property (if known):
_____

II. Information upon arrival and BEFORE first perimeter reconnaissance

Arrival Time: _____ **Wind** from the _____ at approx. speed of _____

Other Personnel On Scene (fire, police, contractors, etc.):
_____

Nearest Hospital and Phone Number:
_____

General Site Description & Potential Hazards, as seen from arrival position, and Recon plans:
_____
_____
_____
_____
_____

III. Perimeter Reconnaissance PPE - Check **Personal Protective Equipment** being used:

☐ Level C ☐ Level D

NOTE: Based on FIRST recon results, addl. recon w/higher PPE levels may be needed!

IV. Information AFTER all perimeter reconnaissance is completed

Indicate Hazards (**Key**: K=Known, S=Suspected, X=Other, or ~~Line through~~ item if "N/A")

__ Explosive	__ Corrosive	__ Vehicles
__ Flammable Liquid	__ Oxidizer	__ Noise
__ Flammable Solid	__ Biohazard	__ Heat/Cold

__ Flammable Gas __ Radioactive __ Falling
__ Poisonous Gas __ Oxygen Deficiency __ Slipping/Tripping
__ Poison __ Confined Space __ Water
__ Other
(specify)_____
__ Unknowns (describe color, size, shape of container(s), etc.)
_____
_____

In addition to above, note anything else observed during perimeter recon action(s):
_____
_____

Provide Data on **Known or Suspected Compounds**, if any:

Compound(s)	PEL/IDLH	Health Hazards	Route(s) of Exposure

Attach MSDS/Chemical Database Print-out/Bill of Lading (if available)

Side 1 of 2

<u>If Site Entry is not indicated</u> based on the perimeter reconnaissance, the Spill Response Flow Chart, available resources or responder training levels, go to Part VI, below:

<u>V. Workplan/Information prior to Site Entry</u>

a) Workplan for Site Entry Team (briefly describe the Team's scope & objective):

_____
_____
_____
_____
_____
_____
_____
__

b) Site Map Sketch (indicate wind direction, safety zones, escape routes, hazards, etc.)

c) Personal Protective Equipment (PPE) to be used for site entry (Check One):

☐ **Level A** ☐ **Level B** ☐ **Level C** ☐ **Level D**

Will **Air Monitoring Instruments** be used during the investigation? __ Yes __ No
If Yes, what type?
_____
List "Exit Action
Reading(s)":_____

d) Entry Team Check-off (if an item that applies is not checked, **, DO NOT ENTER SITE**)

___ Training/MedMon is up to date
___ Buddy System/Communication and Equipment check completed
___ Decon line ready
___ Hazard Assessment Worksheet Reviewed and Workplan clear to members of Response Team
___ Site entry time and/or Time on air: _____

<u>VI. Site Entry Summary and/or Conclusion of Ecology Response</u>

If samples were obtained and analyzed (HazCat) after site entry, list the results below:

_____
_____
_____

What are subsequent work plans or additional incident response actions to be taken?

_____
_____
_____
_____
_____
_____

- Debriefing Results/Follow-up:

_____
_____

Site Departure Time: _____
Total Time Spent on Site: _____ **Lead Responder Signature**:
_____
updated 3/98 (zachmann) **Side 2 of 2**

7330 Equipment

Local response teams and contractors usually arrive on-scene with the basic equipment necessary to respond to hazardous substance incidents. EPA maintains a number of air monitoring instruments and some field portable analyzing equipment.

7400 Planning

Planning for hazardous substance responses happens at a number of levels throughout Idaho, Oregon, and Washington. First, as a result of the Superfund Amendments and Reauthorization Act (SARA) Title III requirements, State Emergency Response Commissions (SERCs), Local Emergency Planning Committees (LEPCs), and Tribal Emergency Response Committees (TERCs) were formed. The purpose of these groups is to develop local emergency response plans, participate in exercises to ensure preparedness at the local level, and arrange for training for local responders. In addition, local departments of emergency management (or similar groups) may assist with these functions as well as notifications of hazardous substance incidents. SERCs, LEPCs, and TERCs are not funded by the federal government and the level of activity varies from area to area. The table below lists the number and types of organizations that exist in each state. The emergency management positions vary from state to state and may be a Department of Emergency Management, Emergency Services, Civil Defense, or Disaster Services.

	Idaho	Oregon	Washington
SERC	1	1	1
LEPC	44	1	43
TERC	4	11	27
Emergency Mngt	44	37	43

7410 Initial Response Actions/Hazard Identification

Most petroleum products tend to behave in a consistent manner when released (e.g. either float or sink) into the environment and can be contained and recovered using commonly available techniques (e.g. booming, skimming, mechanical recovery). For this reason, it is relatively easy to pre-plan for incidents and responses tend to be fairly straight forward. With hazardous substances, however, there are thousands of different types of materials, each behaving differently depending on the conditions. For this reason, one of the most import functions of the Planning Section to obtain information about a chemical's behavior, potential health effects, and possible response alternatives.

In some cases, it may be very difficult to identify the hazardous substances that are involved in an incident. For example, in the case of abandoned drums, it may be difficult to determine the substances involved and thus the risks associated with them. In other cases, it might be relatively easy. For example, if there is a train derailment or a transportation accident, hazardous waste manifests should be able to provide responders with the information needed to begin assessing the risks associated with the site.

Further, in the case of hazardous substances spills, until the released material is identified and the levels of potential exposure determined, a response strategy cannot be safely implemented. The situation must be approached with extreme caution and often a response must be delayed until safe levels of exposure are determined and a properly equipped response team can be assembled. Decisions regarding possible evacuations must also be made during the period of substance identification and risk determination.

During the initial response phase, some basic actions may be implemented depending upon the available information and resources. These actions can include, but are not limited to:

- controlling access to the area
- identifying the hazards
- controlling and/or stopping further releases
- sampling of water/soil/product
- containment of the already released product
- implementation of countermeasures
- establishing proper decontamination procedures

Weapons of mass destruction including nuclear, biological, and chemical weapons are a reality in the world today. The Sarin gas attacks in Japan, as well as several recent arrests of anti-government groups in the United States in connection with efforts to obtain and release plague bacteria, Phosgene, Ricin, Sarin, and other deadly substances, requires all response agencies to obtain a general level of awareness of such materials.

A nuclear, biological, or chemical terrorist incident is a local event with potentially profound regional and national implications. The capability of a local government to deal with the immediate effects of an incident is essential to the success of any NBC response. To assist in building local capability with trained and adequately equipped responders, the National Response Team's Response Committee has developed the NRT Counter-Terrorism Primer: Understanding the Threat of Nuclear-Biological-Chemical (NBC) Terrorism. This Primer consists of a binder of materials designed for Area Committee's and Regional Response Teams's to use in sharing NBC preparedness and response

information with State and local responders. A copy of this Primer may be obtained by contacting the NRT's Response Committee Chair at (703) 603-8727.

7411 Information Sources

The following table provides information on sources of information that may help identify a material and/or evaluate potential health effects and response alternatives.

INFORMATION SOURCE	DESCRIPTION	CONTACT NUMBER
CHEMTREC	**Provides immediate advice for personnel at the scene of a spill and provides contact with the shipper/manufacturers of the chemicals involved.**	**(800)424-9300**
CHEM-TEL	**Provides immediate information for personnel on scene of a chemical spill.**	**(800)255-3924**
CHLOREP - Chlorine Emergency Plan	**Provides assistance to chlorine releases in NW area.**	**(503)228-7655**
DOT ERG - Emergency Response Guide	**Provides information to help first responders quickly identify the hazards of the material involved in an incident, and protect themselves and the public during the response.**	**Widely available in print**
TOMES - Toxicology Occupational Medicine & Environmental Series Database	**Provides rapid, easy access to a vast library of medical and hazard information needed for safe management of chemicals in the workplace and environment.**	**(800)525-9083**
USCG CHRIS - Chemical Hazard Response Information System	**Provides physical, chemical, and toxicological properties of hazardous chemicals; methods of estimating quantities released; methods of predicting hazards; existing methodologies for handling spills; and a list of manufacturers equipment**	**(800)424-8802 NRC**
IRAP - Interagency Radiological	**Assists with obtaining technical guidance when dealing with**	**(800)424-9300 CHEMTREC**

Assistance Plan	**radioactive incidents.**	
NRC - Nuclear Regulatory Commission	**Provides information and assistance in handling accidents involving radioactive materials.**	**(301)415-7000**
HSIS - Hazardous Substance Information System	**Contains hazardous substance information specific to 37,000 Oregon facilities that report to OSFM.**	**(800) 621-2435. Pre-registration is required.**
OPC	**Oregon Poison Control**	**(800) 452-7165**

7412 CAMEO Database

CAMEO (Computer Aided Management of Emergency Operations), ALOHA (Aerial Locations of Hazardous Atmospheres), and MARPLOT (a GIS area mapping module for display of data and information from the CAMEO and ALOHA applications) may be some of the most comprehensive systems available to assist responders to hazardous substance spills. This system contains names of facilities, quantities and types of hazardous substances stored at the facilities and their location, and contact names and numbers for facilities. ALOHA can model plumes and provide information on evacuation areas. Many local jurisdictions have direct access to these databases through local fire departments or dispatch centers. In the State of Washington, any local jurisdiction may obtain information from these systems simply by contacting the Washington State Patrol, (360)753-0500. In Oregon, the same information may be obtained through the Officer of State Fire Marshal Hazardous Substance Information Hotline, (503)378-6835. In Idaho, this information can be obtained by calling the Emergency Communications Center at (208) 334-4570.

7420 Mitigation

Following identification of the hazardous substance or substances involved and the risks associated with those substances, a plan of action can begin to be formulated. Planning for all potential releases of hazardous substances and their possible combinations is not possible. However, a relatively small number of hazardous substances account for the majority of the substances commonly stored and transported in the area and thus the substances with the highest possibility of release. The following list summarizes hazardous substances most likely encountered throughout the Northwest Area:

1	Anhydrous Ammonia (V)	6	Toluene (V,F)
2	Chlorine (V,D)	7	Sodium Chlorate (D)
3	UAN-32 Fertilizer (D)	8	Methanol (D,V)
4	Sodium Hydroxide (D)	9	Sulfuric Acid (D,S)
5	MTBE (V,D)	10	Ether (F)

D = dissolver V = volatilizer F = floater S = sinker

These 10 substances can be divided into 4 main categories, depending upon the behavior of the substance once it is released into the environment. The 4 categories are sinkers, floaters, dissolvers, and volatilizers. Response actions and equipment resources need to take into consideration the general behavior of the hazardous substance(s), as well as the potential toxicity of the substance(s) and the potential receptors in the area. A code for each of these general categories has been applied to the above list of the commonly transported/used hazardous substances. As a guide, the following ideas are possible response actions, although not inclusive, for each group. It is important to remember, however, that in a single incident there may be a number of different hazardous substances that may be reacting with each other. It is critical to approach each situation on a case by case basis and evaluate the potential hazards carefully.

	Immediate Actions	**Possible Cleanup Alternatives**
Dissolvers	Protect/notify down gradient users of surface or shallow groundwater	Neutralize, conduct water treatment, or excavate and dispose/treat contaminated soil
Volatilizers	Evacuate or shelter in place to minimize exposure; protect from fire or explosion hazards	Ventilate, eliminate potential ignition sources
Floaters	Contain at or near source (note - care must be taken when containing gasoline or similarly volatile substances to prevent a fire or explosion hazard)	Recover using mechanical means or treat in place
Sinkers	Notify/protect downstream water users	Recover using mechanical means such as dredging or treat in place

Addressing issues related to decontamination of people and equipment is critically important to the overall success of a hazardous substance response. It is also very important in ensuring proper health and safety is maintained. During the mitigation phase and throughout final cleanup, a decontamination area must

be established and procedures for personnel and equipment movement established.

7430 Long Term Cleanup

At some point after the height of the initial response phase, the nature of site activities may evolve into a long term cleanup phase. The responders involved in the initial response phase may or may not be actively involved with this phase. Depending upon the scope of activities and the ability of the local responders, post-initial response and mitigation phase efforts may necessitate mobilization of additional resources. Also, it is possible that federal and/or state agency representatives may need to be involved with the long term phase to ensure that regulatory mandates are followed.

The NCP Section 300.415 and similar state regulations require the lead agency to evaluate all information to determine the appropriate removal/remedial actions. Efforts should also be made to have the responsible parties, if known, perform necessary actions. If the responsible parties are unknown, or are unable/unwilling to perform the actions, it may be necessary for a federal, state, or local agency to undertake the necessary efforts to see that the removal/remedial tasks are accomplished. The following is a list of regional treatment centers for petroleum contaminated soil:

CR	Roosevelt	Roosevelt Regional Landfill	1-800-275-5641	Aeration
CR	Yakima	Anderson PCS	(509) 965-3621	Aeration
CR	Grandview	Lower Valley Remediation	(509) 862-1144	Aeration & Bioremediation
CR	Kittitas	Taneum Recovery Corp.	(509) 964-2363	Aeration & Bioremediation
ER	Spokane	Remtech, Inc.	(509) 624-0210	Thermal Desorption
NWR	Kenmore	Sterling Asphalt	(425) 485-5667	Asphalt Incorporation
NWR	Everett	Assoc. Sand and Gravel	(425) 355-2111	Thermal Desorption
NWR	Seattle	Holnam Cement	(206) 937-8025	Cement Incorporation
SWR	Tacoma/Portland	TPS Tech. Inc. (Woodworth)	1-800-375-3752	Thermal Desorption
SWR	Port Angeles	Fields Shotwell Corp.	(360) 457-1417	Thermal Treatment/Recycling

KEY: CR: Central Region ER: Eastern Region NWR: Northwest Region SW: Southwest Region

7431 Disposal

As a result of response and long term cleanup activities, a number of different hazardous wastes may have been generated. The responsible party or lead agency must address proper disposal of the wastes in accordance with the Resource Conservation and Recovery Act (RCRA), the NCP and NWACP, state, and local regulations. See Section 9620 for Washington State Disposal Guidelines and Section 4337.2 for Oregon State Disposal Guidelines.

7432 Natural Resource Trustee Issues

Natural Resource Trustees are not trained for incident response. However, they play a key role providing information for natural resource protection strategies,

and assessment of damages following the release of hazardous substances. Although it is not a priority for incident responders, they may be able to assist Natural Resource Trustees in obtaining critical data for their Natural Resource Damage Assessment (NRDA). As outlined in Section 2250 of this Plan, a NRDA team may be utilized during and after an incident. The NRDA team can provide environmentally sensitive area information and information on possible cleanup methods and equipment. Also, NRDA can organize post-response activities for evaluating resource impacts, development of restoration or enhancement projects, and damage assessment information for monetary claims.

7500 Logistics

7600 Finance/Administration

As outlined in Section 6000 of this Plan, there are a number of federal and state funding sources that may be accessed to pay for costs incurred at an incident. These sources are set up as funding mechanisms in the event that the responsible party is unable/unwilling to provide funding of response actions. Access to the funding sources is possible through the federal or state agency that is responsible for administering the fund.

Under CERCLA, the Hazardous Substance Response Trust Fund (Superfund) was established to pay for cleanup of releases of hazardous substances and uncontrolled hazardous waste sites. EPA manages and administers this fund.

7610 Local Government Reimbursement

Through the EPA, who administers the Superfund, local (county, parish, city, municipality, township, or tribe) agencies may apply for reimbursement of costs incurred in response to an incident. States are specifically excluded from seeking reimbursement from the Superfund. Local governments are eligible for reimbursement up to $25,000 per incident for costs such as overtime charges, response contractors, equipment purchased for the response, and replacement of damaged equipment. EPA may accept only one request for reimbursement for each hazardous substance release incident. EPA cannot reimburse for costs previously budgeted for by the local government. On February 18, 1998, EPA published an Interim Final Rule simplifying the process for Local Government Reimbursement (LGR). Information on the new rule may be obtained by calling EPA's LGR Help line at (800) 431-9209. A copy of the application and necessary attachment forms follows:

8292 Federal Register / Vol. 63, No. 32 / Wednesday, February 18, 1998 / Rules and Regulations

AppendixÐ III to Part 310Ð Form: Application for Reimbursement to Local Governments for Emergency Response to Hazardous Substance Release Under CERCLA Sec. 123

EPA Form 9310-1, Application for Reimbursement to Local Governments

Please type or print all Information

EPA	United States Environmental Protection Agency Washington, D.C. 20460 **Application for Reimbursement to Local Government for Emergency Response to Hazardous Substance Releases Under CERCLA Sec. 123**	Form Approved OMB No 2050-0077 Approved expires

1. Local government Identification

a. Name of Local government	b. Contact Name and Telephone Number
c. Official Address	d. Date of Application

2. Release Description

a. Date and Time of Occurrance or Discovery	b. Location

c. Source or Cause of Release

d. Hazardous Substances Released and Quantity (Petroleum, crude oil, or any unspecified fractions thereof are excluded)

e. Threats to human health and Environmental

f. Attach any additional material pertinent to the release

3. Response Description

a. Date and Time of HazMat Response Initiation	b. Was anyone notified of the response? ☐ EPA ☐ NCR ☐ OTHER	
c. EPA Region	d. Date and Time Contact Made	e. Date of Response completion (Local government has received all data, reports, and charges for response)
f. Jurisdiction in Which Response Occurred	g. Is your local government a participant in the Title III Emergency Response Plan? (Check one) ☐ Yes ☐ No	

h. Responding Agencies and Jurisdictions

EPA Form 9310-1

i. Summary of Response Actions

j. Temporary Measures for Which Reimbursement is Sought

4. Cost Information

a. Total Response Cost

$

b. Total Reimbursement Requested

$

c. Complete and Attach Table 1, "Detailed Cost Breakdown"

d. Complete and Attach Table 2, "Cost Recovery Summary"

e. Attach Other Pertinent Financial Information

5. Certification and Authorization (To be completed by highest ranking official of applying local government.)

I hereby certify that:

1) All costs are accurate and were incurred specifically for the response for which reimbursement is being requested.
2) Reimbursement for costs incurred for response activities does not supplant local funds normally provided for response
3) Cost recovery was pursued as presented in the attached Table 2; and
4) Reimbursement funds for which costs are later recovered will be returned to EPA

I further certify that I am authorized to request this reimbursement and to receive funds from the Federal Government.

Printed or Typed Name of Highest Ranking Local Government Official or Authorized Representative	Signature of Highest Ranking Local Government Official or Authorized Representative
Title	Date

Burden Statement:

The Agency requires applicants for reimbursement to submit an application package that demonstrates consistency with program eligibility criteria and certifies compliance with the reimbursement requirements. This information collection is necessary to ensure proper use of the Superfund and appropriate distribution of reimbursement awards among applicants. EPA will receive and closely evaluate reimbursement requests in accordance with 40 CFR 310 to ensure that the most deserving cases receive awards.

The public reporting and recordkeeping burden for this collection of information is estimated to average 9 hours per response annually. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M St., S.W., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

EPA Form 8310-1

*Form 8310-1 is not considered complete unless it is signed by the highest ranking official of the local government requesting reimbursement, or signed by the authorized representative indicated in an enclosed letter delegating signature authority for this application process.

BILLING CODE 6560–50–C

ATTACHMENT 1 TO FORM 9310–1 COST ELEMENT CODES AND COMMENTS

[Cost Element Codes for use in Table 1]

Code	Cost category	Cost element	Comments
PC	Personnel Compensation.	PC1: Overtime—for services excess of the local agency's standard work day or work week. PC2: Experts and consultants—for services rendered on a per diem or fee basis or for services of an intermittent, advisory nature.	Compensation of overtime costs incurred specifically for a response will be considered only if overtime is not otherwise provided for in the applicant's operating budget.
TR	Transportation	TR1: Passenger vehicle rental—for transportation of persons during evacuation. TR2: Nonpassenger vehicle rental—for transportation of equipment or supplies.	Passenger and nonpassenger vehicle rental costs will be considered for private vehicles not owned or operated by the applicant or other unit of local government.
RC	Utilities	RC1: Utilities—for power, water, electricity and other services exclusive of transportation and communications.	Utility costs will be considered for private utilities not owned or operated by the applicant or other unit of local government.
OS	Other Contractual Services.	OS1: Contracts for technical or scientific analysis—for tasks requiring specialized hazardous sustance response expertise. OS2: Decontamination services—for specialized cleaning or decontamination procedures and supplies to restore clothing, equipment or other serviceable gear to normal functioning.	May include such items as specialized laboratory analyses and sampling.
SM	Supplies and Materials.	SM1: Commodities—for protective gear and clothing, cleanup tools and supplies and similar materials purchased specifically for, and expended during, the response.	May include such items as chemical foam to suppress a fire; food purchased specifically for an evacuation; air purifying canisters for breathing apparatus; disposable, protective suits and gloves; and sampling supplies.
EQ	Equipment	EQ1: Replacement—for durable equipment declared a total loss as a result of contamination during the response. EQ2: Rents—for use of equipment owned by others	Equipment replacement costs will be considered if applicant can demonstrate total loss and proper disposal of contaminated equipment. Equipment rental costs will be considered for privately owned equipment not owned or operated by the applicant or other unit of local government.

BILLING CODE 6560–50–P

Table 1
Detailed Cost Breakdown

Temporary Emergency Measure	Cost Incurred By	Cost Element (See Attachment 1)	Amount

EPA Form 9310-1

Attach supporting documentation, e.g., invoices, sales receipts, rental agreements

Table 2
Cost Recovery Summary

Note: This "Cost Recovery Summary" must accompany each request for reimbursement.
You Must Fill Out Each Section Of This Form.

Name and Title of Source Contacted	Date(s) Contacted	Brief Summary of Response	Details Attached
Attempts to Recover Costs from Potentially Responsible Parties (including PRP insurance)			
Attempts to Recover Costs from State Funding Sources			
Attempts to Recover Costs from Local Government Insurance			

EPA Form 9310-1

[FR Doc. 98-2716 Filed 2-17-98; 8:45 am]
BILLING CODE 6560-50-C

7620 Cost Documentation

Upon completion of all site activities and/or completion of each phase of an incident, the FOSC may be responsible for submitting letters and/or reports to other agencies. The NCP and NWACP require that an FOSC Report be submitted if requested by the National Response Team or the Regional Response Team. Also, those responders and agencies that accessed fund sources, or wish to access fund sources for reimbursement, must provide written documentation and information to support the costs incurred. Costs must be fully and accurately documented throughout a response. Cost documentation should provide the source and circumstances of the release, the identity of responsible parties, the response action taken, accurate accounting of federal, state, or private party costs incurred for response actions, and impacts and potential impacts to the public health and welfare and the environment.

7700 Reserved for Future Use

7800 Reserved for Future Use

7900 Reserved for Future Use

CHAPTER 8000

MARINE FIREFIGHTING

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MARINE FIREFIGHTING CONTINGENCY PLAN

6 November 1998

U. S. Coast Guard
Captain of the Port
Portland, Oregon

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8200 INTRODUCTION

8210 Introduction

This plan is intended to inform persons assigned to Group/MSO Portland of their roles, appropriate actions, available resources, and current policy and procedures related to marine fire response. The main body of this Plan gives background information while the annexes offer information needed during an actual marine fire response. Therefore, anybody assigned a role in marine fire response should first, know his/her role in such an event, second, read through this document emphasizing sections most relevant to his/her role, and third, become familiar with the annexes so that he/she is able to refer to needed annexes quickly during an event.

This Plan has been reformatted to meet Integrated Command System requirements.

8211 Authority

The U.S. Coast Guard has no specific statutory responsibility to fight marine fires. Traditionally, the Coast Guard has been responsible for saving life and property upon the waters of the United States and typically will respond to a marine fire in some manner. To this extent, various statutes are used when establishing its authority to respond to marine fires.

The statutes follow:

- 14 USC 88(b): USCG must render aid to save life and property when a marine emergency occurs within the capabilities of available resources. This may include marine fires.

- Clean Water Act as amended by the Oil Pollution Act 1990 (OPA 90) (33 USC 1251 et seq.): whenever a marine disaster in navigable waters or exclusive economic zone of the U.S. has created a substantial threat of pollution because of a discharge or an imminent discharge of large quantities of oil or hazardous substance from a vessel, USCG may coordinate and direct all public and private efforts directed at removal or elimination of such a threat and summarily remove and destroy such a vessel if necessary. This Act mandates USCG to maintain and Area Contingency Plan including firefighting equipment within each port.

- The Intervention on the High Seas Act (33 USC 1471, et seq.): this extends USCG's authority to take similar preemptive or corrective action on the high seas. Specifically, it authorizes the Commandant of the U.S. Coast Guard to take necessary measures on the high seas to prevent, mitigate, or eliminate grave and imminent danger to the coastline or related interests from pollution or threat of pollution, following a maritime casualty or acts related to such a casualty which may reasonably be expected to result in major harmful consequences. This authority rests with the Commandant.

- The Ports and Waterways Safety Act (33 USC 1221, et seq.): this charges U.S. Coast Guard's local Captain of the Port with responsibility for vessel navigation and safety, safety of waterfront facilities, and protection of the marine environment within the COTP's area of jurisdiction. This authority allows the COTP to:

    - Direct anchoring, mooring, or movement of vessel;

    - Specify times of vessel entry, movement, departure to, from, or through ports, harbors, or other waters;

    - Restrict vessel operation in hazardous areas; or

    - Direct the handling, loading, discharge, storage, and movement – including emergency removal, control, and disposition – of explosives or other dangerous cargo/substances, on any bridge or other structure on or in the navigable waters of the U.S. or any land structure immediately adjacent to those water

- 42 USC 1856-1856d: allows an agency, charged with providing fire protection for any property of the U.S., to enter into reciprocal agreements with state and local fire fighting organizations to provide mutual aid. This statute further provides that emergency assistance may be rendered in the absence of a reciprocal agreement, when it is determined by the head of that agency to be in the best interest of the U.S.

The Coast Guard cannot delegate its statutory authorities and shall not delegate mission responsibilities to state or local agencies. The MSO shall not be party to any agreement that relinquishes Coast Guard authority, evades Coast Guard responsibility, or places MSO military personnel under the command of any person(s) who is/are not part of the Federal military establishment. Coast Guard forces will not be subject to any authority other than that of their superiors in the

chain of command. Within the Coast Guard, the COTP will delegate authorities as necessary.

8212 Definitions and Acronyms

8213 U.S. Coast Guard Policy

Federal policy is established in the Federal Fire Prevention and Control Act of 1974 (PL 93-498). It states that fire prevention and control is, and should, remain a state and local responsibility, although the federal government must help to reduce fire loss. The ultimate responsibility is always the vessel or facility owner and operator.

The U.S. Coast Guard has traditionally provided fire fighting equipment and training to protect its own vessels and property. Captains of the Port are also called upon to provide assistance at major fires on board other vessels and waterfront facilities. Although the Coast Guard clearly has interest in fighting fires involving vessels or waterfront facilities, local authorities are principally responsible for maintaining necessary fire fighting utilities in U.S. ports and harbors. USCG renders assistance as available, based on the availability of resources and level of training. The Commandant intends to maintain this traditional “assistance-as-available” posture without conveying the impression that the USCG is prepared to relieve local fire departments of their responsibilities.

The presence of local fire fighters does not relieve the master of command of, or transfer the master’s responsibility for overall safety on, the vessel. However, the master should not normally countermand any orders given by the local fire fighters on board the vessel, unless the action taken or planned clearly endangers the safety of the vessel or crew.

Paramount in preparing for vessel or waterfront fires is the need to integrate USCG planning and training efforts with those of other responsible organizations, particularly local fire departments and port authorities. COTP’s shall work closely with the municipal fire departments, vessel and facility owners and operators, mutual aid groups, and other interested organizations. The COTP shall develop a fire fighting contingency plan that addresses fire fighting in each port in the COTP zone.

8213.1 District/Area Committee Purpose and Objectives

8213.2 Area Subdivisions

8213.3 Area of Responsibility

8213.4 Area Committee Organization

8214 COTP Portland Policy, Purpose and Objectives

8214.1 Coordinated Marine Firefighting Considerations

In any fire, the quickness and effectiveness of the initial response is the key to fire suppression. If the fire is not quickly controlled, the likelihood of a larger, more involved response increases. In addition, today's fires may be very complex as they increasingly involve a number of hazardous materials ranging from bulk liquids to toxic solids.
Therefore, a closely coordinated effort is essential factor in an effective marine fire fighting response. The response organization will vary depending on the location of the fire and its severity. The level of Coast Guard involvement will range from On-Scene Commander to coordinator/advisor level. The possibility of a spill of some type of pollutant always exists due to firefighting water runoff. The COTP, in the capacity as On-Scene Coordinator, will invariably be involved should this occur. The following sections discuss some of the complexities involved in a coordinated response and guidelines for proper organization and action.

8214.2 Area of Responsibility

The level of Coast Guard firefighting response will depend largely on the location of the fire. For this reason, a discussion of the various areas of responsibility is in order.

The COTP Portland, Oregon, zone is described in 33 CFR 3.65-15.

The Group Portland Search and Rescue zone includes the navigable waters of the Willamette River from the mouth to river mile 183.2 (Eugene area). It also encompasses the Columbia River from river mile 48 to river mile 335 (Richland, Washington) and between the mouth of the Snake River and the Ice Harbor Lock and Dam (Snake River mile 9.7). Group Astoria has SAR responsibility on the lower Columbia River and portions of southern Washington, including Grays Harbor, and the northern Oregon coast. The remainder of the Oregon coast is the responsibility of Group North Bend.

The COTP Portland's zone for response to a pollution incident is described in the "COTP Portland, Oregon, Oil and Hazardous Substances Pollution Contingency Plan." It is possible that a fire with resulting pollution could occur where the EPA has pollution response responsibilities. If this were to occur, the MSO would likely respond to the fire until the EPA representative arrived on scene.

8214.3 Maritime Fire and Safety Association (MFSA)

In February 1982, the 600-foot grain ship, Protector Alpha, caught fire while being loaded in Kalama, WA on the Columbia River. The shipboard blaze raged for 72 hours before the fire was controlled. The local fire district was not trained nor equipped to respond and believed its boundaries ended at the pier. The ship's foreign crew abandoned her.

The vessel was set adrift in the river while burning before fire fighters aboard could be evacuated. The ship eventually ran aground. One Coast Guardsman was killed and another fire fighter was injured battling the fire. Damage to the ship exceeded $15 million.

While serious shipboard fires are unusual, they are not unknown, as the Protector Alpha incident shows. A number of ship fires have resulted in over one hundred casualties. A single incident in the Columbia River could block the shipping lane or damage a key facility effectively choking the region's commerce.

In the aftermath of the Protector Alpha incident, the U.S. Coast Guard called together the maritime community, forming an ad hoc committee to review the situation. The committee found serious deficiencies in the region's capability to handle shipboard and waterfront fires.

In response, the group organized the Maritime Fire Safety Association (MFSA). The new organization's purpose was to put into place a system to ensure an adequate, timely, and well-coordinated response to shipboard fires over the entire 110-mile channel of the Lower Columbia River.

Multiple jurisdictions are involved: two states, seven counties, fourteen cities, seven port districts, and over twenty local fire departments. Compounding the complexity, fire district boundaries in both Oregon and Washington generally end at the shoreline. All members of the MFSA have agreed to work together and train together, so that when an incident occurs, each fire bureau will be familiar with the resources and capabilities of other fire bureaus.

No single entity has responsibility for fighting marine fires in and along the river. While the USCG is commonly thought to be responsible for such fires, its authority and responsibility are not comprehensive.

Early in 1984, consultants working on behalf of MFSA were retained to prepare a plan for handling marine fires in the Lower Columbia. The Lower Columbia Maritime Fire Safety Plan (1985) incorporated MFSA's program in a proposed framework for building a limited marine fire response capability along the Columbia River from the Portland/Vancouver harbor to Astoria, Oregon, near the mouth of the river. The Plan represented a significant step in creating an effective system for handling shipboard fires.

This Plan was further fine-tuned and the MFSA has now developed the Shipboard Fire Operations Guide. It is a detailed guide that brings together all the MFSA member fire departments along the Lower Columbia River. This document serves as a mutual aid agreement and resource guide for marine fires occurring within the MFSA boundaries.

8214.4 Fire Protection Agency Advisory Council (FPAAC)

This is the group that was tasked to develop MFSA's Shipboard Fire Operations Guide to utilize in fire response in their AOR. This Guide is contained in Annex III.

8215 Geographic Boundaries

Please refer to section 8105.2 Area of Responsibility for a description of geographical boundaries. There are also maps and charts in the CAC with various boundaries depending upon appropriate USCG jurisdictions and responsibilities.

8215.1 Sensitive Areas

There are descriptions and maps in the Thirteenth District GRP's showing environmentally sensitive areas within the COTP's AOR.

8216 Response Organization and Policies

8216.1 National Response System (National Inter-Agency Incident Management System [NIIMS] Incident Command System)

Local fire departments follow the Incident Command System known as ICS. The U.S. Coast Guard has also adopted this emergency command structure. It is highly recommended that Coast Guard personnel assigned to marine fire

response get adequate training in this system. Refer to Annex XI containing ICS forms.

8216.2 National Response Policy

8216.3 State Response System

8216.4 State Response Policy

8216.5 Local Response System

8216.6 Local Response Policy

The Portland Fire Bureau responds to all fires within the established boundaries of the city of Portland, Oregon. This area includes the Port of Portland piers/docks and most waterfront facilities. Facilities located in the "Rivergate" area have been annexed by the city and are now covered by Portland Fire Bureau protection. Sauvie Island now has a volunteer fire department that falls under Multnomah County Fire District 30. Hayden Island is covered by Portland Fire Bureau, except the area west of the Railroad Bridge. The lower Willamette River, North Portland Harbor, and the Columbia River from the shore to the center of the navigable channel constrained by the city's east/west boundary area are covered by the Portland Fire Bureau. Vessels moored to piers in protected areas are also provided firefighting services. The Portland Fire Bureau has mutual aid and response agreements with the Vancouver Fire Department and has merged with the Multnomah County Fire District 10 (East County).

The Vancouver Fire Department responds to fires within the city limits, which includes most waterfront facilities. Vessels moored to piers at the Port of Vancouver are provided fire protection. Vancouver has a mutual aid agreement with Portland for the use of two engines and one fire truck (Note: a truck carries ladders, and its crews generally perform rescue work. An engine carries hoses and water, and its crews are involved with fire suppression.) Since the Vancouver Fire Department does not have a fireboat, if there were a fire in Vancouver's marine jurisdiction, a fireboat would most likely be requested from the Portland Fire Bureau. In addition, the MFSA agreement provides enough flexibility whereby a "marine coordinator" could be provided to the Vancouver Fire Department from the Portland Fire Bureau. A "marine coordinator" is an individual trained in marine fire fighting who should function as an advisor on scene.

The St. Helens Fire Department responds to fires within the city limits of St. Helens and its pleasure craft marinas, piers, and docks. Its boundary to the north is Martin Bluff on the Columbia River and Scapoose Bay on the Multnomah Channel to the south. The Department has on 26-foot fireboat and a crew of 24 regular and approximately 15 volunteer fire fighters, which can be utilized for response in support of MFSA mutual agreements. A certain number of these people will be support personnel and will not be active firefighters.

The Longview Fire Department responds to fires within the city limits of Longview. This jurisdiction includes all of the Port of Longview piers. However, a number of waterfront facilities are not within the city limits and special agreements are required and exist to provide fire protection. The jurisdiction of the Longview Fire Department ends at the end of the pier, so that vessels are not provided fire protection automatically. The Longview Fire Department has a contract drafted, which a master or agent must sign prior to receiving fire fighting assistance. The contract specifies the cost of services and that the expense will be paid by the vessel's owner/agent. The Longview Fire Department has mutual aid agreements with the Cowlitz County Fire Districts No. 2 and No. 5. This agreement binds the signatory departments to respond only to those areas within the jurisdictional boundaries of the department requesting assistance. In other words, if one department enters into a fire protection agreement with a facility that is not within the department's jurisdiction, the other fire departments are not bound to respond to mutual aid requests to assistance at that facility. This situation presently exists in portions of the Longview waterfront. However, contracts are in effect which make provisions for fire departments who normally respond to mutual aid requests to respond to these facilities and be reimbursed for costs incurred.

The Kalama area has three major waterfront facilities: the Peavey Grain Terminal, Kalama Chemical, and the Harvest States Cooperative Grain Terminal. The grain terminal is not within the city limits. However, it has an agreement with Kalama Fire Department for fire protection of the facility. The Kalama Fire Department does not have the capability to respond to shipboard fires. A similar problem with mutual assistance agreements as outlined under the Longview section exists here also. The grain terminal is not within the Kalama Fire Department's normal jurisdiction, and mutual aid agreements which Kalama has signed are not in effect should a fire break out.

The Aberdeen Fire Department responds to all fires at waterfront facilities and aboard vessels moored to those facilities. The local fire departments of Hoquiam, Cosmopolis, and Westport will also respond to waterfront fires. All four fire departments have entered into a mutual aid agreement and will pool their resources in the event of a significant emergency.

The Astoria Fire Department will respond to all fires along the waterfront, as well as aboard ships. Fire fighting personnel have received specialized training and equipment for shipboard fire fighting from MFSA. The fire department is an active participant in MFSA, as are the other fire districts along the Columbia and Willamette Rivers.

The Coos Bay and North Bend Fire Departments will respond to all fires along the waterfront and aboard ships. Both fire departments have entered into a mutual assistance agreement with each other.

The Newport Fire Department, with the assistance of the Coast Guard Station Yaquina Bay, responds to all marine fires in the local area. Newport has a mutual assistance agreement with Toledo, Oregon.

Refer to Annex III for specific information on each port and fire department.

8216.7 Vessel/Facility Owner Policy

8216.8 Incident Commander

8217 Plan Review And Update

MSO Portland is tasked to annually review and update this Plan. The review will ensure that changes in personnel, telephone numbers, available resources, U.S. Coast Guard policy, laws and regulations, or any other relevant information is accurately reflected. Exercise lessons learned will also be incorporated in this Plan.

8218 Exercises/Drills

Coordination between agencies requires knowledge of the capabilities of each participating agency. Those personnel who are expected to be involved in the response effort should devote time to understanding the response organization and methods utilized by other agencies. Exercises with other fire fighting organizations should be conducted annually. The results of these interactions should be used to further update and fine-tune this plan. Typically, MSO/Group Portland participates with MFSA and marine response exercise annually.

8219 Training

Part of every effective contingency plan is the design and implementation of a training program. Coast Guard personnel rarely encounter actual firefighting. Therefore, to overcome apprehensions and develop expertise, a systematic training program is essential.

Individual Coast Guard units should maintain in-house fire prevention and firefighting training programs to improve skills and familiarize personnel with relevant concepts and Coast Guard equipment. In addition, unit training programs should include familiarity with the Marine Safety Manual, Volume VI, Chapter 8 and Integrated Command System (ICS), and NFPA 1405.

There are some resident marine firefighting training providers in the Pacific Northwest. For certain USCG unit personnel, these courses are very appropriate.

Fremont Maritime in Seattle, WA provides classes ranging from one-day orientations to five-day advanced classes certified by USCG and IMO for ship's crews. Classes include a balance of classroom and simulation exercises. The USCG written exam for licensed officers is required to pass the five-day advanced course. These classes are relatively inexpensive and very appropriate for Coast Guard personnel.

Washington State's North Bend Marine Firefighting Center in North Bend, WA, is a similar training provider with more extensive simulation facilities. This is a favorite of fire department personnel.

Southwestern Oregon Community College offers training in fire fighting techniques that may be helpful to both Coast Guard and fire department personnel. For a catalog, fees and other course information, contact:

Darrel Saxon, Fire Sciences Coordinator
Empire Lakes
Coos Bay, OR 97240
Phone (503) 888-7296.

Texas A & M University offers several different fire fighting courses that may be useful to MSO personnel. In particular, the Marine Fire Fighting and Emergency Training Course offers a forty-hour, one-week program aimed at providing personnel in marine industry and transportation with expertise in various phases of shipboard fire fighting and emergency procedures. Basic areas of emphasis include fire prevention, fire suppression, and rescue. A schedule of classes and fees may be obtained from the University:

Texas A & M University System
Texas Engineering Extension Service
Fire Protection Training Division
Brayton Firemen Training Field
College Station, TX 77843-8000

Various Navy units throughout the U.S. offer advanced training, which is usually available to Coast Guard personnel. Though in the past, this training has most often been reserved for ships' crews, the value of the training for MSO personnel is obvious. The quality of the schools is excellent and they generally provide extensive practical experience. Navy courses would be appropriate for personnel serving as senior Coast Guard officers onscene and at the CAC. This helps ensure that Coast Guard actions and direction to other parties are appropriate. This is important considering one of the Coast Guard's roles in marine fire response is to advise local fire departments of the peculiarities of marine fire response as opposed to land based fires.

Finally, there is a marine safety training guide for Marine Firefighting Coordinator (MF), a role that a Coast Guard marine safety officer fills on the MSO/Group Portland response team. Currently, the Chief, U.S. Vessel Inspections in the Prevention Division fill this role. This training guide is completed through studying certain reference material and completing certain tasks on OJT. Additional resident training is strongly recommended for this assignment.

All local fire departments conduct continuous training programs for their personnel. This training will often cover all phases of fire fighting from prevention to overhaul and investigation. Considerable attention is also focused on logistics problems.

The importance of cooperation in cross training between Coast Guard units and local fire departments cannot be over emphasized. Personnel become familiar with each other's equipment and methods that will facilitate rapid response action and communications during actual fires. This is why Coast Guard participation in joint fire response exercises is so important.

8220 COMMAND STRUCTURE

The person in charge of a fire fighting response must be quickly identified. As a matter of maritime law and common practice, the master of a vessel is presumed to be in charge of, and capable of, onboard ship operations including shipboard firefighting. Merchant vessels are inspected and seamen are trained to ensure an onboard fire response capability. It is only at the specific request of the master, or when it becomes obvious that the vessel's condition threatens the port's safety or environment, that relieving the master of this responsibility should be considered. In cases in which it is determined that the master cannot or will not effectively take charge, the person in charge will be determined based on the area jurisdiction in which the fire occurs. For example, if a fire occurs in the Portland Fire Bureau's jurisdiction, then a chief fire officer from the Portland Fire Bureau shall designate the person in charge. In the event of a marine fire occurring outside a fire department's jurisdictional area, the Coast Guard could become the On Scene Commander.

Coast Guard response personnel shall be organized under the Integrated Command System (ICS). This is the system utilized by most local fire departments and is well suited for events involving multi-agencies. Refer to Annex I for how the Coast Guard response personnel fit into this structure and ICS forms in Annex XI.

Coast Guard personnel shall not be under the command of a non-Coast Guard Incident Commander. Orders from such an IC shall be passed through and evaluated by the COTP. Only those orders that will not create unwarranted risk for Coast Guard personnel and equipment shall be executed. It should be noted that the relationships among parties involved may change as the fire fighting efforts progress. It should also be noted that regardless of who is in charge of the fire fighting efforts, the COTP would carry out the duties as OSC.

A very important Coast Guard response assignment is the Marine Firefighting Coordinator (MFC). The MFC is the COTP's marine fire fighting technical expert and onscene liaison with response organizations in marine fire fighting incidents. As the COTP's designated representative, the MFC is responsible for the development and coordination of the planning, training, and response objectives of Coast Guard fire fighting assets. In addition to the recommended training for Coast Guard personnel in the Training Section of this Plan, the MFC should undergo advanced training in marine fire fighting strategy/tactics and damage control, and should have completed the appropriate Marine Safety Training and Qualification Booklets. The MFC should also be familiar with ICS and local fire services.

Refer to the Annex II on MSO/Group Duty Watch Structure for details.

8221 Command Staff

8222 Command Structure – Unified Command

8223 Health and Safety Officer

8223.1 Health and Safety Officer On Site

8224 Public Affairs Information Officer

This is an assignment filled by an officer at this Unit. During the marine firefighting exercise Weyco Cargo Dock 97, it was discovered that having the PIO at the scene was very beneficial. This person was able to get familiar with the situation faster and respond to the IC's public affairs needs better. Also, since it is likely the media will want to be on scene, it is better to have the PIO there to greet them. The Unit PIO should still request assistance from D13 when necessary.

8224.1 General Advice on Dealing With News Media

Before the press arrives:

- Ensure only designated persons speak to media;
- Set ground rules i.e. length of interview, topics to be covered, subjects that cannot be discussed;
- Select a couple key points you wish to make.

During the interview:

- Clean and proper uniform;
- In the field, flight and work uniforms are authorized;
- Keep eye contact with the interviewer, not the camera;
- Body language can speak louder than your words.

Your communication:

- Do not speculate or give opinion;
- Do not answer exaggerated or hypothetical questions;
- Avoid speaking for other commands or agencies, refer them to that command or agency;

- Reasons for not answering questions can include classified information, would interfere with ongoing investigation, interfere with a law enforcement case, next of kin have not been notified, you are not the appropriate command or agency to answer;
- There is no such thing as “off the record;”
- If you do not know, say so, then try to offer them somebody who does know;
- Avoid USCG acronyms;
- Never say “no comment,” if you cannot answer, say why;
- Do not just give one-word answers, explain a little;
- Do not let reporters put answers in your mouth;
- Turn negative questions into positive answers, remember the reporter’s questions will typically not appear on the news, only your answer;
- Do not let a rude reporter get to you, be polite and never show anger or sarcasm;
- Always end the interview on a positive note.

8224.2 Logistical Concerns for Press

8224.3 Media Contacts

8224.4 Media Addresses

8224.5 Joint Information Center

8224.6 News Release Samples

8224.7 Sample Fact Sheets

8224.8 Sample Press Release

8224.9 Sample News Advisory

8224.10 Checklist

8225 Legal Officer

8226 Marine Firefighting Coordinator

This role is assigned to a marine safety officer who has a high level of expertise in marine firefighting. This person advises the other agencies in aspects of firefighting peculiar to the marine systems i.e. stability, vessel equipment, etc. During the Weyco Cargo Dock 97 exercise, this person was at the Command

Post and his assistant (a duty inspector) was on board the vessel advising the firefighters. It was found that the closer to the scene these officers were, the more valuable their expertise was. Often, these officers saw issues that needed to be dealt with that they would not have known about if they were not there. This valuable contribution should be balanced with the risk of injury or death by being too close to the fire and its inherent dangers. Coast Guard's senior officer should make this decision on watch along with the sensibilities of the officers onscene.

8227 Command Posts

Once it has been decided to allow a burning vessel to enter port, or when a fire breaks out aboard a vessel in port, the need for a coordinated/integrated fire fighting effort is immediately created, because federal, state and local jurisdictions will be involved.

A Command Post will be established on scene by the responding fire department. The USCG OSC or representative should be on hand and maintain communications with Coast Guard resources involved. Other key personnel that would be on hand at the on scene Command Post include the vessel's officers or facility operators, the owner's representative, salvage and clean-up companies, a marine chemist, and port officials. The representatives present should have authority to make decisions to facilitate rapid and proper response.

In addition to the on scene Command Post, MSO Portland's Crisis Action Center (CAC) shall be staffed in accordance with this Plan.

8230 OPERATIONS

8231 Emergency Notifications

The Coast Guard COTP, Portland, Oregon, is charged with ensuring the safety of vessels, waterfront facilities, bridges, and the waterways for all coastal ports and waterways in the state of Oregon, those in Washington south of Queets, Washington (to include Grays Harbor and Willapa Bay), and the Columbia/Willamette Rivers system. Any fires that threaten the safety of vessels, waterfront facilities, bridges, or the navigable waterways within this area shall be immediately brought to the attention of the COTP through the following methods:

- Fire departments, upon receiving notification of a fire that meets the conditions above, are requested to relay the report to the nearest Coast Guard unit. The report is requested even when no Coast Guard assistance is

required or needed. This is necessary, because the COTP has duties that extend beyond fire fighting.

- Coast Guard units, upon receiving notification of a marine fire, shall immediately relay the information to MSO Portland in accordance with CCGD13 SOP. All units shall work closely with local fire departments to maintain communication links and facilitate inter-agency coordination.

MSO/Group Portland would typically be notified at the Communications Center. The OOD would complete the Vessel Fire Action Checklist from the Emergency Operations Manual (refer to Annex I for this document) with information supplied by the party making the notification. It is extremely important to get sufficient accurate information about the incident. However, this should be balanced with the urgency of the situation. If the notifying party is actually involved in the incident, one should understand their urgency to respond to the fire. Questions to the notifying party should be relevant and sensitive to the situation. Relevant information might include name of vessel/facility, type of vessel/facility, location of vessel/facility, extent of fire, available firefighting equipment, hazardous material, amount of oil on board, response action taken so far, number of crewmembers or facility personnel, injuries/fatalities, vessels and/or facilities nearby, and what other parties have been notified.

8231.1 MSO/Group Portland Internal Notifications (OOD Checklist)

The OOD would notify all the internal MSO/Group personnel listed on the Vessel Fire Action Checklist.

8231.2 Notification of External Parties

To ensure the timely development and coordination of fire fighting and marine safety resources, it is essential that all involved parties are promptly notified of marine fires under their jurisdiction. This could include other federal and state agencies, local fire departments, port authorities, local law enforcement agencies, private consultants and response organizations (marine chemists, salvage and environmental companies) and affected private parties. Various annexes in this Plan contain phone numbers of such parties. Local Port Authorities should be consulted during the planning stage to discern whether a burning vessel may be brought into their area. Phone numbers for Port Authorities are contained in Annex IV. Phone numbers for emergency services organizations are enclosed in Annex IV. Their services may be invaluable, particularly if an area must be evacuated or cordoned off to facilitate firefighting efforts.

The Public Information Officer shall field information requests from the press. If necessary, assistance may be obtained from the Thirteenth District Public Affairs staff.

8232 Burning Vessel Movement Considerations

A crucial decision that must be made by the COTP is whether or not a burning vessel should be allowed to enter or move within the port. Types of vessel movements that may be required in an emergency include movement from sea to an anchorage or a pier; from an anchorage to a pier; from a pier to an anchorage; grounding a vessel; or scuttling a vessel offshore.

These vessel movements should be thought out in advance and rehearsed as often as possible to ensure a rapid and considered response in the event of a real incident. Annexes VIII and IX provide much of the details needed to determine moorage, anchorage, grounding or scuttling sites, and response efforts.

8232.1 Decision To Allow A Burning Vessel To Enter Port Or Move Within The Port

Due to the limited resources available to fight an offshore fire, the COTP may be forced to consider allowing a burning vessel to enter port. The numerous considerations that are part of this decision can be found below, as well as in Volume VI of the Marine Safety Manual (MI6000.11). In addition to annexes VIII and IX, the information in Section 8600 concerning liability and surety bonds should be reviewed and considered as part of this decision.

The amount of information and number of considerations may seem too complicated to resolve in an emergency, but it is important that a thorough analysis of all risks be conducted. This is to prevent concern for a single vessel from narrowing our vision. We must remember a burning vessel is only a small part of the resources (other ships, ports, facilities, personnel, and marine environment) that must be protected. The COTP should approach such an incident by considering the navigable waterways as a system used by various parties for transportation, recreation, and commerce. The most important consideration must be how the overall system functions. A burning vessel must be considered as only a single element within that system. The COTP must not jeopardize the other elements to save a single vessel, if the risk to the system is too great. The possibility of having a ship sink in a key navigation channel, thus blocking it, or spreading the fire to a waterfront facility, must be evaluated.

There are numerous considerations that the COTP should evaluate when faced with the decision of whether or not to allow a burning vessel to enter or move within a port. The following information should be gathered and considered prior to making such a decision:

- Location and extent of fire,
- Status of shipboard firefighting equipment,
- Class and nature of cargo (HAZMAT),
- Possibility of explosion,
- Possibility of vessel sinking/capsizing,
- Hazard to crew or other resources where vessel is present,
- Forecasted weather (including bar conditions if applicable),
- Maneuverability of the vessel (i.e. Is it a dead ship, etc.),
- Availability (and willingness) of assist tugs,
- Effect on bridges under which the vessel must transmit,
- Potential for the fire to spread to the pier or pier structures,
- Firefighting resources available ashore and offshore,
- Consequences/alternatives if the vessel is not allowed to enter or move, and
- Potential for pollution.

The above considerations should be investigated by the fire department chief and COTP by examining the vessel and her cargo manifest before the vessel is allowed to enter port or move within the port.

The COTP should make a decision only after consultation with the Fire Department Chief, Port Director, Local government officials (i.e. Mayor, Director of Emergency Services), vessel owner's agent, and other experts to be consulted depending on the circumstances.

Entry to port or movement may be permitted when:

- The fire is already contained or under control,
- There exists little likelihood that the fire would spread,
- A greater possibility exists that fire could and would be readily extinguished with available equipment in port before encountering any secondary hazards of explosion or spread of fire
- All relevant parties consulted.

Entry to port or movement may be denied when:

- There is a greater danger that the fire will spread to other port facilities or vessels,
- The likelihood of the vessel sinking or capsizing within a navigation channel, and becoming an obstruction exists,
- The vessel might become a derelict,
- Unfavorable weather conditions preclude either the safe movement of the vessel under complete control or would hamper firefighting (look for high winds, fog, strong currents, etc.),
- Risk of a serious pollution incident by oil or hazardous substances exists; the COTP, in conjunction with Thirteenth Coast Guard District (m) and the Regional Response Team (RRT), shall assess the pollution risks and determine whether they are to be ordered to proceed to sea to reduce the pollution hazards.

Additional considerations:

- Safety broadcast and Notice to Mariners,
- Ordering the movement of other vessels or cargo that may be impacted,
- Locating the vessel to best facilitate use of available resources.

8233 Offshore Firefighting Considerations

In addition to the problems associated with any shipboard fire, an offshore incident is further complicated by the poor flow of information and difficulties in

supplementing the vessel's firefighting resources. Reports from the vessel may be confusing due to the language difficulties or the simple fact that the crew is too busy fighting the fire to provide detailed information. Until additional resources can be brought to bear, the vessel's firefighting equipment and crew will be the only resources available. Additional resources in the form of public or private vessels may not be close enough to respond in a timely manner and may be ill equipped to provide significant assistance. Therefore, the farther offshore a burning vessel is the less external aid it shall receive, but the less impact it has on vessel traffic and port operations. The closer to shore or a port a burning vessel is the more aid it is likely to receive, while its impact on vessel traffic and port operations is greater. In both cases, SAR would be Coast Guard's most common response.

8233.1 Coast Guard Offshore Resources

During an offshore fire, ships and aircraft become important resources. Aircraft may provide a timely source of information during the early stages of a response and can be used for personnel or equipment transfers. Coast Guard vessels are limited in their ability to assist in a shipboard fire, but are much better equipped than commercial vessels and have damage control teams that are drilled regularly in shipboard firefighting. In addition to improving communications, larger Coast Guard vessels with flight decks can be used to stage equipment flown to the scene. Strike Force personnel and equipment can be useful in firefighting and dewatering evolutions. All requests for Coast Guard equipment (including ships and aircraft) and supplies, whether from within the COTP Portland area or not, should be directed to the Thirteenth District Command Center.

8233.2 Department Of Defense Offshore Resources

Firefighting equipment available from various Department of Defense (DOD) sources is provided in Annex V. In addition to the transportation capabilities discussed there, DOD aircraft and vessels can be invaluable in an offshore fire situation for the same reasons discussed for Coast Guard assets. The possibility of Naval or Army Corps of Engineers vessels operating in the vicinity which can assist should not be overlooked. All requests for DOD assistance should be made to the DOD representative on the Regional Response Team, via the Chief of the Marine Safety Division of the Thirteenth Coast Guard District.

8233.3 Other Offshore Resources

Any ship becomes a valuable resource during an offshore vessel fire, even those with small crews and minimal firefighting capability. At a minimum, another

vessel can provide a means of escape for a burning vessel's crew should their efforts to control the fire fail.

Vessels in the area may be notified of a situation via AMVER or with a Broadcast Notice to Mariners. Tug companies in the vicinity may assist in fighting the fire, moving a dead ship or transporting equipment. While few vessel operators would be reluctant to assist in a life-threatening situation, vessel owners may not be willing to respond to a firefighting situation that could risk their vessels or crew in order to protect a ship or cargo once the crew is safe.

8233.4 Offshore Scuttling Area Selection

If a vessel cannot be safely moved to a port, and it is possible that the vessel and cargo could be lost (either intentionally or not) the vessel should be moved to an area where environmental damage will be minimized. The information in this section should be reviewed to identify the best area to move the vessel. The Environmental Protection Agency should also be consulted on any decision concerning scuttling of a vessel. Scuttling must be conducted IAW COMDTINST 16451.5 and 40 CFR 229.3. See the Annex on Scuttling Areas for specific locations.

8234 Positioning A Vessel For Firefighting

This section addresses the positioning of a vessel that is on fire while underway, or a vessel that is docked. No vessel on fire should be moved without the permission of the COTP, except under the most urgent conditions.

The success or failure of a shipboard fire response effort will, in large part, be determined by the vessel's location. The likelihood of successfully fighting a fire on a remotely located vessel is small compared to a vessel located near sufficient sources of firefighting resources.

8234.1 Pier Selection

Several considerations enter into the selection of piers as a location:

- Paramount is the combustibility/flammability of pier structures and contiguous facilities,
- Availability of high-pressure water
- Access to response boats and vehicles,
- Minimizing risk of impeding navigation, and
- Risk to nearby vessels and facilities.

Much of the information needed to determine the suitability of a facility is in the facility survey file maintained by the Prevention Department.

8234.2 Anchorage And Grounding Site Selection

When choosing anchoring or grounding locations, some of the same factors must be considered, as well as its effect on navigation. The possibility of the vessel sinking or becoming a derelict is very real and could prove a greater harm to the marine system than the loss of the single vessel. Other important considerations are:

- Bottom material – soft enough so that the ship's hull will not be ruptured;

- Water depth – shallow enough so that the vessel could not sink below the main deck level, yet deep enough so that fire boats, salvage barges, and tugs can approach; tides and other river level fluctuations must be considered;

- Area weather – do not choose areas known to have strong winds or currents that could hamper firefighting or salvage efforts.

The location and suitability of boat ramps and piers to be used as staging areas must also be evaluated when considering grounding or anchorage sites.

Refer to Annex VIII on specific grounding and mooring sites.

8235 Response Actions

Size-up is one the initial and critical actions taken in response to a marine fire. This involves evaluation of available facts and probabilities. The size-up consists of six steps to rapidly form a deliberate plan of action:

- Gather facts,
- Assessing probabilities,
- Determining resources
- Applying basic fire fighting principles
- Deciding a course of action, and
- Formulating a plan of operations.

Pertinent facts might include location of fire, location of crew/personnel, acquiring vessel fire plan, vessel/facility condition, stability issues, type and condition of cargo, and response equipment available.

The COTP, Portland, Oregon, has developed a comprehensive response plan designed to best accomplish Unit members' marine safety duties while being consistent with current directives and guidelines regarding fire fighting. Often a marine fire incident can generate confusion among the involved agencies, which could well prove disastrous. This can be overcome by designing plans of action in conjunction with the involved agencies that detail the actions and responsibilities of each of them.

The Captain of the Port is responsible for Coast Guard response efforts to a vessel fire. The COTP has overall control of all Coast Guard forces and equipment involved in the response to a marine fire. However, a vessel fire may be initially treated as an SAR case under control of the assigned SAR Mission Controller until a determination of the situation has been made by on scene forces as to the status of the vessel and its crew, the extent of the fire, ongoing response efforts, fire department and other agency involvement, and other pertinent information. At this time, the COTP Portland may assume the duties of On Scene Coordinator and carry out his/her responsibilities accordingly.

The choice among courses of action delineated below is based upon where the incident occurs with respect to the limits of the various fire department jurisdictions, the COTP area of responsibility, the MSO/Group Portland SAR zone, and the Coast Guard policy as described in the Marine Safety Manual.

For more detail on MSO response procedures, refer to the Annex I on Marine Fire Response Procedures.

8235.1 Coast Guard action in a Fire Department's Jurisdiction Within Group

8208 Portland's SAR Zone and COTP Portland's Zone

The response action to be taken in any fire department jurisdiction in Group Portland's SAR zone follows:

- Upon the receipt of a report of fire, the Coast Guard Communications Center watchstander shall notify the OOD, who shall complete the Vessel Fire Action Checklist.

- The OOD shall notify designated personnel on the checklist.

- Coast Guard personnel shall respond as directed by Annex I.

- The appropriate fire bureau shall be contacted if they have not already been advised of the fire. If the fire is in the Portland Fire Bureau's, Longview, or St. Helens Fire Department's area of jurisdiction, one or more fireboats will likely be dispatched to the scene. Communications shall be established on Channels 16 or 22A between the MSO's UTB (if dispatched) and the fireboats.

- If the fire occurs in the jurisdictional area of a fire department that does not have a fireboat, it should be determined whether the local fire department has sought any outside assistance from Portland, St. Helens, or Longview Fire Departments. If no outside assistance has been sought, the options available should be presented to the local fire department, and a plan of action should be coordinated with the Coast Guard if necessary.

- Unless involved in a serious SAR case, the OOD shall dispatch a boat to the scene immediately. If available, the UTB should be selected. This should occur regardless of whether or not the fire department requests USCG assistance. The boat crew should be rapidly briefed concerning the extent of the fire.

- Response team personnel, acting as On-Scene Coordinator's representative shall be dispatched to meet with the Fire Department Incident Commander in charge of shoreside operations. This will provide a communications link between the COTP and the Fire Department. Orders for coordination of Coast Guard fire fighting activities at the scene shall be passed through the Coast Guard shore response team (On-Scene Coordinator's representative). Communications shall be established between the shore response team (OSC rep), the MSO, and the UTB, on Channel 83 VHF-FM, or by cellular telephone.

- Issue a safety broadcast, or Urgent Marine Information Broadcast (UMIB) to advise the maritime community of the fire and presence of waterborne fire fighting units on-scene.

- As a general rule, MSO Portland will provide fire fighting services as requested by the fire department unless, in the opinion of the shoreside Coast Guard On Scene Coordinator or coxswain, they are beyond the capability of the boat, either because of the boat's characteristics, inadequate personal protective equipment, or low experience level of the crew. All actions shall be reported to the OOD at the time services are

requested. Coast Guard forces shall never take action without the approval or at the request of the shore-based Incident Commander. Where Coast Guard fire fighting services are not needed, the Coast Guard boat shall remain on scene to direct marine traffic or provide such other services as appropriate.

- If a fire is reported to be ashore at or on a ship at a grain elevator or oil terminal, the following actions will be taken:
    - Unaffected vessels moored to the facility are to be moved immediately, with or without tugs and pilots, depending upon circumstances. A COTP order may be required.
    - Movement of other vessels in the area will be considered based upon degree of risk.
    - Pilots and tugs are to be deployed as early as possible.
- Vessels moored at other types of facilities involved in a fire may be moved based upon the degree of danger to the vessel.
- Coast Guard personnel will board all vessels in a fire area and inform the Senior Deck Officer to secure ship operations and be prepared to get underway.
- Inform the local agents of vessels involved in the incident of the situation and any anticipated movement of their vessels.
- Vessels to be moved are to be directed to a harbor, anchorage, or another dock away from the fire area.
- If appropriate, a safety zone will be established for the protection of vessels, water, and shore areas.

Additional considerations if the fire is within the Portland Fire Bureau's jurisdiction follow:

- The fire department dispatcher will immediately call the MSO Portland Communication Center concerning any waterfront fire or incident. Our communications watchstander shall alert the OOD and other appropriate personnel.

- Our first notification may not originate from the fire department dispatcher, as that person is often unable to complete all the notifications until additional help arrives. In those cases, our first notification may come from the fire boat en route to the scene via Channel 16.

- Fire fighting is the primary responsibility of the city government, operating through the fire department. Overall fire fighting control will be under the direction of the shore-based fire Incident Commander on scene. The Portland Fire Bureau no longer has a marine division, and consequently, the command and control of all fireboats also falls under the shore-based fire Battalion Chief on scene. The Coast Guard small boats responding will have direct communications with Portland Fire Bureau fire boats (Channels 16 or 22A) and the Coast Guard On-Scene Coordinator (Channel 83) positioned with the shore-based Battalion Chief.

8235.2 Coast Guard Action Within Fire Department Jurisdiction Within COTP Portland's Zone But Outside of Group Portland's SAR Area (Grays Harbor, Astoria, Coos Bay, and Newport)

The response actions for a marine fire within fire department jurisdiction and within COTP Portland's zone but outside Group Portland's SAR area follows:

- Upon notification of a waterfront fire, verify the report and ensure the appropriate fire department has been notified.

- Complete the Vessel Fire Action Checklist. The OOD and designated personnel shall respond as directed by Annex I.

- Coast Guard SAR forces on scene shall:

    - Keep COTP, Portland, Oregon, informed of the situation in accordance with CCGD13 SOP.

    - Provide transportation for MSO personnel to the vessel, if necessary.

    - Assess the situation as to potential water pollution threat to facilitate report messages (POLREP's) as necessary.

    - Report to the senior fire department official and establish communications.

    - Keep a log of times and key events of the incident.

8235.2 Fire Occurring Outside a Fire Department Jurisdiction But Within COTP

8209 Portland's Zone

There are numerous fire departments and fire districts along the lower Columbia and Willamette Rivers. There are also a great number of districts along the coastal regions of COTP Portland zone. However, it is still possible that a vessel fire could occur in an area not within any fire department's jurisdiction. (The jurisdiction of some fire departments ends at the end of the dock or the high water line.).

If a vessel fire occurs outside one of these jurisdictions (i.e. upper Columbia and Snake rivers, coastal waters, and certain portions of the lower Columbia River), the COTP Portland would assume On-Scene Coordinator responsibilities and direct Coast Guard resources through the On-Scene Coordinator and coordinate the response effort with other fire departments and agencies.

Under special circumstances, a Portland Fire Bureau fireboat may be dispatched to an area outside of their normal fire fighting jurisdiction to assist other agencies. Requests for such assistance should normally be directed to the Portland Fire Bureau. A strong argument for Portland Fire Bureau involvement in the lower Columbia River exists because of the drastic impact a blockage of that area would have on the Port of Portland.

The Fire Bureau will consult with the appropriate city commissioner or mayor to secure permission to respond. Additional means of obtaining equipment or assistance from one area of Oregon and providing it to another area would be accomplished by the invocation of the "State Conflagration Act" (ORS 476-510-476.610), which may be invoked by the Governor (Contact the Oregon State Emergency Services, at (503)378-4124.).

At this time, Washington does not have a State Conflagration Act. However, some mutual aid agreements exist.

8236 Safety Zones

To secure the safety of waterfront facilities and vessels, the COTP may find it helpful to control or restrict traffic in the affected areas.

COMDINST 3170.3 describes the characteristics of limited access areas, including safety zones, security zones, restricted areas, and regulated navigation areas. Authority is granted to the COTP to establish safety zones by

the Ports and Waterways Safety Act (33 USC 1221 et seq.). A safety zone could be established around a burning vessel to facilitate access for fire or rescue units and to protect uninvolved persons or vessels, or it could be used to ensure the safer transit of a vessel carrying a dangerous cargo. They are intended to be established on a temporary, and usually, emergency basis to deal with a situation beyond the scope of normal safety and security measures.

8237 Communications

Communication between response team members and other agencies is critical. Mobile phone numbers and radio channels must be pre-assigned and periodically confirmed and tested during exercises. Consideration should be given to steel hulls inhibiting radio transmission with alternated comms planned ahead of time.

The FCC has assigned 154.126, 154.260, and 154.290 MHz as the Fire Mutual Aid Radio Systems (FMARS) frequencies for multi-agency response to a common incident.

Spare batteries, recharging capability, spare radios and mobile phones should be available in case the incident lasts longer than anticipated or the number of response personnel is greater than expected.

Lessons learned from the fire response exercise Weyco Cargo Dock 97, showed that the mobile phones were invaluable. Also, the radio channels assigned must be confirmed periodically throughout the event, as it may become necessary to change them as more personnel arrive and overcrowd the originally assigned frequency.

8238 Stability

Vessel stability can be defined as its ability to right its self from an inclining position. During firefighting, excess water onboard can create flooding and free surface effect. This could prove disastrous for the vessel leading to list and even sinking. Since local fire services do not typically have training in this field, there is substantial risk that this could occur. This is the area of expertise that other response agencies will depend upon the Coast Guard to contribute. The MFC would typically be the USCG officer who would provide this advice. If nobody from the Coast Guard is available for this role, a naval architect/engineer should be identified to be available for such advice. Good references abound on this topic. At a minimum one should refer to NFPA 1405.

8240 PLANNING

8241 Introduction

U.S. Coast Guard policy advocates extensive use of contingency plans as tools to assist local commanders in accomplishing their many tasks. Some of the aims of contingency planning are detailed in the Marine Safety Manual and include:

- To prevent damage, destruction, and loss of life by minimizing the probability that an event will occur;
- To minimize damage or destruction through prompt detection, immediate response and implementation of corrective action;
- To improve decision-making of the Incident Commander;
- To provide training to personnel participating in response, mitigation, and coordination phases of a marine emergency;
- To maintain liaison with appropriate federal, state, and local organizations.

Some specific objectives of contingency planning follow:

- To prevent loss of life or personal injury, damage and destruction of vessels, cargoes, structures, and facilities in U.S. ports and waterways, and damage to the marine environment, by reason of accidental, intentional means, or natural phenomena;
- To maintain safe, secure, and orderly continuation of marine traffic and the acceleration of such traffic, if so required by national interests, in the face of accidental, intentional or natural disasters;
- To maintain adequate training through planning prior to a marine incident;
- To maintain continual contact with local agencies having interest in or responsibilities for a specific event and maintain a check on their resource capabilities and limitations;
- To outline Unit capabilities and limitations with respect to available resources through all phases of the event.

8242 Inclusion in Area Contingency Plan and Geographical Response Plans

Change 4 to Volume VI of the Coast Guard Marine Safety Manual directs the revision of Marine Fire Fighting Contingency Plans and the integration of those plans into the Area Contingency Plan.

8243 Annual Review and Update

Every year this Plan shall be reviewed for accuracy and coherence with District and Commandant guidance. Also, any lessons learned from exercises and real life fire response shall be incorporated in this Plan. Possible exercise scenarios follow:

- Waterfront facility (break bulk or bulk liquid
- Freight vessel (break bulk or container)
- Tank barge
- Tank vessel (cargo tank or engine room)
- Bulk solid cargoes (cargo or engine room)
- Passenger vessel
- Liquefied gas carrier.

8250 LOGISTICS

8251 Equipment lists by port are included in Annex IV.

8260 FINANCE

8261 Funding

In general, funding for USCG firefighting activities must come from Coast Guard Operating Expense (OE) funds. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) Trust Fund, and the Oil Spill Liability trust Fund (OSLTF) may be available to reimburse firefighting expenses. CERCLA and OSLTF funds are only authorized for pollution related activities, so pollution must occur as a part of the fire incident.

8262 Liability/Surety Bond/COFR

When a vessel's Master or other representative desires to enter a port with the hopes of saving the vessel and cargo, the owners, master, and agents should be required to indemnify and hold harmless the port, its board, and federal/local governments for damage or injury suffered as a result of such a fire or movement of the vessel.

A surety bond should also be required. The amount of the bond should be at least equal to the estimated cost of removing the sunken vessel from the port. The vessel's liability for oil removal costs should be covered by an insurer, as evidenced by a valid Certificate of Financial Responsibility (COFR), if the vessel is over 300 GRT. This COFR should be verified before the vessel is allowed to enter port. The Prevention Department shall provide assistance regarding the COFR.

Liability insurance covering damage the vessel may cause to other property should also be investigated since the possibility exists that the vessel could set fire to other vessels or facilities. Litigation might ensue against the agencies that allowed the vessel to enter the port holding them responsible for damage caused by the burning vessel. The assistance of the District legal officer should be sought to avoid legal problems that could involve the Coast Guard.

It should be noted, however, that while the above assurances are highly desirable, the timely acquisition of the necessary bonds or insurance may not be possible before the action required to save the vessel is taken.

8270 FOR DISTRICT/AREA COMMITTEE DESIGNATION

8280 FOR DISTRICT/AREA COMMITTEE DESIGNATION

8290 RESERVED FOR FUTURE HEADQUARTERS DESIGNATION

CHAPTER 9000

AREA PLANNING DOCUMENTATION

Chapter 9000 Table of Contents

9000 AREA PLANNING DOCUMENTATION

9100 RRT & Area Committee Membership

The Northwest Area Committee is a consolidated body made up of federal and state representatives with jurisdiction in Washington, Oregon, and Idaho. While each area committee retains jurisdiction over and legal responsibility for its area, the Northwest Area Committee meets and functions as a unified organization addressing spill preparedness and planning in the Pacific Northwest. The Northwest Area Committee solicits advice, guidance, or expertise from all appropriate sources and establishes workgroups as necessary to accomplish preparedness and planning tasks. The Northwest Area Committee directs development and maintenance of the Area Contingency Plan.

9110 RRT Co-Chairs

U.S. Environmental Protection Agency
Chris D. Field
Chief, Environmental Cleanup Office
EPA Region Ten
1200 Sixth Avenue
Mail Stop ECL-116
Seattle, WA 98101
Office telephone: (206) 553-1674

U.S. Coast Guard
Captain J.E. Veentjer
Chief, Marine Safety Division
13th Coast Guard District
915 Second Avenue
Seattle, WA 98174

Office telephone: (206) 220-7220

When the RRT is activated for response actions, the chair shall be the member agency providing the OSC/RPM in accordance with 40 CFR 300.115(c).

9111 On-Scene Coordinators (OSCs):

Response operations dealing with emergencies involving discharges of oil or hazardous substances requiring a Federal lead, will be carried out by predesignated On-Scene-Coordinators, as identified below:

Inland Area: Environmental Protection Agency

<u>Seattle, WA</u>

Bill Longston
Carl Kitz
Beth Sheldrake
Mike Sibley
Thor Cutler
Jeff Rodin
Tony Barber

<u>Boise, ID</u>

Greg Weigel

EPA On-Scene Coordinators:
(24-hour number): (206) 553-1263

Coastal Area Coast Guard

Commanding Officer
U. S. Coast Guard
Marine Safety Office Puget Sound
1519 Alaskan Way South
Seattle, WA 98134
(206) 217- 6232

Commanding Officer
U. S. Coast Guard
Marine Safety Office Portland
6767 North Basin
Portland, OR 97217
(503) 240-9301

9112 Federal Representatives

<u>Department of Agriculture</u> (U.S. Forest Service)

Representative:	Mr. Joe Stutler	
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<u>Department of Commerce</u> (NOAA)

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Department of Defense (United States Army)

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Department of Energy

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Department of Health and Human Services

Representative:		CDR. Steve Scott, MD
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Department of the Interior

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Department of Justice

Representative:		Mr. James L. Nicholl, Jr.
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<u>Department of Labor</u> (OSHA)

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Alternate Rep:		CAPT Scott Davis
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Environmental Protection Agency

Representative:		Mr. Chris D. Field
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9113 State Representatives

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State of Oregon

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9114 ASSOCIATED MEMBERSHIP

Federal Representatives

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Department of Defense

United States Navy

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Federal Highway Administration

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9120 Area Committee Organization

The Northwest Area Committee is jointly chaired by the Captains of the Port (COTP) for Puget Sound and Portland and a Regional EPA designate. Washington, Oregon, and Idaho lead response agency representatives serve as co-vice chairs. Members have voice and vote at all Area Committee proceedings. Robert's Rules of Order govern all meetings. Motions will be carried by a simple majority of votes cast by member agencies but most decisions are arrived at by consensus. The Area Committee meets as determined by the membership but at least semiannually. Workgroups meet as necessary. The Area Committee does not constitute a formal Federal Advisory Committee; therefore each agency is responsible for funding its own participation.

9121 Area Committee Members

The Northwest Area Committee includes member-representatives from the following:

Coast Guard Marine Safety Office Puget Sound
Coast Guard Marine Safety Office Portland
Environmental Protection Agency Region Ten
Washington Department of Ecology
Oregon Department of Environmental Quality
Idaho State Emergency Response Commission
National Park Service
Department of the Interior
Department of the Navy
Federal Emergency Management Agency

Participation at Northwest Area Committee meetings includes tribal representatives, public, and other members of the spill response community.

9122 Steering Committee

The steering committee, made up of planners from member agencies recommends information to be included in and drafts the ACP. It coordinates research, collects and assembles data, and revises the ACP. The steering group also oversees the overall process, schedules meetings, develops agendas and oversees all workgroups.

9123 Workgroups

Workgroups are established as needed to address specific subjects, unique problems, etc. Membership on these workgroups may include representatives from industry, environmental groups, cleanup contractors, and other interested parties. Workgroups may include facility owners/operators, shipping company representatives, cleanup contractors, emergency response officials, marine pilots associations, academia, environmental groups, consultants, response organizations, and concerned citizens. Local community members may be a valuable source of information for workgroups regarding local knowledge of resources, oceanographic, weather and logistical problems.

9123.1 Joint Information Center

This group provides a forum for the spill response community to discuss issues relating to public affairs and press coverage in advance of a response. Among the issues the group addresses are use of a Joint Information Center (JIC), review and approval of press releases and coordination of contacts with the press and electronic media. This group developed the Information Officer Section of this plan (Section 2220).

9123.2 Equipment and Resources

This workgroup assembles information about response equipment owned by public and private entities in the Area and retains that information in a database. The workgroup developed the Equipment Resources Section located in Section 5511 of this plan.

9123.3 Incident Command System (ICS)

This workgroup reviews traditional incident command system structures in light of unified command principles and determines modifications appropriate to oil and hazardous materials responses. The workgroup makes recommendations on how ICS will be used during a spill/incident in the area. The workgroup establishes criteria for determining suitability of command post locations for a response. The workgroup reviews potential sites, develops floor plans for ICS Sections and develops memoranda

of understanding between facility owners and Area Committee agencies. This workgroup developed the ICS material in this plan (located in Chapter 2000).

9123.4 In-Situ Burn

This workgroup analyzes the information available about the health and environmental effects of in-situ burning and evaluates the risks and tradeoffs (see Section 4600).

9123.5 Communications

This workgroup conducts surveys of communications capabilities and equipment in the area. It identifies gaps in radio and telephone coverage, coordinates frequency management and allocation, and addresses other technical issues such as how to communicate across different frequencies during a response. It is also responsible for developing interagency agreements and memoranda of understanding on communications-related issues. (See Section 5300)

9123.6 Exercise

This workgroup was formed for the purpose of encouraging consistency among agency exercise evaluation programs; developing and distributing a calendar where agencies, facilities, and vessels can announce planned drills and exercises; and determining how information gathered from exercises and evaluations of actual responses can be used to update existing GRP and ACP information. See Section 9200 for additional information.

9123.7 Hazardous Materials

This Workgroup evaluates responses to hazardous substance releases and makes recommendations for inclusion in the Area Contingency Plan. (See section 7000)

9123.8 Geographic Response Plans

This workgroup coordinates the production, maintenance and format of geographic response plans for Oregon, Washington and Idaho. The workgroup strives to achieve similarity among GRPs to ensure rapid implementation (first 24 hour response strategies) in the event of an oil spill in specific geographic locations. This workgroup also considers the issues regarding National Historic Preservation and Endangered Species. The workgroup is to provide documentation and procedures to protect their ecological and cultural integrity for the benefit of current and future generations.

9123.9 Marine Firefighting

This workgroup establishes a process whereby marine firefighting concerns can be addressed by representatives from the U.S. Coast Guard, Washington State

Department of Ecology, local fire departments and other interested agencies. The workgroup will explore the issues of funding, training, liability, MOA's between agencies and other pertinent issues.

9123.10 Shoreline Countermeasures

This workgroup was developed to assess the need for shoreline cleanup; select the most appropriate cleanup method; determine priorities for shoreline cleanup; document the spatial oil distribution over time and maintain internally consistent historical records of shoreline oil distribution.

9200 Plan Review and Process

9210 Plan Implementation

Agencies signatory to this plan must participate in a training process to ensure familiarity with its contents. Other participating agencies are encouraged to use this plan in all response training. Signatory agencies agree to establish an annual training program within their agencies to ensure that all parties:

- Understand and are fully aware of their respective roles and responsibilities.
- Understand their role in the Unified Command System (UCS).
- Understand how their agency coordinates and communicates with other parties and agencies.
- Understand what and where their assignments will be at a spill scene
- Understand the overall level of commitment their agency is to devote to spill response operations
- Understand how they will be notified and when to respond to such notification.

Agency spill responders and key personnel are required to read this plan on an annual basis. Each agency is responsible for regular review of this document. The use of open- and closed-book examinations for training purposes is encouraged.

9220 Exercises

The Federal and state agencies signatory to the Northwest Area Contingency Plan agree to adopt exercise policy consistent with the national guidance on exercise known as the National Preparedness for Response Exercise Program (PREP). The PREP guidance calls for four frequencies of exercises: quarterly, semi-annually, annually, and triennially, depending on the group holding the exercise. Government and industry will hold exercises, each initiating them according to the recommended PREP frequency. The very large, triennial exercises will be scheduled through the National Strike Force Coordination Center (NSFCC). Note that the triennial exercises are scheduled based on Federal jurisdiction. Therefore for the Northwest Area, triennial exercises may be scheduled such that one takes place each year since there are three Federal

jurisdictions. However, exercise scheduling will be coordinated to involve multiple jurisdictions whenever possible.

Typically, the groups holding exercises under PREP include oil handling facilities, tank vessels, pipeline, and Federal agencies such as the Coast Guard and EPA. Individual states are expected to tailor the PREP guidance to suit state needs and priorities without altering their approach to the point of inconsistency with the Federal program. For example, the Washington State Department of Ecology will require annual exercises of its oil handling facilities, but this required annual drill will be the same one which meets the Federal requirement. The only difference is that Ecology will likely attend and evaluate the drill while the Federal agencies will see the annual exercise as "self-evaluated" under the PREP approach.

9221 Exercise Scheduling

Exercise scheduling is vital to the success of a national and regional program. Large sums of money and time are involved, particularly for large exercises. Coordinated scheduling allows key players to be available and budgets to be planned. Exercises will be scheduled in two ways depending on their frequency. Large triennial or "Area" exercises as PREP calls them will be scheduled through the National Strike Force Coordination Center in coordination with regional agencies and industry. Smaller annual drills will be scheduled through a clearinghouse working within the Northwest Area Committee. This scheduling function is a task of the Exercise Workgroup.

9222 Exercise Evaluation

PREP sees exercise evaluation as "self evaluation". Federal agencies will likely not evaluate exercises smaller than the triennial "Area" drills, but may attend a sampling of those given. States may attend and evaluate more exercises depending on their staff workloads. Criteria by which Area drills will be evaluated will be established by the NSFCC. Evaluation criteria for smaller, annual drills will be developed by the Exercise Workgroup under the Northwest Area Committee.

9223 Exercise Workgroup

The Exercise Workgroup was chartered in 1994. It is tasked with establishing uniform criteria for response exercises conducted in the Area. Additionally, the group also addresses coordination of exercise scheduling, and promotes the use of Geographic Response Plans during exercises. Workgroup products will be incorporated in an update to this plan.

9224 Exercise Debriefing

Following spill exercises, debriefing sessions are frequently conducted to include all relevant Federal and state personnel. Any other interested personnel from other than

primary response agencies, local responders, and contractors may also be invited to participate in the debrief. Debriefs are driven by original exercise objectives. The debrief may include, but is not be limited to:

- Notification
- Action Plans
- Evaluation and initiation of action
- Investigation
- Operations
- Communication
- Natural resource protection
- Wildlife rescue and rehabilitation
- Site security/traffic control
- Safety
- Public Affairs
- Funding/contracting
- Disposal
- Dispersant use issues
- Conflicts
- ICS

Necessary records of each exercise should be kept for three years. These records shall include dates, personnel present/participating in ICS positions, and a summary of the exercise to be made available to all participants and the public at large. These reports will be used to update this plan.

9230 Revision/Update Requirements

The Northwest Area Contingency Plan shall be reviewed and updated annually by the Area Committee The main volume Area Contingency Plan and all Geographic Response Plans shall be reviewed to ensure all information is current, with particular emphasis on the following areas:

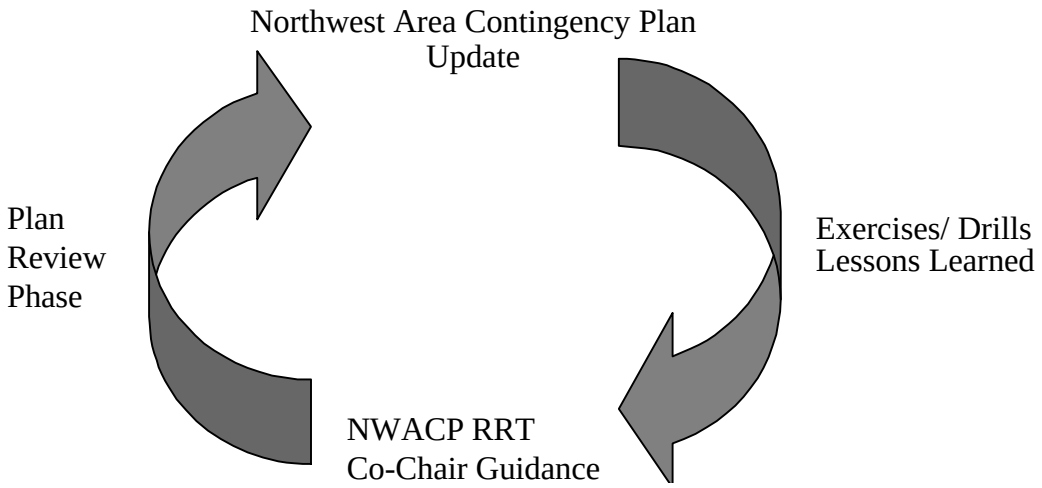
- Emergency notification list
- Response equipment information

(type and amount of equipment available)

9231 Plan Review/Update Process

The Steering Group will receive recommendations for Plan revisions from workgroups, exercises/drills, training, NWACP RRT Co-Chair Guidance and other interested parties at least two months prior to the update cycle. Any substantial changes must be submitted in electronic format.

Northwest Area Plan Update Process



Changes to the plan should be recorded on the Record of Changes page.

9300 Planning Assumptions - Background Information

9400 Spill & Discharge History

9500 SPILL SCENARIOS

9510 General

An important part of contingency planning is anticipating the effects of a spill and preparing in advance for the response to spills likely to occur in the area. This chapter outlines responses to three levels of response scenarios: the worst-case discharge (the complete discharge of a vessels cargo in adverse weather conditions, 35-million gallons), the maximum most probable discharge (the largest historical spill in the area - up to 250,000 gallons), most probable discharge (the "average" spill up to 100 gallons) for each of the two areas covered by this plan (Puget Sound Area, Portland Area), and also a single worst-case discharge scenario for the inland EPA Region Ten Area. Note that scenario discussions are separated by federal jurisdictions. This is because the requirement to develop scenarios is a federal one. These scenarios cover the range of spills likely to occur. At this time, the Area Committee is only required to develop these scenarios for oil discharges. The Area Committee will address scenario development for releases of hazardous substances in a future release of this plan.

9520 Worst-Case Discharge

The worst-case discharge scenario is based on:

- In the case of a vessel, a discharge in adverse weather conditions of its entire cargo.
- For a facility, the largest foreseeable discharge in adverse weather conditions.

For determining the worst-case discharge scenario for a vessel, the largest vessels which call at the ports in the area must be considered. Examination of the vessel routes identifies the hazards and the risks of collision.

For considering worst-case discharge scenarios from facilities, the amount and type of cargo transferred and stored as well as the facilities operating histories is significant.

For coastal waters, only vessel scenarios will be discussed in this release; facility scenarios will be discussed for inland waters and added for coastal waters in a later release.

9521 Historical Spill Considerations

The largest historical spill in MSO Portland's Area was the result of the collision between the tank barge NESTUCCA and her tug OCEAN SERVICE on 22 December 1988 near buoy 5 at the entrance to Grays Harbor, Washington. Approximately 227,000 gallons of bunker C spilled into the Pacific Ocean.

As a historical consideration it is important to note here that larger spills in the Columbia River that eventually reach and depart the mouth of the river will generally move north and even out of the Portland zone.

The largest historical spill in the Puget Sound zone was the result of the grounding of the tank vessel ARCO ANCHORAGE in Port Angeles, Washington on 21 December 1985. Approximately 239,000 gallons of crude oil was spilled into Port Angeles Harbor.

A recent analysis of historical oil spills within the Puget Sound Area from 1981 to 1989, clearly shows that the most common release of oil occurs during fuel transfer processes, most commonly associated with smaller vessels releasing a maximum of several hundred gallons of marine diesel fuel. The few recent larger events include the Arco Anchorage, MCN5 Barge, Nestucca, and Tenu Maru, each discharging petroleum products in the 200,000 gallon range. Discharges from shore facilities are generally related to human error, while larger vessel releases are generally caused by both human error and equipment failure.

9522 Hazard Assessment

There are a number of species of whales, dolphins, and pinnipeds that inhabit the waters of coastal Washington and Oregon. Information about specific effects of direct oil spill contact is uncertain. It appears that smooth-skinned cetaceans can suffer minor skin damage. The effects of oil by ingestion or inhalation are not known. Sea

otters and harbor seals are particularly vulnerable to hypothermia and death from oil contamination.

Of primary concern are threatened and endangered species (bald eagle, peregrine falcon, snowy plover, brown pelican, etc.), anadromous fishes, marine birds and the estuarine habitats (including National Wildlife Refuges) along the coast and at the mouth of the Columbia River. Populations of endangered birds are small and already at risk due to a number of factors, including loss of habitat, disturbance, and contaminant loading. As many as 260,000,000 salmonids use the lower Columbia River each year. Juvenile salmon are particularly sensitive to contaminants as they undergo physiological changes associated with the transition from a fresh water existence to a marine environment. Approximately 400,000 sea birds nest along the coast during the summer months. Sea birds are vulnerable to oil contact as they feed or rest on the sea surface. The estuaries along the coast (Grays Harbor, Willapa Bay, Nehalem Bay, Tillamook Bay, Netarts Bay, and other minor bays) and at the mouth of the Columbia are important ecosystems that provide essential habitat for many species.

In addition to the wildlife concerns, important commercial fisheries exist off the coast of Washington and Oregon, including bottomfish and mid-water, shrimp and crab.

9523 Risk Assessment

Two factors combine to make tank vessels the most probable source of oil in a catastrophic situation: the large amount of oil carried and the hazards associated with vessel movement (grounding, collision, etc.).

The largest tank ships will only be found offshore when loaded, carrying Trans-Alaska Pipeline (TAPS) oil from Alaska to California. Vessels with capacity of more than two million barrels have been used for this purpose in the past, but today, the largest vessel involved in the TAPS trade is a 228,000 DWT tank ship with a 1.7 million barrel capacity. The standard route will keep these vessels no less than 200 miles off our coast provided there is a radio officer on board, otherwise, the vessel would be required to stay within 150 miles from shore.

Fortunately the hazards associated with a vessel operating so far from shore have a much lower probability of occurrence than if the vessel was operating close to shore. There are no islands or shallow areas on which to ground the vessel. The small number of vessels operating in that area reduces the chance of collision. The only other likely incidents which could lead to a large discharge of oil are structural failure, fire, or explosion.

The Puget Sound region and the international waters between Canada and the U.S. are the primary high-risk sites for oil spill incidents in Washington State. Of West Coast ports, Puget Sound has the heaviest vessel traffic and the most dangerous marine conditions. During 1988 alone, large petroleum vessels shipped a total of 243

million barrels of petroleum within Puget Sound and the Strait of Juan De Fuca (186 million by tanker and 57 million by barge). Vessel traffic in the Puget Sound area is primarily directed towards the six major ports and Naval facilities listed below. Historically, a large percentage of the accidental discharges have occurred at these ports while ships were in anchorage or while bunkering. From 1984 to 1989, approximately 37 percent of all reported discharges were from vessels in the vicinity of these ports with an additional 34 percent being reported from undetermined sources located in these areas:

- Port of Seattle
- Port of Tacoma
- Port of Bellingham
- Port of Olympia
- Port of Everett
- Port of Anacortes
- Portland/Vancouver

The ships mentioned above transit the Portland zone, traveling to and from the Portland ship repair yard, but only when empty. Their loaded draft far exceeds the river channel depth. Smaller tanks vessels made 96 visits to the Portland area in 1988 moving a total of 8.6 million barrels of oil.
The largest of these vessels are the 40,631 DWT vessels with 306,897 bbl capacity, and more than half the vessels being 39,836 DWT or larger with at least 275,000 bbl capacity.

The operation of such large vessels within the confines of the Columbia River system creates a relatively high probability of collision or grounding. However, the sandy bottom of the river tends to minimize damage due to grounding. This would not be true if an incident occurred during a Columbia River Bar crossing. A relatively small incident could easily lead to the total loss of a vessel. Of course, fire, explosion and problems associated with the transfer of cargo could also lead to discharges of oil. An incident at the Columbia River Bar is relatively likely and the possibility of a total loss of a tank vessel is not inconceivable. Fortunately, oil could only enter the river during a flood tide, and could only travel upriver as far a Pillar Rock (river mile 22) as that is as far upriver as the river surface flow actually reverses.

9524 Worst-case Scenario 1

The following description is a hypothetical incident. Locations and events described are for planning and evaluation purposes only.

9524.1 Situation

A fully-laden, inbound tank vessel is involved in a grounding at Buckeye Shoals in Rosario Straits of Puget Sound. Damage to the vessel is extensive. All of the vessel's

tanks have been ruptured, as well as the engineering spaces and the pumprooms. Damage has also occurred to the vessel's side plating down the entire length on one side of the vessel. As a result of the extensive damage, the vessel sinks within five hours of grounding, allowing the release of approximately 35 million gallons of North Slope Alaskan Crude Oil into the environment.

- Location: Buckeye Shoals, Rosario Straits, Washington (48-37.27 N, 122-43'.43 W)
- Amount: Approximately 35 million gallons is released.
- Securing Source: None possible
- Areas at Risk: Most of Northern Puget Sound and most of the Straits of Juan de Fuca, including Canada's Vancouver Island.
- Time of Year: March
- Weather: Weather is typically bad for this time of year with heavy rain squalls, limited visibility. Infrequent periods of fair weather occur, providing moderate visibility between rain squalls.

9524.2 Key Assumptions

- Initial containment and recovery operations will commence within six hours.
- All required skimmers and booms will be on scene within 72 hours.
- Weather conditions will not affect operations, nor the type of equipment utilized.
- No resources will be available from Canada.
- Of cleanup gear currently staged in Puget Sound, the following restrictions will apply:
  - 75% of contractor equipment available
  - 100% of Coop gear available
  - 50% of USN Resources available
  - 0% of Facility Resources available

9524.3 Initial Action

A general response strategy is outlined below, and was used to help develop the list of shortfalls.

- Primary recovery efforts will be slanted toward open water recovery by skimming vessels.
- Immediate approval will be sought by the OSC for the use of dispersants.
- The appropriateness of in-situ burning will be evaluated immediately by the OSCs.
- Rigging of defensive boom and skimmers, of those areas projected to be impacted within the first 72 hours, will begin immediately, and is expected to be completed within the first 48 hours.
- Initial booming will in accordance with the Geographic Response Plan (GRP) for the area expected to be impacted within the first 48 hours.
- Containment booming will begin immediately, with the goal being to contain, to the maximum extent possible, the discharge within its projected 48 hour trajectory. In addition, booming shall be placed to channel/deflect that which cannot be

contained, to allow for the maximum opportunity to recover oil from the open water and minimize the beach impacts.

- Skimmers will initially operate in a free skimming mode, and will fall back to become skimming points on the containment boom perimeter.
- It is envisioned that the response organization would consist of one central command center, with 3-4 subordinate command posts.
- All beach clean-up will likely be mechanical means and non-environmentally damaging to the extent possible.
- The federal and state authorities of both the United State and Canada would primarily be interested in reducing the threat of pollution.
- The 1980 International Treaty with Canada would apply. Therefore, salvors of either country would be entitled to conduct operations along the shores of the other country within 30 miles of the international boundary.
- The more recent 1974 Intervention Convention relating to intervention on the high seas in the case of oil pollution casualties authorized the coastal state to take such measures on the high seas as may be necessary to prevent, mitigate, or eliminate grave danger to their coastline from pollution or threat thereof in case of a casualty. While this could complicate the problem for the salvor, the assumption is made that both states will refrain from interfering with prompt efforts by salvors to reduce the threat of pollution.
-

9524.4 Response Organization

This scenario would qualify as a Spill of National Significance. An Incident Command System (ICS) consisting of federal and state authorities in collaboration with the responsible party would execute the cleanup effort.

9524.5 Strategies

See the Geographic Response Plans for North Puget Sound, Central Puget Sound and the San Juan Islands.

9524.6 Resources and Shortfalls

Should a worst-case event occur in the Puget Sound area, it is unlikely that the combined organizations and inventories of the area's federal, state, and local governments and the marine community would be sufficient to mount a successful response. Strike Force resources would be required as well as any and all other resources which could be identified. Due to the practical aspects of logistics, shorelines will be impacted; birds, fish, and mammals will die; multitudes will suffer economically; and a large portion of the area will be ruined aesthetically for a period of time in spite of the best efforts of the best plans and personnel available to manage the response.

9524.7 Disposal Options

Disposal is discussed in Chapter 4000 in some detail. The only additional information that must be taken into consideration is the increase in waste volumes to be expected in a worst-case event. The process and options available remain the same, the level and extent of use are the variables.

9524.8 Time to Clean Up

Obviously projecting clean up timetables is a less than exact science. While one group may decide that the economics of continued action is such that no further practical gains may be expected, other interested parties may feel the task is only beginning. One only needs to look at the five-year old Exxon Valdez spill to see that “cleaned up” is not a physical description but an economic, legal, ethical, and physical description. Should such a worst-case event befall the Puget Sound area, we can expect that even initial full-blown efforts will last for at least six months with some change in the cleanup resources in play. Skimmers and barges will give way to beach cleanup crews and oiled waste hauling and disposal contractors. In future releases of this Plan, a detailed equipment usage timetable and a breakdown of anticipated shortages will be presented.

9530 Maximum Most Probable Scenarios for the Coastal Area (To be developed)

The maximum most probable discharge scenario is based on the size of the largest recorded spill, traffic flow through the area, hazard assessment, risk assessment, seasonal considerations, spill histories, and operating records of facilities and vessels in the area.

9540 Most Probable Discharge Scenarios for the Coastal Area

The most probable discharge scenario is based on the size of the average spill in the area. When determining most probable discharge, any unusually large spill, which would skew the value, was specified to not be included in the average figure.

9541 Historical Spill Considerations

Historically, Seattle, Portland, Tacoma, and the Lake Washington Ship canal have the highest rate of most probable spills. The primary reason is due to an automatic bilge pump discharging dirty bilge water. Other common sources are fishing and recreational vessels refueling at small fuel facilities and freight ships bunkering from barges.

9542 Hazard Assessment

These type spills occur throughout the area, including the ports and harbors of Olympia, Seattle, Tacoma, Everett, Bellingham, Anacortes, Bremerton, Port Townsend, Port Angeles, the San Juan Islands, Vancouver, Portland, Longview, St. Helens, Astoria, Coos Bay, Willapa Bay, Grays Harbor, Umpqua River, and Yaquina Bay. These are all locations where there are marinas, industrial areas, and locations of marine transfer facilities. The pacific Northwest has approximately 16,500 registered fishing vessels, making up 11 percent of the nation's fishing fleet.

9543 Vulnerability Analysis

The most environmentally sensitive areas are those containing wetlands.

9544 Risk Assessment

Spill History tells us that a majority of the most probable spills occur due to a bilge pump from a recreational or fishing boat. The hazard assessment section shows that moorage facilities in proximity to sensitive wetlands pose higher risk. The marina's in the more remote areas also tend to have lower slip fees and often older boats that receive less maintenance or attention. The operation of a vessel in such a state of repair, in proximity to a sensitive wetland, is a considerable risk.

Because of the heavily industrialized nature of Portland, Seattle/Tacoma and the Lake Washington Ship canal, the risk of environmental impact is reduced. Oiling will occur on the surfaces of man-made structures, piers, and riprap. Commercial vessel traffic, local commerce and recreational boating traffic may be impacted if a waterway is required to be closed.

9550 Seasonal Considerations

The worst season for a spill in the Pacific Northwest is springtime. Viable salmon runs may be particularly vulnerable during the months of February and March. Bird migration periods run from x to x.

9560 Most Probable Case Scenario 1

9561 Situation

A small fishing boat sinks during the early morning hours at her mooring in Yaquina bay on an incoming tide.

- Location: The vessel is moored at Newport within the breakwater of Yaquina Bay, Oregon (44-37.5N, 124-03.0W).
- Amount: The boat is sunk with 500 gallons of fuel and 20 gallons of lube oil on board. The fuel is leaking out through tank vents and loose fill caps. A good amount of the lube oil has come out of the open lube oil container.

- Securing Source: Since the vessel is sunk, the source can only be secured by divers or by raising the vessel.
- Areas at Risk: The wetlands of Yaquina Bay and Kings Slough are at immediate risk. Because of the extensive amount of shallows, the bay is very important biologically, playing a vital role in primary production and providing nurseries, breeding grounds, critical habitats, and nesting areas for numerous organisms. The bay sustains a commercial oyster industry and salmon aquaculture industry.
- Time of Year: Late spring.
- Weather: Early morning hours with fog.

9562 Key Assumptions

A key assumption which increases the difficulty of the response and cleanup is that there is no responsible party initially identified.

9563 Initial Actions

The initial report comes from a marina employee who reports the spill to the Coast Guard Station at Yaquina Bay. The amount of oil is not known but the report has described the large extent of the sheen and the visible portions of the sunken boat. The MSO is immediately notified and begins an immediate recall of a response team and staff to address the spill. The local Coast Guard unit is requested through Group North Bend to send a boat to the scene to further investigate. Notifications to the National Response Center, Oregon Department of Environmental Quality, and local government are initiated during the first hour. The response team is dispatched within an hour's time and will drive to the scene.

Between hour and two and three, the pollution investigating team is on scene and, as yet, no responsible party is identified. The small boat station has deployed 150' of sorbent boom partially around the vessel from their supplies. Although darkness and fog hamper the team's efforts at reconnaissance, they are able to estimate the significant extent of the spill. Considering this and the lack of responsible party, the response team reports the need to federalize the case to the FOSC. They recommend immediate notification in order to begin cleanup at first light. Based on the information in the Yaquina Bay Geographic Response Plan (GRP) and on sight observation the response team recommends protection and collection booming as an initial action. A shallow draft self-propelled skimmer or small barge mounted skimmer will also be required. Divers will be required to plug the leaking fuel vents and raise to the boat.

The unified command will set up at the USCG Station on Naterlin Drive. The South Beach Marina will serve as a staging area for the contractor. The Scientific Support Coordinator (SSC) is requested to assist with damage assessment. Coast Guard Air Station North Bend is requested to conduct an overflight on the morning of the first day.

9564 Response Organization

Unified Command as described in detail in Chapter 2 will be established as the response organization.

9565 Strategies

The strategy for containment and cleanup is as follows: During the first day the vessel will be boomed off and protective booming strategies will be assessed and prioritized as per the GRP. Protection boom will be placed at the water intakes of the three fish plants, the Undersea Gardens and the Aquarium. Protection booming will also be placed at the Aqua fish ladder, the South Beach Marina and the Idaho flats Inlets. A double protection boom will be placed from the breakwater to shore to close off the marina. The SSC will assist in determining the shoreline protection & cleanup measures to be taken. The vessel will eventually be raised and removed from the water by the third day.

9566 Resources And Shortfalls

The equipment required will include a shallow water skimmer, several thousand feet of boom, and several cases of oil snares. A contractor from Portland will be hired to bring all of the above and to conduct the salvage of the vessel. Due to recall, loading and transportation, it will require 5-6 hours to arrive on scene. No shortfalls of equipment or personnel are anticipated. The most significant shortfall is the amount of time it will require for equipment to arrive on scene.

9567 Disposal Options

Disposal will be handled by the contractor with no anticipated problems.

9568 Time To Clean-Up

The clean-up is expected to take 3-5 days depending on penetration of oil into the marsh vegetation. All floating oil would be collected during the first two days.

9570 Most Probable Case Scenario 2

9571 Situation

A foreign freighter spills an initial estimate of 500-600 gallons bunker C into the water late on a Friday evening while taking on bunkers on a ebb tide.

- Location: The vessel is moored in the turning basin of the Blaire waterway in Tacoma, WA at the Pierce County Terminal.
- (47-15.2N,122-22.7W,)
- Amount: The initial report of 500 gallons is determined to be low. The estimate is raised to 3,000 gallons the next morning and raised again to 4,000 gallons on the fifth day of the clean-up.
- Securing Source: The source is secured mechanically.
- Areas at Risk: The Blair waterway is a two mile long industrial port area lined by exposed rocky shore or seawall ending a cul de sac turning basin. The areas at risk are somewhat limited by the geography. There is a nesting bird colony on top of the bank of the northern shore which the local community has taken on as their own. The waterway is a salmon run.
- Time of Year: June
- Weather: Late evening with light rain. The air temperature is 45° F and the water temp is 49° F. Winds are light and variable.

9572 Key Assumptions

A key assumption for this scenario is that the foreign freighter is covered by the Washington State Maritime Commission and calls on the Marine Exchange to represent them. The freighter company immediately accepts responsibility for the spill.

The total amount spilled is not initially known. The initial estimate was low and was increased at the first ICS briefing to approximately 3,000 gallons in the water and 500 gallons on deck. The cause of the spill is still undetermined.

9573 Initial Actions

The initial report is made immediately to the Marine Exchange. The prime pollution response contractor is called with an ETA of one hour. The National Response Center (NRC), MSO Puget Sound and the Washington State Department of Ecology area also notified. The tankerman of the bunkering barge notifies his company who immediately calls the Marine Exchange to confirm action by them.
The MSO begins an immediate recall of a response team and staff to address the spill. Between hour one and two, the pollution investigating team is on scene. The contractor is already on scene when they arrive and is commencing a cleanup by booming off the vessel. Darkness hampers assessment efforts but the contractor begins skimming stray pockets of oil outside the boomed area and deploys a secondary boom across the mouth of the turning basin. The FOSC federalizes the case. The following organizations are notified: DEM, DOI, WSMC, D13 (CMDCEN), Coast Guard inspectors are notified.

The unified command, consisting of the Coast Guard, Washington State, and the Contractor set up their mobile command posts at the Pierce County terminal. The Scientific Support Coordinator (SSC) is requested to assist with damage assessment.

Coast Guard Air Station Port Angeles is requested to conduct an overflight in the morning.

9574 Response Organization

Unified Command

9575 Strategies

The strategy for containment and cleanup is as follows. During the first day the oil in the vicinity of the vessel will be skimmed out. Booming strategies will be assessed and prioritized by the FOSC, DOE, the contractor, and the SSC. Protection boom will be placed. The skimmers will transit the waterway. The SSC will assist in determining the shoreline protection and cleanup measures to be taken. The oil on the vessel will be cleaned up by the crew. A helo will be hired for overflights.

The clearance of the vessel will be withheld through customs pending the receipt of a Letter of Undertaking for $25,000 received from the P&I representative.

Several days of high volume, low pressure washing of rip rap and gravel on the turning basin beach follow. The strategic goal of removing free floating oil and oil that refloats at high tide creates cleanup objectives based on stages of the tide. Skimming efforts will continue for several days. The contractor obtains a high pressure sprayer to remove oil from the waterline of the vessel.

The final state is passive cleaning using pom-pom oil snares which are checked on and changed out periodically.

9576 Resources and Shortfalls

To be developed.

9577 Disposal Options

Disposal will be handled by the contractor with no anticipated problems.

9578 Time To Clean-Up

The clean-up is expected to take at least 45 days with continuing passive work by the contractors in the later stages of the clean-up to change out pompoms.

9580 Worst-case Scenario for Inland Area

To be developed.

9590 Maximum Most Probable Scenarios for Inland Area

The maximum most probable discharge scenario is based on the size of the largest recorded spill, traffic flow through the area, hazard assessment, risk assessment, seasonal considerations, spill histories, and operating records of facilities and vessels in the area.

9591 Maximum Most Probable Scenario for Columbia River Bonneville Dam to The Dalles Dam

An earthquake measuring 3.2 on the Richter scale has occurred, causing unstable land masses to collapse on either side of the river. The land slide has completely blocked both sides of the highway and caused a Union Pacific train to derail and fall into the Columbia River. The train was carrying chlorine, gasoline, sulfuric acid and sodium hydroxide in large quantities. The Governor of Oregon requests that the President declare the area a national disaster. The President of the United States declares the area a national disaster and assigns a Federal Emergency Coordinator to handle the response. The Environmental Protection Agency will act only if requested by the Federal Emergency Coordinator, and, in that respect, will act only in an assistance mode.

9592 Maximum Most Probable Scenario for Columbia River: The Dalles Dam to John Day Dam

A semi-truck carrying dry pesticides packaged in individual bags was crossing the Columbia River northbound on Highway 97 bridge. The driver of an on-coming vehicle fell asleep at the wheel and moved into the semi-truck's lane of traffic. Reacting on instinct, the semi-truck driver turned hard away from the oncoming car and drove through the railing off the bridge. The trailer broke open upon impact with the water, and the pesticide spilled into the river. A passing motorist calls the Oregon Highway Patrol. The Highway Patrol is dispatched to the scene and they call the local authorities in Biggs, Oregon and Maryhill, Washington, and the National Response Center. The National Response Center will then notify the State and Federal authorities in the area. The U.S. EPA and Washington State Department of Ecology would be called in immediately to direct the spill clean-up.

9593 Maximum Most Probable Scenario for Columbia River John Day Dam to McNary Dam

Barge spill of crude oil. The NOAA number is 11800. Although it would not normally be considered a major hazard, the shear bulk of the spill and the fact it is in the river gives cause for concern. The barge ran aground, releasing 300,000 gallons of crude

oil into the Columbia River just below the McNary Dam. There are wildlife preserves in the area, which is a major consideration in the clean-up.

9594 Maximum Most Probable Scenario for Columbia River McNary Dam to the Tri-Cities Area

Emergency Release of Ammonia at the Unocal Chemical facility in Kennewick, Washington. One of the two 8 million gallon tanks has a one foot by three foot hole, one foot from the ground and is rapidly releasing ammonia. Ammonia is listed by the U.S. EPA as an Extremely Hazardous Substance.

Ammonia is stored as a liquid. It is used as a fertilizer, as a refrigerant, and in the manufacture of other chemicals. Although it is classified as a nonflammable gas, it will burn within certain vapor concentration limits, and the fire hazard increases in the presence of oil or other combustible materials. Contact with the liquid can cause frostbite. Vapors are heavier than air.

The response thus far is merely a non-fire response. It is important to keep the material out of water sources and sewers. Attempt to stop the leak without exposing personnel to undue hazards. Use a water spray to knock-down vapors. Vapor knock-down water is corrosive or toxic and should be diked for containment. Land spill: Dig a pit, pond, lagoon or holding area to contain liquid or solid material. Dike surface flow using soil, sand bags, foamed polyurethane, or foamed concrete. Absorb bulk liquid with fly ash or cement powder. Neutralize with dilute acid. Use mechanical dredges or lifts to remove immobilized masses of pollutants and precipitates.

Vapors cause irritation of eyes and respiratory tract. Liquid will burn the skin and eyes. Ammonia is poisonous, and may be fatal if inhaled. Contact may cause burns to skin and eyes. Contact with liquid may cause frostbite.

The PRP, Local, and State response are unable to handle a spill of this magnitude and call in the Federal Government after the initial spill response determines that available resources are not adequate.

9600 Manuals and Guidelines Created by NWACP Workgroups

9610

JOINT INFORMATION CENTER MANUAL

9620

WASHINGTON STATE DISPOSAL GUIDELINES

9630

IN-SITU BURNING POLICY MANUAL

This section reserved for the *In-Situ* Burn Operational Guidelines, which are under revision.Refer to Chapter 4000 for *in-situ* burn policy.

9640

NORTHWEST AREA SHORELINE COUNTERMEASURES ASSESSMENT MANUAL

9650

COMMUNICATIONS MANUAL

9660

HEALTH AND SAFETY MANUAL

9700 General Information on Potential Discharge Sources

9800 Memorandum of Agreements between participating agencies

9900 Support and Reference Resources

9910 Glossary

The following lists contain definitions for terms and acronyms used in this plan and in the oil and hazardous materials response community generally. While the lists may not be comprehensive, every effort was made to define and identify terms and acronyms to make this document usable to the lay person. Differences between state and federal definitions are identified where necessary.

Definitions

The sources of definitions are indicated where appropriate. For enforcement purposes, refer to the applicable state laws or federal regulations.

Area Committee, as defined by sections 311(a) (18) and (j) (4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, state, and local agencies with responsibilities that include preparing an area contingency plan for a designated area.

Area Contingency Plan (ACP), as defined by sections 311(a) (19) and (j) (4) of CWA, as amended by OPA, means the plan prepared by an area committee, that in conjunction with the NCP, shall address the removal of a discharge, including a worst-case discharge and the mitigation or prevention of a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near a designated area.

Biological additives means microbiological cultures, enzymes, or nutrient additives deliberately introduced into an oil discharge to encourage biodegradation to mitigate the effects of the discharge.

Bulk means material that is stored or transported in a loose, unpackaged liquid, powder or granular form capable of being conveyed by a pipe, bucket, chute or belt system.

Burning agents means those additives that, through physical or chemical means, improve the combustibility of the materials to which they are applied.

CERCLA is the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986. It is also known as the Superfund Act.

Chemical agents means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the oil, hazardous substance, pollutants, or contaminants from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents.

Claim means a request, made in writing for a sum certain, for compensation for damages or removal costs resulting from an incident.

Coastal waters means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers. Precise boundaries are determined by USCG/EPA agreements and identified in this ACP. (see Table 1-1).

Coastal zone means all United States waters subject to the tide, United States waters of the Great Lakes and Lake Champlain, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements identified in Federal Regional Contingency Plans. Boundaries are also identified in this ACP. (Table 1-1)

Coast Guard District Response Group, as defined by sections 311(a) (20) and (j) (3) of CWA, as amended by OPA, means the entity established by the Secretary of the department in which the USCG is operating in each USCG district and shall consist of: the combined USCG personnel and equipment, including firefighting equipment, of each port within the district; additional prepositioned response equipment; and a district response advisory team.

Contiguous Zone means the zone of the high seas, established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone, which extends nine miles seaward from the outer limit of the territorial sea.

Discharge, as defined by section 311(a)(2) of CWA; as amended by OPA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of CWA,

discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of CWA, and subject to a condition in such permit, or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of the NCP, discharge also means imminent threat of discharge.
Dispersants means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil to facilitate dispersal of the oil into the water column.

Drinking water supply, as defined by section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

Federally permitted release, as defined by section 101(10) of CERCLA, means discharges in compliance with a permit under section 402 of the Federal Water Pollution Control Act; discharges resulting from circumstances identified and reviewed and made part of the public record with respect to a permit issued or modified under section 402 of the Federal Water Pollution Control Act and subject to a condition of such permit.

First Federal Official means the first federal representative of a participating agency of the National Response Team to arrive at the scene of a discharge. This official coordinates activities under the NCP and may initiate, in consultation with the FOSC, any necessary actions until the arrival of the predesignated FOSC.

Fund or Trust Fund means the Oil Spill Liabillity Trust Fund, various state funds or the Hazardous Substance Response Trust Fund .

Geographic Response Plan (GRP) is a document which provides oil spill response strategies and natural resource sensitivity information for specific geographic areas.

Ground water, as defined by section 101(12) of CERCLA, means water in a saturated zone or stratum beneath the surface of land or water.

Hazardous substance, as defined by section 101(14) of CERCLA, means: any substance designated pursuant to section 311(b)(2)(A) of the CWA; any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the CWA; any hazardous air pollutant listed under section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture with respect to which the

Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Inland waters means those waters of the United States in the inland zone, waters of the Great Lakes, Lake Champlain, and specified ports and harbors on inland rivers.

Inland zone means the environment inland of the coastal zone excluding the Great Lakes, Lake Champlain, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibilities for response actions. Precise boundaries are determined by EPA/USCG agreements and are identified in this ACP. (Table 1-1)

Incident of National Significance means an incident which due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and cleanup.

Lead agency means the Federal or State agency that has primary responsibility for coordinating response action under this Plan. The lead Federal agency is the agency that provides the FOSC as specified elsewhere in this Plan and has the authority to direct Federal resources. The lead State agency is the agency that provides the SOSC as specified elsewhere in this Plan and has the authority to direct State resources.

Local Emergency Planning Committee (LEPC) is a group of local representatives appointed by the State Emergency Response Commission (SERC) to prepared local oil and hazardous materials spill response plans as per the mandates of CERCLA as amended by the Superfund Amendments and Reauthorization Act Title III.

Local Official means a representative of county, city, or municipality or other subdivivision of state government with responsibility for represnting that entity's interests in the event of an incident.

Management of migration means actions that are taken to minimize and mitigate the migration of hazardous substances or pollutants or contaminants and the effects of such migration. Management of migration actions may be appropriate where the hazardous substances or pollutants or contaminants are no longer at or near the area where they were originally located or situations where a source cannot be adequately identified or characterized. Measures may include, but are not limited to, provision of alternative water supplies, management of a plume of contamination, or treatment of a drinking water aquifer.

Maximum Most Probable discharge is based on historical spill data, and is the size of the discharge of oil or hazardous substance most likely to occur taking into account such factors as the size of the largest recorded spill, traffic flow through the area, hazard assessment, risk assessment, seasonal considerations, spill histories and operating records of facilities and vessels in the area.
Most Probable Discharge is the size of the average spill in the area based on the historical data available.

National Pollution Funds Center (NPFC), as defined by section 7 of Executive Order 12777, means the entity established by the Secretary of the department in which the USCG is operating whose function is the administration of the Oil Spill Liability Trust Fund (OSLTF). This includes access to the OSLTF by Federal agencies, states, and designated trustees for removal actions and initiation of natural resource damage assessments, as well as claims for removal costs and damages.

National Strike Force Coordination Center (NSFCC), is defined by sections 311(a) (23) and (j) (2) of CWA, as amended by OPA, means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina. Its responsibilities include providing a variety of technical assistance and other resources to an FOSC, and administration of the USCG Strike Teams established under the NCP.

Natural resources means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the exclusive economic zone defined by the Magnuson Fishery Conservation and Management Act of 1976), any state or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.

Navigable waters, as defined by 40 CFR 110.1, means the waters and adjoining shorelines of the United States, including the territorial seas. The term includes:

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

- Interstate waters, including interstate wetlands;

- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
    1. That are or could be used by interstate or foreign travelers for recreational or other purposes;

2. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; and
3. That are used or could be used for industrial purposes by industries in interstate commerce.

- All impoundments of waters otherwise defined as navigable waters;
- Tributaries of waters identified in this definition, including adjacent wetlands; and

- Wetlands adjacent to waters identified in this definition: Provided, that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

Offshore facility means any facility of any kind located in, on, or under any of the navigable waters and any facility of any kind located in, on, or under any other waters, other than a vessel or a public vessel.

Oil 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, sludge, oil, ,refuse, oil, vegetable oil, animal oil, coal oil, oil mixed with ballast or bilge water, and oil mixed with wastes other than dredged spoils. Oil does not include any substance listed in table 302.4 of 40 CFR Part 302 under Section 101 (14) of CERCLA.

Oil Spill Liability Trust Fund (OSLTF) means the fund established under section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509).

Oregon Regional Hazardous Materials Response Team, means a team of local emergency responders trained, equipped and organized to respond to oil and hazardous materials incidents in a given geographic area.

Oregon Radiation Emergency Response Team (RERT), is a group composed of individuals from the Oregon Health Division Radiation Control Section. This team will respond to any radioactive materials incident.

On-Scene Coordinator (OSC) means the official predesignated by Federal or state government to coordinate and direct response. OSC is usually modified with a lead character indicating affiliation. The Federal OSC (FOSC) and State OSC (SOSC) have the authority and responsibility to direct Federal and State resources respectively.

Onshore facility means any facility (including, but not limited to motor vehicles and rolling stock) of any kind located in, on, or under any land within the United States other than submerged land.

Preliminary assessment means review of existing information and an on-sit and off-site reconnaissance, if appropriate, to determine if a discharge or release may require additional investigation or action.
Public vessel, as defined by section 311(a) (4) of CWA, as amended by OPA, means a vessel owned or bareboat-chartered and operated by the United States, or by a state or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

Release means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles, containing any hazardous substance or pollutant or contaminant.

Remove or removal refers to containment and removal of oil or hazardous substance from the water, shorelines or land or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare (including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes enforcement activities related thereto.

Sinking agents means those additives applied to oil discharges to sink floating pollutants below the water surface.

Site means the area covered by the extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action.

Specified ports and harbors means ports and harbor areas on inland rivers, and land areas immediately adjacent to those waters, where the USCG acts as predesignated on-scene coordinator.

Spill of National Significance - See Incident of National Significance.

State means the states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Commonwealth of Northern Marianas, and any other territory or possession over which the United States has jurisdiction. For purposes of the NCP, the term includes Indian tribes as defined in the NCP except where specifically noted.

State Emergency Response Commission (SERC) a group of officials appointed by governors to implement the provisions of Title III SARA.

Superfund - See CERCLA.

Surface collecting agents means those chemical agents that form a surface film to control the layer thickness of oil.

Tank vessel means a vessel constructed or adapted to carry, or that carries, oil or hazardous material in bulk as cargo or cargo residue.

Tribal Official is an individual designated to represent tribal interests for purposes of spill response.

Trustee means an official of a Federal, state or tribal natural resource management agency designated in Subpart G of the NCP or as designated by a state or tribe, who may pursue claims for damages in the event of a spill.

Unified Command is a version of Incident Command System where decisions are made with the joint input of several agencies representing their individual jurisdictions. Note: The FOSC has the ultimate authority to resolve any disputed decision or action.

Vessel means every watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel.

Volunteer means any individual accepted to perform services by the lead agency, responsible party or unified command which has authority to accept volunteer services. A volunteer is subject to the provisions of the authorizing statute, the NCP and this plan.

Worst-case Discharge means, in the case of a vessel, a discharge in adverse weather conditions of its entire cargo, and in the case of an offshore or onshore facility is the largest foreseeable discharge in adverse weather conditions.

9911 Acronyms and Abbreviations

AC	Area Committee
ACP	Area Contingency Plan
AOR	Area of Responsibility
APHIS	Animal and Plant Health Inspection Service
ARAR	Applicable or Relevant and Appropriate Requirements
ARPA	Archaeological Resource Protection Act
AST	Atlantic Strike Team, Fort Dix, New Jersey (USCG)
ATSDR	Agency for Toxic Substances and Disease Registry
BIA	Bureau of Indian Affairs (U.S. Federal)
BLM	Bureau of Land Management (U.S. Federal)
BOE	Bureau of Explosives
CAMEO	Computer-Aided Management of Emergency Operations
CANUSPAC	Joint Canada-U.S. Marine Pollution Contingency Plan Pacific
CCG	Canadian Coast Guard
CCGD13	Commander, Thirteenth Coast Guard District (USCG)
CDC	Centers for Disease Control (U.S. Federal)
CDRH	Center for Devices and Radiological Health
CERCLA	Comprehensive Environmental Response Compensation and Liability Act of 1980
CERCLIS	CERCLA Information System
CFR	Code of Federal Regulation (U.S. Federal)
CGAS	Coast Guard Air Station (USCG)
CHEMTREC	Chemical Emergency Transportation Center
CHLOREP	Chlorine Emergency Plan
CHRIS	Chemical Hazard Response Information System
COGLA	Canadian Oil and Gas Lands Administration (Canada Federal)
COTP	Captain of the Port (USCG)
CRCI	Clean Rivers Cooperative Incorporated
CSCI	Clean Sound Cooperative Incorporated
Customs	U.S. Customs Service/Revenue Canada
CWA	Clean Water Act (33 USC 1321)
DHD	District Health Department (Idaho)
DEIS	Draft Environmental Impact Statement
DINA	Department of Indian and Northern Affairs (Canada Federal)
DFO	Department of Fisheries and Oceans (Canada Federal)
DND	Department of National Defense (Canada Federal)
DOC	Department of Commerce (U.S. Federal)
DOD	Department of Defense (U.S. Federal)
DOE	Department of Energy (U.S. Federal)
	Department of Environment (Canada Federal)
DOI	Department of Interior (U.S. Federal)
DOJ	Department of Justice (U.S. Federal)
DOL	Department of Labor (U.S. Federal)

DOS	Department of State (U.S. Federal)
DOSC	Deputy On-Scene Coordinator
DOT	Department of Transportation (U.S. & Canada Federal)
	Department of the Treasury (U.S. Federal)
DRAT	District Response Advisory Team (USCG)
DRG	District Response Group (USCG)
DWT	Dead Weight Ton
EA	Department of External Affairs (Canada Federal)
EC	Environmental Coordinator (Idaho)
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EMD	Emergency Management Division
EMR	Department of Energy Mines and Resources (Canada Federal)
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPA	Environmental Protection Agency (U.S. Federal)
EPS	Environmental Protection Service (Canada Federal)
ERC	Emergency Response Coordinator (USPHS)
ERT	Environmental Response Team
ESF	Emergency Support Functions
FCO	Federal Coordinating Officer (U.S. Federal, FEMA)
FDA	Food and Drug Administration (U.S. Federal)
FEMA	Federal Emergency Management Agency
FINCEN	Finance Center (USCG)
FOSC	Federal On-Scene Coordinator
FPN	Federal Project Number
FRERP	Federal Radiological Emergency Response Plan
FRP	Federal Response Plan
FTS	Federal Telecommunications Systems
FWPCA	Federal Water Pollution Control Act
FWS	Fish and Wildlife Service (U.S. Federal)
GRP	Geographic Response Plan
GRU	U.S. Coast Guard Group
GSA	General Services Administration (U.S. Federal)
GST	Gulf Strike Team, Mobile, Alabama (USCG)
GT	Gross Ton
HACS	Hazard Assessment Computer System
HAZMAT	Hazardous Materials
HB	House Bill (Washington)
HHS	Department of Health and Human Services (U.S. Federal)
HMER	Hazardous Materials Emergency Response
HUD	Housing and Urban Development (U.S. Federal)
H&W	Health and Welfare Canada (Canada Federal)
IBDS	Idaho Bureau of Disaster Services
IC	Incident Commander

ICS	Incident Command System
IDEM	Idaho Department of Emergency Management
IDEQ	Idaho Division of Environmental Quality
IDHW	Idaho Department of Health and Welfare
IDWR	Idaho Department of Water Resources
IHCC	Interagency Hazard Communication Council (Oregon)
INEL	Idaho National Engineering Laboratory
INS	Immigration and Naturalization Service (U.S. Federal)
IONS	Incidents of National Significance
IOSA	Islands Oil Spill Association
ISP	Idaho State Police
ITD	Idaho Transportation Department
JIC	Joint Information Center
JRC	Joint Response Center
JRT	Joint Canadian-U.S. Response Team
LCP	Local Contingency Plan (USCG)
LEPC	Local Emergency Planning Committee
LEPD	Local Emergency Planning Districts (Washington)
LERA	Local Emergency Response Authority (Idaho)
L&I	Department of Labor and Industries (Washington)
LOSC	Local On-scene Coordinator
LRC	Local Response Center
LRT	Local Response Team
MARAD	Maritime Administration (U.S. Federal)
MCSAP	Motor Carrier Safety Assistance Program
MEP	Marine Environmental Protection Branch (USCG)
MFSA	Maritime Fire and Safety Association (Oregon)
MIO	Marine Inspection Office (USCG)
MLC	Maintenance & Logistics Command (USCG)
MLCPAC	Maintenance and Logistics Command Pacific (USCG)
MMS	Minerals Management Service (U.S. Federal)
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MRL	Minimum Response Levels
MSIS	Marine Safety Information System (USCG)
MSO	Marine Safety Office (USCG)
MSRC	Marine Spill Response Corporation
NAVSUPSALV	U.S. Navy Supervisor of Salvage
NCP	National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)
NEPA	National Environmental Policy Act (U.S. Federal)
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service (U.S. Federal)
NOAA	National Oceanic and Atmospheric Administration (U.S. Federal)
NPFC	National Pollution Funds Center (U.S. Federal)

NPS	National Park Service (U.S. Federal)
NRC	National Response Center (U.S. Federal) Nuclear Regulatory Commission
NRDA	Natural Resource Damage Assessment
NRS	National Response System (U.S. Federal)
NRT	National Response Team (U.S. Federal)
NSF	National Strike Force (U.S. Federal)
NSFCC	National Strike Force Coordination Center (U.S. Federal)
NTSB	National Transportation Safety Board (U.S. Federal)
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OEC	Oregon Environmental Council
OEM	Oregon Emergency Management
OERS	Oregon Emergency Response System
OHS	Oil and Hazardous Substances
OPA 90 or OPA	Oil Pollution Act of 1990
OPCEN	Operations Center (USCG)
OR-OSHA	Oregon Occupational Safety and Health Administration
ORS	Oregon Revised Statutes
OSC	On-Scene Coordinator
OSC-R	On-Scene Coordinator Representative
OSC/RPM	On-Scene Coordinator/Remedial Project Manager
OSHA	Occupational Safety and Health Administration
OSHD	Oregon State Health Division
OSLTF	Oil Spill Liability Trust Fund
OSP	Oregon State Police
OSRA	Oil Spill Response Account (Washington)
OSU	Oregon State University
PAO	Public Affairs Officer (USCG)
PHS	Public Health Service (U.S. Federal)
PIAT	Public Information Assist Team (USCG)
PIO	Public Information Officer
POLREP	Pollution Report (Message format)
PP	Potential Pollution Source
PPR	Preliminary Purchase Request (Washington)
PRP	Potentially Responsible Party
PSICC	Puget Sound Interagency Coordination Center
PST	Pacific Strike Team, Novato, California (USCG)
RAT	Radiological Assistance Team
RCP	Regional Contingency Plan
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington

R&D Center	U.S. Coast Guard Research and Development Center
RDA	Resource Damage Assessment (Washington)
RERT	Radiological Emergency Response Team
RFD	Reference Dose
RHMRT	Regional Hazardous Materials Response Team (Oregon)
RNO	Regional News Office
RP	Responsible Party
RPM	Remedial Project Manager
RRC	Regional Response Center
RRT	Regional Response Team
RSEO	Regional Superintendent Emergency Ops (Canada Federal)
RSPA	Research and Special Programs Administration
SAC	Support Agency Coordinator
SAR	Search and Rescue
SARA	Superfund Amendments and Reauthorization Act of 1986
SARSTA	Search and Rescue Station (USCG)
SEPA	State Environmental Policy Act (Washington)
SERC	State Emergency Response Commission
SFM	State Fire Marshall
SI	Site Inspection
SITREP	Situation Report (Message format)
SMC	Search and Rescue Mission Coordinator
SOLV	Stop Oregon Littering and Vandalism (Oregon)
SONS	Spill of National Significance (see IONS)
SOP	Standard Operating Procedure
SOSC	State On-scene Coordinator
SSC	Scientific Support Coordinator (U.S. Federal)
TAP	Trans-Alaskan Pipeline
TAT	Technical Assistance Team (EPA)
TEAP	Transportation Emergency Action Plan
TOSC	Tribal On-Scene Coordinator
USA	U.S. Army
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USC	U.S. Code (U.S. Federal)
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USDHHS	U.S. Department of Health and Human Services
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USMC	U.S. Marine Corps
USN	U.S. Navy
USPHS	U.S. Public Health Service
VR	Vulnerable Resources

VTS	Vessel Traffic Service (USCG)
WAC	Washington Administrative Code
WCC	Warning Communications Center (USDOE)
WDEM	Washington Department of Emergency Management
WDF	Washington Department of Fisheries
WDNR	Washington Department of Natural Resources
WDOA	Washington Department of Agriculture
WDOE	Washington Department of Ecology
WDOT	Washington Department of Transportation
WDFW	Washington Department of Fish & Wildlife
WEC	Washington Environmental Council
WISHA	Washington Department of Occupational Safety and Health
WSMC	Washington State Maritime Commission
WSP	Washington State Patrol

9920 Conversion Tables

Refer to the Oil Spill Field Operations Guide (FOG) ICS-OS-420-1 dated June 1996.

9930 Sample Communications

To be developed

9931 Forms

To be developed

9932 Notices

To be developed

9933 Letters

To be developed

9934 Plans

To be developed

9935 Reports

To be developed

9940 Bibliography and Additional Resource Documents

The following documents are outstanding reference material that can assist in a response.

9941 Canada-United States Joint Marine Pollution Contingency Plans (CANUS)

The following plans form a part of this plan if the response effort involves Canada. These plans are maintained by the Regional Response Team co-chairs.

9941.1 CANUS/OPS

9941.2 CANUS/WEST

9941.3 CANUS/PAC

9942 North American Emergency Response Guide Book

9950 Recommended ICS Forms

There are several variations of ICS forms available. The Northwest Area Contingency Plan does not endorse any one specific ICS form format. However, ICS forms used should contain the elements of the standard NIIMS ICS forms. These forms are not included in this plan but can be purchased through the National Interagency Fire Center at the following address:

National Interagency Fire Center
Great Basin Cache Supply Office
3833 S. Development Avenue
Boise, ID 83705

Fax: (208)387-5573
Tel: (208)387-5104 (for questions regarding your order)

Requests should be mailed or faxed and include NFES #1322 on your request for the ICS Forms Catalog.

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Public Information Procedures for Spill Incidents

Pacific Northwest
Oil Spill
Public Affairs Group

Updated May 1997

Pacific Northwest Oil Spill Public Affairs Group

The Pacific Northwest Oil Spill Public Affairs Group is an affiliation of public affairs representatives from federal, state and local agencies. Participants also include representatives of tribal governments, the oil industry, oil spill response organizations, public relations firms, Canadian agencies and other interested parties. The following is a listing of agencies and organizations that have actively contributed to the development of this document:

- Washington Department of Ecology
- Washington Department of Fish & Wildlife
- Washington Military Department, Division of Emergency Management
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish & Wildlife Service
- National Park Service
- Clean Sound Cooperative
- Marine Spill Response Corporation
- Washington State Maritime Cooperative
- Maritime Communications Group
- Oregon Department of Environmental Quality
- ARCO and Other Oil Industry Representatives

This publication is distributed to assist government agencies, businesses, organizations and others prepare for major spill incidents. Reproduction of this publication or portions of this publication should include attribution to the Pacific Northwest Oil Spill Public Affairs Group.

Table of Contents

Spill Reference Documents

Background

Overview

This document was developed to provide public information guidance for spill incidents in the Pacific Northwest. This guidance document also includes the Joint Information Center Manual for major oil spills created in 1993 by the Pacific Northwest Oil Spill Public Affairs Group. JIC operating procedures developed from experience during actual incidents and numerous drills have also been incorporated into this document. Appendices include a public affairs telephone directory, various forms, an oil spill glossary, and other public affairs materials.

Purpose

The ultimate purpose of public information efforts conducted during an environmental emergency is to ensure the timely and coordinated release of accurate information to the news media, government officials and various public audiences. The procedures contained in this guidance document are intended to assist public affairs representatives establish, manage and operate an effective spill response public information effort.

Joint Information System

It is important to note that public information efforts do not have to be co-located to ensure adequate coordination among various involved agencies and organizations. In most spill incidents, public information activities are conducted from each agency's/organization's office. Under these circumstances, a Joint Information System is established which essentially means that all involved agencies/organizations and responsible party are communicating about the specific public information actions they are conducting. News releases may not necessarily be fully coordinated, but there should be no surprises as to what an agency or organization is saying to the media.

Joint Information Center

In the event of major spill incidents, a Joint Information Center will be established. A JIC involves the co-location of all involved public affairs representatives in conjunction with the Unified Command to better coordinate public information activities.

Notifications

Early notification of public affairs representatives about a spill incident is crucial to ensure the timely release of accurate information to the news media and the public. Initial notification can come from a variety of sources including agency spill responders, other agency public information officers, supervisors, the news media, etc.

The source of the notification is not as important as the ability to quickly make contact with the other involved public affairs representatives. Early communication among agency public information officers is essential to establishing an effective Joint Information System and, if necessary, a Joint Information Center. To facilitate early notification/coordination among agencies, the Pacific Northwest Oil Spill Public Affairs Group has developed a directory *(see **Appendix A**)* of public affairs officials with phone numbers, pagers and cellular phones.

Initial Coordination & Public Information Efforts

During the early stages of an **oil spill** incident, the U.S. Coast Guard District 13 Public Affairs Office will serve as the clearinghouse for public information contacts. The Coast Guard office should be contacted — **206-220-7237 (24-hour #) or Fax 206-220-7245**— and provided with the following information:

- Name(s) of public affairs representative(s)
- Organization
- Phone number
- Fax number

A list of all the public affairs representatives will be periodically updated and then faxed to all people on the list (including any responsible parties). **It is the responsibility of the issuing agency or organization to ensure that any news releases, fact sheets or media advisories are faxed to everyone on the incident public affairs contact list.**

Incident details

Several issues arise in nearly every spill incident that need close coordination by the lead public affairs officials. These include the details of the spill incident and initial spill estimates.

Regarding the spill incident, it is important that an agreed upon statement of facts is developed that accurately and, as fully as possible, describes what happened. If details are sketchy, the statement may be very short (several sentences). Where more details are known, the statement will be longer (several paragraphs or more). The statement should be updated as more information about the incident is known. The incident statement must be reviewed and approved by each On-Scene Coordinator or the Unified Command.

This statement will serve as the initial briefing statement for the news media by all involved public affairs representatives. The statement should also be read by the moderator of any news briefings or news conferences to ensure that reporters all

have the same understanding of what occurred before, during and after the incident occurred *(see section on **News Briefings & News Conferences**)*.

Spill Estimates

Regarding spill estimates, it is important that an agreed upon approach is established as soon as possible for how the spill will be described. Because it is extremely difficult to accurately estimate spills during the initial stages of an incident, some way of "framing" the spill must be developed. Typical approaches include providing the media with the spill "potential." For example, if two cargo tanks are damaged and leaking oil, it would be appropriate to state: "the amount of oil spilled at this time is unknown but the capacity of the two damaged and leaking cargo tanks is 100,000 gallons."

Specific spill estimates will be made on a case-by-case basis as a joint decision among the lead Public Information Officers.

This approach prevents repeatedly updating the amount of the spill or correcting the figure given for the early estimates. However, the news media should be provided with a specific spill estimate as soon as a solid estimate is determined and agreed upon by the OSCs or Unified Command.

The same approach should be used for facilities where tanks are involved and for pipelines.

All spill figures reported to the news media, elected officials, interested parties and the public will be in gallons. In written documents, spill figures should be presented in gallons with the appropriate barrel conversion (1 barrel = 42 gallons) in parentheses: 10,500 gallons (250 barrels).

News Releases

Initial separate news releases likely will be issued by several agencies, organizations or the responsible party depending on the specific spill circumstances. Initial news releases may be issued by a federal agency (U.S. Coast Guard and/or U.S. Environmental Protection Agency), a state agency (Washington State Department of Ecology with input from the Department of Fish & Wildlife), the Washington State Maritime Cooperative and the responsible party or parties. As stated previously, each agency/organization issuing a news release must provide (through faxing or computer) final copies to all other agencies/organizations involved in the incident.

Before a Joint Information Center is established, subsequent news releases may continue to be issued separately or jointly under the Joint Information Center news release/update letterhead. **The decision to issue separate or joint news releases should be made by the Lead Public Information Officers.**

If joint news releases will be issued under a Joint Information System (where PIOs are not co-located), each agency is expected to review draft releases as quickly as possible**. If timely review is not forthcoming, the agency/organization initiating the release can proceed without input from the non-responsive agency/organization.** The Lead PIOs should agree to an appropriate review period (for example, 30 to 45 minutes) when deciding that joint releases will be issued.

It is expected that coordinated/joint news releases will be issued whenever a Joint Information Center is established (where PIOs are co-located).

Single-Agency Special Topic Releases

No matter how news releases are being issued (either separately or jointly), every agency/organization retains the ability to issue their own single-agency special topic news release.

When this type of release is planned, all lead agencies/organizations involved in the spill incident should be advised of the topic and receive courtesy copies as soon as possible. Lead agencies/organizations may request that the release be modified or delayed due to the potential impact on the primary information flow for the overall response effort. However, ***the agency/organization initiating the release retains the final decision to issue the news release***.

Video Footage

When possible, the Coast Guard, Washington State Department of Ecology, Washington State Department of Fish & Wildlife or other agencies/organizations should coordinate efforts to make available video footage of the spill incident if news organizations have not been able to secure video themselves. The video will be provided to one of the television news organizations with the understanding that copies must be made available to other broadcast outlets.

The U.S. Fish & Wildlife Service has resources and expertise to provide video services once the response organization is up and running. This resource can be accessed through the U.S. Fish & Wildlife office in Olympia (360) 753-9440 (Regional PIO).

On-Scene PIO Needs

The vast majority of spill incidents do not require on-scene PIO assistance. However, Lead PIOs should be continually assessing the news media needs for a particular incident and the need for on-scene PIO help. On-scene PIO coordination is discussed in following sections.

On-Scene PIO Support for Small/Routine Spills

The decision to send one or more PIOs to the scene of a spill incident should be discussed by the Lead PIOs. Because there are many factors that will determine the need for on-scene PIO support, this decision will be made on a case-by-case basis. **If the decision is made to dispatch a PIO to a spill, the lead agency or organization closest or able to respond fastest to the scene will send the first on-scene public information staff.** Other lead agency PIOs will send on-scene public information staff as soon as possible or as appropriate.

On-Scene PIO Responsibilities

The first PIO on-scene should report directly and immediately to the appropriate On-Scene Coordinator. Because there will likely be several OSCs (federal, state & responsible party*), the PIO must work with this Unified Command to clear information for release to the news media. Once the PIO has established contact with the respective OSCs, he/she should:

- Seek out any on-scene media and make initial contact
- Establish a public information location & phone contact (vehicle, building, staging area, etc.)
- Conduct/coordinate information-gathering efforts
- Assess staffing and equipment needs (more PIOs needed?, computer/printer?, JIC needed?)
- Assess local government/community relations needs
- Communicate information to “home” offices
- Establish media availability for key on-scene responders (OSCs, Natural Resource Damage Assessment specialists, etc.)

- Produce news releases/updates if possible and efficient.

When working with the OSCs, the on-scene PIO should develop baseline information (incident details, spill estimate, etc.) and any appropriate core or special messages (human health/safety issues, environmental concerns, tribal involvement, etc.). The on-scene PIO should also be able to provide a standard response to questions regarding enforcement. Typically, the standard response should be:

> "A thorough investigation will be conducted by federal and state officials regarding the events, activities and actions surrounding this incident. It is too early in the investigation at this point to provide any conclusions on exactly why this incident happened." ***(or similar language)***

Off-Scene Public Information Assistance/Coordination

The lead agencies/organizations should have at least one public affairs representative assigned to the spill incident available by phone at the agency/organization office. This is particularly important for the agency providing on-scene PIO assistance. The Lead PIOs will select one off-scene writer when on-scene PIO staff are unable to produce news releases/updates at the spill site. Lead PIOs will also inform each other of any other staff that are responding to news media phone inquiries.

Off-Scene PIO Responsibilities

Off-scene PIOs typically will:

- Collect information from on-scene spill responders until the on-scene PIO arrives
- Coordinate information with off-scene staff from their own and other lead agencies (provide any new information to on-scene PIO as soon as possible)
- Coordinate information needs with other agency/organization staff as appropriate
- Periodically conduct conference calls with other lead agency PIOs to determine:

- **Currently known** information/facts
- **Status** of news writer and media phone staff
- **Public affairs contacts** for responsible party
- **Contacts** for local government
- **Distribution needs** for media and key stakeholders
- **Deadlines** for news releases & review procedures
- **Staffing levels** (on and off-scene)

- Respond to media phone calls

- Prepare news releases/updates

- Update agency executive staff

- Coordinate with other appropriate agencies/officials

Note: It is critical that any new information be shared with lead PIOs and other media staff before (or at least simultaneously) it is released to the news media. In situations where PIOs get information first, the information must be run by the OSCs before it is released. In other words, there should be no surprises.

* Responsible party OSCs may have a variety of titles including Incident Commander, Qualified Individual, P&I Club Representative, etc.

Establishing a Joint Information Center

The need to establish a formal Joint Information Center will depend on a number of factors including the size and duration of a spill incident and the decision of the Unified Command to establish a Command Center. **It is important that the Lead Public Information Officers from the appropriate agencies and the responsible party discuss the need for a JIC and the space, equipment and staffing requirements.**

The Pacific Northwest Oil Spill Public Affairs Group's **"Joint Information Center Manual: Roles and Responsibilities"** *(contained in the next section)* provides specific details on the organization of a Joint Information Center. This manual, which is part of the Northwest Area Contingency Plan, should be utilized when a JIC is being established.

Joint Information Center Manual: Roles and Responsibilities

Introduction

The Joint Information Center Manual is a document that provides guidance for the organization and operation of a Joint Information Center (JIC). It was conceived and developed by members of the Pacific Northwest Oil Spill Public Affairs Group, an affiliation of public affairs representatives from federal, state and local agencies. The Group also sought input from public affairs representatives of the oil industry and commercial oil spill response organizations.

Statement of Purpose

The purpose of the JIC is to ensure the timely and coordinated release of accurate information to the news media, government and public audiences. While individual agencies and affected parties will continue to address their specific roles and duties in an oil spill incident, the JIC will serve as the focus of public affairs information relating to oil spill response activities.

Organization

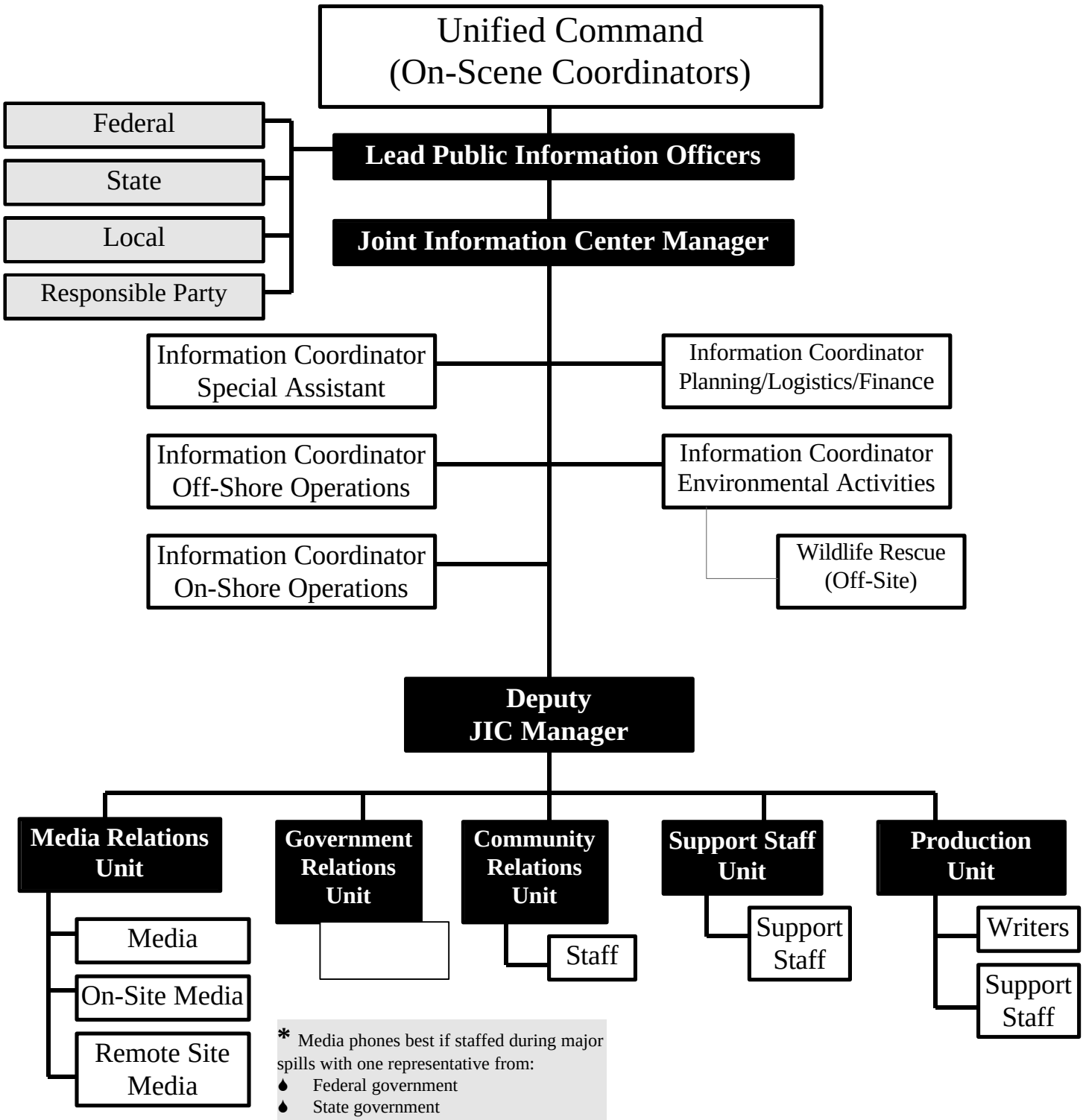
The JIC is a flexible organization, and has allowances for varying the size of the staff in response to the magnitude of the spill incident. Similarly, some members of the Pacific Northwest Oil Spill Public Affairs Group provide a pool of well trained public affairs specialists that can be used in a "surge capacity." The lead Public Information Officers (PIOs) for the federal, state, local agencies and when applicable the responsible party, will oversee the operation of the JIC, and provide the JIC supervisor guidance on media and community relations issues relating to the incident.

The JIC Manual outlines:

- Organization of the JIC
- Specific duties and responsibilities of JIC staff

The manual and procedures outlined will serve as the basis for setting up and maintaining a Joint Information Center in support of the Area Contingency Plan. Changes or recommendations should be brought to the attention of the Thirteenth Coast Guard District Public Affairs Officer or the Washington State Department of Ecology, Spill Program.

Joint Information Center (JIC)



* Media phones best if staffed during major spills with one representative from:

- Federal government
- State government
- Responsible party
- Local government
- Tribal representative (if possible)

Note: This organizational chart represents the full range of public affairs activities required during a major spill. Staffing levels will vary depending on many factors and will need to be determined by the lead PIOs on a case-by-case basis. During small and medium size incidents, all public affairs activities may be carried out by as few as one public information officer.

Lead Public Information Officers

Staffing

These positions are held by the senior public affairs representatives for the:

- U.S. Coast Guard*
- U.S. Environmental Protection Agency*
- Washington Department of Ecology (Washington spills)
- Oregon Department of Environmental Quality (Oregon spills)
- Responsible party (or parties)
- Local emergency management agency (or other local agency)

* Depending on spill location and agency jurisdiction

Responsibilities

Lead public information officers report to the unified command and provide public relations advice and guidance to on-scene coordinators. They are also responsible for establishing and overseeing the joint information center (JIC). The lead public information officers will:

- Ensure that a JIC is established and fully functioning including adequate staffing and equipment

- Establish public information goals and objectives for the spill incident that ensures accurate and timely information to the news media, citizens, governmental officials, elected officials, tribal representatives and other interested parties

- Speak to policy issues regarding their respective agencies or company

- Provide direction on handling controversial and sensitive spill response issues including use of dispersants, in situ burning, drug testing, enforcement investigations, news media access, etc.

- Receive input on issues from the JIC supervisor

- Establish a schedule for news conferences, briefings and public informational meetings

- Prepare on-scene coordinators for news conferences and briefings

- Assist with logistics for VIP tours/visits

- Assess need for dispatching public information staff to remote locations

- Resolve disputes that may arise regarding public affairs issues between agencies and responsible parties

Joint Information Center Manager

Staffing

This position will be held by an experienced public affairs/information specialist with working knowledge of oil spill response issues and the Incident Command System.

Responsibilities

The JIC manager is responsible for managing the joint information center under the direct guidance of the lead public information officers. The JIC manager will:

- Ensure public information staff are assigned to appropriate positions within the joint information center (information coordinators, media relations, production, support, government relations & community relations)
- Assess skills, capabilities and interests of available public information staff (with the assistance of the lead public information officers) and match staff with appropriate positions when possible
- Review information supplied by information coordinators and determine appropriate method for dissemination *(See JIC Operating Procedures for more details)*
- Elevate unresolved or sensitive issues to the lead public information officers
- Ensure news media updates, news releases and fact sheets are distributed to JIC staff, command post staff, on-site news media, off-site news media, off-site agency officials and other interested parties
- Provide orientation for newly arriving or assigned public information staff (this task may be delegated to the JIC deputy manager or other staff as appropriate)
- Procure equipment as needed from Logistic using the proper forms

Joint Information Center Deputy Manager

Staffing

This position will be held by an experienced public affairs/information specialist and typically will be from a different agency/organization than the JIC manager.

Responsibilities

Reports to the JIC manager and carries out assignments as given. The JIC deputy manager manages the Media Relations, Government Relations and Community Relations Production and Support units and is expected to be able to carry out all of the responsibilities of the JIC manager when necessary. May also be called on to be JIC manager during the night shift.

See JIC manager for specific responsibilities

Information Coordinators

Staffing

These positions will be held by experienced public affairs/information specialists.

General Responsibilities

Information coordinators report to the JIC manager and are responsible for gathering specific information about the spill response effort directly from sections in the Unified Command organization. Information coordinators will work closely with the appropriate section chief and/or the designated section public information contact. Information gathered is provided to the JIC manager for dissemination.

Specific Responsibilities

Information coordinators will use status sheets to help determine what information and activities should be recorded *(see attached forms in **Appendix B**)*. Information coordinators are assigned to:

- Operations (Off-shore activities)
- Operations (On-shore activities)
- Environmental (Natural Resource Damage Assessment Team)
- Planning/Logistics/Finance
- A Special Assistant may also be designated to assist the JIC Manager tracking down answers to difficult or unusual questions that may arise

Information Coordinator Operations (Off-Shore Activities)

The "off-shore" operations information coordinator is responsible for tracking all spill response efforts that are occurring away from the shoreline *(see attached forms in **Appendix B**)*. Typically, the off-shore operations information coordinator will track:

- Spill incident details

- Information on the vessel or vessels involved in the incident such as:
  - ✓ Name, ownership, destination & registry
  - ✓ Size and type (single hull, double hull, freighter, tanker, etc.)
  - ✓ Cargo & fuel
  - ✓ Extent of damage to vessel(s)

- Information on crew status (injuries, missing, etc.) and search & rescue operations

- Size of the spill

- Overflight information

- Information on the spilled material

- Safety restrictions or advisories

- The number and activities of oil skimmers and other on-water response operations (contractors, types of equipment, amount of boom deployed, etc.)

- Amount of spilled material recovered

- The stabilization, salvage and other activities directed at the vessel or vessels involved in the incident

Information Coordinator Operations (On-Shore Activities)

The "on-shore" operations information coordinator is responsible for tracking all spill response efforts that are occurring on or near the impacted or threatened shorelines shoreline *(see attached forms in **Appendix B**)*. Typically, the on-shore information coordinator will track:

- Initial protection activities (Geographic Response Plans)
- Locations of equipment and staging areas
- Number and activities of shoreline cleanup operations
- Activities directed at protecting environmentally sensitive areas
- Amount of oil and oiled debris recovered
- Waste storage and disposal activities
- Special provisions for local residents (medical monitoring, decontamination stations, etc.)

Information Coordinator Environmental Activities (Natural Resource Damage Assessment Team)

The environmental information coordinator is responsible for gathering information from the Natural Resource Damage Assessment Team *(see attached forms in **Appendix B**)*. The environmental information coordinator will also work with the public information staff located at the wildlife rehabilitation center. Typically, the information coordinator will need to determine:

- Environmentally sensitive areas impacted or threatened by the spill
- Fish, marine mammals, birds and other organisms that are impacted or threatened by the spill
- Wildlife rescue and rehabilitation efforts
- Volunteer activities (telephone number) and instructions for citizens wanting to volunteer
- Activities are taking place at the wildlife rehabilitation center

Information Coordinator Planning/Logistics/Finance

The planning section information coordinator is responsible for gathering information about spill response activities being conducted in the planning section (except for the Natural Resource Damage Assessment Team), logistics section and finance section *(see attached forms in **Appendix B**)*. Typically, the planning/logistics/finance information coordinator will track:

- Incident Action Plan (overall response objectives)
- Noteworthy logistical activities (equipment from out-of-state, etc.)
- Claims process information (telephone number)
- Total number of people involved in the response effort

Information Coordinator Special Assistant

During major spill incidents, the JIC Manager should designated a special assistant to assist with:

- Tracking down answers to difficult or unusual questions
- Locating/escorting spill specialists for media interviews
- JIC staff as needed

Media Relations Unit

Staffing

Positions in this group are staffed by experienced public affairs/information specialists that have local knowledge of the area (for example, geographical features) and the news media.

Responsibilities

The media relations unit reports to the JIC deputy manager and is responsible for answering news media inquiries from on-site and off-site reporters. This group is also responsible for setting up facilities for news conferences and briefings. Following are the specific responsibilities for this group.

Manager — The media relations unit is responsible for ensuring that news media inquiries are responded to in a timely and accurate manner. Works with the JIC deputy manager to ensure requests for information are responded to in a timely manner. Ensures all media relations staff have the most current information on the spill response effort.

Media Phone Staff will ideally include at least one representative each from the federal lead agency, state lead agency, responsible party and local government (and tribal official if possible).

Phone staff will:

- Answer inquiries from the news media
- Direct reporter calls to appropriate media phone staff when an “agency” or “responsible party” response is warranted
- Provide manager with questions and “rumors” that need to be researched or checked out

On-site media staff will monitor news coverage and:

- Provide answers and written materials to reporters who are at the command post location
- Work with media relations manager to locate appropriate staff for one-on-one interviews when warranted
- Escort reporters and photographers through the command post as necessary
- Set up facility for on-site news conferences and facilitate "pool" coverage when necessary
- Provide direction to field locations as appropriate

Government Relations Unit

Staffing

The government relations unit reports to the JIC deputy manager and is comprised of legislative, government specialists or public affairs representatives that have local knowledge of the area and governmental affairs in Washington state.

Responsibilities

The government relations unit is responsible for responding to inquiries from local, state and Congressional representatives or staff. Coordinates tours. Specific responsibilities include:

Government Relations Coordinator — Reports to the JIC deputy manager and is responsible for ensuring that an effective government relations unit is established. Makes sure activities are coordinated among the various agency liaisons and the responsible party.

Government Relations Staff:

- Represent their respective agency or the responsible party
- Make contacts and provide information on the spill response effort to local, state and Congressional representatives or staff
- Provide point-of-contact for governmental representatives including tribes that want to keep abreast of the spill response effort
- Coordinate visits and tours by government officials with Government Relations Unit and/or liaison

Note: Depending on the size of the incident and staff capability, Government and Community Relations may be combined into a single unit.

Community Relations Unit

Staffing

The community relations unit reports to the JIC deputy manager and is staffed by experienced public outreach or public affairs/information specialists that have local area knowledge.

Responsibilities

The community relations unit is responsible for responding to inquiries from citizens and organizations. Determines information needs of the local community and discusses methods to meet those needs with the JIC deputy manager and the lead public information officers.

Community Relations Coordinator — Reports to the deputy JIC manager and is responsible for ensuring that an effective community relations group is established. The community relations coordinator will:

- Make sure activities are coordinated among the various agencies and the responsible party
- Determine information needs of the local community (including "rumors") and discusses methods to meet those needs with the JIC manager/lead PIOs
- Establish point-of-contact for local citizens to obtain spill information (including off-site phone teams if appropriate)
- Convey citizen issues and concerns to the JIC manager/lead PIOs
- Assess need to establish community spill information repository or information centers
- Assess possibility of utilizing community cable access

Community Relations Staff will:

- Represent their respective agency or the responsible party
- Respond to inquiries from citizens and local organizations
- Monitor the "pulse" of the local community
- Provide "rumor" information to community relations coordinator for assessment
- Discuss information needs and determines appropriate methods to meet those needs with the community relations coordinator

Note: Depending on the size of the incident and staff capability, Government and Community Relations may be combined into a single unit.

Production Unit

Staffing

The production unit reports to the JIC deputy manager and is staffed by writers and a graphic designer.

Responsibilities

The production unit is responsible for preparing news releases, updates, fact sheets, maps and other graphics materials for the news media and the public. Specific responsibilities include:

Production Unit Manager — Reports to the JIC deputy manager and ensures written and graphics materials are produced as needed for public dissemination, news conferences and public meetings.

Writers:

- Must have solid journalistic abilities and be proficient with computers/word-processing software (preferably MS Word)

- Prepare news releases, updates and fact sheets as directed by the JIC deputy manager or the production group manager

Graphic Designer:

- Prepares maps, status boards and other graphic materials for public dissemination, news conferences and public meetings

Support Unit

Staffing

The support unit reports to the JIC deputy manager and is staffed by support staff or public information specialists.

Responsibilities

The **support unit** will:

- Make copies of news releases, fact sheets, updates, etc.
- Disseminate news releases, fact sheets, updates, etc. to internal (OSCs, Operations, Planning, Logistics, Finance, Safety) and external recipients (off-site and on-site media, local community leaders, off-site agency/company representatives)
- Maintain status boards (updated hourly)
- Maintain up-to-date map of spill response actions (updated hourly)
- Answer phones and take messages
- Ensure the JIC has necessary office supplies
- Perform other duties as assigned by the JIC deputy manager

JIC Operating Procedures

A Joint Information Center is a highly flexible organization that can be expanded as needed to meet the needs of a particular spill incident. The JIC is also a highly complex operation that must gear up from scratch into a sophisticated, fast-working organization comprised of public affairs representatives with various levels of experience, training and expertise. To ensure the smooth operation of a JIC, the following procedures should be used a guide:

Set-Up

The JIC must be located within the Command Center and in close proximity to the Operations Section and the Unified Command. **Ideally, the JIC will be located near the main entrance to facilitate visits/tours from the media, government officials and other VIPs.**

Although the number of telephones needed will vary with each incident, adequate lines will be necessary to handle media inquiries, government officials contacts, community inquiries, a fax machine and a computer/modem connection. Several phone lines should be reserved for outgoing calls. Space needs include areas for:

- Media, government and community phone staff
- Computer operators (news release writers)
- Supervisors
- Work space to collate news releases, fact sheets, etc.
- Status boards/maps
- Copy and fax machines
- Other JIC staff (information coordinators, on-site media reps, support staff)

If possible, a portion of the tables or desks should be set up in “U” shaped formation to facilitate face-to-face communication among JIC media/government/community phone staff. Additional space outside of the command center is also needed for media briefings/news conferences and a media

working area. The media briefing room needs to be large enough to accommodate a large number of newspaper, television and radio reporters and photographers.

Obviously, the larger or more complex the incident, the larger the media briefing/news conference room should be. It is also likely that government officials and other interested parties will attend briefings and news conferences. At a minimum the room should include a head table, public address system/podium, chairs, electrical outlets and easels for maps or charts.

The media working area should include working space (tables or desks), electrical outlets and telephones. There should also be a bulletin board or other area for posting news releases, messages, etc.

Equipment, Resources & Supplies

Each agency/organization would come to the JIC with as much equipment, resources and supplies as possible. Typical JIC needs include:

Equipment —

- Computers (laptop and work station)
- Printers (portable and laser printers)
- Extra printer ink cartridges
- Fax machine
- Copy machine (best to rent/lease including service contract)
- Electrical cords/power surge protectors
- Video camera
- VCR/television monitor (with antenna, cable cord)
- Tape cassette recorder
- AM radio
- Audio multi-box (for radio reporters and television sound technicians)
- Easels
- Time stamp (for information/fact sheets, etc.)

Resources —

- Large maps (mounted)
- Small area maps (notebook size)
- Small maps (to be filled in)
- Nautical charts
- Flip charts
- Geographic Response Plans

- 🕮 Northwest Area Contingency Plan
- 🕮 Oil spill fact sheets (including MSDS sheets)
- 🕮 JIC news release/update/fact sheet templates
- 🕮 JIC information gathering forms
- 🕮 Media/rumor telephone forms
- 🕮 JIC Manuals (roles & responsibilities/reference)
- 🕮 Marine wildlife reference book
- 🕮 Media directories & local area phone book
- 🕮 Fax distribution lists
- 🕮 Congressional, legislative, tribal directories

Supplies —

- ✐ Notebooks
- ✐ Name tags
- ✐ Tape (scotch/masking/duct)
- ✐ Pens/pencils/markers/highlighters
- ✐ Clip boards
- ✐ Printer paper (white & colored)
- ✐ Paper towels
- ✐ Marker board cleaner
- ✐ 3-ring notebooks & dividers for all JIC staff
- ✐ 3-hole punch
- ✐ Map overlay material
- ✐ File folders
- ✐ Stapler/extra staples
- ✐ Scissors
- ✐ Push pins

Information Flow & Processing

Gathering and disseminating information about the spill cleanup effort is one of the most important functions of the JIC. It is also one of the most difficult and challenging aspects of the overall spill public affairs effort.

The JIC Manual outlines the responsibilities of the various staff involved in the gathering, production and dissemination of information (Information Coordinators, JIC Supervisor, Writer). However, the precise information flow and processing is not described in detail. The following procedures are intended to increase the effectiveness of the information flow in the JIC.

Information Coordinators should use the JIC "information forms" to facilitate the gathering of pertinent facts and figures regarding the spill response effort. Also, an additional Information Coordinator, called a "Special Assistant," should be designated by the JIC Supervisor to assist in tracking down answers to difficult or unusual questions that may arise. (The Special Assistant to the JIC Supervisor will also be available to locate and escort spill specialists for media interviews or to complete other assignments.)

When an Information Coordinator has gathered up-to-date information, he/she should make two copies of the form. The two copies should be provided to the JIC Supervisor (the Information Coordinator can retain the original copy for personal use/reference). The Information Coordinator should then await further direction/assignment from the JIC Supervisor.

The JIC Supervisor will review the completed information form and provide one copy to the Production Unit (or Writer) with instructions on how the information should be used (to complete a news template, separate news release, etc.). The JIC Supervisor will then provide the other copy to the JIC staff responsible for keeping status boards with instructions about what information should be placed on the status board.

The JIC Supervisor can also request the Information Coordinator to brief the entire JIC staff about the new or updated information. JIC staff briefings should be made on a regular basis and can be conducted by the Lead PIOs, Information Coordinators, OSCs, JIC Supervisors, technical staff, tribal representatives or other appropriate individuals.

Status boards (flip chart paper) and maps that should be developed include:

- Unified Command organization (key positions/staff)
- JIC organization (all positions/staff)
- Key phone numbers
- Incident map (showing spill status, skimming efforts, GRPs, etc.)
- Spill status information (to be determined by the JIC Supervisor & status board staff)
- Rumor list
- Command messages
- Clip board with all news releases/updates

News Release Review Protocols

It is the responsibility of the Lead PIOs to establish an efficient and effective review protocol for approving news releases and updates. When possible, the Lead PIOs should seek delegation of review authority from their respective OSCs.

News Release Distribution

Every effort should be made to limit the amount of external news release distribution conducted by the JIC. "Headquarters" staff, news services or faxing companies should be used whenever possible to fully distribute news releases and updates. Use of the Internet should also be pursued. In addition to news organizations and specialized publications, news releases and updates should be provided to:

- Agency/organization home offices
- Local officials
- Tribal officials
- Governor's office
- State representatives
- Congressional officials
- Environmental groups

Note: All JIC staff must receive copies of news releases, updates, fact sheets, etc. as soon as they are finalized for inclusion in each individual's three-ring spill information notebook.

Wildlife Rescue/Rehabilitation Information Coordination (Washington State)

Coordinating information about injured or oiled wildlife is done through the Wildlife Rescue Coordinator (Operations Section) and/or the Natural Resource Damage Assessment Team (Operations or Planning Section). The main JIC contact will be the Environmental Information Coordinator.

The Wildlife Rescue Coordinator will inform the JIC of the appropriate messages (oiled wildlife reporting line, citizen advisories, materials needed, etc.) regarding the wildlife rescue and rehabilitation effort that should be provided to the media. The 1-800 volunteer number should not be publicized by the JIC until instructed to do so by the Wildlife Rescue Coordinator.

Wildlife "numbers" (number of birds collected live/dead, cleaned, released, etc.) will be updated and released once a day (the specific time will be determined during the spill incident).

The Washington Department of Fish & Wildlife will designate a PIO for the wildlife rehabilitation facility at St. Edward's State Park in Kirkland and at other sites (primary care facility) as needed. Every effort should be made to coordinate public information activities between the JIC and PIOs assigned to wildlife rescue and rehabilitation effort.

Responding to Policy Level or Technical Inquiries

Media inquiries (both by phone and on-scene) frequently address agency policy, technical details or controversial issues. These inquiries can be handled in a number of ways:

- The request is handled directly by the public affairs representative who receives the inquiry (assuming he/she is qualified, capable and authorized to handle such requests).

- The request can be immediately referred to a Media Phone Staffer or On-Site Media Staffer who is available, qualified, capable and authorized to handle such request.

- If appropriate (news briefing about to be held; no knowledgeable spokesperson available; the inquiry is being researched; etc.), the reporter is told the inquiry can be addressed at the next news briefing or news conference.

- The public affairs representative receiving the request completes a "Media Inquiry" form with specific details of the request and gives the form to the JIC Supervisor.

- The JIC Manager or JIC Deputy Manager handles the inquiry with a call-back or interview with an on-scene reporter.

- The JIC Manager or JIC Deputy Manager requests the "Special Assistant" Information Coordinator or other staff to locate a member of the response organization who can answer the inquiry.

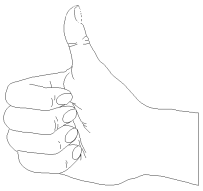
- The JIC Manager elevates the request to the appropriate Lead PIO.

- The Lead PIO handles the request directly with a call-back or on-scene interview.

- The Lead PIO identifies an appropriate person to handle the request.

- The Lead PIO determines that the issue needs to be addressed to all media and schedules a media briefing.

- The Lead PIO determines there is no appropriate answer at this time and elevates the issue to the Unified Command for either immediate response or response at the next news conference — the Lead PIO or designee must get back to the reporter and explain when the information will be available.



Rule of Thumb: No matter how the inquiry is handled, every effort should be made to get back to the reporter as soon as possible with the information or to explain when the information will be available.

Working With On-Scene Reporters

On-Site Media JIC Staff are responsible for addressing the needs of reporters that are at the Command Center. Difficulties can arise when reporters are on a deadline and need to immediately interview high-level or technical staff.

If the On-Site Media JIC Staff cannot facilitate the interview (or other) needs of a reporter, he/she should report the situation to the Media Relations Manager or JIC Manager (or Deputy JIC Manager) as appropriate. It is up to the Media Relations Manager or JIC Manager (or Deputy) to either handle the situation directly or elevate the issue to the Lead PIOs. If the situation is elevated, it becomes the responsibility of the Lead PIOs to handle the need directly or get an appropriate response official to conduct the interview.

Media Pools

In situations where access to the spill incident is limited or restricted, a media pool or series of media tours should be formed. A media pool should only be used after all other possibilities for site access have been explored. The Lead PIOs will be responsible for determining the need for a media pool with the On-Site Media JIC Staff providing support.

Pool reporters should be selected by media representatives on the scene. The pool should consist of at least one video crew (camera operator, sound technician & reporter), one still photographer (wire service, newspaper or magazine), one radio reporter and one newspaper or wire service reporter. All journalists selected as pool members are expected to supply copy, video, audio or still photos in a timely manner to all media representatives who request the material.

When possible, additional media pools or media tours should be formed and conducted on a regular basis allowing different journalists and media organizations the opportunity to have direct access to the spill scene.

Working With Reporters at Forward Command Posts

As the response effort grows it may be necessary to assign public affairs representatives to forward command posts. Whenever possible, agencies should be encouraged to provide this support and assistance.

The Lead PIOs, in consultation with the JIC staff should determine the need for this assistance and assignment of personnel. Public affairs representatives who are assigned to forward command post locations report to the Media Relations Manager.

Coordinating with Liaisons & Safety Officer

The Lead PIOs are responsible for ensuring that communication links between the Command Staff (Liaison(s) and the Safety Officer) and the appropriate JIC staff are established and maintained. Although the Liaison position reports directly to the Unified Command, the infrastructure to carry out most of their duties is located in the JIC Government and Community Relations unit(s). Because of this split organizational feature, it is extremely important for the JIC Manager, JIC Deputy Manager, and/or the Government/Community Relations Coordinator to coordinate directly with the Liaison(s). Efforts must be made to ensure pertinent safety information is collected from the Safety Officer and disseminated.

VIP Visits & Tours

The bigger the incident the more likely that VIPs will visit the Command Center and tour the spill site. The Lead PIOs need to coordinate closely with the Liaisons and Government Relations staff to ensure that VIP visits and tours are properly handled. The Lead PIOs will also need to coordinate these efforts with the Unified Command to ensure that appropriate level briefings are provided.

Internal Communications

One of the important roles of the JIC is to provide information on the spill cleanup effort to response officials and workers. It is suggested that the JIC provide copies of all news releases and updates to each OSC, command staff, section supervisors, forward command posts and wildlife rescue and rehabilitation facilities. In addition, a bulletin board should be maintained within the Command Center that is accessible to everyone in the Unified Command organization.

News Media Monitoring

On-Site Media JIC Staff are responsible for monitoring news media reports. Copies of newspaper articles should be clipped and compiled into news clip packets for the JIC staff, Lead PIOs and the Unified Command. Video news clips should also be compiled when possible. News stories, radio reports and video clips should be reviewed for accuracy. Efforts to correct inaccuracies should be made as appropriate such as calling specific reporters, issuing news updates with corrected information, contacting the Associated Press, addressing specific issues at the next news briefing, etc.

JIC Staffing

Staffing the JIC is the responsibility of the Lead PIOs. The Lead PIOs should initially rely on the agencies/organizations and the public affairs member comprising the Pacific Northwest Oil Spill Public Affairs Group.

For major and long-term spill incidents, the staffing needs for a JIC will be significant and exceed the resources solely available from the public affairs group. The Lead PIOs will also need to determine shift coverage for 24-hour operations.

During major spill incidents, it is anticipated that public information staff will work in 12-hour shifts, with a small night crew to handle media telephone inquiries and any major spill response developments that require public affairs assistance or action.

Additional staffing resources are available or can be obtained through the following avenues:

- Coast Guard Public Information Assist Team (PIAT) and/or other Coast Guard public affairs resources: via District 13, Coast Guard Public Affairs
- Coast Guard Reserves/Auxiliary: via District 13, Coast Guard Public Affairs
- State of Washington Military Department, Emergency Management Division: 800) 258-5990 (ask for PIO)
- Federal Emergency Management Agency: (206) 487-4610 (Mike Howard)

Lead PIOs should continually evaluate the need for additional PIO resources to ensure adequate staffing of the JIC and any forward operational areas.

News Briefings and News Conferences

News briefings and news conferences for small and medium spills will be determined on a case-by-case basis depending on the needs of the reporters covering the incident.

For large or major spill incidents, a regular schedule of news briefings and news conferences should be established by the Lead PIOs. There should be a minimum of two news media briefings each day for as long as the size of the media contingent covering the event warrants that number of briefings. Media briefings should be scheduled and held in conjunction with news deadlines.

Schedule

Although the specific times for news briefings and news conferences will be determined by the Lead PIOs in conjunction with the Unified Command, a typical daily news availability schedule may be as follows:

- **Morning media availability** — technical experts and/or Lead PIOs
- **Afternoon news conference** — Unified Command with selected experts
- **Evening media availability** — end of day briefing by experts and/or Lead PIOs

If a spill incident occurs during the evening or early morning, every effort should be made to hold the first news briefing before noon (10 a.m. or 11 a.m.). If the spill incident happens late morning or early afternoon, every effort should be made to conduct the first news briefing by 3 p.m.

Conducting News Briefings & News Conferences

The On-Site Media JIC Staff are responsible for news conference logistics including the set-up of chairs, head table/podium, graphics/props and providing handouts.

News briefings and news conferences should begin **on time** with a Lead PIO as the moderator. The moderator should introduce himself/herself, explain the format of the news briefing, provide the time frame (usually 30 to 45 minutes), read the incident statement (see section on initial coordination), introduce the speakers,

moderate the question and answer period, and end the news conference and announce the time for the next news briefing. When introducing speakers, the moderator should refer reporters to a handout with the names and titles of the speakers. (There should also be large name plates for presenters.) Following the news availability, the Lead PIOs should be available to answer follow-up questions and to determine specific interview request needs.

Handouts & Graphics

News kits should be prepared as appropriate. At a minimum, a handout with names and titles of the speakers and the most current news update should be available to reporters at each news briefing. Good quality graphics and/or "props" should also be part of every news briefing. Typical materials include incident maps, spill trajectories, vessel diagrams, oil samples, drawings, wildlife information, etc.

Pre-Briefing for OSCs & Other Presenters

At least 30 minutes before each news briefing, the Lead PIOs should meet with the news conference participants. A review of logistics, order of presenters, anticipated questions, use of graphics/props should be discussed.

A list of anticipated questions should be developed by the Lead PIOs in conjunction with the JIC staff (especially the Media Phone Staff). Suggested responses should be discussed during the pre-news briefing meeting.

Unified Command news conference participants should emphasize the overall response objectives and their oversight roles. Due to the number of Unified Command participants (up to five or more!), their statements should be brief (no longer than three to five minutes). The primary goal of the OSC prepared statements is to present the most important messages or themes, not the details of the response effort. Another option to consider is to have just one OSC provide a formal statement (with the other OSCs available to answer questions).

Elected Officials & Other VIPs

There will be times when elected officials and other VIPs will be available for news briefings. It is very important that the Lead PIOs, Liaison Coordinator and the Unified Command meet in advance to discuss the logistics, messages and other issues regarding the inclusion of these individuals in news conferences.

Follow-Up

During each news briefing, designated public affairs staff (On-Site Media JIC staff) should take notes of responses to reporter questions and note any unanswered questions. It is suggested that a video recording be made of each news availability (for playback to the JIC staff and others). Another option is to record the proceedings on a tape cassette player.

As soon as possible after the news availability, one of the Lead PIOs or designee should provide a briefing to the JIC staff of any new information or policy statements that were presented. The Lead PIOs should also ensure that information is obtained to address any unanswered questions. As appropriate, the Lead PIOs should debrief with their respective OSC regarding the effectiveness of the news conference.

Community, Tribal and General Public Information Needs

Meeting the information needs of the local community where the spill incident and response efforts are located is an important task of the response organization. The Lead PIOs are responsible for determining the timing and strategy for meeting these needs in consultation with the Liaison Coordinator. Possible methods to address community needs include:

- Preparing and distributing information flyers
- Creating and maintaining a community information bulletin board(s)
- Telephone hotline/phone team (on-scene or off-scene) specifically for general public inquiries
- Seeking time on the local cable access station
- Community public information meeting or forum
- Internet access

Special efforts should be made to keep tribal officials informed of spill response activities and public information efforts. Every effort must be made to coordinate access issues for reporters with tribal officials.

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N W A C P

C O M M U N I C A T I O N S
M A N U A L

November 1998

NWACP COMMUNICATIONS MANUAL
TABLE OF CONTENTS

SECTION 1 - INTRODUCTION

A. PURPOSE

To delineate existing communication capabilities and sources of additional equipment that might be needed in the event of a catastrophic oil or hazardous substance pollution incident. Specifically, this section will discuss the following communications capabilities:

- Radio
- Telephone
- Cellular Telephone
- Satellite Telephone
- FAX
- Electronic Mail
- Supplemental sources of communications equipment

The secondary purpose is to identify the operating frequencies used by principal federal and state agencies, and to provide an overview of those agencies' capabilities and resources.

B. DISCUSSION

Effective communications between all involved parties and agencies are crucial when coordinating an effective response to any oil or hazardous substance pollution incident. Adequate equipment and a well thought out communications plan are imperative to a coordinated response. For responses involving numerous vessels or operations distant from the command center, a communications center will have to be set up in the most logical location. The communications center will require telephones, facsimile machines, and radio base stations with additional portable radios for each established network.

The distances involved may necessitate the installation of VHF/UHF repeater stations to allow communications at greater distances. Contingency planners must seriously address their communications requirements prior to the event. Failure to properly command and control response resources will prove devastating to the response.

Costs and operability shall be important considerations when obtaining equipment and services. Communications shall be conducted to maximize the effectiveness and efficiency of Coast Guard and other involved party's pollution incident mitigation efforts.

SECTION 2 - QUICK START

A. PURPOSE

To represent the steps to be taken during a communications event.

B. DISCUSSION

The steps to be carried out during a communications event can effectively be broken into blocks of procedure; from initial notification (*RECALL*) to developing the final (*AFTER ACTION*) report. These procedures are further developed into charts, tables and graphs which assist the user to carry out the plan. (See Exhibit 1)

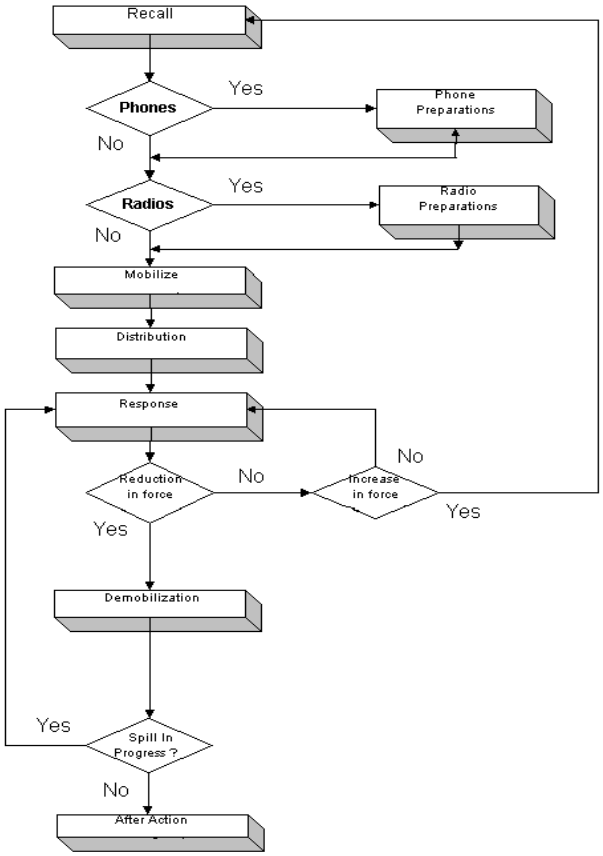


Exhibit 1

C. RECALL

This section outlines important actions to be taken when receiving the first notification of an event; serious delays of equipment or personnel may result if these initial questions are not properly addressed. The actions include providing an assignment, designating a reporting location and a reporting time, travel instructions and whether phones or radios are required. (See Exhibit 2)

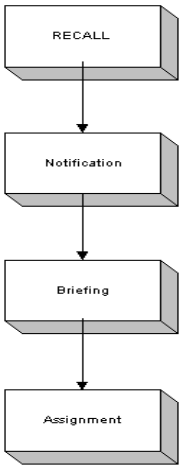


Exhibit 2

Notification

Document the time and date that contact is made to report to the transportation area and keep receipts of any costs incurred to reach the destination.

Briefing

Obtain an operational briefing and then hold a briefing for your subordinates. Present the "big picture". Planning is easier to achieve when you know the scope of the incident.

Assignment

Ensure that each person on your team has a clear understanding of their specific duties and then documents all assignments.

Reporting

Upon arrival at the incident site, check-in at the designated check-in location. These may be found at:

- Incident Command Post
- Base or Camps
- Staging Areas
- Helibases
- Division Supervisor (for direct line assignments)

Initial check-in must include the following information:

- Cellular Phone Number
- Pager Phone Number
- Radio Communications **PRI**mary/**SEC**ondary working frequency (if known)
- ICS Organization position (BR/DIV/UNIT/CHIEF/STF OFFICER)

Agency representatives from assisting or cooperating agencies report to the Liaison Officer at the Command Post after completing the check-in procedure.

D. EQUIPMENT REQUIREMENTS

This section includes a determination of whether phones and/or radios are required and further identifies any cellular, TELCO landline, satellite or RF needs. This requirement is sub-divided into the first 24 hours and any subsequent requests. For a list of vendors, cite the Federal/State/Commercial Resources listings found in section 6. (See Exhibits 3 and 4)

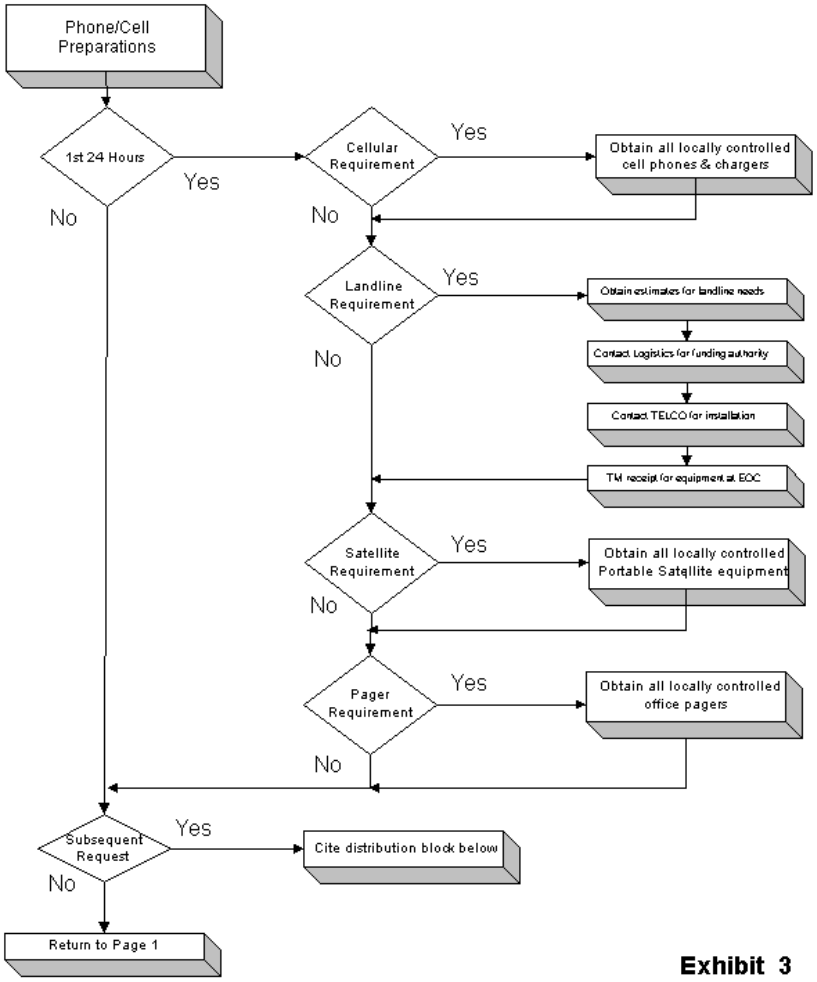


Exhibit 3

<u>Initial Requirement (1st 24 Hours</u>)

- **Cellular.** Bring all locally controlled office cellular telephones and charging units.

- **Landlines.** Attempt to obtain estimates for any landline needs. Decide if TELCO can provide the number and type of circuits you require. If not, request FEMA and/or MSRC VAN with Satellite PBX capability. Contact the Logistics Officer for funding authority. Contact the local phone company to arrange for installation and request expected delivery date. The Communications Section Leader or equivalent is to receipt for leased equipment at the Emergency Operations Center (EOC).

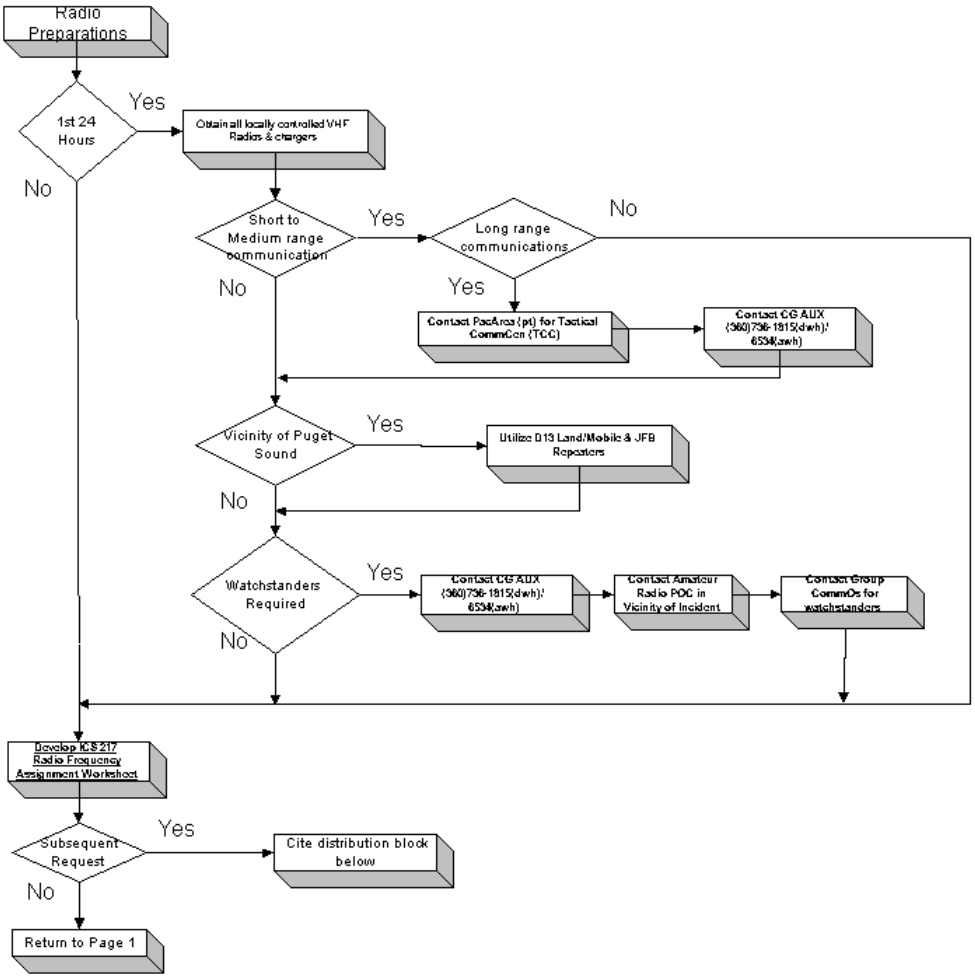


Exhibit 4

- **Satellite.** Obtain any locally controlled office portable satellite telephone equipment.
- **Paging.** Obtain all locally controlled office pagers.
- **Radio.** Obtain all locally controlled office portable handheld radios, batteries and charging units.

<u>Radio Frequency Assignment Worksheet (ICS-217)</u>

RADIO FREQUENCY ASSIGNMENT WORKSHEET (ICS FORM 217)

Purpose. The Radio Frequency Assignment Worksheet is used by the Communications Unit Leader to assist in determining frequency allocations.

Preparation. Cache radio frequencies available to the incident are listed on the form. Major agency frequencies assigned to the incident should be added to the bottom of the worksheet.

Distribution. The worksheet, prepared by the Communications Unit, is for internal use.

Instructions for Completing the Radio Frequency Assignment Worksheet (ICS Form 217).

ITEM NUMBER	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date	Enter date (month, day, year) prepared.
3.	Operational Period	Enter the time interval for which the assignment applies. Record the start date/time and end date/time.
4.	Incident Organization	List frequencies allocated for each channel for each organizational element activated, record the number of radios required to perform the designated function on the specified frequency.
5.	Radio Data	For each radio cache and frequency assigned, record the associated function. Functional assignments are: Command Support Division tactical Ground-to-air
6.	Agency	List the frequencies for each major agency assigned to the incident. Also list the function and channel number assigned.
7.	Total Radios Required	Total each column. This provides the number of radios required by each organizational unit. Also total each row which provides the number of radios using each available frequency.
8.	Prepared By	Enter the name and position of the person completing the worksheet.

- Develop **<u>ICS 217 Radio Frequency Assignment Worksheet</u>**.

RADIO FREQUENCY ASSIGNMENT WORKSHEET

1. INCIDENT NAME	2. DATE	3. OPERATIONAL PERIOD (DATE/TIME)

3. RADIO DATA / 4. INCIDENT ORGANIZATION				BRANCH	DIVISION	DIVISION	DIVISION	BRANCH	DIVISION	DIVISION	DIVISION	BRANCH	DIVISION	DIVISION	DIVISION	INCIDENT COMMANDER	SAFETY OFFICER	OPERATIONS SECTION CHIEF	AIR OPERATIONS	AIR TACTICAL SUPERVISOR	PLANNING SECTION CHIEF	GROUND SUPPORT UNIT	BASE UNIT						COMM CENTER	TOTAL BY REQ.
SOURCE	FUNCTION	CH #	FREQUENCY																												
5. AGENCY	ID		CH #	FREQUENCY																											
6. TOTAL RADIOS REQUIRED																															
217 ICS																							7. PREPARED BY (NAME/POSITION)								

E. MOBILIZATION

Actions include leasing a vehicle, collecting leased or purchased telephone and/or radio equipment, and transporting the assembled materials to the equipment staging area for further distribution. (SeeExhibit 5)

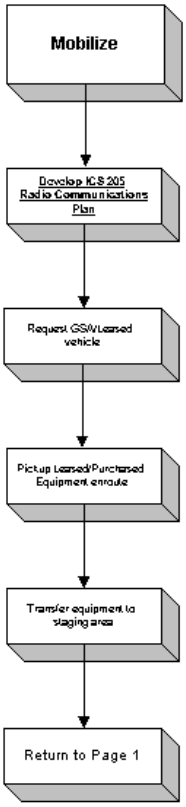


Exhibit 5

RADIO REQUIREMENTS WORKSHEET (ICS FORM 216)

Purpose. The Radio Requirements Worksheet is used to develop the total number of personal portable radios required for each Division/Group and Branch. It provides a listing of all units assigned to each Division, and thus depicts the total incident radio needs.

Initiation of Form. The worksheet is prepared by the Communications Unit for each operational period and can only be completed after specific resource assignments are made and designated on Assignment Lists. This worksheet need not be used if the Communications Unit Leader can easily obtain the information directly from Assignment Lists.

Distribution. The worksheet is for internal use by the Communications Unit and therefore there is no distribution of the form.

Instuctions for Completing the Radio Requirements Worksheet (ICS Form 216).

ITEM NUMBER	ITEM TITLE	INSTRUCTIONS
1.	Incident Name	Print the name assigned to the incident.
2.	Date	Enter date (month, day, year) prepared.
3.	Time Prepared	Enter time prepared (24-hour clock).
4.	Branch	Enter the Branch number (I, II, etc.) for which radio requirements are being prepared.
5.	Agency	Enter the three-letter designator of the agency staffing the Branch Director position (e.g., VNC, CDF, ANF, LFD, etc.)
6.	Operational Period	Enter the time interval for which the assignment applies. Record the start date/time and end date/time.
7.	Tactical Frequency	Enter the radio frequency to be used by the Branch Director to communicate with each Division/Group Supervisor in the Branch.
8.	Division/Group	Enter for each Division/Group in the Branch the Division/Group identifier (A, B, etc.) and the agency assigned (e.g., LAC, VNC, etc.)
9.	Agency/ID No./Radio Requirements	List all units assigned to each Division/Group. Record the agency designator, unit or resource identification, and total number of radios needed for each unit or resource.
10.	Prepared By	Enter the name and position of the person completing the worksheet.

*NOTE: Detailed instructions for the completion of the Worksheet are found in ICS 223-5 Communications Unit Position Manual, Chapter 3.

- Develop **ICS 216 Radio Requirements Worksheet**.

RADIO REQUIREMENTS WORKSHEET			1. INCIDENT NAME			2. DATE			3. TIME		
4. BRANCH			5. AGENCY			6. OPERATIONAL PERIOD			7. TACTICAL FREQUENCY		
8. DIVISION/GROUP AGENCY			DIVISION/ GROUP AGENCY			DIVISION/ GROUP AGENCY			DIVISION/ GROUP AGENCY		
9. AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS	AGENCY	ID NO.	RADIO RQMTS
216 ICS 3-82			PAGE			5. PREPARED BY (COMMUNICATIONS UNIT)					

NFES 1339

F. DISTRIBUTION

One of the most important issues to spill response, is resource inventory and material control. Without a proper inventory, materials may become lost or stolen. Equipment staging area custodians must thoroughly control

equipment issue and recovery. This block outlines the actions to be taken for receipt and resupply of communication equipment and services. (See Exhibit 6)

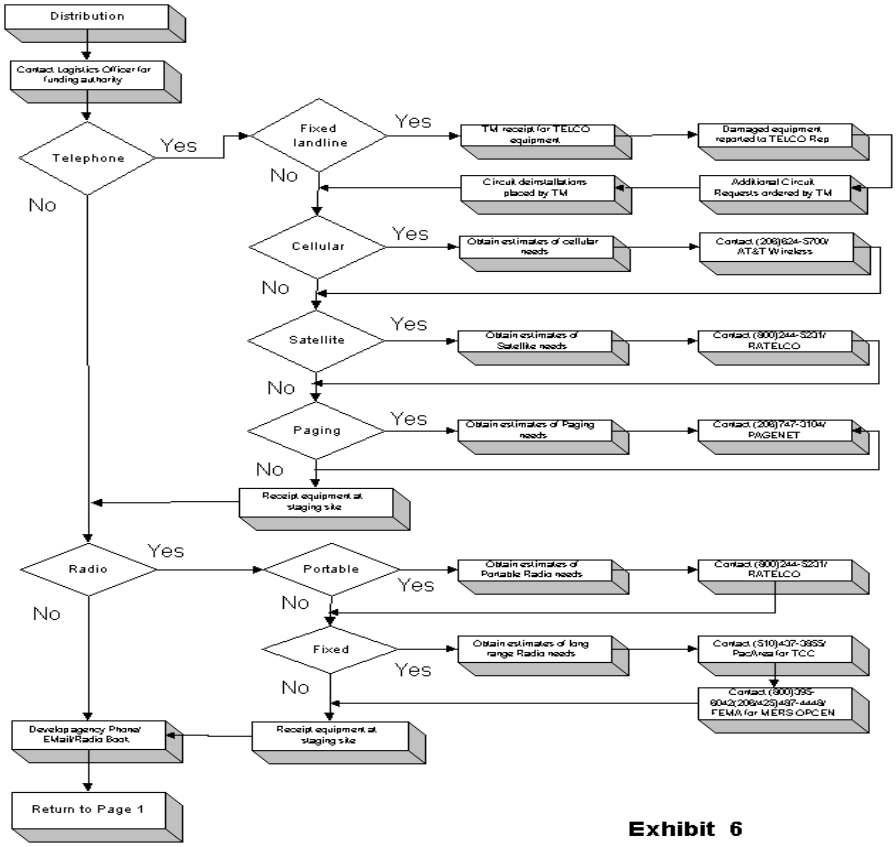


Exhibit 6

Northwest Area Communications Plan

Distribution

Fixed Landline

The Communications Section Leader or equivalent is responsible for approval and receipt of any TELCO installation, for reporting damage to leased equipment and to obtain replacements as required. Requests for hardware, circuit installations or deinstallations must be approved by the Communications Section Leader. Contact the **U.S. West** POC in section 6-A for new or additional services, and then obtain an expected delivery date. Receipt for the equipment at the Emergency Operations Center. The Communications Section Leader will arrange for circuit deinstallations as required or after unit demobilization.

Cellular

The Communications Section Leader estimates the need for new or additional cellular telephones and then obtains funding authority from the Logistics Officer to purchase or lease the additional equipment. Contact the **AT&T Wireless** POC in section 6-A to arrange for new or additional services and then obtain an expected delivery date. Receipt for the equipment at the Emergency Operations Center and arrange transportation for the equipment to the staging site. The manager of the staging site accepts, inventories and disburses the new equipment as required. Turn-in unrepairable equipment is to be surveyed and reordered as required. The staging

site manager returns the equipment to the Communications Section Leader after unit demobilization. The Communications Section Leader returns any leased equipment back to the vendor.

Satellite

The Communications Section Leader estimates the need for satellite telephone services and obtains funding authority from the Logistics Officer to purchase or lease the additional equipment. Contact **AMSC** or **Puget Sound Instruments** POC in section 6-A to arrange for purchase of portable satellite hardware and service. Obtain an expected delivery date. Receipt for the equipment at the Emergency Operations Center and arrange transportation for the equipment to the staging site. The manager of the staging site accepts, inventories and disburses the new equipment as required. Turn-in unrepairable equipment is to be surveyed and reordered as required. The staging site manager returns the equipment to the Communications Section Leader after unit demobilization. The Communications Section Leader returns any leased equipment back to the vendor.

Paging

The Communications Section Leader estimates the need for new or additional paging services and then obtains funding authority from the Logistics Officer to purchase or lease the additional equipment. Contact the **PageNet** POC in section 6-A to arrange for new or additional services and then obtain an expected activation date. Receipt for the equipment at the Emergency Operations Center and arrange transportation for the equipment to the staging site. The manager of the staging site accepts, inventories and disburses the new equipment as required. Turn-in unrepairable equipment is to be surveyed and reordered as required. The staging site manager returns the equipment to the Communications Section Leader after unit demobilization. The Communications Section Leader returns any leased equipment back to the vendor.

Phone Book

Develop an agency phone book to contain Email addresses, primary/secondary RF working channels and assigned telephone number of Pagers and Cellular Phones.

Portable Radio

The Communications Section Leader estimates the need for additional portable radios and then obtains funding authority from the Logistics Officer to purchase or lease the portable (handheld) radio equipment. Contact the **RATELCO** POC or other vendors in section 6-A to arrange for new or leased portable radio hardware and then obtain an expected delivery date. To obtain a cache of portable handheld radio equipment, contact the **National Interagency Fire Center (NIFC)** POC in section 6-B and arrange for a delivery date. Receipt for the equipment at the Emergency Operations Center and arrange transportation for the equipment to the staging site. The manager of the staging site accepts, inventories and disburses the new equipment as required. Turn-in unrepairable equipment is to be surveyed and reordered as required. The staging site manager returns the equipment to the Communications Section Leader after unit demobilization. The Communications Section Leader returns any leased equipment back to the vendor.

Fixed Radio

Determine your short-range communications (UHF/VHF) needs. For communications support personnel and Auxiliary network coordinator, contact **the USCG Auxiliary** POC located in section 6-B. If unavailable, contact his alternate. For additional short range communications (VHF) needs, state and Gov. agencies can contact **the Thirteenth Coast Guard District (dt)** POC in section 6-B for use of government repeater sites and equipment. To obtain a cache of fixed and repeater radio equipment, contact **the National Interagency Fire Center (NIFC)** or MSRC POC in section 6-B and arrange for a delivery date. As an alternative, purchase fixed equipment direct from RAYTELCO or a vendor of your choice.

Determine your medium to long range communications (MF/HF) needs. Government and state agencies can contact the **USCG Pacific Area Command (ptt)** POC located in section 6-B to request use of the Transportable Communications Center (TCC).

To request **FEMA**'s Mobile Radio Van (MRV), state and Government agencies can contact the FEMA POC located in section 6-B.

To request **MSRC**'s Mobile Radio Van (MRV), contact the MSRC POC located in section 6-A. It should also be noted that access to the MSRC's van for oil spill response must go to Coast Guard Head Quarters for specific authorization.

G. RESPONSE

This block begins the development of the Communications Plan (ICS 205), based upon known facts or collected information. (See Exhibit 7)

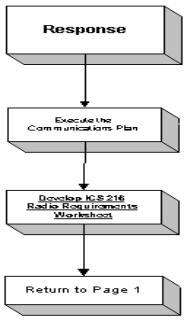


Exhibit 7

Northwest Area Communications Plan

Response

Communications Plan Worksheet (ICS 205

RADIO COMMUNICATIONS PLAN (ICS FORM 205)

Purpose. The Incident Radio Communications Plan provides, in one location, information on all radio frequency assignments for each operational period. The plan is a summary of information obtained from the Radio Requirement Worksheet (ICS Form 216) and the Radio Frequency Assignment Worksheet (ICS Form 217). Information from the Radio Communications Plan on frequency assignments is normally placed on the appropriate Assignment List (ICS Form 204).

Preparation. The Incident Radio Communications Plan is prepared by the Communications Unit Leader and given to the Planning Section Chief. Detailed instructions on preparing this form may be found in ICS 223-5, the Communications Unit Position Manual.

Distribution. The Radio Communications Plan is duplicated and given to all recipients of the Incident Action Plan including the Incident Communications Center. Information from the plan is normally placed on the appropriate Assignment List(s) (ICS Form 204).

Item #	Item Title	Instructions
1.	Incident Name	Print the name assigned to the incident.
2.	Date/Time Prepared	Enter date (month, day, year) and time prepared (24-hour clock).
3.	Operational Period Date/Time	Enter the date and time interval for which the Radio Communications Plan applies. Record the start time and end time and include date(s).
4.	Basic Radio Channel Utilization System	Enter the radio system(s) assigned and used on the incident (e.g., CLEMARS, Region 9 Emergency System).
	Channel Number	Enter the radio channel numbers assigned.
	Function	Enter the function each channel number is assigned (i.e., command, support, division tactical, and ground-to-air).
	Frequency	Enter the radio frequency tone number assigned to each specified function (e.g., 153.400).
	Assignment	Enter the ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations.
5.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.

- Develop **ICS 205 Communications Plan Worksheet**.

INCIDENT RADIO COMMUNICATIONS PLAN	1. INCIDENT NAME	2. DATE/TIME PREPARED	3. OPERATIONAL PERIOD (DATE/TIME)

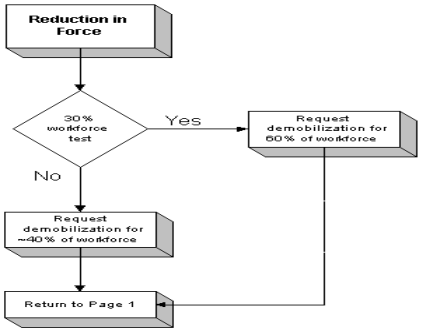
4. BASIC RADIO CHANNEL UTILIZATION					
SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

ICS 205 8/95	5. PREPARED BY: (COMMUNICATIONS UNIT)

- Execute the Communications Plan.

H. REDUCTION IN FORCE

The requirement is to determine whether 30% of your workforce could effectively maintain the workload imposed upon your workgroup. If these requirements can be met, request that your team demobilize 60% of the workforce. Otherwise, request a 30% decrease. (See Exhibit 8)



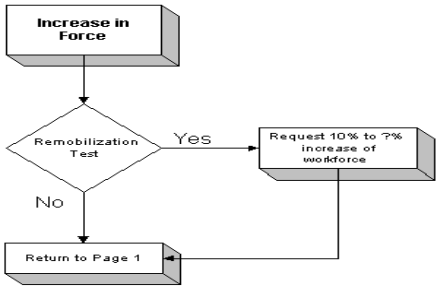
Northwest Area Communications Plan

Reduction In Force

Exhibit 8

I. INCREASE IN FORCE

The requirement is to determine whether your workforce effectively maintains the workload imposed upon your workgroup. If these requirements cannot be met, request an additional 10% increase in the workforce. Repeat the Reduction In Force and Increase In Force tests as required. (See Exhibit 9)



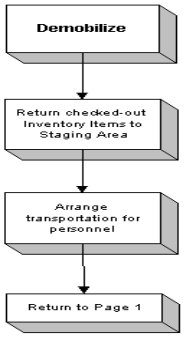
Northwest Area Communications Plan

Increase In Force

Exhibit 9

J. DEMOBILIZE

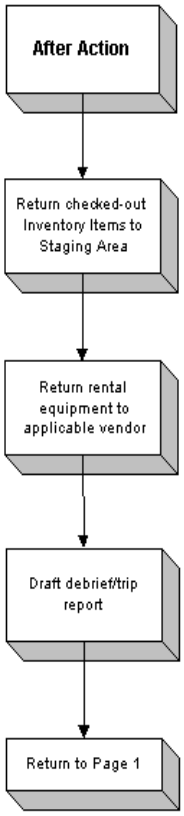
After unit demobilization, the staging area manager returns all telephone and radio equipment to the Communications Section Leader. The Communications Section Leader returns any leased equipment back to the appropriate vendor and solicits disposition instructions for all purchased equipment from the Logistics Section manager. Complete a debrief / trip / lessons learned report and submit to your appropriate chain of command (See Exhibits 10 and 11)



Northwest Area Communications Plan

Demobilize

Exhibit 10



Northwest Area Communications Plan

After Action

Exhibit 11

SECTION 3 - EQUIPMENT CAPABILITIES

A. PURPOSE

This guide provides information, procedures and the selection of the appropriate communications system for support of oil spill response operations.

B. DISCUSSION

Response to a spill may involve exposure to hazardous materials; operations and equipment may not purport to address all of the safety issues associated with equipment use; such as using intrinsically safe radios, ET. Al. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

C. DEFINITIONS

Effective spill response depends on good communication at all levels, from the initial detection of a spill until final restoration efforts are completed. Information from the initial observation of a spill must be quickly brought to the attention of spill responders and specific government agencies.

Response team members must be contacted without delay and information about the spill must be conveyed to them efficiently. Persons responding at the scene of a spill must have instant communication with others, sometimes over a considerable distance. Spill response managers must be able to communicate with government permit authorities and with individuals and teams in the field. Coordination of transportation, material support, equipment repair, and other logistics matters requires good communication.

This standard describes systems for handling these complex communications matters. It is intended primarily for the guidance of spill responders and those who plan and manage spill response systems.

Amplitude Modulation (AM)

Refers to radio signals in which the information content is created by varying the power level or amplitude of an electromagnetic carrier wave.

Frequency Modulation (FM)

Refers to radio signals in which the information content is created by varying the wavelength or frequency of an electromagnetic carrier wave. FM transmissions can eliminate much of the noise found in an AM signal. Short-range communication for spill response using VHF and UHF radio channels commonly utilizes the FM mode.

High Frequency (HF)

Those between 3 MHz and 30 MHz. Generally, this method is employed when you require long range communications; those beyond 100 miles. High frequency is prone to atmospheric conditions, and is not considered a reliable effective method.

Single Sideband (SSB)

With ordinary amplitude modulation transmissions, audio frequency information is electronically combined with a radio-frequency carrier wave. This results in a complex signal that includes an upper Sideband component (which is the sum of the carrier frequency plus the audio frequencies present) and a lower Sideband component (which is the difference between the carrier and the audio frequencies present).

With single-Sideband transmissions, the AM signal is processed to remove the carrier and one of the sidebands. This results in a signal that occupies a smaller part of the radio spectrum and which uses all of its energy for the transmission of information. Single-Sideband emissions are commonly used for long distance HF transmissions.

Very High Frequency (VHF)

Those between 30 MHz and 300 MHz. Transmission distances over VHF are limited to line of sight and terrain; generally, point-to-point at sea level is approximately 7 miles.

Ultra-High Frequency (UHF)

Those between 300 MHz and 3 Ghz. Transmission distances over UHF are limited to line of sight and terrain; generally, point-to-point at sea level is approximately 5 miles.

D. TYPES OF COMMUNICATIONS SYSTEMS

The following sub-paragraphs briefly describe a number of different communication systems that may be employed in a given situation.

Spoken Word

Ordinary face-to-face speech, though not usually thought of as a "communication system," is central in nearly any human transaction. Though it may lack the precision of more formal methods of communication, the feedback that conversation provides helps the speaker knows that what he says is heard and understood by those who are hearing him. The cost of this standard deals with communication channels made possible by technology, but ordinary person-to-person speech is mentioned here because of its persuasiveness and importance. Without good voice communications, commands will not be understood so cannot be followed, and information from the field will not reach persons who must act on it.

Voice Transmission Over Telephone Circuits

Oil spill contingency planners must recognize that remote areas may not be prepared to fill the telephone requirements of a given spill emergency. Lightly populated areas may have limited phone service or no service at all, or the reserve capacity of the system may be so small that temporary planning must address these problems. Solutions to such potential telephone bottlenecks might include hardware for microwave or satellite links in the inventories of spill response cooperatives.

Cellular Telephone Systems

Battery powered cellular phones can free the user from dependence on commercial power or vehicle batteries. Systems are now available that permit facsimile as well as voice transmission over cellular phone equipment. As cellular telephone service becomes more broadly available it is helping to fill many communication gaps, giving spill response managers immediate access to the telephone system. It should be recognized, however, that cellular communication systems could quickly become saturated with traffic during an emergency.

Marine VHF Radio

Cleanup operators on the water should be provided with properly licensed marine VHF radio equipment. Such equipment makes it possible to warn other vessels about ongoing cleanup operations. Marine radios can also be used for coordinating the cleanup operations. However other channels may be preferred where suitable equipment is available.

VHF and UHF Channels in the Petroleum Radio Service

In response to a petition from the American Petroleum Institute (API), the Federal Communications Commission (FCC) in 1975 allocated a number of channels in the Petroleum Radio Service for primary use during oil spill containment and cleanup operations. Frequencies specified for primary use in coordinating oil spill response are listed in section 5315.1. The FCC expanded license eligibility for these communication channels to include not only persons or firms directly employed in the petroleum industry, but also others engaged in the containment or cleanup of spills. Various restrictions such as secondary channel use and power levels are discussed in the references (*American Petroleum Institute, 1975; 47 CFR 90.65*).

Much of the VHF and UHF equipment in the Petroleum Radio Service utilizes automatic coded audio frequency signals to open the target receiver's squelch. (API) recommend the frequency 103.5 Hz (CTCSS Tone 1A). "Private Line" (PL) codes must be controlled during a spill response for proper radio reception. Multiple PL codes on a frequency during a response will limit the effectiveness of the substantial qualities of radio hardware

likely to arrive on the scene. Operators may wish to consider deactivation of squelch controls during oil spill emergencies so that all users of the frequencies will be aware of and give priority to spill emergency communications.

Some of the Petroleum Radio Service VHF channels are close in frequency to the band assigned to the Marine VHF Radiotelephone Service (156.025-157-425 MHz). This presents the technical possibility that a single radio and antenna system can be used to access both services. Equipment with digital frequency control and scanning capability could thus be used to monitor radio traffic and communicate on several channels in both services. FCC (USA) will allow hand held radios to contain both VHF marine and VHF spill frequencies. The FCC generally will not allow Type 80 VHF marine and Type 90 spill response radios to contain crossed frequencies. This rule does not apply to government agencies.

HF Single Sideband Radios

For communications over long distances at sea and in undeveloped areas such as much of northern Canada and Alaska, operators may wish to consider licensing to use high-frequency single-sideband voice radio equipment. Contingency planners should recognize that radio propagation by these mode changes widely over daily and yearly cycles, and is strongly influenced by changes in solar activity. One may have an excellent radio communication link with a station several hundred miles away at a given time, and a few hours later be completely unable to hear that station.

Paging Systems

The familiar "beeper" is essentially a one-way radio communication system that enables persons within range of the paging system transmitter to be alerted or to receive a brief message.

Pagers are widely used by persons with spill response contingency responsibilities. Integrated paging systems are now in commercial use, which permit an individual to be paged and receive a short message in virtually any populated area throughout the U.S. and Canada.

Written Documentation

Memos, letters, reports, journals of activities, phone logs, radio logs, and other written documents all play important roles in coordinating spill response activities and building a history of decisions and activities in response to a spill. Careful and accurate documentation will help produce orderly and efficient spill response. Poor documentation produces only confusion.

Telex

Telex service, which permits wire communication through automated exchanges, can be useful for spill responders. The service permits passing written communication quickly between subscribers.

Facsimiles

Facsimile systems permit text and graphic information (maps, diagrams, signatures, etc.) to be transmitted over telephone lines or by radio. With special attachments, cellular phones can be used for transmission of facsimile traffic.

Microcomputers with MODEM

Microcomputers with telephone modems, particularly battery-operated laptop units, offer a wide variety of communication options previously not available. For example, a control computer can be set up to receive telephone or radio calls from other computers at any time. With proper authentication, portable computers at widely separated locations can "upload" information to the control computer or "download" information from it. With appropriate software and accessories, a microcomputer can be made to emulate facsimile equipment.

Internet

TBD

Radio Communications Support Systems

Regardless of the frequency band involved (e.g., HF, VHF or UHF) radio communication systems requires various systems and equipment for them to operate. These are briefly discussed in the following subsections.

Power

The source of electrical power for a given radio may be domestic power, internal or external batteries (rechargeable or one-time use), or a dedicated electrical generator. Twelve- or twenty-four volt dc radios are available for use in vehicles and boats. Output wattages are the same as for 120-volt ac systems. Battery recharging energy may come from a domestic power source, from a vehicle electrical system, or from solar cells. Where power outages would cause unacceptable disruption of communication, an uninterruptible power supply (UPS) may also be provided. Uninterruptible power supplies for communications generally utilize a storage battery and power inverter system to provide temporary a-c power at an appropriate voltage.

Antennas

Every radio requires some sort of antenna system. For efficient operation an antenna must be electrically resonant at the intended operating frequency. This generally dictates that larger antennas be used for lower radio frequencies. As a rule, the higher the antenna the greater its coverage area.

For higher frequency signals where range is limited to line-of-sight distances, the distance to the radio horizon can be estimated using the equation, d=3Dv/2h, where d =3D distance (miles) and h =3D height of antenna above average terrain (feet).

When a radio must operate on various widely spaced frequencies within a band, or where space for antennas is limited, an antenna tuning circuit may be required. Antenna towers or poles may be required to raise the antenna system above the surrounding terrain. A given antenna system generally radiates better in certain directions than in other, and some "high gain" antennas re designed with the ability to focus their output in desired directions. Antenna feed lines should be kept short to reduce energy losses, particularly at higher frequencies, and lines must be selected to match the electrical impedance of radio equipment and antennas. Special matching circuits may be

required to correct poor impedance matches. In cold regions it may be necessary to design antenna systems strong enough to resist the destructive effects of ice build-up, or to incorporate some system for de-icing the antenna. In addition to structural problems associated with ice buildup, the presence of ice may also effect electrical properties of the antenna and ground system resulting in shifts in the resonant frequencies for the system.

Shelter

Some radio equipment is designed with weather- resistant cases permitting considerable flexibility in where the equipment may be installed. However, much of the communication equipment in common use must be protected from harmful weather conditions. Heating may be required at some locations, and air conditioning at others. A suitable alarm system should be considered at locations where vandalism or theft might be a problem.

E. SPILL RESPONSE COMMUNICATIONS

Communication of Initial Spill Observation

Communication of initial spill observation will typically be made by telephone or radio. Written confirmation to appropriate governmental agencies should be made as soon as possible after the initial report. In a given situation there may be a number of federal, state and local government entities each with requirements for spill reporting. Each may need a somewhat different set of information about a spill, each may impose different reporting time constraints, and each may specify a unique reporting format. Because of the complexity of spill reporting requirements, organizations may wish to assign the responsibility for reporting spills to a single office. This will facilitate consistent reporting, avoid duplicate reporting, and permit the accumulation of an oil spill history database.

A computer bulletin board system (BBS) can be adapted to receive and organize information about spills as they occur, prepare spill reports as required, build the oil spill history database mentioned above, and help to analyze it. Such analysis can be helpful in efforts to systematically reduce the occurrence rate and size of spills.

Response Team Callout

Spill contingency plans usually specify a system for reaching response team personnel by phone. Key personnel might also be assigned to carry pagers or battery-powered cellular phones so they can be reached while away from conventional phone. Sometimes elaborate "telephone trees" are employed to help reduce the number of calls any one person must make.

A computer net can augment the telephone system for this purpose. A control computer could signal selected computer users in a net through their computers if in use at the time or via a paging system. The control computer would maintain a set of messages describing the circumstances and giving appropriate orders to team members. Messages could be updated as reports are received (Goodman, ET al., 1987). Any team callouts system must be exercised periodically to ensure effectiveness.

Field Communications

Communications between the spill response command post and a variety of radio networks that could be employed is typically provided by portable or mobile radio~~s~~ operating on frequencies in the VHF or UHF bands.

These radio networks are: Marine NET, Air OPSNET, Shoreline OPSNET, and Offshore OPSNET. Where distances exceed the range of such equipment, one or more repeaters may be required. (See Exhibit 19 and Section 7-E). Cellular phones might also be employed for this purpose if the affected area has a cellular phone service in operation.

Command and Control Communications

Spill response plans generally specify internal documentation and reporting procedures. A bound logbook or similar permanent record may be required. Plans typically call for periodic reports from the supervisor of cleanup, pinpointing problems, and providing information on expenditures for labor and materials.

A portable computer can be used to help organize the information in such reports and transmit it over radio or telephone communication channels.

Logistics Coordination

Food, transportation, and in some case's shelter must be provided to workers during spill response operations. This is generally conducted over landline phone, but could require a radio net in some cases. Supplies such as fuel, sorbents, and machine parts, must be procured and delivered to locations where needed. Worn and broken equipment must be repaired or replaced. All of these activities require communication. For large operations it may be desirable for logistics support to have communication channels separate from those used for directing and coordinating the operation itself.

Coordination of Contingency Planning

Oil spill contingency plans are often prepared by several persons working in separate locations. Work on such LANs can be expedited by passing copies of text and drawing files among planners and reviewers by computer modem. Use of compatible equipment and software will facilitate this process.

Voice Communication Procedures Standardization

Standardized communication procedures, emphasizing brevity and clarity, will help responders make optimum use of available communications resources. Voice communication procedures should be included in all emergency response training plans. Coordination of radio frequency usage will ensure that neighboring spill response operators do not conflict with one another. Radios in the inventory of one responder can be quickly put into service to augment those of another responder in an emergency.

Command Center Communications

A typical Command Communications Center may consist of a single telephone or may be as broad as containing:

A Local Area Computer Network (LAN)
Facsimile Machine(s)
Phone switch with analog/digital telephones
Radio equipped (VHF/UHF/HF) Communications Center and Messaging Service

An Operational Command Center

Repeater Frequency Assignments and Access Systems Coordination

There is likely to be increasing use of multiple repeaters to serve spill response communication needs in many geographic areas. Coordination among the sponsors of repeater systems is needed to ensure that communication systems in various areas will remain compatible, avoiding radio interference but permitting portable radios from one area to supplement the radios from other areas.

Based on guidelines developed by the American Petroleum Institute, the U.S. Federal Communications Commission has designated a number of VHF and UHF frequencies primarily for communication during a spill emergency. API guidelines recommends that selected pairs of the available frequencies be used for repeater input and output.

F. MOBILE COMMINICATIONS STAGING AREAS

The selected shoreside staging area for multiagency operations will be directed via landline, or on the Command Support Net CH81A VHF-FM. Once a communications site has been selected, mobile communications vehicles and trailers should be located no closer than 25ft to each other. The need for alternate or multiple staging areas and attendant communications coverage will depend upon the extent of the coastal area affected by the spill.

G. COMMUNICATIONS STATUS CHARTS

In order for all response agencies to effectively organize communications efforts, information on communications status must be shared by all agencies at the staging area. Once mobile communications trailers are in place, and agencies have checked into CH81A, a communications status chart listing each agency's guard requirements should be prepared and updated as situations dictate. (See ICS Form 205)

H. SECURITY AWARENESS

Radio communications, unless encrypted for secure transmission, are subject to electronic surveillance and monitoring by private citizens and the public media. All agencies should be security conscious before transmitting information by radio that may be considered media sensitive, proprietary, or private. Good judgment is the only rule that applies; however, public affairs representatives should be consulted for guidance in specific instances if necessary.

I. TYPES OF EQUIPMENT SETUPS

See Exhibit 15 for various forms of communications equipment setups.

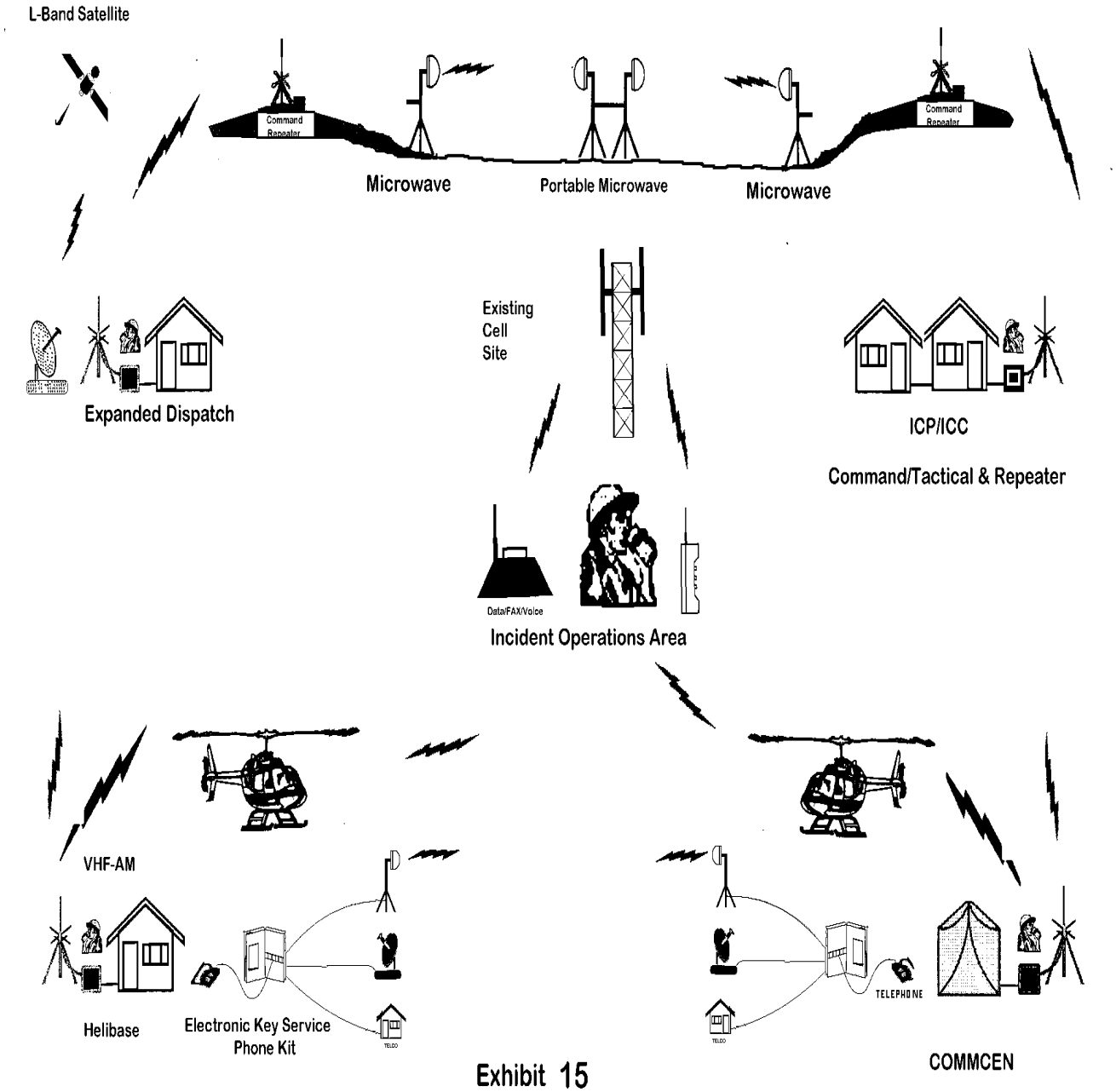


Exhibit 15

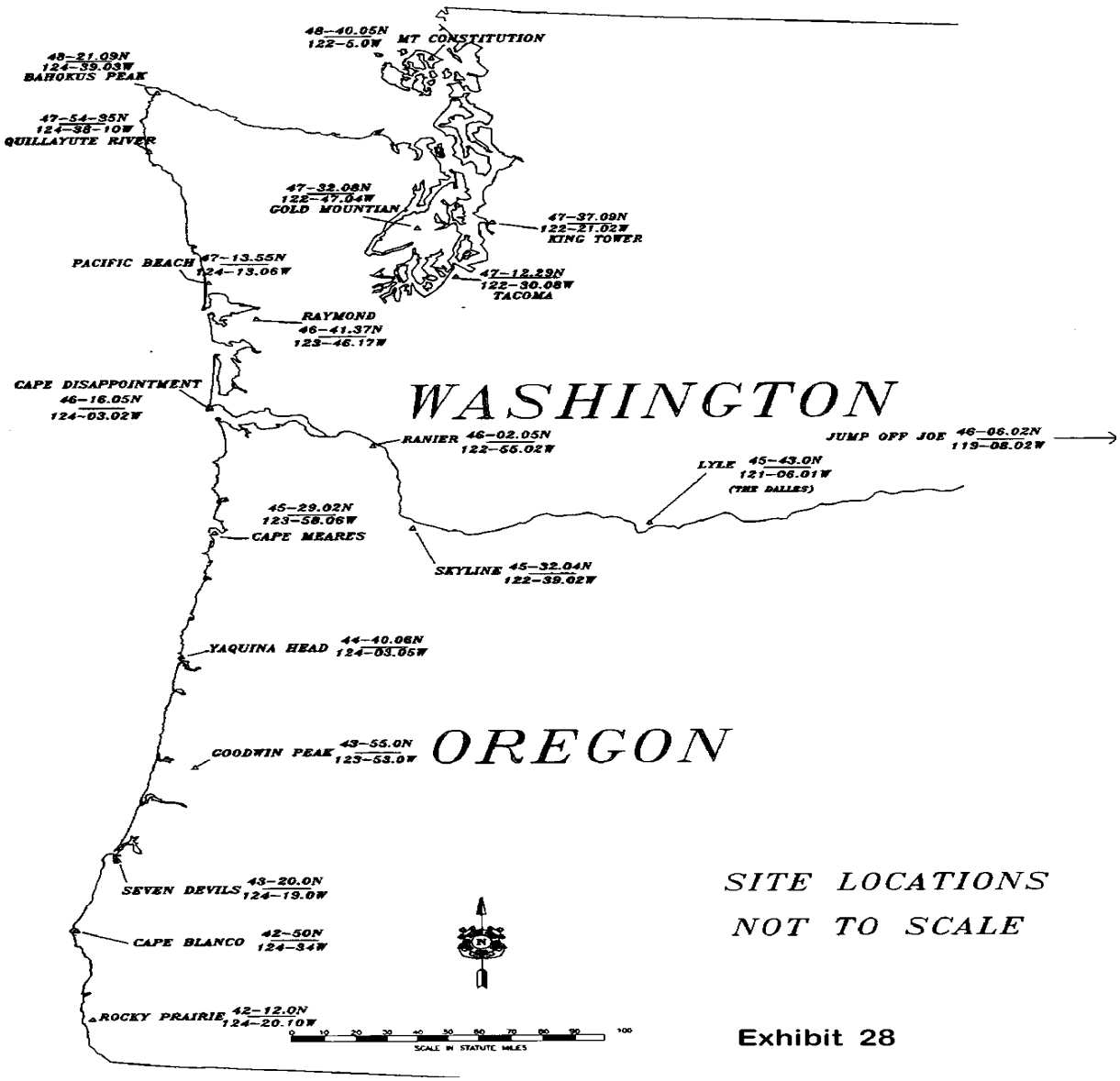
SECTION 4 - COAST GUARD COMMUNICATIONS

A. COAST GUARD DISTRICT 13 TELECOMMUNICATION MANAGEMENT OFFICE

The Thirteenth Coast Guard District Telecommunication Management (dt) office in Seattle, WA coordinates communications activities and resources within the states of Washington, Oregon and Idaho. Any requests for services are confirmed through this central office.

The district owns and maintains a system of VHF-FM marine band high sites and an additional system of land-mobile repeaters, along the pacific coastline, the Straits of Juan de Fuca and within Puget Sound (see Exhibits 28 and 31). These sites provide distress call monitoring, liaison with the public and Coast Guard command and control working channels, and are operated by telecommunication personnel co-located in geographic Group units.

VHF–FM HIGH LEVEL SITES



SITE LOCATIONS
NOT TO SCALE

Exhibit 28


Land Mobile
REPEATER SITES
48-40-0N 122-50-0W MT CONSTITUTION
48-22-0N 124-39-0W BAHOKUS PEAK
48-10-0N 125-41-0W STRIPED PEAK
47-49-0W 124-38.0W QUILLAYUTE RIVER
48-00-58N 125-35-31W MILLER PEAK
47-39-0N 122-24-0W PORT LAWTON
SUPRTCEN SEATTLE
47-36-51N 122-20-14W
47-18-0N 122-26-0W BROWNS POINT
46-54-0N 124-08-0W GRAYS HARBOR
WASHINGTON
46-25-0N 123-08-0W NASELLE RIDGE
45-33-0N 123-55-0W TILLAMOOK BAY
YAQUINA HEAD 44-39-0N 124-03-0W
SIUSLAW RIVER
44-00-0N 124-07.0W
Winchester HILL
43-55-0N 123-53-0W GOODWIN PEAK
43-39-0N 24-11-0W
OREGON
ADAMS HILL 43-24-0N 124-09-0W
SEVEN DEVILS 43-20-0N 124-19-0W
SITE LOCATIONS
NOT TO SCALE
CAPE BLANCO 42-50-0N 124-34-0W
42-03-0N 124-17-0W CHETCO RIVER
SCALE IN STATUTE MILES

Exhibit 31

B. COAST GUARD PACIFIC STRIKE TEAM COMMUNICATIONS

The Pacific Strike Team maintains a cache of programmable handheld VHF-FM radios and several portable repeaters that can be deployed wherever necessary. They also maintain a mobile Communications / Command Post trailer equipped with VHF-FM radio and multiple line telephones.

C. COAST GUARD PACIFIC AREA TRANSPORTABLE COMMUNICATIONS CENTER (TCC)

The Commander, Pacific Area maintains a Transportable Communications Center (TCC). It is a self-contained, rapidly deployable Coast Guard resource that can provide a full range of telecommunications capabilities to support a large oil spill response. These capabilities include:

- Point to point, air/ground, ship/shore, and shoreside radio communications (secure or non-secure) in the HF, VHF and UHF bands.

- Different types of antennas for best propagation and coverage in remote and uneven terrain.

- Cellular telephone (secure, non-secure, and computer/data link)
  Commercial INMARSAT (satellite telephone system)

- Landline phone-bank of over 100 phone lines (since Oct93)

This TCC is located at the Coast Guard Communications Area Master Station Pacific (CAMSPAC) at Pt. Reyes, CA in a six-hour (B-6) recall status. It can be towed by truck or airlifted by helicopter. Aviation Electronic Technicians and Telecommunications Specialists accompany the unit. The TCC can be powered by generator (included) or directly connect to a power source. The full antenna array setup requires an open area of approximately 200ft by 200ft. These are important considerations in the decision where to locate the unit and perhaps the forward command post.

SECTION 5 - STATE/PRIVATE RADIO COMMUNICATIONS

A. STATE OF WASHINGTON

The Washington State Emergency Management Division (EMD) operates various 2-way radio systems, for both emergency and day-to-day use, to support the Comprehensive Emergency Management concept.

CEMNET

The Comprehensive Emergency Management Network, is a statewide, Lo-Band radio system. This system is the primary backup communications link between the state Emergency Operations Center (EOC) and the local EOCs throughout the state. This network also supports the daily operations of the Department of Ecology (WDOE) statewide.

CEMNET is the only state network capable of providing communications between base stations and mobiles, and mobiles to mobiles statewide. This system is monitored by the EMD daily on a 24 hrs/7days a week.

The CEMNET system utilizes base stations and repeaters controlled through the Washington State Patrol microwave system. It operates on four frequencies:

- **Lo Band Channel F1** transmits on 45.200 MHz.
- **Lo Band Channel F2** transmits on 45.360 MHz.
- **Lo Band Channel F3** transmits on 45.480 MHz. The primary contact channel for the state EMD.
- **Lo Band Channel F4 Repeater** transmits on 45.200 MHz and receives on 45.740 MHz.

Search and Rescue (SAR)

The Search and Rescue frequency transmits on 155.160 MHz and is also managed by the Emergency Management Division. Request to access this frequency must be made in writing to the Emergency Management Division.

Law Enforcement Radio Net (LERN)

The Law Enforcement Radio Net which operates on 155.37 MHz is a mutual frequency used strictly by state/local law enforcement agencies. Authorization to access this network on an emergency basis should be coordinated with the Washington State Patrol and/or the Washington State Sheriff and Police Chiefs Association that manages the licensing of users of this frequency.

On-Scene Command and Coordination Radio (OSCCR)

The On-Scene Command and Coordination Radio operates on 156.135 MHz. This network is managed by EMD through a mutual planning agreement between the Associated Public Safety Communications Officers (APCO), the Washington Department of Transportation, and the Emergency Management Division. All potential emergency responders are eligible to apply through APCO for authorization to operate mobile and portable units on this network for on-scene use only. Questions concerning application may be directed to the EMD.

Department of Natural Resources (DNR)

The Washington State Department of Natural Resources operates a statewide system on VHF. Even though this DNR network is a statewide system, the capability does not exist for establishing direct communications across the state. Communication is provided on a regional basis. Radio repeaters support each of the seven DNR regions. Each region is assigned area frequencies for operations within the region. Any communication between regions occurs only where overlap in the repeater system occurs. Each region is also licensed to operate on the DNR Common and State channels to coordinate with other agencies.

- **DNR State channel** transmits on 151.295 and receives on 159.420. The Department of Ecology has permission to use the DNR frequencies on an emergency basis. Use of these frequencies for emergency purposes should be coordinated with the DNR radio communications manager.

B. STATE OF OREGON

The State of Oregon Department of Environmental Quality (DEQ) utilizes the Oregon State Fire Net during a pollution incident or potential pollution incident.

- **Fire Net** transmits on 154.280 MHz.

C. PRIVATE RADIO COMMUNICATIONS

The Petroleum Radio Service

Available to persons engaged in prospecting for, producing, collecting, refining, or transporting by means of pipeline petroleum or petroleum products, including natural gas. Those with an approved license may operate radio stations to transmit information essential to the activities listed above. Persons engaged solely in the containment or cleanup of petroleum spills may be assigned by the FCC any of the VHF-FM frequencies listed in limitations 6 and 9 of the Frequency Table of Part 90.65 of the FCC Rules and Regulations.

Marine Spill Response Corporation (MSRC) Communications Van

Contains a full suite of radio, satellite, and telephone equipment. It is a fully mobile, self-contained unit capable of being deployed on short notice to any driveable location. MSRC maintains one of these vans at their facility in Everett, Washington. Others are maintained in other regions nationwide.

Clean Sound Cooperative

Clean Sound Cooperative operates a major communications system through repeater units covering the entire South, Central, and North Puget Sound, Strait of Juan de Fuca, and along the Washington coast. The network operates on UHF in the 454 MHz band. Federal, state, and private parties can access this system. In addition, Clean Sound has all normal marine VHF and SSB frequencies on its operating vessels as well as 16 cellular phones assigned to individuals.

Maritime Fire and Safety Association Columbia River Communication System (MFSA)

The MFSA communication system is actually four different systems combined to provide an integrated communication network for communicating on marine and oil spill communication channels. The system provides radio coverage on the lower Columbia and Willamette Rivers from approximately the city of Portland to greater than three miles beyond the Columbia River bar. The four communication systems are:

- **Marine Channel Radio System**. This system provides communications on various marine channels for communicating directly to ships and other marine traffic.

- **Oil Spill Command and Control Radio System**. This system provides continuous coverage from the city of Portland to Astoria and will allow mobile units in Portland to communicate directly with units along the Columbia River.

- **Oil Spill Tactical Radio System**. This system provides a series of radio repeaters that are designed to provide coverage over a local area for the local communications needs of incident response.

- **Microwave Radio System**. This system links all of the radio sites and radio equipment back to the Merchant's Exchange for control and to the radio consoles located there.

MODE	CHANNEL	DESCRIPTION	TRANSMIT	TX-TONE	RECEIVE	RX-TONE
A	1	WEATHER				
A	2	WEATHER				
A	3	WEATHER				
A	4	WEATHER				
A	5	WEATHER				
A	6	WEATHER				
A	7	WEATHER				
A	8	WEATHER				
A	9	WEATHER				
A	10	WEATHER				
A	11	CORRESPONDS TO MARINE CHANNEL 16	156.800		156.800	CSQ
A	12	CORRESPONDS TO MARINE CHANNEL 11	156.550		156.550	CSQ
A	13	CORRESPONDS TO MARINE CHANNEL 13	156.650		156.650	CSQ
A	14	CORRESPONDS TO MARINE CHANNEL 14	156.700		156.700	CSQ
A	15	CORRESPONDS TO MARINE CHANNEL 18A	156.900		156.900	CSQ
A	16	CORRESPONDS TO MARINE CHANNEL 80	157.025		157.025	CSQ
MODE	**CHANNEL**	**DESCRIPTION**	**TRANSMIT**	**TX-TONE**	**RECEIVE**	**RX-TONE**
B	1	OIL SPILL WORKING	157.075		157.075	CSQ

		FREQUENCY CHANNEL 81				
B	2	C.R.C. OIL SPILL COMMAND	157.445	100	150.075	CSQ
B	3	SPILL TAC 1 REPEATER @ 200 MARKET BLDG	154.585	100	159.480	100
B	4	SPILL TAC 2 REPEATER @ GREEN MT. -2 MILES EAST KAL	154.585	127.3	159.480	100
B	5	SPILL TAC 3 REPEATER @ NICOLA MT. -2 M. WEST CLATSKANIE	154.585	141.3	159.480	100
B	6	SPILL TAC 4 REPEATER @ MEGLER MT. -NORTH END AST/MEGLER BLDG.	154.585	151.4	159.480	100
B	7	USCG MARINE CHANNEL 16	156.800		156.800	CSQ
B	8	USCG MARINE CHNL. 22A	157.100		157.100	CSQ
B	9	PORTLAND FIRE BUREAU 1	154.010		154.010	CSQ
B	10	PORTLAND FIRE BUREAU 2	154.250		154.250	173.8
B	11	PORTLAND FIRE BUREAU 3	154.145		154.145	173.8
B	12	PORTLAND FIRE BUREAU 4	154.175		154.175	173.8
B	13	PORTLAND FIRE BUREAU 5	154.355		154.355	173.8
B	14	COWLITZ 2-5	154.235		154.235	5A
B	15	COWLITZ - YELLOW	154.115		154.115	5A
B	16	COWLITZ RED	154.370		154.370	5A
C	1	LONGVIEW FIRE BUREAU WORKING CHANNEL-GREEN	154.415		145.415	5A
C	2	KALAMA COUNTY FIRE WORKING CHANNEL	153.920		153.920	CSQ
C	3	CLARK COUNTY FIRE DIST. 6 WORKING CHNL	154.070		154.070	3A
C	4	CLARK COUNTY FIRE DIST. 8 WORKING CHNL	154.370		154.370	3A
C	5	VANCOUVER FIRE DIST. 9 WORKING CHNL	154.310		154.310	3A
C	6	VANCOUVER FIRE DIST. 10 WORKING CHNL	153.950		153.950	3A
C	7	ST. HELENS FIRE - 1	154.400		154.400	107.2
C	8	ST. HELENS FIRE - 2	154.130		154.130	CSQ
C	9	ASTORIA FIRE 1	158.955		158.955	CSQ
C	10	ASTORIA FIRE 2	154.325		154.325	CSQ
C	11	ASTORIA FIRE 3	154.385		154.385	127.3
C	12	CLATSKANIE TACTICAL FREQUENCY	154.295		154.295	P.L. 107.2
C	13	COLUMBIA COUNTY FIRE	154.130		154.130	P.L 107.2
C	14	REIDEL WORKING CHNL.	159.480		159.480	CSQ
C	15	C.R.C WORKING FREQ.	158.445		158.445	CSQ

SECTION 6 - FEDERAL/STATE/COMMERCIAL COMMUNICATIONS RESOURCES

The following is a list of some of the major companies in which government, state, or commercial industries can either rent or purchase various types of communications equipment.

A. COMMERCIAL COMMUNICATIONS RESOURCES

- **COMPANY -** U.S. West
  EQUIP – Telephones/Lines/Service
  POC - Any U.S. West Rep.
  PHONE # - 1-800-403-3174 (commercial), 1-800-879-2807 (Gov.)
  FAX # - 1-800-252-6418
  E-MAIL – N/A

- **COMPANY -** AT&T Wireless
  EQUIP - Cell Phones
  POC - Mr. Dave Matthias/Gov. Sales Rep
  PHONE # - (206) 389-5186
  FAX # - N/A
  E-MAIL – N/A

- **COMPANY -** Puget Sound Instrument
  EQUIP - Briefcase, Marine, and fixed site Satphones for sale.
  POC - Mr. Jeff Thomassen
  PHONE # - (206) 789-1198
  FAX # - (206) 789-7391
  E-MAIL - N/A

- **COMPANY -** AMSC (American Mobile Satellite Company)
  EQUIP - Satellite service
  POC - Customer service
  PHONE # - (800) 405-6543
  FAX # - (800) 455-6543
  E-MAIL - N/A

- **COMPANY -** PageNet
  EQUIP - Large selection of pagers for rent or sale
  POC - Mr. Christopher Wood
  PHONE # - (425) 747-9646, ext. 3106
  FAX # - (425) 641-9259
  E-MAIL - N/A

- **COMPANY -** Ratelco
  EQUIP - Offer approx. 400 programmable handheld VHF & UHF radios and 5 mobile base stations (UHF/VHF) available for rent. Can acquire a variety of other types of comms gear available for rent or sale.
  POC - Mr. Ben Ohashi (Sales)
  Mrs. Kristi Gabrielse (Rentals)
  PHONE # - (800) 244-5231
  FAX # - N/A
  E-MAIL - N/A

- **COMPANY -** Motorola
  EQUIP - Various types of radios
  POC - Mr. Steve Hilliar/Gov. Sales Rep
  PHONE # - (425) 646-0340
  (800) 562-9090 (parts depart.)
  FAX # - N/A
  E-MAIL - N/A

B. GOVERNMENT/STATE COMMUNICATIONS RESOURCES

- **COMPANY -** USCG PACAREA PacArea (pt)
  EQUIP - TCC (Transportable Communication Center) The TCC is a self-contained, rapidly deployable Coast Guard manned and maintained Communications Module. It provides the following communications capabilities:
  - Point to point, air/ground, ship/shore, and shoreside radio comms in the HF, VHF, and UHF bands.
  - Different types of antennas for best propagation and coverage in remote and uneven terrain.
  - Cellular telephone (secure, non-secure, and computer/data link)
  - INMARSAT (satellite telephone system)
  - Landline phonebank of over 100 lines.

  POC - CWO2 Scott Nystrom
  PHONE # - (510) 437-3855, (510) 437-3224
  After hours contact the Pacarea Command center at (510) 437-3700
  FAX # - (510) 437-5342
  E-MAIL - Snystrom@D11.uscg.mil

- **COMPANY -** CCGD13(dt)
  EQUIP - Repeater site/equipment
  POC - CWO4 Don Estok
  PHONE # - (206) 220-7147
  FAX # - (206) 220-7187
  E-MAIL - Destok@Pacnorwest.uscg.mil

- **COMPANY -** FEMA (Federal Emergency Management Agency)
  EQUIP - When deployed, FEMA maintains a large self-propelled, self-contained radio van. The Multi-Radio Van (MRV) contains: (See Exhibit 19)

FEMA Mobile Resource Vehicle (MRV)

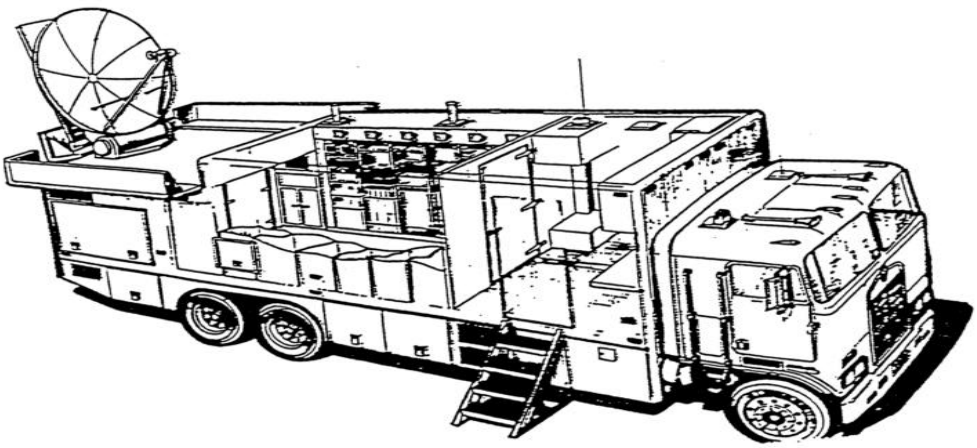


Exhibit 19

KU Band SATCOMM (High Power)	24 channels, point-to-point or used to extend circuits from the telephone central office
VHF Highband/Lowband (FM)	Two radios, 128 channel, Data Encryption Standard (DES) capable, PC programmable
VHF/UHF Radios (AM/FM)	Six radios (Federal, State and Local) DES/DES-XL Digital Voice Protection (DVP-XL)
HF Radios	Two radios (Federal, State and Local)
Line of Sight Wideband/Microwave	24 channels, used to extend or terminate the circuits from the telephone central office, or as point-to-point
Citizens Band Radio	General public radio system
C-Band (800 MHz) Radio Trunking or Conventional (Motorola Spectra)	Police and Fire frequencies - PC programmable
Data capability	Via the telephone central office circuits or point-to-point over radio links
Merlin Legend Portable Switch	Used to terminate the telephone central office circuits and to extend telephones to subscribers (up to 60)
Completely Self-contained	Two power generators (27 Kilowatts) Six Environmental Control Units (ECU's), antennas, etc
General Capabilities	Radios can be patched to one another at Voice Frequency (VF) level making cross-band patching very versatile Air transportable (via C-5 Only) Can run up to seven days on existing fuel tank (200 gals) All radios (except KU and LOS) can be operated in transit

Cellular Phone	One mobile cellular phone for local cell interface
FAX capabilities	One Omni-FAX G3 compatible FAX One PC FAX
AM/FM Receive-Only Commercial	Two AM/FM radios providing commercial broadcast interface with local broadcast stations
Onboard Audio Taping	Two studio quality cassette recorders
Onboard test equipment	Testing and repair capabilities for all equipment
Deployable Antennas RX/TX	Field deployable antennas to enhance radio system
Deployable	On all semi-improved roadways. Dual rear locking axle
Winch	10,000/20,000 lbs capability

POC - Watch desk
PHONE # - (800) 395-6042, (425) 487-4448
FAX # - N/A
E-MAIL - N/A

Cost Coefficients for FEMA's Comm Van as applicable/required (prior to presidential declaration):

Budgetary estimate as of 8/19/93

- Satellite Time - $100.00 to $600.00 per day

Channels/Trunks	Cost Per Day
4	$100
8	$200
12	$300
16	$400
20	$500
24	$600

NOTE: The Merlin Switch is normally configured to provide 4 telephone extensions per channel/trunk. (Example: With 8 chns/trnks – 2 direct to Incident Commander; remaining 6 chns/trnks into the Merlin Switch – 6 chns/trnks x 4 extensions = 24 telephone extensions)

- Toll Charges - $750.00 Per Week (Flat Rate)
- Overtime Per Person/Hour – GS-10/1 & WG – 12
- Fuel Diem Per Person/Day – (Unless Provided)
  - Lodging $40.00
  - Meals $26.00
- Other – Actual Cost Reimbursement

- **COMPANY -** National Interagency Fire Center (NIFC)
  EQUIP - Maintains a large cache of portable radio and satellite communications equipment.
  POC - Mr. Steve Jenkins
  PHONE # - (208) 387-5485
  FAX # - (208) 387-5560
  E-MAIL - Sjenkins@NIFC.BLM.GOV

- **COMPANY -** USCG Reserve
  EQUIP - Manpower/Watchstanders
  POC - CWO Kotch
  PHONE # - (206) 217-6321
  FAX # - N/A
  E-MAIL - N/A

- **COMPANY -** USCG Auxiliary
  EQUIP - Have available fixed base stations, land mobiles, boats, and aircraft
  POC - Mr. Lenny Ryerson/DSO-CM13
  Mr. Roger Attwell
  PHONE # - (425) 736-6534 (Ryerson)
  (425) 337-5053 (Attwell)
  FAX # - For Mr. Attwell (425) 337-5053, 5**
  E-MAIL - Rogerwn7m@juno.com (Mr. Attwell)

- **COMPANY -** Environment Canada
  EQUIP - Canadian/U.S. liaison for communications
  POC - Mr. Christopher LaRock
  PHONE # - (604) 606-6100
  FAX # - N/A
  E-MAIL - N/A

- **COMPANY -** GSA
  EQUIP - various
  POC - Mr. Jack Strahan - Regional manager for national communications systems.
  PHONE # - (206) 850-9415
  FAX # - (206) 931-7507
  E-MAIL - N/A

SECTION 7 - FREQUENCIES

A. FREQUENCIES ALLOCATED TO THE PETROLEUM RADIO SERVICE

47 CFR Part 90.65 designates the frequencies listed below as available for use in oil spill containment and cleanup operations.

Frequency (MHz)	Mode		Use	PL Tone
25.040	simplex		Base/Mobile	
25.080	simplex		Base/Mobile	
36.250	simplex		Base/Mobile	
41.710	simplex		Base/Mobile	
150.980	simplex or repeater transmit	Pair 1	Base/Mobile	103.5
154.585	repeater receive	Pair 1	Mobile	
158.445	simplex or repeater receive	Pair 2	Mobile	103.5
159.480	simplex or repeater transmit	Pair 2	Base/Mobile	
454.000	simplex or repeater transmit	Pair 3	Base/Mobile	103.5
459.000	repeater receive	Pair 3	Base/Mobile	

B. OTHER COMMON FREQUENCIES

Unified Command Calling and Coordination Frequency

Channel 81A (157.075MHz/Simplex) has been selected as the liaison/calling frequency for communications between the U.S. Coast Guard, Canadian Coast Guard and Unified Command agencies. Once communications have been established, the called and calling agencies shall shift to a working channel as described in the table of section 7-E.

Unified Command/Responsible Party Calling and Coordination Frequency

The (inter) National Petroleum Radio Frequency (150.9800/154.5850MHz/pair) has been selected as the frequency for communication between the Coast Guard and the Responsible Party (RP) and the major co-ops Clean Bay and Marine Spill Response Corporation. (MSRC).

U.S. Coast Guard Working

The Thirteenth Coast Guard District has a system of VHF-FM high sites throughout the states of Washington and Oregon designed to provide VHF-FM coverage on the marine and land-mobile frequency bands. During the clean-up phase of an oil spill, normal Coast Guard communications may be interrupted. In this case, the affected

Group Communications Center shall shift to and work on VHF-FM Channel 21 (157.0500MHz) as their primary working channel. Communications high site locations are denoted in exhibits 16 and 17.

Navigation

Channel 13 (156.6500MHz) Designated as bridge-to-bridge hailing and navigation safety frequency in inland and offshore waters. It may be used only to establish contact and make arrangements between vessels in crossing, meeting, or overtaking situations in accordance with the international or inland navigation rules.

Distress

Channel 16 (156.800MHz) Designated under international convention for use for ship-to-ship hailing and distress in international waters. ALL users are required to use channel 16 for only these purposes and then switch to other channels for subsequent communications. Oil spill response is no exception.

Safety

Channel 22 (157.100MHz) Designated as the frequency that may be used by all parties for communications on matters involving human health and safety. FCC regulations require all vessels equipped with VHF-FM capability to have this channel.

County OES and local government agencies

County OES's and local government agencies; such as police, fire, county sheriffs, and environmental health departments have frequencies and communications systems established within their counties. It is not the intent of this plan to interfere with or change those established systems. The intent is to have these agencies utilize landline or cellular communications, or provide the liaison of the agency(s) with a handheld radio from the cache.

C. INTRA-AGENCY AND INTRA-COMPANY FREQUENCIES

It is expected that each government agency and private company involved in the response operation will continue to use its own normal working frequency(s) for internal communications.

Wildlife Operations

147.5800MHz	Wildlife Response	Beach Crew Wildlife Cleanup
146.4400MHz	Wildlife Response Relay	Beach Crew Wildlife Cleanup Relay

Fish & Wildlife

151.4150MHz	DNR Common (WDOE)	Branch Tactical

Amateur Radio Emergency Services

146.5400MHz	ARES Communications	GEN Hailing & Emergency Notifications
145.6300MHz	ARES Packet Operations	Packet Communications

MSRC

150.9800MHz	S	Ch. 1	Internal Comms	
150.9800MHz	TX	Ch. 2	Internal Comms	
154.5850MHz	RX			
159.4800MHz	S	Ch. 3	Internal Comms	
159.4800MHz	TX	Ch. 4	Internal Comms	
158.4450MHz	RX			
454.0000MHz	TX	Ch. 8	Internal Comms	PL 100
459.0000MHz	RX			PL 136

Clean Sound

454.0000MHz	TX	Ch. 1	Internal Comms
459.0000MHz	RX		

FOSS Telecommunications Network

All Foss Maritime vessels have VHF-FM capability. Operating tugs and tank barges monitor the appropriate VHF-FM channel for the house/working frequency as denoted below.

Foss Maritime Location		Channel	Frequency
WA	Seattle	7A	156.350MHz
	North Sound	7A	156.350MHz
	Everett	18A	156.900MHz
	Tacoma	18A	156.900MHz
	Port Angeles	7A	156.350MHz
OR	Portland	10A	156.500MHz
	Astoria	10A	156.500MHz
CA	San Francisco	19A	156.950MHz
	San Diego	19A	156.950MHz

Ocean and coastwise tugs, while at sea, monitor single sideband radio, and standby on channel 8B (8297.000Khz). Foss Maritime tugs also monitor the following frequencies:

- **SSB** 2182.000KHz International Distress
- **VHF** 156.800MHz International Distress
  156.650MHz Bridge to Bridge

The following Single Sideband radio frequencies are available aboard all Foss ocean-going tugs and shoreside base stations for conducting private communications iaw 47 CFR 80.373©.

- 2182.000KHz 8297.000KHz
- 4149.000KHz 12353.000KHz
- 8294.000KHz 16534.000KHz

D. INTERNATIONAL FREQUENCY LISTING

For a listing of frequencies between the U.S. and Canada, see Table 29

Exhibit 29: International Frequency Listing - Page 1

CANADIAN WEST COAST

FM MARINE VHF CHANNELS

CHANNEL DESIGNATOR	FREQUENCY Mhz SHIP TX	SHIP RX	NATURE OF SERVICE AND PRIMARY USER
			DISTRESS, SAFETY & CALLING
16	156.800	156.800	Intership/Shipshore Distress & Calling
			DIGITAL SELECTIVE CALLING - DISTRESS, SAFETY & CALLING
70	156.525	156.525	Intership
			INTERSHIP
6	156.300	156.300	Intership Only
			COMMERCIAL OPERATIONS
7A	156.350	156.350	Intership/Shipshore - Towboat Industry
8	156.400	156.400	Intership Only
9	156.450	156.450	Intership/Shipshore
10	156.500	156.500	Intership/Shipshore - Towboat Industry
18A	156.900	156.900	Intership/Shipshore - Towboat Industry
19A	156.950	156.950	Intership/Shipshore - Pacific Pilotage and Fisheries & Oceans
63A	156.175	156.175	Intership/Shipshore - Towboat Industry
67	156.375	156.375	Intership/Shipshore - Fish Farms
72	156.625	156.625	Intership Only
73	156.675	156.675	Intership/Shipshore - Marinas-Campbell River N.
78A	156.925	156.925	Intership/Shipshore - Fishing Industry
79A	156.975	156.975	Intership/Shipshore - Fishing Industry
80A	157.025	157.025	Intership/Shipshore
65A	156.275	156.275	Intership/Shipshore - Towboat Industry
			NON-COMMERCIAL - PLEASURE CRAFT
9	156.450	156.450	Intership/Shipshore
67	156.375	156.375	Intership/Shipshore
68	156.425	156.425	Intership/Shipshore - Marinas-Courtenay South
69	156.475	156.475	Intership/Shipshore - A.E.S. MAREP
72	156.625	156.625	Intership Only
73	156.675	156.675	Intersnip/Shipshore
			CANADIAN COAST GUARD (GENERAL)
22A	157.100	157.100	Intership/Shipshore -communications with Coast Guard Stations
			NAVIGATION - VESSEL TRAFFIC MANAGEMENT
11	156.550	156.550	VTM - Ship Movement
12	156.600	156.600	VTM - Ship Movement
13	156.650	156.650	VTM - Ship Movement
14	156.700	156.700	VTM - Ship Movement
71	156.575	156.575	VTM - Ship Movement
74	156.725	156.725	VTM - Ship Movement

Exhibit 29

Exhibit 29 International Frequency Listing - Page 2

CHANNEL DESIGNATOR	FREQUENCY Mhz SHIP TX	SHIP RX	NATURE OF SERVICE AND PRIMARY USER
			WEATHER BROADCAST SERVICE
21B	Receive Only	161.650	DOT Marine Weather Bcst.
WX1	Receive Only	162.550	DOT Marine Weather Bcst.
WX2	Receive Only	162.400	Dept of Environment Weather Bcst.
WX3	Receive Only	162.475	US Govt Weather Service
WX4	Receive Only	162.425	US Govt Weather Service
			PUBLIC CORRESPONDENCE
01	156.050	160.650	Shipshore - Marine Telephone Service
02	156.100	160.700	Shipshore - Marine Telephone Service
03	156.150	160.750	Shipshore - Marine Telephone Service
23	157.150	161.750	Shipshore - Marine Telephone Service
24	157.200	161.800	Shipshore - Marine Telephone Service
25	157.250	161.850	Shipshore - Marine Telephone Service
26	157.300	161.900	Shipshore - Marine Telephone Service
27	157.350	161.950	Shipshore - Marine Telephone Service
28	157.400	162.000	Shipshore - Marine Telephone Service
60	156.025	160.625	Shipshore - Marine Telephone Service
64	156.225	160.825	Shipshore - Marine Telephone Service
84	157.225	161.825	Shipshore - Marine Telephone Service
85	157.275	161.875	Shipshore - Marine Telephone Service
86	157.325	161.925	Shipshore - Marine Telephone Service
87	157.375	161.975	Shipshore - Marine Telephone Service
88	157.425	162.025	Shipshore - Marine Telephone Service

THE FOLLOWING ARE RESTRICTED CHANNELS FOR SPECIFICALLY AUTHORIZED STATIONS ONLY

			CANADIAN COAST GUARD (CCG)
04A	156.200	156.200	Intership/Shipshore - CCG Search & Rescue Only
61A	156.075	156.075	Intership/Shipshore - CCG Stations Only
62A	156.125	156.125	Intership/Shipshore - CCG Stations Only
81A	157.075	157.075	Intership Only - CCG Anti Pollution
82A	157.125	157.125	Intership/Shipshore - CCG Stations Only
83	157.175	161.775	Intership/Shipshore - CCG Stations Only
			PORT OPERATIONS - PACIFIC PILOTAGE AUTHORITY
15A	156.750	156.750	Intership/Shipshore-Vessel Docking/Manoeuvres (low power only)
17	156.850	156.850	Intership/Shipshore-Vessel Docking/Manoeuvres (low power only)
77	156.875	156.875	Intership Only-Vessel Docking/Manoeuvres (Pilotage)
20	157.000	161.600	Shipshore Only-where authorized (Port operations/low power only)
			TOWBOATS
65A	156.275	156.275	Authorized stations only

E. ORGANIZATION WORKING

Organization	Dial	CHNL	Mode	Function	Frequency (MHz)	Purpose
Marine & Everyone	1	---	---	Internal Comms	Organization	PRI Working
	2	---	R	Command Tactical	150.9800 **X** 154.5850 **R**	(inter)National Petroleum
	3	---	S	Command Tactical	159.4800	Command Tactical Simplex
	4	22A	S	Safety/Public Liaison	157.1000	Safety/Public Liaison
Air/Operations	5	81A	S	Command Support	157.0750	Calling Common
	6	21A	S	Working Tactical OPS	157.0500	CG Group Working
	7	23A	S	Air Operations	157.1500	Air Tactical - Coordination
	8	83A	S	Air Operations	157.1750	Air Support
Shoreline/Operations	5	81A	S	Command Support	157.0750	Calling Common
	6	21A	S	Working Tactical OPS	157.0500	CG Group Working
	7	10	S	Beach Cleanup	156.5000	Beach Cleanup Ops
	8	6	S	Working Tactical OPS	156.5500	Task Force 1 Ops
	9	7A	S	Working Tactical OPS	156.3500	Task Force 2 Ops
	10	11	S	Working Tactical OPS	156.5500	Task Force 3 Ops
	11	14	S	Working Tactical OPS	156.7000	Task Force 4 Ops
Offshore/Operations	5	81A	S	Command Support	157.0750	Calling Common
	6	21A	S	Working Tactical OPS	157.0500	CG Group Working
	7	69	S	Working Tactical OPS	156.4750	Salvage Group
	8	6	S	Working Tactical OPS	156.3000	Task Force 1 Ops
	9	7A	S	Working Tactical OPS	156.3500	Task Force 2 Ops
	10	11	S	Working Tactical OPS	156.5500	Task Force 3 Ops
	11	14	S	Working Tactical OPS	156.7000	Task Force 4 Ops
Gov./State & Federal	5	81A	S	Command Support	157.0750	Calling Common
	6	21A	S	Working Tactical OPS	157.0500	CG Group Working
	7	LM1	S	Working Tactical OPS	168.5000	Tactical Working
	8	LM9	S	Working Support OPS	171.1500	Support Working

F. WIRE DIAGRAM OF THE ORGANIZATION WORKING FREQUENCIES

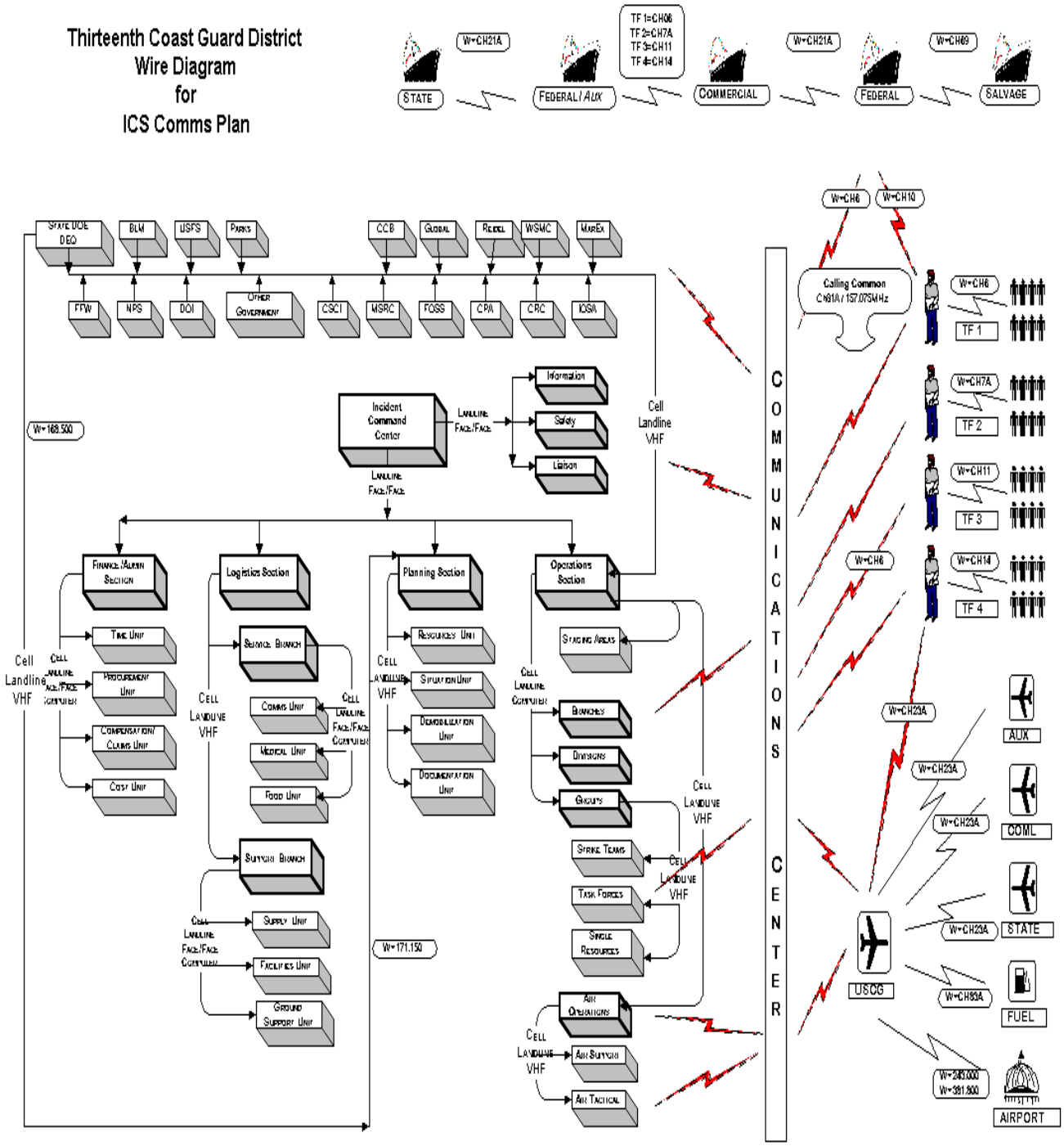


Exhibit 16

C.
D.
E. **G. LAND/MOBILE REPEATERS**

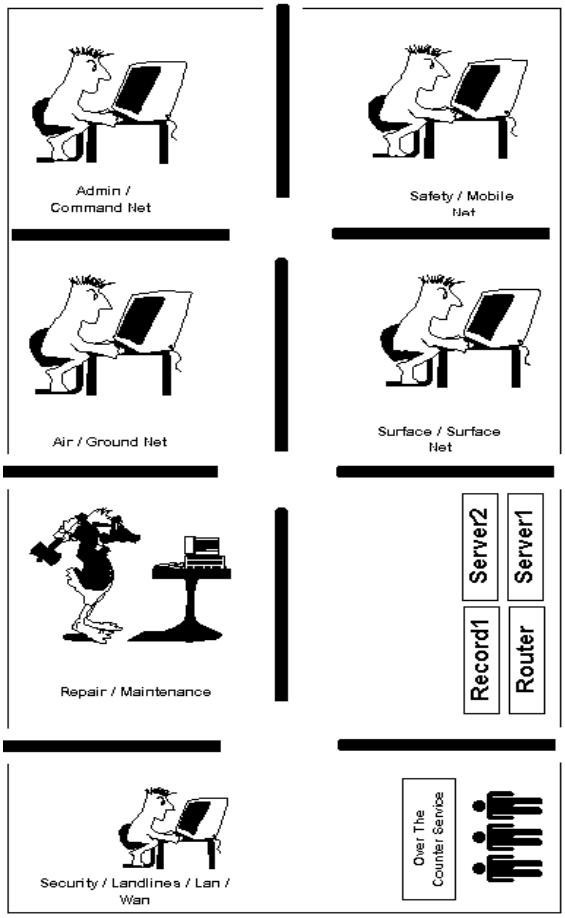
CHNL	Mode	Frequency	Location
LM2	R	165.3125 X 168.5000 R	Adams Hill, Grays Harbor, Naselle Ridge, Tillamook Bay, Winchester Hill, Cape Blanco, Yaquina Bay, Goodwin Peak, Rocky Prairie, Siuslaw River, Seven Devils
LM3	R	163.5125 X 171.1500 R	FT Lawton, Bahokus Peak
LM4	R	164.9125 X 171.1500 R	Browns Point S. Sound
LM5	R	164.8700 X 171.1500 R	MT Constitution & Striped Peak N. Sound
LM6	R	165.3125 X 171.1500 R	Miller Peak, Quillayute River
LM7	R	164.3000 X 168.5000 R	Oregon State Coastal Areas Use with Portable Repeater
LM8	R	165.0375 X 168.5000 R	Washington State Coastal Areas Use with Portable Repeater. In Canadian Coordination Zone (75 mi. of U.S./Canada border) Use is limited to low power.

Government Land Mobile Repeater Sites for Washington and Oregon

See exhibit 31

SECTION 8 - COMMUNICATIONS CENTER

The following is a diagram of a sample communications center.



Communications Center

Watch Personnel per 8-hour period

	Radio Dispatch	Technician	ComputerTech
Circuit Management			
Radio			
Air to Ground	1		
Surface/Surface	1		
Admin/Command	1		
Safety/Mobile	1		
Message Center			
Watch / Supervisor	1		
Logging			
Circuit Maintenance		1	
Equipment Maintenance			1

Exhibit ?

SECTION 9 - MEMORANDUM OF UNDERSTANDINGS (MOU)

The U.S. Coast Guard has established various memorandums of understanding with other government and state agencies. These agency MOU's were established to share resources which the Coast Guard may not have and require in an emergency.

The following communication MOU's are currently inplace:

Serial #	Date	Description	Unit Responsible
94-5	28 MAR 94	CG & FEMA Region X: For requesting Emergency Communications Support involving resources of the local Mobile Emergency Response Support (MERS) detachment.	CCGD13(dre)
NONE	15 SEP 95	CG & FCC Procedure for USCG watchstanders when radio interference is experienced	CCGD13(dt)
NONE	NONE	CG Aux & NavMarCorMARS: Interoperability guidelines and joint communications operations	CCGD13(oax)
Under Development	NONE	CG & US Forest Service: Emergency Communications support involving resources of the National Incident Fire Center (NIFC), Boise, ID.	CCGD13(dt)

9660
HEALTH AND SAFETY MANUAL

Table of Contents

Background

Overview

This document was developed to provide Federal and State health and safety guidance for oil/Hazmat incidents in the Pacific Northwest. This guidance document also includes two Site Safety and Health Plan examples.

Purpose

The purpose of health and safety efforts conducted during an environmental emergency is to ensure the protection of the responders, cleanup crews and the public from the possible hazards. The guidance contained in this guidance document are intended to assist safety officers to establish, manage and operate a safe spill response to the report incident.

HEALTH AND SAFETY

Federal Health and Safety Guidance

Federal and state government employees, private industry employees, and other contract personnel involved in oil spill response activities must comply with all applicable worker health and safety laws and regulations. The Occupational Safety and Health (OSH) Act was enacted on December 29, 1970 and granted authority to the Secretary of Labor to promulgate, modify and revoke safety and health standards. The primary federal regulations for hazardous waste operations and emergency response are found in 29 CFR 1910.120. This regulation specifies the safety and health requirements for employees involved in cleanup operations at uncontrolled hazardous waste sites being cleaned up under government mandate and in certain hazardous waste treatment, storage and disposal operations conducted under the Resource Conservation and Recovery Act of 1976 (RCRA). The regulations apply to both emergency response and post-emergency response cleanup of hazardous substance spills. The definition of hazardous substance used in these regulations is much broader than CERCLA, encompassing all CERCLA hazardous substances, RCRA hazardous waste, and all DOT hazardous materials listed in 49 CFR 172. Thus, most oils and oil spill response are covered by these regulations.

The Occupational Safety and Health Administration (OSHA) classifies an area impacted by oil as an uncontrolled hazardous waste site. The role of the site safety and health supervisor is to assess the site, determine the safety and health hazards present, and determine if Federal OSHA regulations apply. If an OSHA field compliance officer is on scene, he or she should be consulted to determine the applicability of OSHA regulations. Disputes should be referred to the Department of Labor representative on the RRT.

One of the key provision of the OSH Act provided 50/50 funding to those states that developed their own state program which is at least as effective as the federal program

in providing safe and healthful employment. Two of the three states involved with this

plan, Oregon and Washington, have developed state managed programs and are discussed below. Idaho does not have a state managed program and, therefore, all workers involved with oil spill response activities must comply with the federal regulations.

Washington State Health and Safety Guidance

The Washington State Industrial Safety and Health Administration (WISHA), a division of the Washington State Department of Labor and Industries (DLI), is responsible for assuring that employers are providing safe and healthful workplaces for their employees. This responsibility is carried out through enforcement of rules promulgated under authority granted in RCW 49.17. The primary standard for Hazardous Waste Operations and Emergency Response, WAC 296-62-300, became effective in November 1989. Under these regulations, DLI can evaluate the safety and health program, site characterization, site control, emergency response procedures and personal protective equipment requirements during oil spill cleanup operations. DLI may also provide technical assistance to the OSC and responsible party and conduct inspections of employers involved in spill response efforts. As always, many other and safety and health regulations outside of WAC 296-62-300 apply to WISHA jurisdiction employers.

Oregon State Health and Safety Guidance

Oregon Occupational Safety and Health Administration (OR-OSHA) is a division of the Department of Consumer and Business Services and is primarily responsible for enforcing the health and safety regulations as they pertain to workers involved with an oil spill. The primary standard for Hazardous Waste Operations and Emergency Response, OAR 437, Div 2-1910.120, came into effect in July of 1990.

Idaho State Health and Safety Guidance
To be developed

Site Safety and Health Plans

The following site safety and health plans can be used as a general guide to facilitate rapid development of site safety and health plans during spill response. They are NON-MANDATORY guidelines intended to support appropriate site-specific site planning. They were developed for response personnel involved in EMERGENCY and/or POST-EMERGENCY operations and may not provide sufficient detail for long-term remedial sites.

A generic site safety and health plan is provided for oil/chemical spill responses along with a PROPOSED ASTM STANDARD Site Safety and Health Plan for oil spill response. Both documents provide a set of attachments which provide more detail for supervisory personnel. These attachments should be used as needed. The generic

and proposed ASTM standard site safety plans are not intended to satisfy all requirements for written procedures. A site-specific site safety and health plan must be backed up by other documents which add more detailed information which may not necessarily be needed in the field (EXAMPLES: a site safety and health program, a respiratory protection program, or a medical monitoring program.)

Once the PROPOSED ASTM STANDARD is approve this will replace the generic Site Safety and Health Plan in this document.

STANDARD SITE SAFETY PLAN

FOR EMERGENCY/POST-EMERGENCY PHASE COASTAL OIL SPILLS

A. SITE DESCRIPTION
B. ENTRY OBJECTIVES
C. SITE ORGANIZATION
D. SITE CONTROL
E. HAZARD EVALUATION
F. GENERAL SITE SAFETY AND HEALTH PROCEDURES
G. PERSONAL PROTECTIVE EQUIPMENT (PPE)
H. DECONTAMINATION PROCEDURES
I. SANITATION & PERSONAL HYGIENE
J. EMERGENCY PROCEDURES
K. COMMUNICATIONS
L. SITE SAFETY MEETINGS
M. SITE SAFETY OFFICER
N. AUTHORIZATIONS

ATTACHMENTS

1A GENERIC HAZARDOUS SUBSTANCE INFORMATION SHEETS MSDS/RIDS/CHRIS/CHEMTOX/TOMES (Sheets must be added)
1B HAZARD INFO FOR OILS CONTAINING BENZENE
1C HAZARD INFO FOR OILS NOT CONTAINING BENZENE
1D HAZARD INFO FOR HYDROGEN SULFIDE
2 SITE MAP(s) (must be generated individually)
3 SIGNS/SYMPTOMS THAT INDICATE TOXIC EXPOSURES
4A HEAT STRESS INFO FROM NIOSH 86-112 (Short form)
4B HEAT STRESS INFO FROM NIOSH 86-112 (Long form)
5A COLD STRESS AND HYPOTHERMIA (Short form)
5B COLD STRESS AND HYPOTHERMIA (Long form)
6 SANITATION REQUIREMENTS
7 CONFINED SPACE ENTRY CHECKLIST
8 SAFE MANUAL LIFTING PROCEDURES
9 SIMPLIFIED WORK PLAN
10 LATEST MONITORING REPORT SHEETS
11A DECON LAYOUT
11B DECON FOR OIL
12 BRIEFING LOG
13 PPE ENSEMBLE SHEETS
14 HELICOPTER SAFETY
15 SMALL BOAT SAFETY
16 ON-SITE MEDICAL MONITORING (Entry team personnel)
17 SITE SAFETY PLAN EVALUATION
18 SITE ORGANIZATIONS — GENERAL DISCUSSION
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A. SITE DESCRIPTION

Site generally referred to as:_____

Location: _____

Surrounding population: o Industrial o Residential o Rural o Unpopulated,
o Other:_____

Topography: o Rocky o Sandy beach o Docks o Cliffs o Marshes
oOther:_____

o Primary Hazards:
o Chemical Exposure
o Fire/Explosion
o Oxygen Deficiency
o Confined/Enclosed Space Entry
o Ionizing Radiation
o Biological Hazards
o Safety Hazards
o Heat Stress
o Cold Exposure
o Noise
o Other:_____

Pathways for hazardous substance dispersion:
o Pathways have been noted on site safety map (attachment 2)
o See Handling Drums, Containers, and Spill Containment (attachment 24)
o Pathways for hazardous substance
dispersion:_____

B. WORK PLAN AND ENTRY OBJECTIVES

1. Work Plan

All work shall be conducted in accordance with procedures established during pre-entry briefings and attached work plans.

o A work plan is provided as attachment 9.

2. Entry Objectives

Daily objectives may include site surveys, mechanical cleaning, oil recovery, booming, dispersant application, wildlife rehabilitation/hazing, and related activities. Detailed objectives shall be developed daily, and shall be described during the pre-entry safety briefing.

C. SITE ORGANIZATION

Definitions (A comprehensive glossary is provided in the Northwest Area Contingency Plan)

OSC: The On-Scene Coordinator (OSC) is the pre-designated official responsible for incident management.
SSHO: The Site Safety and Health Officer (SSHO), often referred to simply as the Site Safety Officer, is the single individual responsible for developing and implementing the OSC's site-specific site safety and health plan.

SSHP: Site Safety and Health Supervisor(s) (SSHP) is a mandatory position under 29 CFR 1910.120 (Fed OSHA) and WAC 296-62-Part P (WISHA). The SSHP, often referred to simply as the Site Safety Supervisor, is the individual(s) in the field responsible for enforcing the SSHO's site-specific site safety and health plan. An SSHP must be on-site at all times while the SSHO may be with the OSC or at other locations.

FUNCTION, NAME, and PHONE (if appropriate)
OSC:_____
Incident Commander:_____
OSC's On-Site rep/supervisor:_____
Site Safety and Health Officer:_____

Site Safety and Health Supervisor(s): See the posted organization on-site/workplan/briefing log.

Public Affairs Officer:
Scientific Support Coordinator:
National Pollution Fund Center Case Officer:
BOA Contract Supervisor:
State reps:
Local reps:
Other Fed/State/Local reps:

RP's Representative:
RP's On-Site representative:
RP's On-Site Contract Supervisor:
RP's Safety and Health Officer:
RP's Safety and Health Supervisor(s):
Other RP representatives:

D. SITE CONTROL

1. Anyone entering or departing a WORK AREA, shall report

to the site supervisor or designated representative.

2. No person shall enter a site without subscribing to this or another appropriate Site Safety and Health plan.

3. The buddy system is mandatory for everyone on site.

4. Training.

a. In general, all personnel on site shall be trained adequately to perform their assigned tasks safely. The general training level requirement is technician level and/or routine site worker (40 hours & 3 days OJT min.) except as noted below.

o Guidelines for assessment of training/qualification requirements has been provided as attachment 21.

JOB DESCRIPTION: TRAINING LEVEL:

_____ _____

_____ _____

_____ _____

_____ _____

b. All personnel entering the site shall be fully informed about applicable hazards and procedures on site. See section L. below for on-site informational briefings program.

5. Site Boundaries. Control boundaries have been established in the site safety map below according to the following guidelines:

a. The **HOT ZONE**, or **EXCLUSION ZONE**, is the area where contamination or product hazards are expected.

b. The **WARM ZONE**, or **CONTAMINATION REDUCTION ZONE**, is a transition area between the **HOT ZONE** and the **COLD ZONE**. It is the area where a **DECONTAMINATION** is conducted for personnel and equipment leaving the **HOT ZONE.**

c. The **COLD ZONE**, or **SUPPORT ZONE**, is an area adjacent to the **WARM ZONE** that is intended to remain safe and as free of contamination as possible.

6. The site safety map includes the location of items such as: zone boundaries, washing, toilet/hygiene facilities, first aid equipment, fire extinguishers, command posts, equipment staging/storage, eating/rest areas, animal rehab/hazing stations, and locations of identified hazards.

o A Site Safety Map is provided as attachment 2.

E HAZARD EVALUATION

1. CHEMICAL HAZARDS (check appropriate category of oil, attach generic information sheet, and attach specific MSDS when available).

o Oil containing benzene and/or other high vapor pressure chemicals.
o Hazard information is provided as attachment 1B.
o Oil that does not contain benzene.
o Hazard information is provided as attachment 1C.
o Hydrogen sulfide (from sour crude oil or anaerobic decay of organic materials).
o Hazard information is provided as attachment 1D.
o Dispersant applications.
o Hazard information is provided as attachment_____
o Bioremediation application.
o Hazard information is provided as attachment_____

2. ENVIRONMENTAL MONITORING FOR CHEMICAL HAZARDS: The following monitoring shall be conducted with monitoring equipment calibrated and maintained in accordance with the manufacturer's instructions (electronic equipment shall be calibrated before each day's use).

Substance	FREQUENCY:			
__ Combustible gas	o continuous	o hourly	o daily	o OTHER_____
__ Oxygen	o continuous	o hourly	o daily	o OTHER_____
__ H2S dosimeter	o continuous	o hourly	o daily	o OTHER_____
__ H2S level	o continuous	o hourly	o daily	o OTHER_____
__ HNU	o continuous	o hourly	o daily	o OTHER_____
__ OVA	o continuous	o hourly	o daily	o OTHER_____
__ WBGT	o continuous	o hourly	o daily	o OTHER_____
__ Noise	o continuous	o hourly	o daily	o OTHER_____
__ OTHER:	o continuous	o hourly	o daily	o OTHER_____

3. Additional hazards may be encountered on site and shall (along with any other applicable hazards found during the site survey) be marked on the attached maps.

F. GENERAL SAFE WORK PRACTICES. The following safe work practices shall be adhered to while on site (check those that are appropriate & add any additional).

o **BUDDY SYSTEM**. The buddy system shall be observed inside the Work Area **(EXCLUSION and CONTAMINATION REDUCTION ZONES)**. Personnel must work within sight of their assigned partner at all times. A partner shall be assigned by the site safety supervisor as personnel check in. Personnel shall use whistles to indicate

that they need assistance in areas where personnel may be obscured from supervisors (e.g. high grass, boulders, or warehouse areas) as noted on the Project Map.

o **OCCUPATIONAL MEDICAL MONITORING.** Personnel shall be enrolled in an occupational medical monitoring program in accordance with 29 CFR 1910.120 or WAC 296-62-Part P.

o FIRES. Each restriction zone and associated contamination reduction zone shall have at least one each of the following:

- A fully charged Class A fire extinguisher for ordinary fires
- A fully charged Class B fire extinguisher for liquid fires
- A hand held fog horn to alert personnel

The above items shall be maintained in a readily accessible location, clearly labeled in red, and with the location noted on the project map.

o LIGHTING. Fixed or portable lighting shall be maintained for dark areas or work after sunset to ensure that sufficient illumination is provided. (See TABLE H-120.1 of 29 CFR 1910.120(m) or WAC 296-62-Part P. for Minimum Illumination Intensities.)

o SLIPPERY ROCKS AND SURFACES. All personnel in the work area shall wear chemical resistant safety boots with steel toe/shank and textured bottoms (neoprene is a common material that is fairly resistant to many oils). Boat operators may substitute clean deck shoes with textured soles kept free of oil on cloth/leather uppers.

o WORK NEAR WATER. All personnel working in boats, on docks, or generally within 10 feet of water deeper than 3 feet, shall wear Coast Guard approved personal flotation devices (PFDs) or work vests.

o HEAT STRESS. The site safety and health supervisor shall generally be guided by the ACGIH guidelines in determining work/rest periods. Fluids shall be available at all times and encouraged during rest periods.

o Further guidelines are provided as attachment: 4A.

o COLD STRESS. The site safety and health supervisor shall generally be guided by the ACGIH guidelines in determining work/rest periods. Workers shall be provided with adequate warm clothing, rest opportunities, exposure protection, warm and/or sweet fluids shall also be available during rest periods. For prolonged water temperatures below 59 degrees F, or a combined water and air temperature less than 120 degrees F, exposure suits shall be worn by personnel working/traveling in small boats, and immersion suits shall be available for vessel operations other than small boats.
o Further guidelines are provided as attachment: 5A.

o HIGH NOISE LEVELS. Hearing protection shall be used in high noise areas (exceeding 84 dBA--generally where noise levels require personnel to raise their voices to be heard) designated by the site safety supervisor.

o ELECTRICAL HAZARDS. Electrical hazards are designated on the site map, and shall be marked with suitable placards, barricades, or warning tape as necessary.

o TRAP HAZARDS. Open manholes, pits, trenches, or similar hazards are noted on the site map. The site safety supervisor shall ensure that these locations are periodically checked during the day.

o MUD. Dangerous mud flats posing a trap hazard shall be designated on the site safety map as areas off limits to personnel. Mark these locations with banner tape, barricades, or other marking equipment.
o CARBON MONOXIDE. Equipment operators shall ensure that personnel do not linger or work near exhaust pipes.

o UV LIGHT EXPOSURE. Sunscreens of protection factor 15 (or greater), and UV tinted safety glasses shall be made available for response personnel as needed.

o HELICOPTER OPERATIONS. Pilots shall provide safety briefing for all passengers. Helicopter procedures are provided as attachment: 14.

o MOTOR VEHICLES. Drivers shall maintain a safe speed at all times, and shall not be allowed to operate vehicles in a reckless manner.
o A vehicle safety briefing is provided as attachment 22.

o ALL TERRAIN VEHICLES (ATVs). Drivers shall maintain a safe speed at all times, and shall not be allowed to operate vehicles in a reckless manner. ATV drivers shall not operate ATVs outside of areas and lanes specified by the site safety supervisor.

· Drums and containers must be handled in accordance with 29 CFR 1910.120 or WAC 296-62-Part P. Containers must be labeled and constructed in accordance with EPA (40 CFR 264265, and 300), and DOT (49 CFR 171-178) regulations.
· Temporary holding/staging areas for drums and containers containing waste materials shall be constructed to contain spillage, run-off, or accidental releases of materials.
· Manual lifting and handling of drums and containers shall be kept to a minimum. To the extent possible, mechanical devices, drum slings or other mechanical assisting devices designed for that purpose shall be used.
o Safe Lifting Procedures are provided as attachment 8.
o Drum handling Procedures are provided as attachment 24.

o CONFINED SPACES. Confined spaces will not normally be entered by response

personnel during oil spill response operations. If a confined space must be entered or hotwork conducted on a confined space, a specific confined space entry work plan and confined space work authorization checklist will be developed for that operation.
o A confined space work plan is provided as attachment 7.
o A confined space work authorization checklist is provided as attachment 7.

POISONOUS\INFECTIOUS INSECTS, BITES, STINGS, PLANTS.
o BEE STINGS (also hornet or wasp bites)
o POISONOUS SPIDERS (black widows or brown recluse)
o TICKS (carriers of rocky mountain spotted fever, and lymes disease)
o ANIMAL BITES (infection hazard, and/or rabies from some common sources such as: skunks, prairie dogs, foxes, bats, dogs, cats, raccoons, and cows).
o SNAKE BITES (pit vipers (e.g., rattlesnakes and water moccasins); and coral snakes)
o MARINE STINGS AND PUNCTURES (jellyfish, man-o-war, anemones, corals, hydras, urchins, cone shells, stingrays, and spiny fish)
o POISONOUS PLANTS (poison ivy, oak, or sumac)

GENERAL PREVENTION:
During morning safety briefings, provide information on the location of hazards and how to deal with problems.
Personnel should be provided with
o Long-sleeved clothing
o Insect repellent
o Snake leggings

Personnel should inspect each other for ticks and signs of infected bites during breaks when working in designated areas.

Personnel with allergies to bee stings or insect bites may suffer a medical emergency if bitten. Supervisors on site should be prepared to deal with these medical emergencies.

Personnel with severe allergies must work in areas away from known/suspected hazards.

Personnel with allergies to bee stings or other insect bites should notify their supervisors AND the site safety supervisor when reporting on this site.

o Personnel shall be briefed on procedures in accordance with the guidelines provided as attachment: 12.

G. PERSONAL PROTECTIVE EQUIPMENT (PPE)
The following PPE ensembles shall be used while on site.

o See the PPE ensemble descriptions provided as attachment 13.

LOCATION:_____

General (Circle appropriate)

TASK:	LEVEL:
Monitors/supervisors	A B C D
Shoreline cleanup crew	A B C D
Vac truck crews	A B C D
High pressure wash crew	A B C D
Abrasive cleaning crew	A B C D
Hot water wash crew	A B C D
Boat drivers	A B C D
Boat crews	A B C D
Skimmer crews	A B C D
Boom crews	A B C D
Sampling teams	A B C D
Survey teams	A B C D
Product pumping	A B C D
Dispersants crews	A B C D
Bioremediation crews	A B C D
Bird/mammal capture	A B C D
Bird/mammal hazing	A B C D
Bird/mammal transport	A B C D
_____	A B C D
_____	A B C D
_____	A B C D
_____	A B C D

Cold Zone (Circle appropriate)

TASK:	LEVEL:
Response personnel	A B C D
Visitors	A B C D
_____	A B C D
_____	A B C D
_____	A B C D

H. DECONTAMINATION PROCEDURES. Contaminated personnel and personnel entering contaminated areas shall be decontaminated in accordance with the instructions of the site safety and health supervisor.

o See the decon and layout provided as attachments 11A.

I. SANITATION & PERSONAL HYGIENE: Potable water, nonpotable water, toilets and personal hygiene facilities shall be readily available.

o For further information see attachment 6.

J. EMERGENCY PROCEDURES

1. GENERAL. In all cases when an onsite emergency occurs, personnel shall not reenter the work area or restart work until:

· The condition resulting in the emergency has been
· Investigated by supervisory personnel, and has been corrected;
· Hazards have been reassessed; and
· Site personnel have been briefed on any changes in the
· Operation and site safety plan.
·

o Hospitals listed under communications section have been contacted (chemical emergency hospital agrees to take patients from site).
o Fire departments listed under communications section have been contacted.
o Ambulance services listed under communications section have been contacted (note those which will take chemical emergencies).
o ATSDR has been contacted to notify of site operations.
o Police forces listed under communications section have been notified.

2. Emergency Medical Procedures:

· Contact designated EMT (see the posted organization/work plan).
· Do not attempt to move seriously injured personnel, call for an ambulance to come to the injured person.
·

o For bites, stings, or poisonous animals/plants follow the procedures provided in attachment 23.

The closest hospital for regular emergencies is:
(see communications section for phone number)

The closest hospital for chemical exposure emergencies is:
(see communications section for phone number)

o Contact Agency for Toxic Substances and Disease Registry (ATSDR) (404) 639-0615 (24 hr) for chemical exposure emergencies

3. Emergency Fire Procedures:

· DO NOT attempt to fight fires other than small fires. A small fire is generally considered to be a fire in the early stages of development, which can readily be extinguished with personnel and equipment in the immediate area in a few minutes time.

· DO NOT take extraordinary measures to fight fires.
· YOU MUST sound the appropriate fire signal if fire
· can not be put out quickly.

· Alert nearby personnel to call fire department.
· Notify supervisor.
·

When the fire alarm is sounded, personnel shall immediately leave the work area WITH THEIR ASSIGNED BUDDY, to the predesignated assembly point by the designated evacuation route (see evacuation routes and assembly point below).

· The Site Supervisor OR the Fire Department shall ensure that the fire is extinguished and a temporary fire watch has been posted BEFORE restarting work.

4. Evacuation.

EVACUATION &FIRE SIGNAL(S)

PRIMARY EVACUATION ROUTE:

SECONDARY EVACUATION ROUTE:
ASSEMBLY POINT:

K. COMMUNICATIONS

1. General signals:

· THUMBS UP I'm OK / I agree.
· THUMBS DOWN don't agree.
· HANDS ACROSS THROAT out of air / trouble breathing
· GRAB HAND/ARM come with me
· HANDS ON HEAD I need assistance

2. Radio communications:

Working
frequency:_____ channel:_____ (o VHF o UHF o CB o OTHER___)

Emergency
frequency:_____ channel:_____ (o VHF o UHF o CB o OTHER___)
frequency:_____ channel:_____ (o VHF o UHF o CB o OTHER___)

3. Phone communications:

On-Scene Coordinator:
(_____)_____(o voice o fax o cellular o pager o home)
Incident Commander:
(_____)_____(o voice o fax o cellular o pager o home)
Site Safety and Health Officer:
(_____)_____(o voice o fax o cellular o pager o home)
Agency for Toxic Substance and Disease Registry (ATSDR)
(404) 639-0615 (24 hour voice); (404) 639-0655 (fax)

Case officer: _____ ATSDR can provide emergency medical/toxicological information, assist in determining procedures for potential chemical overexposures, & can provide on scene assistance for certain chemical emergencies.
Police:
(_____)_____(o voice o fax o cellular o pager o home)

Fire:
(_____)_____(o voice o fax o cellular o pager o home)
(_____)_____(o voice o fax o cellular o pager o home)
Ambulance/EMT/Hospital:
(_____)_____(o voice o fax o cellular o pager o home)
(_____)_____(o voice o fax o cellular o pager o home)
OTHER NUMBERS:
(_____)_____(o voice o fax o cellular o pager o home)
(_____)_____(o voice o fax o cellular o pager o home)

L. SITE SAFETY BRIEFINGS/MEETINGS

1. All personnel, employees, contractors, and subcontractors shall be provided with an initial site safety briefing to communicate the nature, level and degree of hazards expected on site.

2. Personnel will also receive regular briefings before and after each shift, before making a LEVEL A/B hot zone entry, and when significant changes are made in the work procedures or safety plans. These site safety meetings/briefings shall be held by the Site Supervisor. At a minimum these meetings will describe the work to be accomplished, discuss safety procedure changes, and note any items which need to be passed to other crews. General safety training topics should also be covered based on points raised in previous meetings and the site safety plan attachments.
o A briefing log is provided as attachment: 12.

M. The SITE SAFETY OFFICER

The Site Safety Officer for this incident is: _____.
The responsibilities of the SITE SAFETY OFFICER include (but are not limited to):

- Coordination of all safety and health concerns for the entire work site;
- Keeping this plan current; and
- Liaison with site safety officers from other organizations.

N. AUTHORIZATIONS

SITE SAFETY OFFICER: _____ DATE: _____

IC (RP):_____ DATE: _____

FOSC: _____ DATE: _____

SOSC:_____ DATE: _____

ATTACHMENT 1A: HAZARDOUS SUBSTANCE INFORMATION SHEETS MSDS/RIDS/CHRIS/CHEMTOX/TOMES/etc.

(Attach MSDS)

ATTACHMENT 1B: HAZARD INFO FOR OILS CONTAINING BENZENE

Oils and products that contain benzene, include: crude oils, gasoline, military JP4, commercial JET B, aviation gasoline, gas oils, and feed stocks.

1. These oils/products are composed of an indefinite petroleum distillate mixture. They may contain n-hexane, benzene, toluene, xylene, naphthalene, & PolyAromatic Hydrocarbons (PAHs) in concentrations that may vary widely depending on the source of the oil, weathering, and aging.

2. HAZARD DESCRIPTION: These oils/products may cause dermatitis by skin contact; nausea by inhalation; and eye irritation. Benzene is a hematologic toxin (it affects the blood and blood forming organs), and is a carcinogen. The most important potential benzene, toluene, or xylene hazard is in poorly ventilated areas (such as pits or under docks), or around freshly spilled oil. Benzo(a)pyrene is a skin contact hazard and potentially may cause skin cancer with chronic skin contact. As oil weathers and ages, benzo(a)pyrene becomes more concentrated because it evaporates much slower than other chemicals in the mixture.

3. BASIC PRECAUTIONS: Stay away from, or upwind of, fresh oil spills; wear chemical resistant clothing as necessary to protect against skin or eye contact; periodically change protective clothing that has oil on it; immediately change clothing that is showing evidence of oil penetrating to your skin; and wash skin with soap and water when changing into street clothing, before eating/drinking, or when exiting to a contamination reduction zone. Flush eyes with water if oil gets in them. If ingested do not induce vomiting--contact a physician. Urine phenol should be tested as soon as possible (and not later than 72 hours after exposure) if there is a suspected overexposure to benzene. Urine specific gravity should be corrected to 1.024 for this test. If urine phenol values exceed 75 mg per liter further testing in accordance with 29 CFR 1910.1028(i)(4) may be needed, and individuals must be removed from areas of potential benzene exposure until values return to normal.

MONITORING/EVALUATION INFORMATION FOR CERTAIN ASSOCIATED VAPOR HAZARDS (Taken from NIOSH Pocket Guide to Chemical Hazards — 1990 DHHS-NIOSH Pub. No. 90-117). The following information is provided for some of the more significant components of crude oil and high vapor pressure petroleum products that produce some degree of vapor hazard. Most of these chemicals are found in small quantities in crude oil and evaporate quickly so that their hazard is most significant during the first hours/days of a spill and diminish rapidly with weathering. For a more comprehensive review see NIOSH Health Hazard Evaluation Report "Exxon/Valdez Alaska Oil Spill" (HETA 89-200 & 89-273-2111, dtd May 1991).

BENZENE
CAS: 71-43-2
PEL(8 hr): 1 ppm (OSHA) (WISHA)

STEL(15 min): 5 ppm (OSHA) (WISHA)
IDLH: 3000 ppm
Vapor Pressure: 75 mmHg
Flash Point: 12 deg F.
LEL/UEL: 1.3% -- 7.9%
Ionization Potential: 9.24 eV

Health Effects/Symptoms: Irritant, hematologic toxin, CNS toxin, and carcinogen. Irritation of eyes, nose, and respiratory system; giddiness; headache; nausea; staggered gait; fatigue; anorexia; dermatitis; and depression of the bone marrow.

TOLUENE
CAS: 108-88-3
PEL(8 hr): 100 ppm (OSHA) (WISHA)
STEL(15 min): 150 ppm (OSHA) (WISHA)
IDLH: 2000 ppm
Vapor Pressure: 20 mmHg
Flash Point: 40 deg F.
LEL/UEL: 1.2% -- 7.1%
Ionization Potential: 8.82 eV

Health Effects/Symptoms: CNS/liver/kidney/skin toxin. Fatigue; weakness; confusion; euphoria; dizziness; headache; dilated pupils; lacrimation (watery eyes); nervousness; muscular fatigue; insomnia; paresthesia (burning, tingling, or numbness); and dermatitis.

MONITORING/EVALUATION INFORMATION FOR CERTAIN ASSOCIATED VAPOR HAZARDS (Taken from NIOSH Pocket Guide to Chemical Hazards--1990 DHHS-NIOSH Pub. No. 90-117). (continued):

XYLENES (o-, m-, p- isomers)
CAS: 1330-20-7
PEL(8 hr): 100 ppm (OSHA) (WISHA)
STEL(15 min): 150 ppm (OSHA) (WISHA)
IDLH: 1000 ppm
Vapor Pressure: 7/9 mmHg (varies with isomer)
Flash Point: 63/84 deg F.
LEL/UEL: 1.0% -- 7.0%
Ionization Potential: 8.44 or 8.8.56 eV

Health Effects/Symptoms: CNS/GI tract/liver/kidney/ blood/skin/eye toxin. Dizziness; excitement; drowsiness; incoordination; staggering gait; irritation of the eyes, nose, and throat; corneal vacuolization (formation of small spaces in the cornea); anorexia; nausea; abdominal pain; and dermatitis.

n-HEXANE (HEXANE or NORMAL HEXANE)
CAS: 110-54-3
PEL(8 hr): 50 ppm (OSHA) (WISHA)
IDLH: 5000 ppm
Vapor Pressure: 150 mmHg
Flash Point: -7 deg F.
LEL/UEL: 1.1% -- 7.5%
Ionization Potential: 10.18 eV

Health Effects/Symptoms: Skin/eye/respiratory system toxin. Light headedness; nausea; headache; numbness of the extremities; muscular weakness; irritation of the eyes and nose; chemical pneumonia; giddiness; and dermatitis.

MONITORING/EVALUATION INFORMATION FOR CERTAIN ASSOCIATED VAPOR HAZARDS (Taken from NIOSH Pocket Guide to Chemical Hazards--1990 DHHS-NIOSH Pub. No. 90-117). (continued):

NAPHTHALENE (WHITE TAR)
CAS: 91-20-3
PEL(8 hr): 10 ppm (OSHA) (WISHA)
STEL(15 min): 15 ppm (OSHA) (WISHA)
IDLH: 500 ppm
Vapor Pressure: 0.08 mmHg
Flash Point: 174 deg F.
LEL/UEL: 0.9% -- 5.9%
Ionization Potential: 7.30 eV

Health Effects/Symptoms: CNS/liver/kidney/blood/skin/ eye toxin. Irritation of the eyes; headache; confusion; excitement; malaise (general feeling of illness or discomfort); nausea; abdominal pain; irritation of the bladder; profuse sweating; jaundice; hematopoietic (reduction of blood count and related); hemoglobinuria (hemoglobin in the urine); renal shutdown; and dermatitis.

PETROLEUM DISTILLATE (NAPHTHA) A paraffin mixture (C5-C13) that may contain small amounts of aromatic hydrocarbons (such as benzene, toluene, or xylene).

CAS: 8002-05-9
PEL(8 hr): 1600 MG/M3 (OSHA) (WISHA)
REL(8 hr): 350 MG/M3 (NIOSH)
IDLH: 10,000 ppm
Vapor Pressure: 40 mmHg (varies with mixture)
Flash Point: -40 to -86 deg F.
LEL/UEL: 1.1% -- 5.9%
Ionization Potential: varies

Health Effects/Symptoms: Irritant, CNS/respiratory toxin. Irritation of eyes, nose, and throat; dizziness; drowsiness; headache; nausea; dermatitis.

ATTACHMENT 1C: HAZARD INFO FOR OILS (WITHOUT BENZENE)

Some oils that generally do not contain benzene (except as a minor constituent or contaminant), include: kerosene's, diesels, military JP5, commercial JET A, bunker C, & fuel oils (1 through 6).

1. These oils are composed of an indefinite petroleum distillate content typically including PolyAromatic Hydrocarbons (PAHs). The concentration of these products will vary widely depending on the source of the oil, weathering, and aging.

2. HAZARD DESCRIPTION: May cause dermatitis by skin contact; nausea by inhalation; and eye irritation by contact. Benzo(a)pyrene is a skin contact hazard and potentially may cause skin cancer with chronic skin contact.

3. BASIC PRECAUTIONS: Wear chemical resistant clothing as necessary to protect against skin or eye contact; periodically change protective clothing that has oil on it; immediately change clothing that is showing evidence of oil penetrating to your skin; and wash skin with soap and water when changing into street clothing, before eating/drinking, or when exiting to a contamination reduction zone. Flush eyes with water if oil gets in them. If ingested do not induce vomiting--contact a physician.

ATTACHMENT 1D: HAZARD INFORMATION FOR HYDROGEN SULFIDE
HYDROGEN SULFIDE (poison well gas, sour crude oil gas, hydrosulfuric acid, sewer gas, rotten egg gas, or sulfur hydride)

1. **Hydrogen sulfide (H2S)** is a clear foul smelling gas that smells like rotten eggs. Although the smell may be detected at very low concentrations, it is not a good warning property because exposure to dangerous concentrations deadens the sense of smell. Hydrogen sulfide is found in certain crude oils ("sour" crudes), and is also generated by decaying organic materials.

2. **HAZARD DESCRIPTION**: H2S is very irritating to the eyes even at low concentration. At higher concentrations it is irritating to mucus membranes. Concentrations resulting in respiratory irritation may cause pulmonary edema. It is also a chemical asphyxiant, which causes asphyxiation in a manner similar to cyanide. Other effects include headache, dizziness, excitement, staggering gait, diarrhea, fatigue, and insomnia. H2S is a central nervous system depressant, and high concentrations may cause paralysis of the respiratory system. In addition to health effects, H2S is also a flammable gas

OSHA PEL 10 ppm (Also WISHA)
OSHA STEL 15 ppm
IDLH 300 ppm
FLAMMABLE RANGE 4.0 to 44%

3. BASIC PRECAUTIONS:
Avoid areas above exposure limits. Use colorimetric or electronic concentration meters or dosimeters to monitor exposures. For concentrations above exposure limits, positive pressure supplied air or self-contained breathing apparatus must be used. For very high concentrations in confined spaces, monitor for explosive atmospheres.

First aid for exposures includes water irrigation of eyes, and support respiration as needed. IT IS ESSENTIAL THAT MEDICAL TREATMENT IS GIVEN FOR ANY SUSPECTED OVEREXPOSURE.

ATTACHMENT 2: SITE SAFETY MAP(S)

(Created on-site).

ATTACHMENT 3: SIGNS/SYMPTOMS THAT INDICATE POTENTIAL TOXIC OVEREXPOSURES

- Sudden weight loss or change in appetite
- Unusual fatigue or new sleeping difficulties
- Unusual irritability
- Skin rashes/allergies/sores
- Hearing loss
- Vision loss/problems
- Changes in sense of smell
- Shortness of breath/asthma/cough or sputum production
- Chest pains
- Nausea/vomiting/diarrhea/constipation
- Weakness/tremors
- Headaches
- Personality changes

ATTACHMENT 4A: HEAT STRESS CONSIDERATIONS (SHORT FORM)

HEAT STROKE. Heat stroke is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.

A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105 degrees F or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur.

Any person with signs of symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling. Further treatment, at a medical facility, should be directed to the continuation of the cooling process and the monitoring of complications which often accompany the heat stroke. Early recognition and treatment of heat stroke is the only means of preventing permanent brain damage or death.

HEAT EXHAUSTION. Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated.

In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

HEAT CRAMPS. Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles causes painful cramps. The affected muscles may be part of the arms, legs, or abdomen; but tired muscles (those used in performing the work) are usually the ones most susceptible to cramps. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth.

FAINTING. A worker who is not accustomed to hot environments and who stands erect and immobile in the heat may faint. With enlarged blood vessels in the skin and in the

lower part of the body due to the body's attempts to control internal temperature, blood may pool there rather than return to the heart to be pumped to the brain. Upon lying down, the worker should soon recover. By moving around, and thereby preventing blood from pooling, the patient can prevent further fainting.

HEAT RASH. Heat rash, also known as prickly heat, is likely to occur in hot, humid environments where heat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.

TRANSIENT HEAT FATIGUE. Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance. The severity of transient heat fatigue will be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).

PREPARING FOR WORK IN THE HEAT. Adjustment to heat, under normal circumstances, takes about a week, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable. With each succeeding daily exposure, hazardous physiological responses will gradually decrease, while the sweat rate will increase. When the body becomes acclimated to the heat, the worker will find it possible to perform work with less strain and distress. Gradual exposure to heat gives the body time to become accustomed to higher environmental temperatures. Heat disorders in general are more likely to occur among workers who have not been given time to adjust to working in the heat or among workers who have been away from hot environments and who have gotten accustomed to lower temperatures. Hot weather conditions of the summer are likely to affect the worker who is not acclimatized to heat. Likewise, workers who return to work after a leisurely vacation or extended illness may be affected by the heat in the work environment. Whenever such circumstances occur, the worker should be gradually reacclimatized to the hot environment.

Heat stress depends, in part, on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. Therefore, one way of reducing the potential for heat stress is to make the job easier or lessen its duration by providing adequate rest. Rather than be exposed to heat for extended periods of time during the course of a job, workers should, wherever possible, be permitted to distribute the workload evenly over the day and incorporate work-rest cycles. Work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin.

REST AREAS. Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. There is no conclusive information available on the ideal temperature for a rest area. Rest areas should be as close to the work area as possible, and provide shade. Individual work periods should not be lengthened in favor of prolonged rest periods. Shorter but frequent work-rest cycles are the greatest benefit to the worker.

DRINKING WATER. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced. Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body. There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones. Whatever the temperature of the water, it must be palatable and readily available. Individual drinking cups should be provided--never use a common drinking cup.

Heat acclimatized workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat production is high. If for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food. Salt tablets SHOULD NOT be used.

CAUTION--PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT WHAT TO DO UNDER THESE CONDITIONS.

PROTECTIVE CLOTHING. Clothing inhibits the transfer of heat between the body and the surrounding environment. Therefore, in hot jobs where the air temperature is lower than skin temperature, wearing clothing reduces the body's ability to lose heat into the air. When air temperature is higher than skin temperature, clothing helps to prevent the transfer of heat from the air to the body. The advantage of wearing additional clothes, however, may be nullified if the clothes interfere with the evaporation of sweat (such as rain slickers or chemical protective clothing).

ATTACHMENT 4B: HEAT STRESS CONSIDERATIONS (LONG FORM)

The following heat stress information has been taken primarily from NIOSH Publication 86-112 "Working In Hot Environments".

HEAT STRESS CONSIDERATIONS. The Site Safety Officer or Site Safety Supervisor for the entire response should make heat stress determinations throughout the day. If it is determined that a heat stress hazard exists, an alert should be passed to all teams to implement mandatory rest periods. The Site Safety Officer/Supervisor should generally be guided by the American Conference of Governmental Industrial Hygienists (ACGIH) guidelines in determining work/rest periods. Fluids should be available at all times and encouraged during mandatory rest periods.

Safety Concerns: Certain safety problems are common to hot environments. The frequency of accidents, in general, appears to be higher in hot environments than in more moderate environmental conditions. One reason is that working in a hot environment lowers the mental alertness and physical performance of an individual. Increased body temperature and physical discomfort promote irritability, anger, and other emotional states which sometimes causes workers to overlook safety procedures or to divert attention from hazardous tasks. Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders.

HEAT STROKE

SIGNS AND SYMPTOMS. Heat stroke is the most serious health problem associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.

- A heat stroke victim's skin is hot, usually dry, red or spotted.
- Body temperature is usually 105 degrees F or higher
- The victim is mentally confused, delirious, perhaps in convulsions, or unconscious.

MEDICAL ATTENTION. Unless the heat stroke victim receives quick and appropriate treatment, **DEATH CAN OCCUR**. Any person with signs or symptoms of heat stroke requires immediate hospitalization. **SEND SOMEONE TO GET MEDICAL ASSISTANCE/EMT IMMEDIATELY!!!** While waiting for medical assistance first aid should be immediately administered. This includes:

- Removing the victim to a cool area,
- Thoroughly soaking the clothing with water, and
- Vigorously fanning the body to increase cooling.

HEAT EXHAUSTION Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt.

SIGNS AND SYMPTOMS. A worker suffering from heat exhaustion:

- Still sweats; but
- Experiences extreme weakness or fatigue, giddiness, nausea, or headache
  In more serious cases
- The victim may vomit or lose consciousness
- The skin is clammy and moist
- The complexion is pale or flushed
- The body temperature is normal or only slightly elevated
-

MEDICAL ATTENTION. General treatment:

- Notify the site EMT,
- Have the victim rest in a cool place
- Have the victim drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

CAUTION--PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT WHAT TO DO UNDER THESE CONDITIONS.

HEAT CRAMPS

SIGNS AND SYMPTOMS. Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss.

MEDICAL ATTENTION. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth.

CAUTION--PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT WHAT TO DO UNDER THESE CONDITIONS.

FAINTING A worker who is not accustomed to hot environments and who stands erect and immobile in the heat may faint.

SIGNS AND SYMPTOMS. With enlarged blood vessels in the skin and in the lower part of the body due to the body's attempts to control internal temperature, blood may pool there rather than return to the heart to be pumped to the brain.

MEDICAL ATTENTION. Upon lying down, the worker should soon recover. By moving around, and thereby preventing blood from pooling, the patient can prevent further fainting.

HEAT RASH Heat rash, also known as prickly heat, is likely to occur in hot, humid

environments where heat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time.

SIGNS AND SYMPTOMS. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance.

MEDICAL ATTENTION. Workers can prevent this by resting in a cool place part of each day and by regularly bathing and drying the skin.

TRANSIENT HEAT FATIGUE Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance.

Preparing For Work In The Heat. One of the best ways to reduce the heat stress of workers is to minimize heat in the workplace. However, at oil spills heat is difficult to control, while working outdoors and exposed to various weather conditions. Humans are, to a large extent, capable of adjusting to the heat. This adjustment to heat, under normal circumstances, usually takes about 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable.

Workers who return to work after vacation or extended illness may be affected by the heat in the work environment. Whenever such circumstances occur, the worker should be gradually reacclimatized to the hot environment.

Mechanization. Heat stress depends, in part, on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. Therefore, one way of reducing the potential for heat stress is to make the job easier or lessen its duration by providing adequate rest time. Mechanization of work procedures can often make it possible to isolate workers from the heat source and increase overall productivity by decreasing the time needed for rest.

Work/Rest Periods. Rather than be exposed to heat for extended periods of time during the course of a job, workers should, wherever possible, be permitted to distribute the workload evenly over the day and incorporate work-rest cycles or regular (and enforced) breaks. Work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin.

Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. Rest areas should be as close to the work area as

possible, and provide shade. Shorter but frequent work-rest cycles are the greatest benefit to the worker.

Drinking Fluids. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced.

Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Five to seven ounces of fluids should be consumed every 15 to 20 minutes to replenish the necessary fluids in the body. There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones.

Heat acclimatized workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat production is high. If for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food. Salt tablets SHOULD NOT be used.

CAUTION--PERSONS WITH HEART PROBLEMS OR THOSE ON A "LOW SODIUM" DIET WHO WORK IN HOT ENVIRONMENTS SHOULD CONSULT A PHYSICIAN ABOUT WHAT TO DO UNDER THESE CONDITIONS.

Protective Clothing and Heat Stress. Clothing inhibits the transfer of heat between the body and the surrounding environment. Therefore, in hot jobs where the air temperature is lower than skin temperature, wearing clothing reduces the body's ability to lose heat into the air. When air temperature is higher than skin temperature, clothing helps to prevent the transfer of heat from the air to the body. The advantage of wearing additional clothes, however, may be nullified if the chemical protective clothes interferes with the evaporation of sweat.

ATTACHMENT 5A: COLD STRESS & HYPOTHERMIA (SHORT FORM)

Frostbite and hypothermia are major hazards of working in cold temperatures. A cold environment can reduce the temperature of the body and cause shivering, reduced mental alertness, and even loss of consciousness. However, a healthy worker who is properly protected and takes reasonable precautions can function efficiently and safely in cold environments. See Appendix (C) of site safety program manual for further information.

FACTORS AFFECTING COLD EXPOSURES.

1. Important factors contributing to cold injury:

· Exposure to humidity and high winds,
· Contact with moisture or metal,
· Inadequate clothing,
· Age, and
· General health.

Physical conditions that worsen the effects include:

· Fatigue
· Allergies
· Vascular disease
· Smoking
· Drinking
· Certain specific drugs or medicines.

2. Important Warnings:

· Pain in the extremities may be the first warning of dangerous exposure to cold.
· Severe shivering must be taken as a sign of danger requiring removal from the cold exposure.
· A worker should go immediately to a warming shelter if any of the following symptoms occur:

a) Pain in the extremities (or frostnip)
b) Onset of heavy shivering
c) Excessive fatigue
d) Drowsiness
e) Euphoria.

A litter should be used if possible for all but the mildest cases.

Hypothermia/Cold Stress victims must be rewarmed, but must not be rewarmed TOO FAST. In particular, victims should not be rewarmed by submersion in water at any temperature.

Hypothermia: Hypothermia is an abnormally low body temperature caused by exposure to cold in air or in water. Hypothermia results as the body looses heat faster than it can produce it. Air temperature alone is not enough to judge the cold hazard of a particular environment. Hypothermia cases often develop in air temperatures between

30-50 degrees Fahrenheit. When you figure in such factors as wind chill, the effective temperature can be significantly lower.

1. Early warnings of hypothermia are:
· Uncontrollable shivering and the sensation of cold;
· The heartbeat slows and sometimes becomes
· Fits of shivering, vague or slurred speech, memory lapses, incoherence, or drowsiness are some symptoms which may occur
· Other symptoms which may be seen before unconsciousness are cool skin, slow, irregular breathing, low blood pressure, apparent exhaustion, and inability to get up after a rest.
2. First aid for hypothermia: The main objective in handling potential cases of hypothermia is rewarming the body core evenly and without delay. HOWEVER, doing it TOO RAPIDLY can disrupt body functions such as circulation.

· The outer layer of clothing should be removed when entering a warm shelter.
· The remaining clothing should be loosened to permit sweat to evaporate.
· Alcohol should not be consumed while in the warm environment.
Anyone on medications such as blood pressure control or water pills should consult a physician about possible side effects of cold stress.

If medical help is not immediately available:

· Keep the person quiet, but keep them awake, if possible.
· Avoid unnecessary movement. If it's necessary to move a hypothermia victim, use a litter as the exertion of walking could aggravate circulation problems.
· In a case of mild hypothermia where the person is conscious, the body may be packed with heat packs or warm towels at the neck, groin, and armpits.
· As the extremities begin to recover warmth give conscious victims sweet, warm drinks. AVOID caffeine or alcoholic drinks.
· Don't rewarm the core and the extremities at the same time. The sudden return of the cool blood pooled in the extremities to the heart can cause shock.

WATER IMMERSION VICTIMS. Flotation is the most important factor in water immersion survival, but may not be available if not provided in advance (see protective clothing notes below).
· It is especially important to keep your head dry.
· Avoid thrashing about and assume the HELP position (Heat Escape Lessening Posture) by crossing your wrists over your chest and drawing your knees close to your chest to avoid losing excess body heat. By using the HELP position, the head, neck, armpit, and groin areas are protected which are all high heat loss areas.
· If others are in the water with you, huddle together to reduce heat loss, aid in rescue, and boost morale.

OTHER COLD STRESS INJURIES:

1. FROSTBITE

Symptoms:

- Whitened areas on skin
- Burning sensation at first
- Blistering
- Affected part cold, numb, and tingling

Treatment:

- Cover the frozen part
- Provide extra clothing and blankets
- Bring person indoors
- Place the part in warm water or rewarm with warm packs
- If no water is available, wrap gently in a sheet and blanket or place frostbitten fingers under armpits
- Discontinue warming when the affected part becomes flushed and swollen
- Exercise part after rewarming but do not allow the person to walk after the affected part thaws
- Give sweet warm fluids to conscious person
- If feet are affected, put on dry socks over footwear
- If cheeks are affected, cover cheeks with warm hands
- Do not rub the part with anything
- Do not use heat lamp
- Do not use hot water bottles
- Do not place part near hot stove
- Do not break blisters
- Obtain medical assistance ASAP

2. CHILBLAIN

Symptoms:

- Recurrent localized itching, swelling, and painful inflammation of the fingers, toes, or ears.
- Severe spasms

Treatment:

- Remove to warmer area
- Consult physician

3. FROSTNIP

Symptom:

- Skin turns white

Treatment:

- Remove to warmer area
- Refer to treatment for frostbite

4. ACROCYANOSIS

Symptom

- Hands & feet are cold, blue, and sweaty

Treatment:

- Remove to warmer area
- Loosen tight clothing
- Consult physician

5. TRENCH FOOT

Symptoms:

- Edema (swelling) of the foot
- Tingling, itching
- Severe pain
- Blistering
- Treatment:
- Remove to warmer area
- Refer to frostbite treatment
- Consult physician

6. RAYNAUD'S DISEASE

Symptoms:

- Fingers turn white and stiff
- Intermittent blanching and reddening of the fingers and toes
- Affected area tingles and becomes very red or reddish purple

Treatment:

- Remove to warmer area
- Consult physician

PREVENTING COLD STRESS

- Reduce manual work loads
- Prevent dehydration
- Provide warm locations for breaks
- Provide wind breaks & shelters
- Schedule coldest work for the warmest part of the day
- Move work to warmer areas whenever possible
- Assign extra workers to highly demanding tasks
- Relief workers available for workers needing a break
- Enforce the BUDDY SYSTEM
- Minimize sitting/standing still for long periods
- Older workers need to be extra careful in the cold
- Sufficient sleep and good nutrition are important for maintaining a high level of tolerance to cold
- Provide appropriate PROTECTIVE CLOTHING/EQUIPMENT. See Appendix C of the site safety program for more details

PRIORITY CLOTHING includes protection of FEET, HANDS, HEAD, and FACE. Keeping the head covered is important because as much as 40% of body heat can be lost when the head is exposed.

ENSEMBLES FOR WORK WHEN WATER IMMERSION MAY OCCUR.

- Flotation (personal or throwable devices)

- Air trapped between layers of clothing will
- provide buoyancy and heat insulation, but Personal Flotation Devices (PFDs) offer the best chance for survival in cold water. Type III PFDs include float coats and mustang suits which provide floatation and thermal protection.
- Preposition throwable floatation devices in boats or work areas near water.

ATTACHMENT 5B: COLD STRESS CONSIDERATIONS (LONG FORM)

Frostbite and hypothermia are the two major hazards of working in cold temperatures. A cold environment can reduce the temperature of the body and cause shivering, reduced mental alertness, and sometimes loss of consciousness. However, a healthy worker who is properly protected and takes reasonable precautions can function efficiently and safely in cold environments.

FACTORS AFFECTING COLD EXPOSURES.

1. Important factors contributing to cold injury:

- Exposure to humidity and high winds
- Contact with moisture or metal
- Inadequate clothing
- Age
- General health.

Physical conditions that worsen the effects include:

- Fatigue
- Allergies
- Vascular disease
- Smoking
- Drinking
- Certain specific drugs or medicines

2. If someone becomes fatigued during physical activity, they will be more susceptible to heat loss. As exhaustion approaches, the body's ability to contract the blood vessels diminishes; blood circulation occurs closer to the skin; and rapid loss of heat begins. Sedative drugs and alcohol increase the risk of hypothermia by dilating the blood vessels near the skin which increases heat loss and lowers body temperature.

3. The actual effects of a cold environment on the body also depend upon how well the skin is protected. An insulating barrier affects the rate of heat loss from by radiation, convection, conduction, and evaporation.

4. Environmental factors include wind and humidity, as well as temperature. The faster the air movement, the greater the effects of cold exposure.

HYPOTHERMIA. Cold injury can be localized or generalized. Frostbite, frostnip, or chilblain are examples of localized injuries. Hypothermia is a generalized (threatening the whole body) cold injury which can be life threatening.

Hypothermia is an abnormally low body temperature caused by exposure to cold in air or in water. Hypothermia results as the body looses heat faster than it can produce it. Air temperature alone is not enough to judge the cold hazard of a particular environment. Hypothermia cases often develop in air temperatures between 30-50 degrees Fahrenheit. When you figure in such factors as wind chill, the effective temperature can be significantly lower.

Pain in the extremities may be the first warning of dangerous exposure to cold. Severe shivering must be taken as a sign of danger requiring removal from the cold exposure.

Early warnings of hypothermia are uncontrollable shivering and the sensation of cold; the heartbeat slows and sometimes becomes irregular, the pulse weakens, and the blood pressure changes. Fits of shivering, vague or slurred speech, memory lapses, incoherence, or drowsiness are some symptoms which may occur. Other symptoms which may be seen before unconsciousness are cool skin, slow, irregular breathing, low blood pressure, apparent exhaustion, and inability to get up after a rest.

HANDLING COLD STRESS AND HYPOTHERMIA VICTIMS

1. A worker should go immediately to a warming shelter if any of the following symptoms occur:

- Pain in the extremities (or frostnip)
- Onset of heavy shivering
- Excessive fatigue
- Drowsiness
- Euphoria

A litter should be used if possible for all but the mildest cases.

The main objective in handling potential cases of hypothermia is rewarming the body core evenly and without delay. HOWEVER, doing it TOO RAPIDLY can disrupt body functions such as circulation. The outer layer of clothing should be removed when entering a warm shelter. The remaining clothing should be loosened to permit sweat to evaporate. Alcohol should not be consumed.

Anyone on medications such as blood pressure control or water pills should consult a physician about possible side effects of cold stress.

If medical help is not immediately available:

- Keep the person quiet, but keep them awake, if possible
- Avoid unnecessary movement
- If it's necessary to move a hypothermia victim, use a litter - the exertion of walking could aggravate circulation problems.
- In a case of mild hypothermia where the person is conscious, the body may be packed with heat packs or warm towels at the neck, groin, and armpits.
- As the extremities begin to recover warmth give conscious victims sweet, warm drinks. AVOID caffeine or alcoholic drinks. Don't rewarm the core and the extremities at the same time. The sudden return of the cool blood pooled in the extremities to the heart can cause shock.

WATER IMMERSION VICTIMS. Flotation is the most important factor in water immersion survival, but may not be available if not provided in advance (see protective clothing notes below).

- It is especially important to keep your head dry.

· Avoid thrashing about and assume the HELP position (Heat Escape Lessening Posture) by crossing wrists over chest and drawing knees close to your chest to avoid losing body heat. By using the HELP position, the head, neck, armpit, and groin areas are protected which are all high heat loss areas.
· If others are in the water with you, huddle together to reduce heat loss, aid in rescue, and boost morale.

HYPOTHERMIA SUMMARY:
SYMPTOMS
· Pain in the extremities
· Uncontrollable shivering
· Reduced body core temperature
· Cool skin
· Rigid muscles
· Slowed heart rate
· Weakened pulse
· Low blood pressure
· Slow irregular breathing
· Memory lapses
· Slow slurred speech
· Drowsiness
· Incoherence
· Uncoordination
· Diminished dexterity and judgment
Possible Causes
· Exposure to low air temperatures
· Exposure to high winds
· Water immersion
· Inadequate clothing
· Allergies
· Recent alcohol consumption
· Smoking
· Prescription medications
· Exhaustion
· Dehydration
Treatment
· Remove person from wind, snow, rain
· Minimize use of energy by person - Keep person awake
· Remove wet clothing
· Get person into dry clothing
· Wrap blanket around the person
· Pack neck, groin, armpits with warm towels
· Don't rewarm extremities and core at the same time
· Give sweet warm drinks to conscious person
· Remove person to medical facility

THER COLD STRESS INJURIES:

FROSTBITE

Symptoms

- Whitened areas on skin
- Burning sensation at first
- Blistering
- Affected part cold, numb, and tingling

Possible Causes

- Exposure to cold
- Age (very young or old)
- Underlying disease

Treatment

- Cover the frozen part
- Provide extra clothing and blankets
- Bring person indoors
- Place the part in warm water or rewarm with warm packs
- If no water is available, wrap gently in a sheet and blanket or place frostbitten fingers under armpits
- Discontinue warming when the affected part becomes flushed and swollen
- Exercise part after rewarming but do not allow the person to walk after the affected part thaws
- Give sweet warm fluids to conscious person
- If feet are affected, put on dry socks over footwear
- If cheeks are affected, cover cheeks with warm hands
- Do not rub the part with anything
- Do not use heat lamp
- Do not use hot water bottles
- Do not place part near hot stove
- Do not break blisters
- Obtain medical assistance ASAP

CHILBLAIN

Symptoms

- Recurrent localized itching, swelling, and painful inflammation of the fingers, toes, or ears
- Severe spasms

Possible Causes

- Inadequate clothing
- Exposure to cold and moisture
- Underlying disease

Treatment

- Remove to warmer area
- Consult physician

FROSTNIP

Symptoms

- Skin turns white

Possible Causes

- Exposure to cold

Treatment

- Remove to warmer area (treat for frostbite)

ACROCYANOSIS

Symptoms

- Hands and feet are cold, blue, and sweaty

Possible Causes

- Exposure to cold
- Inadequate clothing
- Underlying disease

Treatment

- Remove to warmer area
- Loosen tight clothing
- Consult physician

TRENCH FOOT

Symptoms

- Edema (swelling) of the foot
- Tingling, itching
- Severe pain
- Blistering

Possible Causes

- Exposure to cold and dampness

Treatment

- Remove to warmer area
- Refer to frostbite treatment - Consult physician

RAYNAUD'S DISEASE

Symptoms

- Fingers turn white and stiff
- Intermittent blanching and reddening of the fingers and toes
- Affected area tingles and becomes very red or reddish purple

Possible Causes

- Exposure to low air temperature and high winds
- Inadequate clothing
- Underlying disease

Treatment

- Remove to warmer area
- Consult physician

EVALUATING COLD EXPOSURE HAZARDS

A. Common sense will dictate how much clothing to wear and when to get into a warm area in most cases. However, some work environments require more complex evaluation.

B. Evaluating a work environment to determine the degree of cold stress involves measuring air temperature, wind speed, and the amount of energy expended by the worker.

C. Air temperature can be measured by an ordinary bulb thermometer. Wind speed can be measured in a variety of ways but can also be estimated as follows:

5 mph - light flag moves
10 mph - light flag fully extended
15 mph - raises newspaper sheet
20 mph - blowing and drifting snow

D. Table 2 in the Cold Stress section of the latest edition of the American Conference of Governmental Industrial Hygienists (ACGIH) TLV booklet estimates effective temperature using actual temperature and wind speed. This booklet also provides additional guidelines for controlling cold exposure hazards.

PREVENTING COLD STRESS

A. REDUCE MANUAL WORK LOAD. When cold stress is a concern, personnel exposures should be reduced by eliminating manual operations as much as possible. Power tools, hoists, cranes, or lifting aids should be used to reduce the metabolic work load and to reduce the duration of human exposure. Fatigue is also a compounding stress factor.

B. DEHYDRATION. Working in cold areas causes high water losses through the skin and lungs, because of the dryness of the air. Increased fluid intake is essential to prevent dehydration. Warm, sweet, caffeine-free, non-alcoholic drinks and soups should be available at the work site for fluid replacement and caloric energy.

C. WARM LOCATIONS FOR BREAKS. For outdoor work such as beach cleaning, where it will be difficult to warm the work area, it is particularly important to provide frequent breaks in a warm location. These locations should also be stocked with warm fluids to help warming and prevent dehydration. Workers should be encouraged to take frequent breaks in warm shelters at temperatures below 20 degrees F. A work-rest schedule should be implemented using Table 3 in the Cold Stress section of the latest edition of the ACGIH TLV booklet for guidance.

Providing movable spot heaters close to the work area can also be effective, and can also prevent secondary hazards from carbon monoxide when workers attempt to warm themselves near running engines. If fine work is to be performed with bare hands,

special provisions should be made to keep the worker's hands warm using such things as warm air jets, radiant heaters, or contact warm plates can be used.

D. INDOOR/OUTDOOR WIND BREAKS & SHELTER. The work area should be shielded if the air velocity at the job site is increased by wind, drafts, or ventilating equipment. For example, bird/mammal rehabilitation may be conducted in large warehouse type buildings where heating may be difficult. Wet work stations (such as washing or drying stations) should be enclosed by barriers to reduce drafts.

E. SCHEDULING AND TASK MANAGEMENT. Schedule the coldest work for the warmest part of the day. Move work to warmer areas whenever possible. Assign extra workers to highly demanding tasks. Make relief workers available for workers who need a break. The BUDDY SYSTEM is required for all waste site operations. This is particularly important when working in stressful environments. Minimize sitting still or standing around for long periods. Older workers need to be extra careful in the cold. Additional insulating clothing and reduced exposure time should be considered for these workers. Sufficient sleep and good nutrition are important for maintaining a high level of tolerance to cold.

PROTECTIVE CLOTHING/EQUIPMENT

1. General Considerations:

· 35 F. Workers exposed to air temperatures of 35 degrees or lower who become immersed in water or whose clothing gets wet should be given dry clothing immediately and treated for hypothermia.

· 30 F. At temperatures below 30 degrees, metal handles of tools should be covered with thermal insulating material. Unprotected metal chair seats should not be used.

· -25 F. In addition to the common sense approach of providing adequate warm clothing; continuous exposure of skin should not be permitted when the wind chill factor results in an equivalent temperature of -25 degrees Fahrenheit.

2. INSULATION:

It is essential to preserve the air space between the body and the outer layer of clothing to retain body heat. The more air pockets each layer of clothing has the better the insulation.

a. Outer layer should be windproof and waterproof. Wool, for example, is a very useful insulator for undergarments but looses much of its insulating value as an outer garment. These outer layers should not prevent sweat evaporation.

b. Dirty or greasy clothing loses much of its insulative value. Air pockets are crushed or filled, and heat can escape more easily.

c. Denim is not a good protective fabric. It is relatively loosely woven allowing moisture to enter, and this also allows body heat to escape.

d. Any interference with the circulation of blood reduces the amount of heat delivered to the extremities. All clothing should be loosely worn and unrestrictive.

3. CHEMICAL PROTECTIVE CLOTHING (CPC) CONSIDERATIONS. While CPC is important for protecting personnel from hazardous exposures, it is important to remember that CPC ensembles have undesirable, as well as desirable impacts on the cold stress on personnel.

a. UNDESIRABLE EFFECTS. The desired insulating effect of clothing is negated if clothing interferes with the evaporation of sweat from the trunk of the body, or when the skin or clothing is wet. CPC ensembles typically interfere with the evaporation of sweat. Protective clothing (for cold or chemical protection) also add to the workload/fatigue of workers. When cold stress is a concern, care should be exercised in selecting ensembles which contribute to cold stress without meaningful chemical exposure protection. This is particularly true for those parts of the ensemble protecting the trunk of the body.

b. DESIRABLE. Liquids conduct heat better than air and have a greater capacity for heat than air. For example, a spill of cold gasoline on skin can freeze the tissue very quickly. Chemical resistant gloves, such as neoprene with cotton inserts, should be worn to prevent this localized cold stress.

4. PRIORITY CLOTHING. The most important parts of the body to protect are the FEET, HANDS, HEAD, and FACE. Keeping the head covered is important because as much as 40% of body heat can be lost when the head is exposed.

5. ENSEMBLE OPTIONS. The following items should be considered for addition to worker ensembles in cold environments:

· A cotton T-shirt and shorts under two-piece cotton and wool thermal underwear. Two-piece long underwear is preferred because the top can be removed and put back on as needed.

· Socks with high wool content. Use thin inner socks and thick outer socks. If cold, wet feet are a concern the socks should be changed during the mid-shift break.

· Wool or thermal trousers (lap trousers over boot tops to keep out snow or water).

· Felt-lined, rubber-bottomed, leather-topped boots, with a removable insole (for heavy work). Or, with chemical protective boots, air insole cushions and felt liners (steel toes/shank boots should be avoided unless needed for specific safety concerns).

· Wool shirt or sweater over a cotton shirt.

· Wool knit cap (watch cap), or (if hard hats are required) specially made hard hat liners.

· Face mask or scarf (vital when working in cold wind). NOTE: Face protectors must be periodically removed so the worker can be checked for signs of frostbite.

· Double-layered goggles with foam padding around the edges (extremely cold environments).

· Insulated gloves. 60 degrees F, or lower, for sedentary work, 40 degrees F, or lower, for light work, and 20 degrees F, or lower, for moderate work. 0 degrees F, or lower, wool mittens should be used instead of gloves.

6. ENSEMBLES FOR WORK WHEN WATER IMMERSION MAY OCCUR

a. Flotation (personal or throwable devices) are extremely important to avoid unnecessary swimming which will increase the rate of body heat loss.

b. Air trapped between layers of clothing will provide buoyancy and heat insulation, but Personal Flotation Devices (PFDs) offer the best chance for survival in cold water. Type III PFDs include float coats and mustang suits which provide floatation and thermal protection.

c. Preposition throwable floatation devices in boats or work areas near water.

7. SELECTION OF MATERIALS:

Material	***Advantages***	***Disadvantages***	***Wear in***
Wool	Stretches without	Heavy weight	Layer 1-3
	damage; Insulates	Absorbs moisture	
	well when wet	Skin irritant	
Cotton	Comfortable	Absorbs moisture	Layer 1-2
	Lightweight		
Silk	Lightweight	Expensive; Does	Layer 1
	Durable	not transfer	
	Good insulator	moisture well	
	Washes well		
Nylon	Lightweight	Impervious to	Layer 3
	Durable	perspiration	
	Wind resistant	Flammable	
	Water resistant		
Down	Lightweight	Expensive	Layer 2-3
	Durable	Hard to dry	
	Good insulator	Poor insulator	
	when dry	when wet	
Polyester	Does not absorb	Heavier than down	Layer 2-3
	moisture (insulates	Does not compress	
	even when wet)	as well as down	

ATTACHMENT 6: SANITATION REQUIREMENTS

A. Potable water. Adequate potable water or other drinking fluids shall be maintained throughout the site. Containers for drinking fluids shall be capable of being tightly closed, and equipped with a tap. Containers must also be labeled so that the contents are not accidentally used for other purposes. Where single-service cups are supplied, the unused cups shall be maintained in a sanitary containers and a separate disposal container provided for used cups.

B. Nonpotable water. Water intended for uses other than drinking or washing shall be identified so that it is not accidentally used for drinking, washing, or cooking. There shall be no cross-connection of potable and nonpotable water supplies.

C. Toilet facilities. Toilet facilities shall be provided at a minimum in accordance with Table H-120.2 (Toilet Facilities) of 29 CFR 1910.120(n) or WAC 296-62-Part P.

20 or fewer people: 1 facility
20-200 people: 1 toilet seat, and 1 urinal per 40 persons
more than 200 people: 1 toilet seat, and 1 urinal per 50 persons

1. Toilets shall be provided such that they are readily accessible from all work areas. Mobile crews with ready access to toilet facilities using their own transportation do not need toilet facilities located at their temporary work sites.

2. Sewage shall be handled in accordance with local health codes using one of the following means:

- Sanitary sewer
- Chemical toilets
- Recalculating toilets
- Combustion toilets
- Flush toilets.

D. Food handling shall be conducted in accordance with the requirements of local jurisdiction.

E. Washing Facilities. Washing facilities shall be readily accessible by all employees. In addition to sanitary cleaning, these facilities shall be so equipped that they can be used to remove oily residues from the skin. Washing facilities shall be maintained free of contaminants above exposure limits, and as free as practical from oily residues.

F. Showers. For operations lasting more than 6 months, showers and changing rooms must be provided in accordance with 29 CFR 1910.120(n)(7); and 29 CFR 1910.141(d)(3) and 1910.141(e) or WAC 296-62-Part P.

ATTACHMENT 7: CONFINED SPACE ENTRY CHECKLIST

These are strictly guidelines for use by field personnel based on NIOSH pub 87-113 "A Guide to Safety in Confined Spaces"; and NFPA-306 Control of Gas Hazards on Vessels.

ENTRY:

SAT/UNSAT (if not applicable mark "N/A" in SAT column)

___/___ IS ENTRY NECESSARY?

Checklist items on this list completed by:_____

Date:_____; Time:_____; Signature:_____

TESTING:

SAT/UNSAT(if not applicable mark "NA" in SAT column)

___/___ Instruments calibrated?

___/___ Oxygen must be greater than 19.5% and less than 21.0% (There should be no unexplained deflection from the calibrated setting for ambient air, typically 20.9% outside of normal instrument variability.)? Atmospheres less than 19.5% should be treated as an IDLH atmosphere for purposes of respiratory protection selection. Atmospheres greater than 21% should be treated as a flammable atmosphere hazard (enhances flammability of other materials).

___/___ Combustible atmospheres--where flammable/combustible gases and vapors may be present--must be less than 10% of the LEL (Lower Explosive Limit) (There should be no unexplained deflection from the calibrated zero setting without assessment of potential toxic hazards associated with the atmosphere).

___/___ Toxic hazards (per NFPA 306 concentrations should not exceed TWA exposure limits such as OSHA PEL, ACGIH TLV, or NIOSH REL). If exposure limits are exceeded, consider additional engineering controls such as ventilation or cleaning. If other controls are not effective/ feasible, appropriate respiratory protection should be used above exposure limits. Toxic hazards evaluated:

HAZARD: _____ Results:_____

HAZARD: _____ Results:_____

HAZARD: _____ Results:_____

HAZARD: _____ Results:_____

___/___ Gas sources in or adjacent to the confined space has been inspected and adequately isolated (gas sources all present a potential for sudden changes in atmospheric conditions such as oxygen displacement, fires/ explosions, or acute toxic atmospheres--continuous monitoring for oxygen deficiency and explosive atmospheres should be considered along with emergency escape respiratory protection)? The following were present:

o Compressed gases

o Liquefied gases

o Welding hoses

o Inerting systems — including dry ice (CO_2)

o OTHER:_____

Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

MONITORING. When considering monitoring requirements, personnel should consider such things as the potential for sudden changes in atmospheric conditions (e.g., gas sources in or adjacent to the confined space); and environmental or work activities which may change conditions over time (e.g., hot sunny weather increases vapor generation; welding/cutting/painting/curing consume oxygen; and internal combustion engines consume oxygen and produce oxygen displacing gases).
SAT/UNSAT(if not applicable mark "NA" in SAT column)
___/___ Appropriate monitoring is established as follows?
o LEL:
o continuous
o as directed by safety supervisor
o daily or when safety supervisor changes watch
o every ___ hour(s)
o OXYGEN:
o continuous
o as directed by safety supervisor
o daily or when safety supervisor changes watch
o every ___ hour(s)
o OTHER HAZARD:_____
MONITORING EQUIPMENT:_____
o continuous,
o as directed by safety supervisor,
o daily or when safety super. changes watch
o every ___ hour(s)
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

CLEANING:
SAT/UNSAT (if not applicable mark "NA" in SAT column)
___/___ Space has been cleaned prior to entry?
___/___ If steam, or hot water cleaning systems were used, adequate cooling time has been provided?
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

VENTILATION:
SAT/UNSAT(if not applicable mark "NA" in SAT column)
___/___ Adequate ventilation has been established as follows:
o Air changes prior to entry (minutes:_____)
o Continuous ventilation during entry, Location/type/ducts (diagram & description):
o Source of air being blown into space is free of hazards?
___/___ Contaminated air is exhausted into a safe location?

ISOLATION OF OTHER HAZARDS:

___/___ Other systems and hazards have been adequately been isolated?
___/___ Electrical systems locked out and tagged?

___/___ Mechanical equipment and hazards blocked, chocked, and/or disengaged where necessary?
___/___ Lines under pressure, or containing chemical products, have been blanked and bled off?
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

OTHER PROTECTIVE CLOTHING/EQUIPMENT:
SAT/UNSAT (if not applicable mark "NA" in SAT column)
___/___ Equipment for entry team
o PPE ensemble (see attached PPE ensemble sheet).
o Rescue/retrieval
o Harness o Other:_____
o Comms/signaling:_____
o Spark-proof tools:_____
o OTHER:_____
___/___ Equipment for rescue personnel
o PPE ensemble (see attached PPE ensemble sheet).
o Rescue/retrieval:_____
o Retrieval Tripod o Other:_____
o Comms/signaling:_____
o PPE/Respiratory:_____
o OTHER:_____
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

TRAINING/QUALIFICATIONS:
SAT/UNSAT(if not applicable mark "NA" in SAT column)
___/___ Confined space hazards and safe work practices (ALL)
___/___ Use of respirators (ALL)
___/___ CPR, first aid, emergency entry/rescue (RESCUE)
(one member not entering space)
___/___ Confined space plan briefing (ALL)
___/___ Work plan (ALL)
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

STANDBY and RESCUE PERSONNEL:
SAT/UNSAT (if not applicable mark "NA" in SAT column)
___/___ Personnel in addition to entry and rescue teams:
o Supervisor:_____

o Safety Supervisor:_____
___/___ Standby to maintain contact by:

o Visual
o Radio
o Line/rope o Other:_____
___/___ Rescue procedures:
o Notify safety supervisor of problem
o Test for combustible gas and oxygen prior to rescue
o Enter using SCBA
o Enter using harness and retrieval line
o OTHER:_____
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

CONFINED SPACE ENTRY PERMIT
SAT/UNSAT(if not applicable mark "NA" in SAT column)
___/___ Marine chemist certificate, CG-4908A and 4908B (from COMDTINST 5100.48), or equivalent issued.
___/___ Emergency phone numbers (see site safety plan--also available on scene).
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

INITIAL TESTING AND PERMIT
(see attached checklists)
CONFINED / HAZARDOUS SPACE ENTRY AUTHORIZED: YES / NO
HOTWORK AUTHORIZED: YES / NO
LOCATION AND DESCRIPTION OF SPACE:
DATE:_____ TIME:_____ PERMIT EXPIRES:_____
_____ _____
ENTRY TEAM SUPERVISOR: (see attached checklist)
SPECIAL REQUIREMENTS MET (see also checklist pages 1 through 5)
LOCK-OUT YES / NO / N/A
DE-ENERGIZE YES / NO / N/A
LINES BROKEN, CAPPED/BLANKED YES / NO / N/A
PURGE, FLUSH & VENT YES / NO / N/A
VENTILATION YES / NO / N/A
SECURE AREA YES / NO / N/A
RESPIRATORY PROTECTION ADEQUATE YES / NO / N/A
PERSONAL PROTECTIVE EQUIPMENT ADEQUATE YES / NO / N/A
ESCAPE/RESCUE ADEQUATE YES / NO / N/A
FIRE SUPPRESSION EQUIPMENT YES / NO / N/A
LIGHTING YES / NO / NA
*******PRE-ENTRY TESTS AND MONITORING FOLLOW UP TESTING*******
*******(see also monitoring requirements above):*******

FOLLOW UP TESTS — Initial

Test	***Limit***	***Results***	***Dt/time***	***Dt/time***	***Dt/time***	***Dt/time***
%O2	|>19.5%_<21%					

%LEL	<10%_/_ND					
CO	50 ppm					
CO2	1000 ppm					
THC						
TAH						
H2S	10 ppm					
BNZ	1 ppm					
#1						
#2						
#3						

O2 = oxygen, LEL = lower explosive limit, CO = carbon monoxide,
CO2 = carbon dioxide, THC = total hydrocarbons, TAH = total aromatic hydrocarbons,
H2S = hydrogen sulfide, BNZ = Benzene, ND = no deflection
#1 = _____; #2 = _____; #3 = _____
Checklist items on this list completed by:_____
Date:_____; Time:_____; Signature:_____

ATTACHMENT 8: SAFE WORK PRACTICES FOR LIFTING

o Drum and container handling procedures and spill containment plans are provided as attachment 24.

· Use available machinery and lift aiding equipment before lifting heavy loads manually.

· Have someone help you with a heavy load (even a load within personal capacity can cause back injury). Use team work for numerous small loads (e.g., stock piles of trash bags full of oily debris). Do not rush the work.

· Use of Chemical Protective Ensembles will restrict movement and visibility. Use extra care while lifting in these ensembles.

· Position feet properly. Of greatest importance here is to simply maintain balance and avoid twisting motions while lifting. Feet should not be close together. The feet should be close to the load to help keep the body close to the center of gravity. One foot should be positioned in the direction the load will be moved to avoid twisting or turning of the back during the lift. Turn using your feet and not by twisting the back.

· Before and during the lift pull the load close to you to keep the center of gravity over your feet.

· Check your grip and test the weight of the load before lifting.

· The back should be straight when starting the lift and the knees should be doing the bending. This will help to ensure that much of the lifting is done with the legs. To help keep the back straight the chin should be tucked in and head kept up.

· Keep the stomach muscles tight while lifting. Keep your back straight during the lift and avoid twisting motions in particular.

· Move slowly and deliberately.

ATTACHMENT 9: SIMPLIFIED WORK PLAN

Page___ of___; Revision date:_____; Revision time:_____
This form should be used to quickly document plans during the initial phases of emergency/post-emergency response operations, or as a means to readily modify general plans provided in the Comprehensive Work Plan.

A. ENTRY OBJECTIVES:

1. _____
_____
2. _____
_____
3. _____
_____

B. CHEMICAL HAZARD EVALUATION FOR OPERATION:

o Latest Monitoring Sheet(s) provided as attachment_____.

Hazard (chemical name) Primary hazard(s) and special notes: Info sheet attached:

1._____ _____ o Generic info sheet
_____ o RIDS o CHRIS, _____ o TOMES
o CHEMTOX, _____ o MSDS o Other_____

2._____ _____ o Generic info sheet
_____ o RIDS o CHRIS, _____ o TOMES
o CHEMTOX, _____ o MSDS o Other_____

3._____ _____ o Generic info sheet
_____ o RIDS o CHRIS, _____ o TOMES
o CHEMTOX, _____ o MSDS o Other_____

4._____ _____ o Generic info sheet
_____ o RIDS o CHRIS, _____ o TOMES
o CHEMTOX, _____ o MSDS o Other_____

C. Decon considerations and special procedures:

o Decon layout provided as attachment 11A.

ATTACHMENT 10: MONITORING DATA SHEET

DATE: _____
TIME: _____
PERSON COLLECTING DATA: _____

INSTRUMENT:	RESULT:
Combustible gas	_____
	_____
Oxygen	_____
	_____
HNU	_____
	_____
OVA	_____
	_____
WBGT/heat stress	_____
	_____
Noise	_____
	_____
Radiation	_____
	_____
Teletemp	_____
	_____

Chemical specific
(colorimetric tubes/meters)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Weather data:

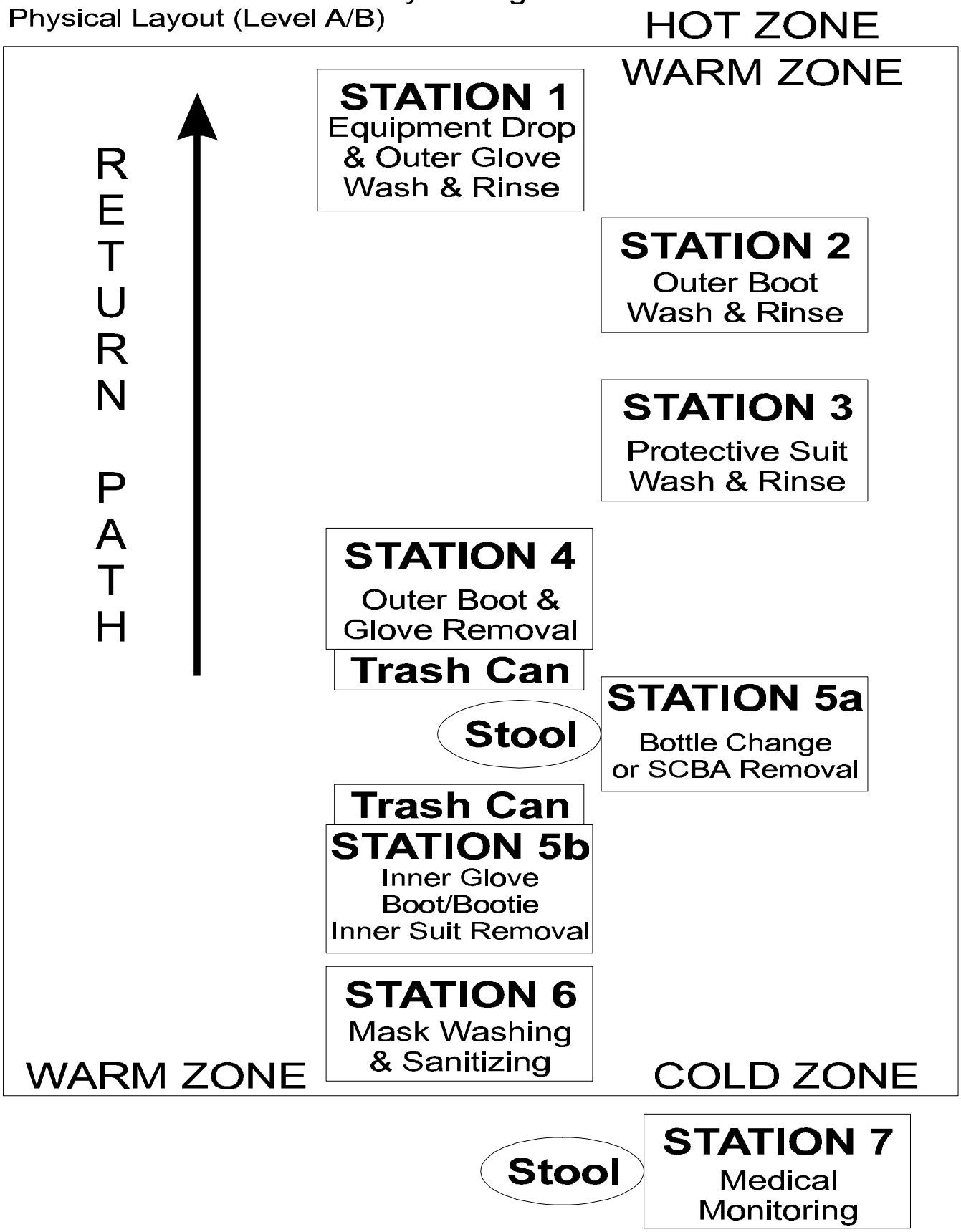
Wind SPEED:
Wind DIRECTION:
Temperature AIR:
Temperature WATER:
Barometric PRESSURE:
Cloud cover:
o Clear o Partly Cloudy o Mostly Cloudy o Cloudy

ATTACHMENT 11A DECON LAYOUT

EQUIPMENT NEEDED (LEVEL A/B)
STATION 1: EQUIPMENT DROP / OUTER GLOVE WASH & RINSE:
o Folding table
o Small plastic tub with scrub brush, filled with soapy water (outer glove wash)
o Small plastic tub filled with water (outer glove rinse)
o Chem wipes, spray bottle, paper towels
(equipment decon, at equipment drop)
o OTHER:_____
STATION 2: OUTER BOOT WASH/RINSE:
o 2'x 3' plastic tub, with boot brush assembly and scrub brush, filled with soapy water (outer boot wash)
o 2'x 3' plastic tub filled with water (outer boot rinse)
o OTHER:_____
STATION 3: PROTECTIVE SUIT WASH/RINSE:
o Deluge shower with fittings or:
o Outer suit wash:
o 2'x 3' plastic tub partly filled with soapy water
o Bucket with scrub brush, filled with soapy water
o Pressure sprayer filled with soapy water.
o Outer suit rinse:
o 2'x 3' plastic tub partly filled with water
o Pressure sprayer filled with water
o OTHER:_____
STATION 4: OUTER BOOT/GLOVE REMOVAL:
o Garbage can
o OTHER:_____
STATION 5.a: BOTTLE CHANGE/SCBA REMOVAL STATION:
o Stool
o Spare SCBA bottles
o Spare outer gloves & boots/booties

STATION 5.b: GLOVE/BOOT/BOOTIE REMOVAL:
o garbage can
STATION 6: MASK WASH STATION:
o Folding table
o Two-compartment plastic tub (or two small plastic tubs), one half filled with cleaner/sanitizer solution & scrub brush, the other half filled with water
o OTHER:_____
STATION 7: MEDICAL MONITORING STATION:
o Stool
o Medical monitoring equipment
o OTHER:_____

Attachment 11A: DECON Layout Page 2
Physical Layout (Level A/B)



ATTACHMENT 11B: DECONTAMINATION OF OIL SPILL PPE

Personnel with contaminated clothing and equipment shall leave the Work Area by following the check marked decon procedures:

o Wipe off or clean oily equipment and PPE clothing.

o Inspect PPE clothing for rips or other damage. Inspect the inside of PPE clothing for signs of oil penetration. Discard PPE if it is damaged or oil is observed on the inside of the PPE.

o Store oily equipment in contaminated equipment storage.

o Store oily PPE clothing in labeled lockers.

o Discard oily articles in appropriate trash bins.

o Remove, clean, and inspect respirators.

o Store cleaned respirators in respirator storage.

o Place cloth coveralls in laundry basket or discard if excessively dirty

o Wash face and hands with soap and water.

_____

_____

_____

Check marked equipment will be used for decontamination areas:
o Decon shelter
o Banner tape for setting off "Contamination Reduction Zone" or "Warm Zone"
o Placards and markers for setting off "Contamination Reduction Zone" or "Warm Zone"
o Saw horses, wood stakes, hammers, and nails
o Area for new/clean equipment storage
o Area for new PPE storage
o Area for clean cloth coverall storage
o Hangers for oily PPE clothing
o lockable storage for street clothing
o Waterless soap
o Soapy water for respirators
o Sterilizing solution for respirators
o Plain water for respirators
o Clean plastic bags for respirator storage
o Towels and/or paper towels
o Sorbent pads

o Cleaning rags
o Lined bins for oily debris
o Trash cans and trash bags for other debris/garbage
o _____
o _____
o _____
o _____

ATTACHMENT 12: LOG/RECORD OF BRIEFINGS

This log is to be used by field supervisor (or there delegated rep) to document the following types of briefings/debriefings: entry plan, exit, end-of-shift, start-of-shift, work plan (or changes), and site safety plan (or changes).

PRESENTED BY: PURPOSE (circle appropriate entry): DATE: TIME:

_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:
_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:
_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:
_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:
_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:
_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:
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_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:
_____________ entry/exit/end-shift/start-shift/ work plan/safety plan/other:

ATTACHMENT 13: PPE ENSEMBLE DESCRIPTIONS

OPERATION FOR WHICH THIS LEVEL A ENSEMBLE APPLIES:
_____

o ENCAPSULATING SUIT
    o Chemrel Max
    o Chem Fab Challenger 6000
    o _____
o INNER GLOVES
    o Nitrile
    o _____
o OUTER GLOVES
    o Silvershield
    o Solvex
    o Ansol
    o Fireball
    o _____
o OUTER SAFETY BOOTS
    o Neoprene
    o Outer booties
    o _____
o SCBA
    o MSA 4500
    o Nose cup
    o _____
o HARD HAT
o STEELE VEST
o EEBA
o SEE ALSO LEVEL D ENSEMBLE FOR ROUTINE COLD ZONE WORK/REST
o _____
o _____

OPERATION FOR WHICH THIS LEVEL B ENSEMBLE APPLIES:
_____

o SPLASH SUIT
    o Tyvek
    o Saranex
    o _____
o INNER GLOVES
    o Nitrile
    o _____
o OUTER GLOVES
    o Silvershield
    o Solvex
    o Ansol

- o Fireball
- o _____

o OUTER SAFETY BOOTS
- o Neoprene
- o Outer booties
- o _____

o SCBA
- o MSA 4500
- o Nose cup
- ___ _____

o HARD HAT
o STEELE VEST
o EEBA
o SEE ALSO LEVEL D ENSEMBLE FOR ROUTINE COLD ZONE WORK/REST
o _____
o _____

OPERATION FOR WHICH THIS LEVEL C ENSEMBLE APPLIES:
_____

o SPLASH SUIT
- o Tyvek
- o Saranex
- o _____

o INNER GLOVES
- o Nitrile
- o _____

o OUTER GLOVES
- o Silvershield
- o Solvex
- o Ansol
- o Fireball
- o _____

o OUTER SAFETY BOOTS
- o Neoprene
- o Outer booties
- o _____

o FULL-FACE AIR PURIFYING RESPIRATOR
- o Cartridges:_____
- o Nose cup
- o _____

o HARD HAT
o EEBA
o SEE ALSO LEVEL D ENSEMBLE FOR ROUTINE COLD ZONE WORK/REST
o _____
o _____

OPERATION FOR WHICH THIS LEVEL D ENSEMBLE APPLIES:
_____

o Cloth coveralls
OPTION: o Long/o Short sleeved coveralls
OPTION: Street clothing may be worn by personnel not exposed to splashing liquids or oily equipment.
o Resistant (see note 2) steel toe/shank safety boots with textured bottoms
OPTION: hip high boots (e.g., designated snake areas) OPTION: deck shoes with textured soles (e.g., boat ops)
o Resistant gloves (as needed)
OPTION: leather gloves (if no contact with oil)
o Hard hat (all personnel in designated areas)
o Safety glasses (as required by Site Safety Officer) OPTION: with tinted lenses (as required for sunlight)
o PFD (all personnel on or near water)
o Full-face/o half-mask respirator with:
o Organic vapor cartridge (benzene)
o OTHER:_____. See NOTE 3 below.
o EEBA
o Quart bottle to carry fluids (during heat stress alerts)
o Hearing protection (in noisy areas)
o Insect repellent (in designated mosquito/tick areas)
o Sunscreen (as needed for sunlight)
o Whistle (in designated areas)

NOTES:

1) "AS NEEDED" means to use when and in such a way so as to prevent significant skin contact with oil.

2) "RUBBER"/"RESISTANT" means chemical resistant material which resists oil penetrating to the skin or cloth garments underneath. Neoprene is a common material which is resistant to many oils.

3) Respiratory protection is used in this ensemble as a safe work practice while working around carcinogens in order to keep low exposures as low as reasonably attainable. For spill response involving oils that may still contain benzene in particular this may be used while working in close proximity to spilled product until benzene has weathered away (typically the first day).

ATTACHMENT 14: SAFE WORK PRACTICES FOR HELICOPTERS.
Regulations regarding the use of helicopters can be found in 29 CFR 1910.183.

BASIC SAFE WORK PRACTICES FOR ALL PASSENGERS/GROUND CREWS:

A. Passengers should receive a safety briefing from helicopter operators including safety features and equipment, their location on the individual aircraft, water landing procedures when appropriate, and emergency information cards before taking off.

B. Passengers or ground crewmembers approaching helicopters shall stay in a crouched position, and shall be in clear view of the pilot while approaching or departing a helicopter.

C. Passengers and ground crew should approach/depart from the FRONT of the helicopter ONLY when signaled by the pilot; and should NEVER walk under or around the tail.

D. Loose fitting clothing, hats, hard hats, or other gear which might be caught in rotor down wash must be secured or removed within 100 feet of operating helicopters.

E. Passengers shall maintain a distance of 50 feet from helicopters while rotors are turning. Ground crew should also maintain this distance unless specific work practices are developed for closer work.

F. Passengers shall wear seat belts at all times.

G. Passengers and ground crew shall wear hearing protection (including communications headsets, or helmets) at all times around operating helicopters.
H. Passengers shall generally assist the pilot in watching for other traffic or ground obstacles as directed by the pilot.
I. During emergency landings in water:
   1. Do not exit until rotor blades stop turning or pilot signals all clear.
   2. Do not inflate life preservers until outside of the helicopter.

SAFE WORK PRACTICES FOR CARGO HANDLING ARE FOUND IN
29 CFR 1910.183 AND INCLUDE:

A. Use proper slings and tag lines in accordance with 29 CFR 1910.183(c) and 1910.184.

B. Testing and use of cargo hooks and electrically operated cargo hooks shall be performed in accordance with 29 CFR 1910.183(d) and (l).

C. Static charge on suspended loads shall be dissipated with a grounding device before ground crew touch the suspended load unless protective rubber gloves are being worn.

D. External loads shall not be lifted unless determined to be within the helicopter manufacturer's recommended rating.

E. Communications shall be maintained in accordance with 29 CFR 1910.183.

F. Ground and flight crewmembers shall be familiar with, and use the manual signaling system described in 29 CFR 1910.183.

ATTACHMENT 15: SAFE WORK PRACTICES FOR SMALL BOATS

A. Ensure that all boats comply with the appropriate state and federal regulations. In addition to the items discussed below certain types of vessels will require such items as USCG approved fire extinguishers, backfire flame control, powered ventilation, sound signaling devices (different from emergency signals), navigation lights/ signals, pollution placards, and marine sanitation devices.

B. Boat operators should familiarize themselves, and passengers with safety features and equipment on their boats.

C. Boats should be operated by qualified individuals.

D. Life jackets, work vests, mustang suits, or other appropriate Coast Guard approved Personal Flotation Devices (PFDs) should be worn by personnel in small boats.

1. Use of mustang suits are particularly critical under conditions of cold stress.

2. Types of Personal Flotation Devices (PFDs):

· TYPE I. Off-shore life jacket provides the most buoyancy. Effective for all waters and intended specifically for open, rough, or remote waters where rescue may be delayed.

· TYPE II. Near-shore buoyancy vests are intended for calm, inland water or where there is a good chance of quick rescue.

· TYPE III. Flotation aids are good for calm, inland water, or where there is a good chance of quick rescue. Examples: float coats, fishing vests, and ski vests.

· TYPE IV. These are throwable devices, not intended to be worn or to replace those that are worn.

· TYPE V — SPECIAL USE. These are intended for specific activities (according to the conditions on the labels). Some examples: deck suits, mustang suits, work vests, and hybrid PFDs below.

· TYPE V — HYBRID INFLATABLES. These PFDs contain a small amount of inherent buoyancy and an inflatable chamber. Performance equals that of a Type I, II, or III PFD (as noted on the label) WHEN INFLATED.

E. Small boats should generally not be operated for oil recovery after sunset. If this is required or poses minimal risk, routes of operations should be carefully prescribed, individual boats should maintain a communication schedule with a shore base; and

should be fully equipped with appropriate running lights, emergency signals, and personnel onboard should be wearing emergency night signaling devices.

F. Distress signals (three or more for day and three or more for night) should be carried onboard all vessels. These devices may be required by regulation. They may be stored onboard or issued to individuals. If stored onboard they should be in a sealed, watertight, orange container marked "DISTRESS SIGNALS".

1. USCG approved pyrotechnic visual distress signals include red flares (hand-held or aerial), orange smoke (hand-held or floating), and launchers (for aerial red meteors or parachute flares). **PYROTECHNIC DEVICES SHOULD NOT BE USED NEAR FLAMMABLE PRODUCT SPILLS**.

2. Non-pyrotechnic distress signals are not approved individually but need to meet certain requirements. They should be in serviceable condition, readily accessible, and certified by the manufacturer as complying with USCG requirements. These devices include orange distress flags, and electric distress lights.

3. Distress flags are day signals only. They must be at least 3 x 3 feet with a black square and ball on an orange background.

a. Electric distress lights are for night use only. These devices automatically flash the international SOS code (**...– – – ...**) so a flashlight IS NOT considered a distress signal. Under inland navigation rules a high intensity strobe light is considered a distress signal.

b. It is a violation of regulations to display visual distress signals on the water except when assistance is required.

G. Boat operators must keep their supervisors informed of their area of operations, especially when they change their work area (if plans call for a boat to move to another location during a shift, the operator should advise their supervisor of their actual time of departure).

H. Boat operators should never anchor their boats by the stern. This is typically the lowest point on the boat due to design and/or loading, and is often squared off making it vulnerable to swamping.

I. Portable fuel tanks should be filled outside of the boat. All sources of ignition in the area of fueling (e.g., engines, stoves or heat producing equipment, and electrical equipment) should be secured while fueling.

J. Strict adherence to the buddy system must be observed in small boats; and all boats should be in direct visual or radio contact with a shore base at all times.

K. To avoid slipping on wet decks or falling in small boats, personnel should remain seated while boat is underway. Horseplay and speeding must be strictly prohibited.

Personnel should keep their center of gravity as low as possible while working in small boats.

L. Boat operators must also ensure that boats are not overloaded. The capacity should be marked on a label on the boat. If it is not a general rule of thumb is:

LENGTH x WIDTH / 15 = PEOPLE (150 lbs)

Since equipment adds to the weight it should be considered as well. Weight should be distributed evenly.

M. Personnel working in or operating small boats should be equipped with appropriate shoes/boots designed to help maintain traction on wet surfaces.

N. Safety sunglasses, and hearing protection should be worn by personnel working in or operating small boats where appropriate.

O. Fixed ladders or other substantial access/egress should be provided at boat transfer locations exceeding several feet.

P. Depending on the specific nature of the operations (e.g., work in remote areas), other emergency equipment which should be considered such as: anchors, radios, bailers, first aid kits, and additional means of propulsion (e.g., paddles).

Q. Workers should be cautioned about using their legs as fenders, or getting their hands, arms, or legs between vessels or between vessels and docks or fixed structures.

ATTACHMENT 16: ON-SITE MEDICAL MONITORING (ENTRY TEAM)

Entry team personnel (including all personnel potentially entering controled areas in LEVEL A/B/C) are to be monitored for blood pressure, pulse rate, temperature (oral), and body weight.

There are numerous factors which effect allowable ranges so that each individual must be evaluated on a case-by-case basis by the site EMT (or other medical personnel), site safety officer, and site supervisor.

The following TYPICAL values are provided ONLY as a starting guideline:

Max Blood Pressure 140 diastolic/100 systolic
Max Pulse Rate 100 bpm
Body Temperature 99.2 deg.F (Max) / 98.0 deg.F (Min) or +/- 0.6 deg.F from normal
Body Weight Loss 1.5% (rule of thumb)

NAME:_____
CASE:_____ CASE NO.:_____
DATE:_____ EXPOSURE RISK: HIGH/MEDIUM/LOW
PROTECTIVE EQUIPMENT:_____
_____
SUBSTANCE(S) INVOLVED:_____
_____
CONCENTRATION/LENGTH OF EXPOSURE:_____
_____
MEDICAL TESTING:_____
COMMENTS:

PRE-ENTRY MEDICAL MONITORING:

WEIGHT:_____ TEMPERATURE:_____ METHOD:_____
PULSE:_____ B.P.: SYSTOLIC_____/DIASTOLIC_____ METHOD:_____
MONITORING CONDUCTED BY:_____

POST-ENTRY MEDICAL MONITORING:
WEIGHT:_____ TEMPERATURE:_____ METHOD:_____
PULSE:_____ B.P.: SYSTOLIC_____/DIASTOLIC_____ METHOD:_____
MONITORING CONDUCTED BY:_____

SUPERVISOR (RO/RS) VERIFICATION:
NAME:_____
COMMENTS:_____

ATTACHMENT 17: SITE SAFETY PLAN EVALUATION CHECKLIST

NAME OF PLAN REVIEWED:
_____

PLAN DRAFTED BY
(Name/Organization):_____
PLAN REVIEWED BY:_____
DATE OF REVIEW:_____
REVIEW INCLUDES (check those appropriate):

o Comprehensive Workplan (post-emergency)
o Safety & Health Program (for planning not site-specific)
o Site-Specific Site Safety & Health Plan (post-emergency)
o Emergency Response Plans (emergency phase & routine sites)

I. Comprehensive Workplan (1910.120(b)(3)):

o Work tasks, and objectives defined
o Methods of accomplishing tasks & objectives defined
o Personnel requirements for work plan accomplishments
o Training requirements identified (see 1910.120(e))
o Informational programs implemented (see 1910.120(i))
o Medical surveillance program (see 1910.120(f))
II. Safety and Health Program (1910.120(b)).
(NOTE: This is not the same as the site-specific plan addressed in III. below.)

A. General:
o A written safety and health program (1910.120(b)(1)) may be incorporated in other documents.
o Organizational Structure (1910.120(b)(1)(ii)(A).
o Workplan (B) checklist above (see I. above).
o Site-specific safety & health plan (C) (see III. below)
o Safety and Health Training Program (D)
o Medical surveillance program (E).
o Employer SOP on Safety and Health (F)

B. Organization Structure (1910.120(b)(2)):
o Chain of command identified
o Responsibilities of supervisors and employees
o Identifies supervisor (A)
o Identifies site safety and health supervisor(s) (B)
o Other personnel; functions and responsibilities (C)
o Lines of authority/responsibility/communications (D)

III. SITE-SPECIFIC Site 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 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.

A. General:

- o Risks for each task in work plan assessed.
- o Employee training assignments made
- o Protective equip identified for each task/objective
- o Medical surveillance requirements
- o Frequency and types of air monitoring identified
- o Frequency and types of personnel monitoring identified
- o Sampling techniques identified
- o Air monitoring instruments to be used identified
- o Maintenance and calibration for instrumentation (E)
- o Site control measures identified (F)
- o Site map identified
- o Work zones identified
- o Use of "buddy system" identified
- o Alerting means for emergencies
- o Safe working practices identified
- o Nearest medical assistance identified
- o Decontamination procedures identified (G)
- o Emergency response plan identified (H)
- o Confined space entry procedures (I)
- o Spill Containment Program identified (J)
- o Pre-entry briefings provided for (1910.120(b)4)(iii))
- o Provisions for continual evaluation of plan made (iv)

B. Site Characterization and Analysis (1910.120(c))

o Hazardous waste sites shall be evaluated to identify specific site hazards and determine appropriate safety and health controls

C. Preliminary Evaluation:

- o Performed prior to site entry
- o Performed by a qualified person
- o Protection methods and site controls identified
- o All inhalation/skin hazards identified
- o Location and approximate size of site
- o Description of response activity
- o Duration of response activity

o Site topography and accessibility identified (include air and ground accessibility)
o Safety and health hazards anticipated listed
o Pathways for hazardous substance dispersion identified
o Status of emergency response units identified (rescue, fire, hazmat)
o Hazardous substances listed and associated hazards
o If SCBA is not used and potential for inhalation hazard might exist: an EEBA shall be used with 5 min of air

D. Risk Identification (1910.120(c)(7))
o Employees on site shall be informed of identified risks
o All information concerning the chemical physical and toxicological properties of each substance available to the employer shall be made available to the employee.

E. Detailed Evaluation (1910.120(c)(2))
o Immediately after preliminary evaluation a detailed evaluation will be conducted to determine safety controls and protection needed.

F. Monitoring (1910.120(h))
o Monitoring is required during initial entry
o Monitoring is required periodically
o Personnel monitoring is also required

G. Illumination Requirements: (1910.120(m))
o Areas accessible to employees shall be lighted not less than the intensities outlined in Table H-120.1.

H. Sanitation Requirements: (1910.120(n))
o Water containers shall be tight top closed and equipped with a tap and clearly labeled for use. A disposal unit must be provided for used cups and a sanitary unit for unused cups (1)(i-iv). They shall not be crossed connected to non-potable water containers.
o Non-potable water must be clearly marked per (n)(2)
o Toilet facilities must be provided per (n)(3)
o Washing facilities must be in proximity per (n)(6)
o Showers and change rooms per (n)(7)
o Employers shall ensure that employees shower at the end of when leaving the hazardous waste site.

IV. Emergency Response Plans (1910.120(l) and (q)) for emergency response operations (e.g., contingency plans used prior to site safety plan development), and routine sites (e.g., emergency plans for remedial sites).

A. Purpose is to prepare for anticipated emergencies
o Shall be written and available for inspection

B. Elements: (1910.120(l)(2)(i-xi))
o Shall address pre-emergency planning
o Personnel roles, lines of communication identified
o Emergency recognition and prevention addressed
o Safe distances and places of refuge established

o Site security and control addressed
o Evacuation routes and procedures established
o Emergency medical treatment and first aid
o Emergency DECON procedures identified
o Emergency alerting and response procedures identified
o Critique of response and follow up
o PPE and emergency equipment identified

C. Additional Elements: (1910.120(l)(3)(i)(A-B))

o Site topography, layout and prevailing weather
o Procedures for reporting incidents to: local, state, and federal government agencies.

D. Additional Requirements: (1910.120(l)(3)(ii-viii))

o Emergency response plan shall be a separate section
o ERP must be compatible with fed, state & local plans
o The ERP shall be rehearsed as part of onsite training
o The ERP shall be current
o An employee alarm system shall be installed to notify persons of an emergency situation

ATTACHMENT 18: SITE ORGANIZATIONS — GENERAL DISCUSSION
References:

(a) 29 CFR 1910.120 OSHA regulations for Hazardous Waste Operations (HAZWOPER) and WAC 296-62-Part P.

(b) U.S. Coast Guard COMDTNOTE 16471 (G-MEP-4) "Establishment of Area Committees and Development of Area Contingency Plans" dated 30 September 1993.

(c) NIOSH/OSHA/USCG/EPA "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities" (NIOSH 85-115)

A. For post-emergency and routine site operations OSHA requires a documented organizational structure (ref (a) 1910.120(b)). An "Incident Command System (ICS)" is required for emergency operations (ref (a) 1910.120(q)(3)). Guidance for Coast Guard development of Area Contingency Plans (ACPs) in ref (b) contains significant details for ICS and Unified Command and Control (UCC) for large spills. Finally, ref (c) documents some helpful organization tools and job descriptions, especially for on-site organization.

B. A large spill potentially requires an organization to deal with multiple geographic areas, numerous other organizations, diverse tasking, and multiple jurisdictions. The applicable Area Contingency Plan (ACP) is prepared in advance by the applicable Federal On-Scene Coordinator (OSC), senior response officials from state and local jurisdictions, and an area committee to document the initial organization structure for spill response (among other things). Command and control of a large spill ICS is expected to be coordinated away from the site using a UCC structure. During large events, the initial ICS organization must be expected to change dramatically as the response progresses through the initial emergency response operations and into post-emergency recovery operations. A command structure addressing this type of response can be complicated. Some elements needed/required for safe operations are:

1. Everyone on site must be authoritatively supervised.

2. There must be authority on site (i.e., where personnel are exposed to hazards) to immediately terminate or modify operations to ensure safety.

3. Everyone (up to the incident commander or senior incident manager) must only have one boss.

C. For the most part, the ICS structure is flexible, but certain positions are required by statute or regulation.

1. The Federal On-Scene Coordinator (OSC) is the predesignated Federal official responsible for ensuring immediate and effective response to a discharge or threatened discharge of oil or a hazardous substance. The U.S. Coast Guard designates OSCs for the U.S. coastal zones and the U.S. EPA designates OSC for the inland zones. Very rarely is the OSC able to remain on-site to personally supervise field operations and will typically designate a variety of official OSC representatives for field operations and liaison.

2. To ensure rapid command decisions on site during emergency response operations, a single site supervisor with command authority must be close to the actual field work (i.e., ref (a) 1910.120(q)(3) refers to this individual as the "senior emergency response official" commonly referred to as the Incident Commander, OSC's Representative, or First Federal Official). Ref (a) notes that this official is intended to be the "official ON THE SITE who has the responsibility for controlling the operations AT THE SITE..." (emphasis added).

a. During post-emergency operations the requirement is simply for an effective organizational structure that includes a general supervisor who has the authority and responsibility to direct all hazardous waste operations. To avoid confusion, organizations that conduct both emergency and post-emergency response operations should consider an emergency phase organization that will serve both phases.

b. Incidents involving multiple emergencies and/or multiple jurisdictions pose a serious challenge to effective response organization. For example a major refinery fire started by a crude oil tanker fire might include the following emergencies: port fire, hazardous materials release, and major oil spill cleanup; and include the following jurisdictions: local fire department, state emergency services, and federal cleanup. Contingency planning should establish procedures to address this problem in advance.

(1) It may be helpful to recognize that jurisdictions assigned supervisory positions (on and off site) can be shifted as response priorities change. To establish priorities consider the following questions:

(a) Which emergency poses the greatest public hazard?
(b) Which emergency poses the most hazards for response personnel?
(c) Who has legal authority for priority operations?
(d) Who has funding authority?

(2) On-site priorities may not be the same as those off-site. For example it may be more effective to immediately assign lead responsibilities in the off site UCC to the federal OSC even during fire fighting operations (this is a long term planning function best served by the jurisdiction which is likely to have the final response task – i.e., the OSC ultimately has statutory authority and must eventually assume senior management responsibility for the final pollution cleanup operations). The on site Incident Commander on the other hand should probably be assigned based

on the jurisdiction concerned with the highest priority emergency and/or that jurisdiction facing the greatest personnel risk.

(3) As a response becomes large, complex, and/or prolonged a single incident manager may need to divide field supervision geographically and/or by work assignments. Using the above facility fire example, the following UCC/ICS supervision changes might be planned.

(a) In this example a major crude oil spill spreads in navigable waters eventually impacting 100 miles of coast (river passing by the facility and the bay where it leads too). Facility tanks (containing refinery intermediates that must be treated as hazmat) are on fire. Fire fighting is conducted by local fire fighters, a facility COOP fire brigade, and USCG vessels. State emergency services HAZMAT teams also respond. The local Coast Guard Captain Of The Port (COTP) is the predesignated Federal On-Scene Coordinator. Responsible parties (facility operator and vessel operator) are both responding aggressively.
(b) OFF-SITE ICC SUPERVISION: The Federal OSC might immediately be assigned as senior UCC coordinator anticipating that the OSC will retain this position until final cleanup is completed.

i) The UCC also should include the State Incident Commander, and the Responsible Party (RP) Incident Manager (there may be several in this case) per reference (b). Depending upon the ACP the fire department and emergency services will also be represented as long as they have resources at risk.

ii) Each of the organization managers may have their own off-site support staffs (executive staff, operations chief, planning staff, logistics staff, and finance staff). Depending on the ACP an alternate organization might combine some or all of the staffs under a single UCC staff (e.g., a UCC planning staff that includes federal, state, local, and RP personnel).

(3) EXAMPLE continued...
(c) ON-SITE ICS SUPERVISION:
I) The response is initially divided into three sectors of operation by the UCC which include: facility, vessel, and shoreline sectors.
ii) DURING FIRE SUPPRESSION the UCC assigns the Fire Department the Incident Commander (IC) role for facility and vessel sectors. A USCG OSC's Rep is assigned as IC for the shoreline sector. The Fire Deptartment IC(facility/vessel) might divide resources in this sector into the following teams:
a) Zone control and Evacuation Team (state and local police).
b) Fire suppression team #1 (COOP forces and team supervision).
c) Fire suppression team #2 (Fire Department forces and supervisor).
d) Waterside fire suppression and rescue team #1 (Fire Dept fire boat and team supervisor).
e) Waterside fire suppression and rescue team #2 (USCG boats and supervision).

f) HAZMAT team #1 (state emergency services and supervisor).

g) HAZMAT team #2 (USCG Strike Team and supervision).
h) HAZMAT team #3 (RP facility personnel and supervision).
i) Vessel salvage team (OSC inspections department pers, RP vessel personnel and USCG Strike Team personnel with OSC supervision).

iii) DURING FIRE SUPPRESSION the UCC might decide to devote limited resources and contract support to the lower priority oil spill response. A USCG OSC reprepresentative is assigned as the IC (Shoreline) and divides this sector of operations into the following teams:
a) Shoreline Assessment Team (USCG, state, and RP--vessel representatives with USCG supervision).
b) Floating oil response team #1 (USCG contractor and USCG supervision).
c) Floating oil response team #2 (RP--vessel contractor and RP supervision).
d) Shoreline oil response team #1(USCG contractor and USCG supervision).
e) Shoreline oil response team #2 (RP--vessel contractor and RP supervision).
f) Shoreline oil response team #3(RP--vessel contractor and RP supervision).
g) Bird/mammal hazing, capture and rehabilitation Team (volunteer organization, with U.S. Fish and Wildlife supervision).

iv) HAZMAT EMERGENCY OPERATIONS take priority as the incident progresses and fire suppression is completed to the satisfaction of the cognizant IC. At this point the UCC might direct the IC (facility/vessel) to arrange for an orderly relief by a senior state emergency services representative.

v) POST-EMERGENCY HAZMAT CLEANUP next takes priority as the hazmat emergency is stabilized. At this point the UCC might direct the IC(facility/vessel) to arrange an orderly division of the sector and relief by senior RP and USCG personnel.

a) The IC(facility) might be assumed by a senior hazmat specialist from the facility RP's organization (still under direction of the UCC).
b) The IC(vessel) might be assumed by salvage expert from USCG Strike Forces. In addition to salvage teams, there may also be fire suppression teams still assigned to this sector.
vi) POST-EMERGENCY OIL SPILL CLEANUP will continue to receive additional resources from the UCC as other priorities are addressed in the facility/vessel sector(s). In order to maintain adequate supervision on site, this sector may be further divided into several individual sectors each assigned its own on site IC. For example:
a) river operations (shorelineand floating) might be handled by one IC;
(3)(c) ON SITE SUPERVISION EXAMPLE (continued)

b) the upper bay areas might be handled by a second IC,
c) the lower bay might be handled by a third IC, and
d) bird/mammal operations (overlapping all areas) by a fourth.

3. OSHA regulations require that a "site safety and health supervisor" (or simply site safety supervisor) must be on-site with command authority to address all organization safety concerns and implement the site safety and health plan for a given sector of operations. If multiple sectors are required, a Site Safety and Health Coordinator (or Safety Officer) should be designated to ensure consistent site safety planning among the sectors and over time. The role of the Site Safety Officer is also described in reference (b), Enclosure (1), Annex A, Appendix V, Tab H, Part I(3).

4. Reference (b) Enclosure (1) also describes a number of other organizational components to be designated by the OSC (Annex A, Appendix V, Tab H, Part I "Standard Response Structure"). The OSC is charged with establishing a Unified Command and Control (UCC) organization where appropriate to include the State and Responsible Party Incident Managers. The OSC assigns individuals from the response community (Federal, state, local, or private) to the UCC organization to include the following positions:

· Public Affairs Officer.
· Liaison Officer (liaison with agencies, ndividuals, or groups).
· Safety Officer.
· Historian.
· Response Operations Chief (management/interface with field/tactical supervisors).
· Planning Chief (to develop strategies for ops).
· Logistics Chief.
· Finance Chief.

5. Ref (b) Enclosure (1) also describes an expanded UCC organization for Spills Of National Significance (SONS) (Annex A, Appendix V, Tab H, Part II). Only the Commandant of the Coast Guard or the Administrator of the EPA can declare a SONS. The following organizational components are triggered under this level of response for USCG operations:

a. National Incident Commander (NIC)--area commander level), supported by:
(1) Alternate NIC (District Commander level)
(2) NIC Chief of Staff (National Strike Forces Coordination Center).
(3) NIC Support Staff.
(a) Support Operations Division
(b) Strategic Planning Division
(c) Logistics Division
(d) Finance Division
(e) External Affairs Division
b. Crisis Action Center (CAC), Washington DC.
c. Area Operations Coordinator(s). One or more OSCs depending upon the scope of operations.

6. It should be remembered that position descriptions (PDs) are generally flexible.

a. In addition to mandatory PDs, the ACP may develop any number of optional PDs (and suggest resources to fill them) in advance of actual incidents in order to help ICs and UCCs expand their organizations in an orderly manner.

b. More than one PD may be assigned to the same person, or a single PD may be supported by an entire staff in order to carry out assigned responsibilities during a large incident. As additional resources arrive and are assigned by the IC or UCC to a supervisor, that supervisor may delegate PDs to subordinates or subordinate staffs.

c. As an organization develops (or is planned) no single supervisor should be expected to supervise more than 5 to 7 subordinates (i.e., limited span of control). Similarly, as organizational components develop their own internal structure, the supervisors within a component should maintain a limited span of control for effective supervision. For example:

(1) During the first days of a response a single individual may be assigned the following PD functions:

(a) Strategy and tactics development
(b) Development of disposal options
(c) Scientific support coordination
(d) Environmental sensitivity evaluation
(e) Risk assessment

(2) As the spill progresses and additional resources arrive to support the incident, the planning staff may grow to a force of 10 people. The planning staff chief might then reorganize the planning staff by assigning personnel as follows:

(a) A Strike Team Strategy/tactics Supervisor with two supporting staff members.
(b) A state EPA rep supervising development of disposal options with a staff of 1.
(c) The NOAA Scientific Support Coordinator supervising a staff of four to perform:

I) Scientific support coordination
ii) Environmental sensitivity evaluation
iii) Risk assessment

D. Beyond the basic requirements, the specific organization depends largely on the actual functions to be performed.

1. Specific organizational needs of oil spill contractors, Navy salvage teams, and volunteer bird rehabilitation centers (for example) may be different but many of the principles and organizational components still apply.

a. Clear lines of supervision or a "chain of command"
b. Coordination of field operations
c. Site safety
d. Planning
e. Logistics support
f. Communications
g. Information management (internal and external)
h. Liaison with other response organizations

ATTACHMENT 19: SAFE WORK PRACTICES FOR OILY BIRD REHAB

A. REFERENCES:

1. Rehabilitating Oiled Sea Birds--A Field Manual.International Bird Rescue Research Center, 699 Potter St., Berkeley, CA 94710.

2. Oiled Bird Rehabilitation--A Guide for Establishing and Operating a Treatment Facility for Oiled Birds. Tri-State Bird Rescue & Research, Inc., 110 Possum Hollow Rd.; Newark, Delaware 19711

B. HAZARDS TO BE ADDRESSED.

1. HANDLING BIRDS. Wild birds must be handled properly to ensure the protection of BOTH the animals and their handlers. Wild birds will typically view people (even those with good intentions) as predators. This is a tremendous stress for the bird. Even a greatly weakened bird can inflict serious injury to handlers as well. Eyes are a particular concern. Open wounds on hands and arms present access for oily contaminants and disease vectors to enter the human blood system.

2. CONTACT WITH OIL. The site safety and health plan will provide a more detailed discussion of health hazards of the specific oil involved at a particular site.

a. The primary health hazard associated with oils (crude oil in particular) is dermatitis from skin contact. This condition may be aggravated for personnel conducting washing operations. Prolonged exposure to soapy water initiates defatting of the skin, and water logging may contribute to an initial skin injury that can aggravate sensitivity. Once an individual experiences an allergic dermatitis reaction it will be nearly impossible to prevent future outbreaks other than by strict avoidance of any further contact with the oil.

b. Oils and soaps splashed in the eyes can cause acute irritation and perhaps inflammation.

c. Injuries inflicted by birds open a path for the chemical components of oils to enter the blood.

d. The smell of crude oils, diesels or other oils may be irritating to sensitive individuals and can cause nausea even at otherwise non-toxic concentration.

e. Some components of certain oils are known or suspected human carcinogens (stressors that cause cancer), mutagens (stressors that cause mutation of DNA or RNA), or teratogens (stressors that interfere with normal development of a fetus). Although these concerns are minimal or readily controlled for most personnel, it poses a special concern for pregnant women.

3. SLIPPERY & DANGEROUS SURFACES. Field personnel will be working on dangerous surfaces. Wet rocks, oily surfaces (including boats), ice, and steep or unstable terrain, mud flats, abandoned facilities all present serious injury potential for field personnel. Attention becomes focused on capture to the neglect of personal hazards.

4. WORK NEAR WATER. Some of the most serious hazards may occur near inter tidal or surf areas. The public beaches we are familiar with are relatively safe but oil spills may flow into very treacherous areas normally avoided. When working near inter-tidal areas serious hazards may include:

- Riptides,
- Undertows,
- Underwater drop-offs,
- Unstable banks, or
- Soft bottoms (e.g., mud flats or marshes).

5. EXPOSURE TO THE WEATHER. Heat stress, cold stress, hypothermia, and sunburn should all be considered as potential hazards for field personnel.

6. ELECTRICAL/SHOCK HAZARDS. Electrical equipment used in REHAB centers must be kept away from or adequately protected from wet areas.

7. FIRE HAZARDS. Heat lamps and portable heaters used in REHAB centers should be considered as potential fire hazards.

C. GENERAL SAFE WORK PRACTICES.

1. NEVER WORK ALONE IN THE FIELD! Wildlife rehab is a team effort for two or more people. This rule is a mandatory safety procedure and it will also help you to work more effectively.

2. Personal Protective Equipment (PPE) for field ops:

a. Dress for the weather!

(1) Dress adequately for the cold in particular.

(2) Clothing guidelines for cold weather are provided in other attachments.

(3) Bring a rain suit if there is any chance of getting caught in the rain.

(4) Bring a dry change of clothing in case you get wet and/or cold.

(5) Even in hot dry weather personnel may need to have clothing suitable for working in brushy areas possibly with poisonous plants, ticks, thick brush, or snakes. Dress accordingly.

(6) Bring a change of work clothing (socks in particular) in case you get wet, cold, or dirty.

b. Prevent street clothing and skin contact with oil.

(1) Wear chemical resistant clothing (neoprene is a common material that more resistant to many oils than other common materials of construction). Ensemble items selected for this operation are provided at the end of this attachment.

(2) Regardless of specific materials used, all garments should be discarded when oil is found on the inside the garment or when it is in such condition that it no longer functions as a barrier to oil contact with the skin or undergarments. Reusable garments that have become contaminated but are otherwise still serviceable must be cleaned as much as practicable, stored separately from unused garments at a decon facility.

(3) A lined trash can or a suitable container should be available for temporary holding oily gear while in the field.
(4) Clean oily gear at decon stations and stow it in specially segregated contaminated clothing stations. Discard contaminated clothing in special containers specifically intended for contaminated articles. **NEVER MIX ORDINARY TRASH WITH CONTAMINATED WASTE! NEVER BRING CONTAMINATED CLOTHING OR EQUIPMENT HOME WITH YOU!**
c. Wear flotation work vests or other Personal Flotation Devices (PFDs) approved by the U.S. Coast Guard while working in boats, over the water, in the surf, or on sloping banks near the water. If hypothermia is a concern you will need to wear mustang suits or other exposure protective flotation gear while working in small boats.
d. Bring sun glasses and sun screen during the summer. Safety glasses, goggles, or face shields should be worn while handling birds.
e. Foot care will typically be a major concern for most rehab operations.
(1) In the field, personnel may be walking directly through heavily contaminated areas, in the water, or on dangerous surfaces. Sturdy water/contamination resistant boots will be required for these operations.
(2) In the field and rehab center personnel will be standing in wet or contaminated areas. Due to the amount of standing under wet, hot/cold, sweaty conditions foot care should be emphasized. In addition to wearing resistant boots, personnel should have several changes of clean white work socks. Foot powder or fungicidal foot bathes should also be available.
f. Wear long sleeved garments for working in brushy areas, for sun protection, and for protection from bird, insect, or other wild animal bites.
g. Wear sturdy gloves that are resistant to oil while handling oily birds during capture.
h. Avoid leather clothing or articles. Leather is easily contaminated by oil, and can not be completely cleaned once contaminated. If leather gloves are needed for abrasion resistance wear an inner chemical resistant glove, and treat the outer glove as disposable. Carpenters, logistics, or other work crews that do not work with oil contaminated materials are an exception.
i. Use soap and water, or waterless hand cleaner for removing oil after captures.
j. Wear long clothing and insect repellent in tick areas. Partners should examine each other for ticks during breaks and at the end of the day.
k. Carry a throwing line if there is a chance of getting caught in soft mud/sands, or falling into the water.
l. Not all facilities will be heated or air conditioned. Dress adequately and bring a change of clothing even if you will be working in a "sheltered" area. Dress adequately for the cold in particular. Bring a rain suit if there is any chance of working outside in the rain. Clothing guidelines for cold weather are provided in other attachments.
m. During hot weather, heat stress will be aggravated by Personal Protective Equipment (PPE). Heat stress is a serious (and potentially life threatening) hazard that must be taken seriously.
(1) Do not wear excessive PPE (visual observation will usually be adequate for determining if more/less PPE is needed for a specific operation).

(2) In the field do not wear PPE while working in uncontaminated areas. Contaminated PPE that is not in use should be stored in lined or otherwise suitable storage container to prevent contaminating transportation vehicles.
(3) "Taping" PPE is a standard operating procedure for emergency response purposes, but may be counterproductive in preventing heat stress (especially in the field where PPE may not be donned and removed often). "Taping" should also be avoided in heat stress conditions unless it is needed for a specific reason.

3. Bites, stings, and poisonous plants.
See attachment 23 for prevention and first aid for ANIMAL BITES, STINGS, SNAKE BITES, POISONOUS PLANTS, TICKS, and PUNCTURES/STINGS BY MARINE ANIMALS (such as jellyfish).
a. In particular wear heavy boots or snake leggings in grassy/marshy areas or other snake hazard areas.
b. Stay alert for ticks in areas where they may be a problem. If you work in such an area have your buddy check exposed areas frequently.
c. Stay alert for all of these hazards and report encounters to your supervisor in order to pass the word to others.
d. If you have allergic reactions to any of the hazards above (e.g., bites, stings, poisonous plants, or medications) let your supervisor know and stay away from recognized hazards.
e. Bites from birds or any other source may become infected and must be properly cleaned and treated.
f. Personnel working in the field or handling birds in centers should have an up-to-date tetanus immunization.

4. TRANSPORTATION SAFETY.
a. Small boat safety. Boating safety is discussed in other safety plan attachments. Training classes in boating safety are available through your local Coast Guard Auxiliary.
b. Helicopter safety. Helicopters safety is discussed in other safety plan attachments. Personnel should always receive a safety briefing from their pilot.
c. Motor vehicles. Motor vehicle safety is discussed in other safety plan attachments.

5. FIRE SAFETY.
a. Heat lamps and portable heaters used in REHAB centers should be considered as potential fire hazards.
b. Blankets, sheets or other flammables should not touch heat lamps or heaters. Make sure heat lamps are securely fastened and not focused directly on sheets or blankets covering pens.
c. Make sure the base of the heat lamp is capable of safety using the type of lamp being placed in it. Ceramic-based heat lamps have a higher capacity than those with plastic bases.

d. All electric heaters should have automatic shut-offs.

e. Provide a night fire watch when heat lamps and electric heaters are used.

D. HANDLING WILDLIFE.

1. Never handle birds unless trained in handling procedures. The references listed at the beginning of this attachment provide specific details on capturing and handling procedures. The following are generals safety guidelines for handling.

2. Never hold birds near your face. Keep them down at the waist level of the shortest partner.

3. Always work with a partner when handling wildlife. **THE BUDDY SYSTEM IS A MANDATORY SAFE WORK PRACTICE BY REGULATION.**

4. For prolonged handling (such as during washing):

a. A beak gag may be used to minimize biting and choking. When using gags it is important to ensure that a breathing gap is provided with a dowel rod or similar device. Not all birds have adequate nares openings for breathing (or openings may be blocked by contaminants).

b. A coordinated effort with one partner controlling he birds head and/or body will often be adequate for many species.

E. PERSONNEL CONCERNS.

1. Wildlife rehab often involves working with large number's of untrained/inexperienced personnel. Personnel processing should be handled by a designated staff/person.

2. New personnel should be screened for special concerns/needs. This is not to create grounds for exclusion (rehab efforts require many diverse job tasks and talents), but rather to ensure that new personnel are safely placed in a suitable job.

· Allergies (bites, stings, fur, feathers, edication, chemicals, or soaps)
· Special medication needs
· Currency of tetanus vaccinations
· Age
· Pregnancy
· Handicaps
· Current state of health
· Desire/fear of handling animals
· Special talents/qualifications (e.g., existing HAZWOPER training, veterinarian, current training in wildlife rehabilitation, licensed construction contractor or plumber, qualified safety supervisor, etc.).

3. Women who may be pregnant, and individuals whose immune systems may have been compromised or suppressed - taking steroids, receiving cancer treatments, are HIV positive should be given the following information:

a. Some components of certain oils are known or suspected human carcinogens (stressors that cause cancer), mutagens (stressors that cause mutation of DNA or RNA), or teratogens (stressors that interfere with normal development of a fetus). Although these concerns are minimal or readily controlled for most personnel, it poses a

special concern for pregnant women and individuals whose immune system may be suppressed - taking steroids, receiving cancer treatments, or are HIV positive.

b. Personnel should be advised of these hazards and counseled against working in contaminated areas. Pregnant women that want to continue to be involved with wildlife rehabilitation efforts should be assigned to duties that will not involve contact or exposure to oil contamination. Depending on the specific operations this might include: rehab center support, personnel scheduling, documentation, food services (personnel or animal), rehab husbandry, training, construction, or day care.

4. Children and minors. Due to the various hazards associated with this work, children should not be allowed in the primary work areas. If children volunteers are used in a REHAB effort, they should be kept away from the general working areas in the center or the field. Special tasks should be carefully selected for safe administrative or support functions. Providing for convenient/adequate day care may be particularly useful. Day care should be provided by the effected personnel (pool system) or by professional/licensed day care services.

F. Design and construction of REHAB centers.

1. Prior to constructing or using a facility, consult with local fire officials about applicable ordinances. Working with professional/licensed construction personnel will help to ensure proper compliance.

2. Electrical outlets, cords, appliances, and power tools should be kept away from cleaning and pool areas as much as possible. Ground fault interrupters must be installed for electrical equipment used in wet locations, and should be used in most others. Depending on the construction of REHAB centers, the use of exterior grade electrical wire should be considered for many locations. Electrical cords must be maintained in good condition. See the main text discussion on the use of power tools.

3. Personal hygiene must be maintained in the field and especially in centers. Contact with bird carcasses, droppings in bedding and on surfaces, and spoiled food are a particular concern.

a. Washing and sanitation areas should be maintained between treatment/work areas and personnel areas. Hand lotions should also be available to minimize skin irritation from frequent washing.

b. The general layout of REHAB centers should provide careful separation of contaminated areas and clean areas.

(1) Hygiene facilities and contaminated equipment drops should be located in-between clean and dirty areas (similar to the hot, warm, and cold zone concepts presented in the text).

(2) Locations that can be easily maintained as clean for administrative areas, rest areas, eating/drinking areas, and smoking areas should be selected before constructing pens, cleaning stations, or receiving birds for treatment.

(3) Establish traffic flows for people and equipment that will allow for maximum control/separation. Particular attention should be given to access control for personnel, visitors, new wildlife, and equipment/supplies. Heavy equipment/vehicles, loud machinery, personnel areas, clean wildlife, contaminated wildlife, triage, medical isolation, and visitor's areas should all be separated as much as possible. Physical/visual separation of areas should also help to minimize stress on wildlife.

4. Food service should be carefully considered for REHAB centers and field staging areas.

a. Hot beverages should be provided for cold weather work (personnel returning from the field, or center personnel working with water). Personnel working in heat or cold stress conditions need to force fluids to avoid dehydration.

b. Spoiled/contaminated foods can cause outbreaks of food poisoning. If cooking and refrigerating facilities are not available at centers, food should be selected for resistance to spoiling and discarded regularly. Support from public health officials is recommended.

c. Human food preparation and eating facilities should be separate from work areas.

5. Cleaning and general hygiene. For the protection of personnel and animals, procedures must be established for the regular cleaning of handling and holding areas.

6. Provisions must be made early for handling waste. Of principle concern is segregating waste streams.

a. Determine where wastes will be treated to determine specific requirements (especially for hazardous wastes).

b. Holding facilities will be needed for the following items (at a minimum):

· Oily waste water (i.e., waste water which will be treated as hazardous waste);

· Gray water (i.e., waste water that may be processed be disposed of as normal sewage);

· Oil contaminated materials/trash;

· Medical waste; and

· Simple trash.

c. Containment areas for liquid waste will need to be located in secondary containment areas (e.g., lined berm containment).

7. Locations for handling diseased or dead birds should be chosen before construction. These locations should provide isolation, and separate provisions for waste removal.

8. Ventilation for disease control (for people and wildlife) will be a serious concern. In addition to segregation and hygiene, adequate ventilation will be needed to minimize transmission of airborne diseases vectors. To the maximum extent possible ventilation should be segregated in accordance with other physical separation of populations.

9. Plan for VISITORS at REHAB centers. Visitors, as well as working personnel, pose a hazard to the animals under care and vice versa. It is highly recommended that a procedure be specifically adopted for receiving visitors and providing tours that will minimize stress on wildlife and maintain adequate hygiene from oily contamination and disease vectors.

a. Provide visitors with a briefing in an uncontaminated/non-working area including rules and precautions. Emphasize the need to protect BOTH wildlife and visitors from hazards associated with contaminants, disease vectors, and predator stress (i.e., the wildlife do not know the difference between kindly humans and predators).

b. Tour guides should take visitors on a brief tour that has been specifically approved by rehab and safety supervisors. Visitors should not be allowed to handle or approach animals.

c. Child visitors should generally be discouraged or be provided with a special tour that involves a minimal exposure to the animals and work.

CHECK SHEET FOR NEW PERSONNEL:

We are concerned about your health and safety as well as that of your family! Because there may be certain hazards associated with this work we want to make sure that potential hazards are addressed.

New personnel coordinator:

Work scheduling office:

· If you are pregnant please advise the personnel coordinator listed above so that we can counsel you on special concerns for you and your future family member!

· If you have not had a tetanus shot in the last five years, or are uncertain about your last shot, please advise the new personnel coordinator listed above.

· **DO NOT BRING CHILDREN** (under the age of 18 years) unless they have been assigned a support function appropriate for their age, or you have been specifically advised that day-care will be available during your scheduled work hours.

· If you do not feel comfortable handling wildlife please let the new personnel coordinator know as soon as possible. There are many jobs to fill and **MOST OF THEM DO NOT INVOLVE ANIMAL HANDLING!** You will be scheduled for work that you are comfortable with and best suited for.

· If you have special medication needs please advise the personnel coordinator listed above. Bring enough medication (in a water tight container) for your scheduled period of work.

· If you have any allergies to animals or medication please advise the personnel coordinator listed above.

· To find out when, where, and how to report for work contact the work scheduling office listed above.

· Bring comfortable clothing to work in (i.e., throw-away clothing). You will be provided with protective OUTER GARMENTS for protection from contact with oil and/or cleaning agents, but it is important to have appropriate garments to wear underneath this protective clothing.

· Bring a change of clothing too. This will be important for keeping dry and/or warm.

· Bring plenty of clean white socks, and your favorite foot powder. You may spend many hours standing in boots and working in water under harsh weather conditions.

· Bring plenty of your favorite hand conditioner. You may spend many hours working in gloves, water, and washing your hands.

DO NOT wear make-up (if you must wear make-up before and after work be prepared to remove make-up before working or redoing it before leaving). Due to potentially harsh working conditions, or contact with potentially hazardous materials it is important to avoid conditions which may aggravate these hazards.

· Be sure to bring enough sunscreen for a whole day's exposure. This is especially important if you will be working in the field where there may not be shelter.

DO NOT MAKE THIS INTO AN OPPORTUNITY TO IMPROVE YOUR TAN! Certain oils contain skin cancer agents which may become more dangerous when exposed to the suns UV light. The sun's UV light is also a skin cancer agent.

· Bring heavy-duty sunglasses.

· Bring a hat for protection from the weather and/or sun.

· Bring extra clothing for cold weather. Check the weather before reporting for work. You will probably UNDERESTIMATE clothing needs for the cold or rainy conditions so BRING EXTRA CLOTHING for the cold or rain.

·

REMEMBER THE FOLLOWING SAFETY RULES:

J **YOUR OWN SAFETY COMES FIRST!** (You are a valuable asset for this effort and we do not want to loose you to an accident or illness).

J **NEVER WORK ALONE.**

J **AVOID CONTACT WITH OIL**.

J If you do get oil on your skin wash it off as soon as possible.

J **MINIMIZE CONTACT WITH WILDLIFE**. Contact with wildlife is risky for you and the wildlife.

J **DO NOT SMOKE, EAT, or DRINK EXCEPT IN DESIGNATED CLEAN AREAS.**

CLOTHING ENSEMBLE SELECTED FOR:

o Washing stations
o Other bird handling
o Triage/admission handlers
o Field capture
o Hazing
o OTHER:_____

HEAD, EYES, FACE:

o Hard hat o Safety glasses
o Splash goggles o Safety sunglasses
o Whole face splash shield o Hearing protection
o Other:_____

BODY PROTECTION:

o Chem resistant bib overalls o Disposable/"paper" overalls
o Chem resistant jacket o Disposable/"paper" jacket
o Chem resistant coveralls o Disposable/"paper" coveralls
o Chem resistant apron o Disposable/"paper" apron
o Chem resistant arm-sleeves o Disposable/"paper" sleeves
o Other:_____
o Other:_____

FOOT PROTECTION:

o Safety boots/shoes o Boot foot waders
o Hip-high boots o Stocking foot waders w/boots
o Chem resistant safety boots
o Chem resistant overboots o Disposable/"paper" booties
o Other:_____
o Other:_____

HAND PROTECTION:

o Chem resistant gloves o Surgical gloves
o Chem resistant arm length o Chem resistant long gloves
o Latex gloves o Combination glove w/sleeve
o Leather work gloves o Leather gloves (outer)
o Other:_____
o Other:_____

OTHER SAFETY EQUIPMENT:

o Whistle o Personal flotation device
o Mustang exposure suit o Hand fog signal
o Throwing line o Hand-held flare
o Battery strobe light o Dye marker
o Other:_____
o Other:_____

NOTES:

ATTACHMENT 20: CARGOES THAT MAY CONTAIN BENZENE

(Taken from U.S. Coast Guard Commandant Instruction 6260.22)
This is a partial list of products (and their assigned CHRIS codes in parentheses) which may contain benzene. Exact volumes will vary among manufacturers and batches. Benzene vapor concentrations which may be produced by these products will also vary from mixture to mixture, depending on the chemical properties and volume percentages of the different components.

For purposes of PPE selection, products which contain 5% or more benzene (i.e., those with high levels of benzene) must be treated as if they were a chemical spill response until benzene concentrations are determined to be low (including liquid content and/or concentrations in air).
For example:
Crude oil response would normally be treated as an operation with minimal risk of benzene exposure. Level D ensembles might be used with respirators added as a safe work practice to keep exposures as low as reasonably attainable during the initial hours/days of close proximity work.

Gasoline spills would normally be treated as a chemical response for purposes of selecting PPE ensembles until it can be determined that benzene content is less than 5% of the original mixture, or airborne concentrations are determined to be less than 1 ppm benzene. At that time the spill might be treated in a manner similar to crude oil.

SOME OILS/PRODUCTS EXPECTED TO CONTAIN LESS THAN 5% BENZENE:

- Coal tar (COR)
- Coal tar pitch (CTP)
- Coal tar naphtha (NCT) coal tar: see "oil: coal tar (OCT)"
- Jet fuel: JP-5 (JPV)..Similar to Commercial Jet A, JP-5 generally does not contain benzene except in trace amounts. Consult MSDS sheets for specific manufacturer.
- oil: crude oil (OIL)
- oil: coal tar (OCT)

SOME OILS/PRODUCTS THAT MAY CONTAIN MORE THAN 5% BENZENE (TREAT AS HIGH BENZENE CONCENTRATION UNTIL OTHERWISE DETERMINED):

- Benzene (BNZ)
- Benzene hydrocarbon mixtures containing 10% or more benzene (BHB) benzene hydrocarbon mixtures with acetylene (BHA)
- Benzene, toluene, xylene mixtures (BTX)
- C-5 mixture (15% or more benzene, isoprene, 1,3-pentadiene (CFX)
- Cyclopentadiene, styrene, benzene mixtures (CSB)
- Gas oil (GOC)
- Gasoline: aromatic (GAR)
- Gasoline: automotive (GAT)
- Gasoline: aviation (GAV)

- Gasoline: pyrolysis (greater than 5% benzene) (GPY)
- Gasoline: straight run (GSR)
- Gasoline blending stock reformates (GRF)
- Jet fuel: JP-4 (JPF)... similar to Commercial Jet B
- Naphtha – see "coal tar naphtha" (NCT)
- Naphtha: solvent (NSV)
- Naphtha: stoddard solvent (NSS)
- Naphtha: VM&P (75% naphtha) (NVM)
- Naphtha: see "petroleum naphtha (PTN)"
- Petroleum naphtha (PTN)
- White spirit (WSP)
- White spirit (low 15-20% aromatic) (WSL)

SOME TRADE NAME PRODUCTS WHICH MAY CONTAIN BENZENE:

- BUTADIENE, BENZENE MIX
- COKE OVEN LIGHT OIL
- COAL TAR LIGHT OIL
- DEPENTANIZED AROMATIC STREAM
- DRIPOLENE
- ETHYLENE DICHLORIDE–CRUDE
- HYTROL D
- LIGHT AROMATICS CONTAINING BENZENE
- NAPHTHA CRACKING FRACTION
- PETROLEUM HYDROCARBON POLYMERS
- PHENOL (AND CRESOL MIXTURES WITH 5% BENZENE OR MORE)

ATTACHMENT 21: TRAINING QUALIFICATION GUIDELINES

The following guide is provided to assist on-site supervisory personnel to determine qualifications for personnel entering control areas. In general all personnel must have adequate training to do their jobs safely. This includes the fundamentals of site safety, and further includes safety conscious operational training (e.g., how to deploy boom safely by boat). An ongoing training program to reinforce and build upon previous training is also required (i.e., annual refresher training). It is not necessary to receive all training in a single block of time or restrict it to a single training event.

A. Regulatory requirements. OSHA Hazardous Waste Operations (HAZWOPER) Standard sets basic requirements for training of personnel. These requirements are dependent on the operations (general/routine operations, emergency response operations, or post-emergency response operations); on the individual's duties (e.g., first responders, general site workers, supervisors, special short term operations, technicians, etc.); and on the degree of exposure (e.g., minimal exposure, unknown exposures, etc). Requirements may change as operations progress from emergency phase (first responders) to post-emergency phase (cleanup phases). At the same time the degree of exposure risk is also changing with time (e.g., as high vapor pressure products which might pose an inhalation hazard evaporate from the weathering oil, or as the hazards become better characterized).

A.1. General requirements for **EMERGENCY PHASE** response operations (e.g., spill control measures conducted prior to recovery). Specific requirements are found in 29 CFR 1910.120(q)(6). In Washington State: WAC 296- 62-3112-(6)

A.1.a. LEVEL 1--First Responder (awareness).

(1) This level is characterized as personnel that might discover a release and who are simply expected to report the incident.

(2) Sufficient training, or proven experience in specific competencies is required.

(3) NOTE: For USCG personnel this level is general met by USCG RTC Yorktown marine safety training.

A.1.b. LEVEL 2--First Responder (operations).

(1) This level is characterized by responding in a DEFENSIVE manner and generally without being exposed to risk (e.g., does not attempt to stop a leak).

(2) Level 1 competency plus eight hours of additional training, or proven experience in specific competencies is required.

(3) NOTE: This level is general met by basic USCG Strike Team Training protocol.

A.1.c. LEVEL 3--HAZMAT Technician.

(1) This level is characterized by AGGRESSIVE response to stop a release (i.e., expecting some risk of exposure).

(2) Requires 24 hours of level 2 training and additional competencies.

(3) NOTE: This level is general met by basic USCG Strike Team Training protocol.

A.1.d. LEVEL 4--HAZMAT Specialist.

(1) This level is characterized by responding with and in support of technicians, but which have specialty knowledge/ competencies.

(2) Requires 24 hours of level 3 plus additional competencies.

(3) NOTE: This level is general met by basic USCG Strike Team Training protocol plus advanced competencies such as response EMT qualification.
A.1.e. LEVEL 5--On-scene Incident Commander.
(1) This level is for personnel that may be called upon to assume supervisory (incident command) responsibilities ON SCENE.
(2) Requires 24 hours of level 2 training plus proven experience in additional competencies.
(3) NOTE: For non-entry supervision, this level is general met by USCG RTC Yorktown MSPOC or PODC training, plus OJT, and designation as OSC rep by cognizant COTP (for non-entry personnel). For purpose of entry supervision this level is general met by basic USCG Strike Team qualification, plus OJT, and Response Officer (RO) or Response Supervisor (RS) designation.
A.1.f. SPECIAL--Skilled support and specialists.
(1) Skilled support personnel (29 CFR 1910.120(q)(4), in Washington State: WAC 296-62-3112-(4)) are those skilled in operations needed to perform special tasks that can not reasonably be expected to be performed safely by regular emergency responders.
(a) EXAMPLE: Crane operators.
(b) TRAINING: Initial site briefing including protective equipment they will be using and hazards involved.
(2) Specialists (29 CFR 1910.120(q)(5) in Washington State WAC 296-62-3112-(5)) are those personnel that will provide
technical advice/assistance with regard to the specific hazards or operations.
(a) EXAMPLE: Pesticide applicator.
(b) TRAINING: Demonstrated competency in their area of specialty.

A.2. General requirements for **POST-EMERGENCY** response operations (e.g., product recovery operations) are described in reference (b) at 29 CFR 1910.120(q)(11) (in Washington State: WAC 296-62-3112-11 which) simply refers to the training requirements for GENERAL HAZARDOUS WASTE OPERATIONS (i.e., routine controlled sites) per 29 CFR 1910.120(e), in Washington State, WAC 296-62-0340. The regulations require initial training, management/supervisory training, and annual refresher training.
NOTE: Emergency phase operations (such as off loading product from damaged tanks) and post-emergency phase operations (such as beach cleanup work) may take place at the same time.
A.2.a. Initial training. There are two categories of initial training depending on the degree of exposure and the amount of time expected to be spent on site.
(1) General site workers. General site workers (e.g., general laborers or equipment operators) must have:
· 40 hours off site,
· 24 hours supervised field experience, & eight hours annual refresher.
(2) Minimal hazard workers. Routine site workers who work in areas that have been monitored and fully characterized such that exposures are within permissible limits (and published limits or other hazards); OR

site employees who are on site only occasionally for a specific limited task, and who are unlikely to be exposed over permissible exposure limits (or published limits) may be trained as follows:

· 24 hours off site

· Eight hours supervised field experience, & eight hours annual refresher training.

A.2.b. MANAGEMENT/SUPERVISORY TRAINING. On-site managers and supervisors directly responsible for, or who supervise employees engaged in, hazardous waste operations shall have the same initial training as the personnel they supervise. They then must receive at least another eight hours of training in hazardous waste operations management:

· 40 hours off site (may be reduced to 24 hours if all employees supervised are permitted to be trained at this level),

· 40 hours supervised field experience (may be reduced to eight hours if all employees supervised are permitted to be trained at this level), and eight hours of hazardous waste operations management.

· NOTE: For NON-ENTRY supervision, this level is general met by USCG RTC Yorktown MSPOC or PODC training, plus OJT, and designation as OSC rep by cognizant COTP (for non-entry personnel).

· NOTE: For ENTRY supervision this level is general met by basic USCG Strike Team qualification, plus OJT, and Response Officer (RO) or Response Supervisor (RS) designation.

A.2.c. Training requirements for OIL SPILL RESPONSE personnel working during post-emergency phase operations have been published by OSHA (OSHA Compliance guideline CPL 2-2.51 (11/5/90) "Inspection Guidelines for Post-Emergency Response Operations Under 29 CFR 1910.120"). In Washington State, WRD 91-1.

(1) Reduced training for these operations is considered a non-serious violation of the regulations (i.e., a "de minimis" violation).

(2) In general four hours of training is expected to be adequate to meet this "de minimis" criteria (depending on state requirements as determined by the cognizant Regional Response Team (RRT)). In Washington State, eight hours is required. Other requirements must also be met (e.g., adequate supervision by fully trained personnel).

(3) Continuing training should be pursued to bring these personnel up to a level of qualification in accordance with A.2.a.(2) above. This should include safety conscious operational training (e.g., "safe work practices for oily bird rehabilitation."

B. Decision guide for on-site training assessment (minimum requirements):

C. Decision guide for on-site training assessment (continued):

ATTACHMENT 22: MOTOR VEHICLE SAFETY BRIEFING

One of the most dangerous operations performed by pollution response personnel is driving to and from the spill site. This is particularly true when driving vehicles that you are unfamiliar with such as motor pool and rental vehicles. Familiarize yourself with your vehicle before driving. Walk around and check the outside condition, familiarize yourself with the interior as well, and make all adjustments before driving a vehicle.

o Signs of accident damage:

_____

_____

o Tires inflated

o Gas cap is in place and sufficiently tight

o Front hood and trunk are closed securely

o Spare tire is in good condition

o Locate tire changing equipment

o Locate road emergency kit (government vehicles)

o Check that exterior lights function properly

o Headlights (dim)

o Headlights (bright)

o Parking lights

o Emergency flashers (front and rear)

o Left turn indicator (front and rear)

o Right turn indicator (front and rear)

o Brake lights

o Side mirrors adjusted and in good condition

o Adjust the rear view mirror

o Horn works properly

o Seat belts are in good condition

o Locate your sunglasses

o Locate the headlight switch

o Locate the headlight dimmer switch

o Locate the windshield wiper switch

o Locate the windshield washer switch

o Locate panel light brightness adjustment

o Locate heating and air conditioning switches

o Locate radio/cassette control switches

With ignition switch on (before ignition) check

o Low oil light/gauge

o Battery charging failure light/gauge

o Engine overheating light/gauge

GET YOUR ATTITUDE RIGHT before driving!

· Pollution response personnel must function with "DELIBERATE speed"... not reckless speed.

· Forget schedules while driving! The road is no place to make up lost time.

· SETTLE DOWN! Do not bring frustrations into the vehicle with you.

· Make up your mind to be the most courteous driver on the road. Forget about getting even with bad drivers on the road. Forget about competing with other drivers.
· Expect other drivers to make stupid mistakes, and prepare to deal with their mistakes.
· Having the right-of-way is no substitute for being alive. Expect the other drivers to break the rules.
· Use your parking lights ONLY WHEN PARKED! Use your headlights during all conditions of reduced visibility (dawn, dusk, fog).
· Do not drive under the influence of alcohol or drugs. Coffee, cold showers, fresh air, or other "remedies" will not make you sober. Only time will make you sober.
· COFFEE IS ALSO A DRUG and may actually cause hallucinations!
· Take frequent breaks about every hour or 100 miles. If you decide to take a nap, pull over at a well lighted rest stop and keep your doors locked while you are sleeping.
· Conditions that increase the likelihood of highway hypnosis include:
·
1. Driving too long without a break
2. Driving at night
3. Staring straight ahead instead of scanning all directions
4.
· Look ahead for problems and maintain a safe distance behind the car in front of you.
· Slow and steady is the best pace for driving on snow, ice, or other slippery road surfaces. Do not hit your brakes hard or accelerate quickly.
· Do not stare into the headlights of oncoming traffic.

ATTACHMENT 23: BITES, STINGS, AND POISONOUS PLANTS

Personnel briefed on first aid procedures must understand that "FIRST" aid implies that further treatment will probably be needed from trained/qualified medical personnel. See the American Red Cross Standard First Aid Training Manual or the American Academy of Orthopedic Surgeons' "Emergency Care and Transportation of the Sick and Injured" for additional information and updated procedures.

INDEX:

I. POISONOUS\INFECTIOUS INSECTS. The primary concern here is ticks carrying lymes disease, poisonous spiders, bee stings, allergic sensitivities, and for certain response operations mosquitoes that may be carriers of infectious diseases.

A. PREVENTION.

1. During morning safety briefings, provide information on the location of hazards and how to deal with problems.
2. Personnel should be provided with long-sleeved clothing and insect repellent in designated areas.
3. Personnel should inspect each other for ticks and signs of infected bites during breaks when working in designated areas.
4. Personnel with allergies to bee stings or insect bites may suffer a medical emergency if bitten. Supervisors on site should be prepared to deal with these medical emergencies.

5. Personnel with severe allergies must work in areas away from known/suspected bee hazards.

B. BEE STINGS. When a bee stings it may leave a stinger in the wound which will continue to inject venom. Wasps, hornets, and ants do not have this type of stinger, but they can produce multiple bites.

1. The following signs or symptoms may indicate an allergic reaction:

· Swollen throat, difficulty breathing, or noisy breathing;

· Sudden pain, severe itching, hives (or itching over the body), headache, acute redness and/or swelling of the wound;

· White, firm swelling in the skin with itching

· Reduced consciousness, or shock.

2. FIRST AID.

Wash the wound with soap and water.

If symptoms of allergic reaction are present REQUEST MEDICAL ASSISTANCE and treat for shock.

If stinger remains embedded, try to remove it WITHOUT SQUEEZING IT (this may inject more poison into the wound). Avoid using a tweezers since it may squeeze the stinger. Scrape the stinger out with a plastic card (e.g., credit card or drivers license).

Persons with severe allergy to bee stings may carry an emergency treatment kit.

Use a cold pack to reduce/limit swelling. DO NOT PLACE A COLD PACK DIRECTLY ON THE SKIN! Place gauze pad or clean cloth on the skin to prevent direct skin contact with the pack.

Keep the wounded area below the level of the heart to slow the venom's spread.

DO NOT administer aspirin or alcohol sincethis will dialate blood vessels enhancing spread of poison.

C. POISONOUS SPIDERS.

1. BLACK WIDOW.

a. The black widow has a glossy black body that is about 1/2 inch long, and is almost an inch long when including the legs. The body is bulbous in shape with a characteristic red hour glass shape on the bottom side of the abdomen (it is not easily seen from above).

b. The black widow is a web building spider found in most parts of the U.S. and even into Canada, but generally prefers warm climates.

c. The most serious symptoms of a black widow bite are those of systemic poisoning. Initially the bite may produce no pain, and may not swell or cause local symptoms. As systemic symptoms develop they may initially appear similar to a severe case of the flu, but can develop into other more severe symptoms. Signs and symptoms can include:

· Severe abdominal pain (similar to appendicitis), rigidity, pain/cramps in the muscles, and/or tightness in the chest and difficulty breathing; pain in the soles of the feet; alternating dry mouth and heavy salivation, nausea, and/or vomiting;

· Profuse sweating, or swollen eyelids.

d. FIRST AID.

(1) Wash the wound with soap and water.

(2) Request medical assistance to address symptoms. The person usually recovers after several days of illness.
(3) If symptoms of allergic reaction are present treat for shock.
(4) A cold pack may be helpful if the bite is quickly recognized.

2. BROWN RECLUSE.

a. The brown recluse has a brown body about 1/8 inch long and about 1/2 inch long including the legs. It has a characteristic fiddle shape on the back.
b. The brown recluse does not build webs but may be encountered indoors in hiding locations. For this reason these spiders rarely bother humans, but some bites occur in the areas around Texas, Oklahoma, Kansas, and Missouri.
c. The most serious symptoms of the brown recluse bite are local effects. There may be no noticeable effect from this bite. In severe cases a red area appears around the bite. A crust may develop and fall off while the area of redness grows deeper. These bites may take several months to heal.
d. FIRST AID.
(1) Wash the wound with soap and water.
(2) If symptoms of allergic reaction are present REQUEST MEDICAL ASSISTANCE and treat for shock.
(3) There is no good first aid for spider bites other than cleaning the wound if it can be found. A cold pack may be helpful if the bite is quickly recognized. A physician can address symptoms and the person usually recovers after several days of illness. In particular the local tissue damage from a brown recluse bite may develop gangrene.

D. TICKS.

1. Ticks are about 1/4 inch long. They attempt to bury their heads and crab-like pincers beneath the skin leaving only their bodies exposed above the skin.
2. Ticks carry infectious diseases (rocky mountain spotted fever or lymes disease) in this way into your blood. In most cases disease will not result, but flu like symptoms may develop several days later including:

- Fever
- Rash
- Joint pain
- Headaches.

3. FIRST AID FOR POISONOUS\INFECTIOUS INSECTS.

a. Wash the wound with soap and water.
b. If symptoms of allergic reaction are present REQUEST MEDICAL ASSISTANCE and treat for shock.
c. Try using alcohol, oils, or a heated paper clip to encourage the tick to release its grip. Grasp the tick and remove it quickly when it shows signs of letting go (the tick may wiggle its legs in an attempt to withdraw from the skin). If the head remains under the skin, soak the area several times daily and use a tweezers to attempt to remove.
d. If fever, rash, or headaches develop within several weeks contact medical personnel.

II. POISONOUS SNAKES, ANIMAL BITES, AND MARINE ANIMAL PUNCTURES.

A. GENERAL.

1. In addition to animal bites (including bites by humans) and snake bites; stings from jellyfish, Portuguese man-o-war, anemones, corals, and hydras may be painful or cause allergic reactions. Similarly urchins, cone shells, stingrays, spiny fish (e.g., catfish, certain toads, or oyster fish) can cause allergic reactions or infection.
2. Personnel should also be briefed on procedures to follow in the event of a bite, and known or suspected locations where problems may occur.
3. All personnel working in designated areas should be provided with snake leggings or hip high boots. Appropriate work clothing will also help prevent many other bite related problems.
4. If personnel notice potentially infected animals on site they should notify their supervisor immediately, EVEN IF NO ONE HAS BEEN BITTEN. Other personnel must be kept away from potentially infected animals until animal control authorities take appropriate action.

B. ANIMAL BITES AND RABIES.

1. PREVENTION.

a. The following signs/symptoms may indicate infected ANIMAL BITES in unreported cases (infection can develop within hours of a bite):

· Pain or tenderness of a wound
· Redness, heat, or swelling around the wound - pus under the skin or in the wound
· Red streaks trailing from the wound
· Swollen lymph nodes in arm pits/groin/neck.

b. RABIES is a serious infection typically passed to humans by the saliva of diseased animal carriers such as those listed below.

(1) It is generally recognized that rabid animals may drool or act irritable, but any strange/abnormal behavior can also indicate infected animals. Infected animals may also act strangely quiet, partially paralyzed, or unafraid of humans.

(2) Some common animal sources of rabies include:
Skunks, Prairie dogs, Foxes, Bats, Dogs, Cats, Raccoons, even Cows.

c. If personnel notice potentially infected animals on site they should notify their supervisor immediately, EVEN IF NO ONE HAS BEEN BITTEN. Other personnel must be kept away from potentially infected animals until animal control authorities take appropriate action.

2. FIRST AID FOR ANIMAL BITES/RABIES.

a. Get medical attention ASAP to address infection hazards and/or poisoning.

b. Determine when person last had tetanus immunization (contact unit holding medical records for assistance).

c. Interview victims and witnesses to attempt to identify the specific type of animal that gave a bite and/or unusual behaviors.

d. GENERAL first aid for animal bites:

(1) Control serious bleeding. Apply pressure using a gauze pad. Use of tourniquets IS NOT advised unless absolutely necessary.

(2) WASH YOUR HANDS before touching a wound. Personnel should also wear RUBBER GLOVES and FACE SHIELD for working around human blood.
(3) Wash wounds that are not bleeding heavily. Use plain soapy water. Trained medical personnel must clean serious wounds.
(4) Cover with clean dressing and bandage.
e. RABIES treatment must be administered by medical personnel. Prompt treatment is essential since there is no cure for rabies if it is allowed to develop in a wound. Rabies shots must be started quickly in order to prevent infection by building up immunity.

II. SNAKES, ANIMAL BITES, & MARINE ANIMAL PUNCTURES
C. SNAKE BITES.
1. PREVENTION AND GENERAL INFORMATION.
a. Many SNAKE BITES will not transmit venom.
b. Snakes tend to be shy and will not attack people unless provoked! Water Moccasins are more aggressive than other snakes.
c. With the exception of coral snakes, the common poisonous snakes of the United States will leave fang marks (two side-by-side holes). These will be about a half inch apart surrounded by an area of swelling, discoloration, and pain.
d. In some cases teeth marks will also be present along with the fang marks.
2. PIT VIPERS (such as rattlesnakes) are the most common poisonous snakes in the U.S.
a. Pit vipers produce a strong sensation of heat around the fang marks starting within several minutes of being bitten. This sensation continues to spread for about a day and a half.
b. Systemic signs and symptoms may or may not appear but can include:
· Weakness
· Sweating
· Faintness
· Shock
3. CORAL SNAKES. Coral snakes are very rare, small, and very colorful snakes.
a. They are covered by alternating bands that COMPLETELY ENCIRCLE their bodies in bright red, yellow, and black. A number of harmless snakes have similar colors and patterns. Only the coral snake has red and yellow (may appear whitish in color) bands in contact with each other. A common memory aid is:

"RED ON YELLOW WILL KILL A FELLOW,
RED ON BLACK, THE VENOM WILL LACK."

b. Coral snakes are most commonly found in the United States in Florida and the desert southwest.
c. Coral snakes have very tiny fangs and the teeth can also transmit poison. There mouths are also small. Venom is usually not transmitted unless the snake has the opportunity to chew on a small part of the body, so heavy clothing will greatly help prevent venom from getting into the blood.

d. Although venom transmission is unlikely from coral snakes, and few cases result in significant local symptoms, the SYSTEMIC EFFECTS MAY BE VERY SEVERE:
(1) This poison can effect the brain.
(2) Respiratory paralysis may occur.
(3) Bizarre behavior and unusual eye/eyelid movement may result.

4. FIRST AID FOR POISONOUS SNAKE.

a. Get medical attention ASAP to address infection hazards and poisoning.

b. Determine when person last had tetanus immunization (contact unit holding medical records for assistance).

c. Interview victims and witnesses to attempt to identify the specific type of snake that gave a bite. Collect snakes that have been killed to facilitate later identification by experts attempting to identify antivenin needed.

d. GENERAL first aid:
(1) Control serious bleeding. Apply pressure using a gauze pad. Use of tourniquets IS NOT advised unless absolutely necessary.
(2) WASH YOUR HANDS before touching a wound. Personnel should wear RUBBER GLOVES and FACE SHIELD for working around human blood.
(3) Wash wounds that are not bleeding heavily. Use plain soapy water. Trained medical personnel must clean serious wounds.
(4) Cover with clean dressing and bandage.

e. Serious health effects of POISONOUS SNAKE BITES will be greatly reduced by keeping the bitten person as calm as possible and seeking prompt medical attention.
(1) KEEP THE VICTIM STILL! This will slow the spreading of venom.
(2) Place the bite area below the level of the heart to slow the spread of venom.
(3) Wash the bite area with soap and water.
(4) Use a splint to immobilize the bitten area if it is on an arm or leg.
(5) Use cold pack if medical attention may be delayed. DO NOT PLACE COLD PACK DIRECTLY ON SKIN! Place gauze/clean cloth on skin to prevent direct contact with cold pack.
(6) Treat for shock if necessary.
(7) Take notes from the victim/ witnesses of what the snake looked like.
(8) DO NOT administer aspirin or alcohol since this will dilate blood vessels.
(9) DO NOT use incisions or suction to attempt to draw out poison.
(10) DO NOT use tourniquets.
(11) Seeking prompt medical attention and keeping the victim still are the two most important keys to minimizing this health risk. HOWEVER, the need to move the victim toward medical attention will also tend to spread the venom. As a general rule, do not move the victims toward medical care unless this will delay treatment by more than a half hour.

D. Marine stings and punctures.

1. JELLYFISH, PORTUGUESE MAN-O-WAR, ANEMONES, CORALS, and HYDRAS. Do not rub or scratch the affected areas. Sprinkle alcohol on the affected area (to denature the toxin), follow with meat tenderizer and talcum if available.

ALLERGIC REACTIONS or RESPIRATORY ARREST may occur in sensitive individuals.

2. URCHINS, CONE SHELLS, STINGRAYS, SPINY FISH (e.g., catfish, certain toads, or oyster fish). Soak in very warm water for 30 minutes (do not use water that is so hot that it burns) to denature the toxin. Allergic reactions and collapse may result in sensitive individuals. Infections or tetanus may develop.

III. POISONOUS PLANTS.

A. GENERAL INFORMATION/PREVENTION.

1. Personnel should be informed of known and suspected locations where these plants may be contacted.
2. Personnel should also be briefed on procedures to follow in the event of contact.
3. Long sleeved clothing should be worn in areas designated to contain these plants.
4. Signs and symptoms of skin contact with poisonous plants:

- Itching
- Burning
- Blister formation

B. FIRST AID FOR POISONOUS PLANTS.

1. DO NOT SCRATCH. Scratching will only spread the poison and work it into the skin.
2. If these plants are accidentally touched, the plant sap should be washed off of the affected area with soapy water immediately.
3. Medical attention may be needed if prolonged or serious conditions result.

ATTACHMENT 24: DRUM HANDLING AND SPILL CONTAINMENT 8-90

Detailed regulations regarding drum handling and spill containment can be found at 29 CFR 1910.120(j)

I. Handling Drums.

A. Drums shall be inspected and given a unique identification prior to being moved.

B. Movement of drums must be kept to a minimum.

C. To the greatest extent possible, drums shall not be moved by unaided manual methods. o Safe manual lifting procedures are provided as attachment 8.

D. Prior to shipment, each drum must be in good condition (or overpacked) and properly labeled in accordance with 49 CFR requirements.

E. A log shall be maintained to keep track of sampling, repacking/overpacking, bulking/consolidation, on-site movement, off-site shipment, and any other significant events related to each individual drum.

F. Bulking or product consolidation is allowed only after individual product contents have been characterized.

G. Metal detectors, ground penetrating devices/systems, or other detection methods shall be used to determine the location of buried drums before excavation at sites.

II. Opening and sampling drums.

A. If airlines are used, they must be located to prevent physical damage or contamination.

B. When opening drums, the minimum number of employees shall be allowed in the work area.

C. To the extent possible drums shall be opened remotely or with a suitable shield for personnel. IN PARTICULAR drums showing signs of being pressurized (high pressure or vacuum), containing flammable, or explosive materials must be opened with appropriate remote opening equipment and shields.

D. When opening potentially flammable product drums spark proof tools shall be used. Fire suppression equipment must be located nearby in a shielded/protected location ready for use.

E. A specific work plan shall be developed for handling of drums or containers involving RADIOACTIVE or SHOCK SENSITIVE materials, and LAB PACKS. Lab packs must be opened and inner packages characterized only by personnel familiar with lab pack hazards, inspection, and classification. CRYSTALLIZED materials on inner packages in lab packs shall be handled as SHOCK SENSITIVE until characterized otherwise.

F. Specific equipment to be used for sampling drums shall be noted in the work plan.

III. Staging and containment areas.

A. Pathways for hazardous substance dispersion:

o Pathways are depicted on the site safety map provided as attachment 2.

B. When drums are moved from their original locations to a work area or staging area, a spill containment area must be constructed for those locations. The containment should be able to contain the maximum loss from any of the containers in the area.

C. Safe access and egress points must be provided to all staging areas. Adequate room and ramps must be provided for heavy equipment used to handle drums (e.g., bobcats with drum grapplers). A secondary emergency egress point must also be made available.

PROPOSED ASTM STANDARD

Standard Guide for Developing a Site Safety and Health Plan and Emergency Plan for Responding Personnel at Oil Spills

1. Scope

This guide is intended to facilitate the rapid development of a written site safety and health plan (SSHP) during the emergency and post emergency phases of small or large oil spill responses. It is intended to address all aspects of a plan to cover the safety and health of "responding personnel." SSHPs are intended to help mount a rapid response to an oil release in a safe manner and to provide readily available information on the response approach to responders, regulators and others with a need to know. This guide provides the basis by which a SSHP can be developed.

2. Resource Documents

2.1 Federal Standards:

- 29 CFR 1910.120 - OSHA Regulations for Hazardous Waste Operations and Emergency Responses. (HAZWOPER).
- 40 CFR 300 - National Oil and Hazardous Substances Pollution Contingency Plan.
- OSHA Compliance Guideline CPL. 2-2.51 (11/5/90) "Inspection Guidelines for Post Emergency Response Operations Under 29 CFR 1910.120."
- 49 CFR - Subchapter B Part 130 - Oil Spill Prevention and Response Plans.

2.2 National Fire Protection Association Standard: (phone: 617-770-4543)

- Standard for Professional Competence of Responders to Hazardous Materials Incidents - NFPA 472.
- Control of Gas Hazards Aboard Vessels - NFPA 306.

2.3 Other Documents:

- NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH 85-115). (phone: 800-356-4674)
- "Oil Spill Contingency Planning," October 1990, DOT and EPA Status Report to the President.
- NIOSH Health Evaluation Report "Exxon/Valdez Alaska Oil Spill" (HETA 89-200 and 89-273-2111, May 1991). (phone: 800-356-4674)
- "Rehabilitating Oiled Sea Birds - A Field Manual." International Bird Rescue Research Center, 699 Potter Street, Berkeley, CA. (phone: 510-841-9086)
- "Oiled Bird Rehabilitation - A Guide for Establishing and Operating a Treatment Facility for Oiled Birds." 1989. Tri-State Bird Rescue and Research, Inc., 110 Possum Hollow Rd., Newark, DE 19711. (phone: 302-737-7241/9543, pager: 800-710-0695)
- US Coast Guard COMDTNOTE 16471 (G-MEP-4) "Establishment of Area Committees and Development of Area Contingency Plans," September 30, 1993.
- "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices," American Conference of Governmental Industrial Hygienists, Cincinnati, OH. (phone: 513-742-2020)

3. Terminology

3.1 Description of Terms Common to Oil Spills:

3.1.1 *Area Contingency Plans (ACPs)* - A large spill potentially requires an organization to deal with multiple geographic areas, numerous organizations, diverse tasking, and multiple jurisdictions. The Area Contingency Plan is prepared in advance by the applicable Federal On-Scene Coordinator, senior response officials from state and local jurisdictions, and an Area Committee to document the initial organization structure for spill response (among other things).

3.1.2 *Buddy System* - A system of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by at least one other employee in the work group. The purpose of the buddy system is to provide rapid assistance to employees in the event of an emergency.

3.1.3 *Cold Zone/Clean Support Zone* - The minimal exposure areas maintained as uncontaminated locations for support functions. Command posts, food service areas, and new equipment storage and staging areas are examples of cold zone support functions. This zone is also called a "clean zone" or "support zone." (NFPA 472, 1-3)

3.1.4 *Confined Space* - A space that is large enough and so configured that an employee can bodily enter and perform assigned work and has limited or restricted means for entry or exit (for example tanks, vessels, storage bins, and pits or spaces that may have limited means of entry), and is not designed for continuous employee occupancy.

3.1.5 *Contamination Reduction Zone* - See definition of warm zone.

3.1.6 *Emergency Phase* - Period of time during which response efforts are carried out by employees from outside the immediate release area or by other designated responders to an occurrence which results, or is likely to result in an uncontrolled release of a hazardous substance. This phase ends when the post-emergency phase begins.

3.1.7 *Exclusion Zone* - See definition of hot zone.

3.1.8 *Hot Zone/Exclusion Zone* - Hot zones are used to define areas where there are exposure hazards. Hot zones should extend far enough to prevent adverse effects to unprotected personnel from the hazards of the spill or release. (NFPA 472, 1-3)

3.1.9 *Immediately Dangerous to Life or Health (IDLH)* - An atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere.

3.1.10 *Incident Command System (ICS)* - A response management system which provides an organizational structure and procedures to be followed by the spill management team when responding to a spill.

3.1.11 *Incident Commander (IC)* - The senior official on the site who has the responsibility for controlling the operations at the site.

3.1.12 *National Oceanic and Atmospheric Administration (NOAA)* - The scientific arm of the federal government for dealing with the weather and the ocean. The NOAA Hazardous Materials Group deals with spills and works closely with the US Coast Guard in spill response. NOAA is also the lead federal agency in dealing with Natural Resource Damage Assessment (NRDA).

3.1.13 *Oil* - Means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged soil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. 9601).

3.1.14 *On-Scene Coordinator (OSC)* - The predesignated official responsible for incident management in accordance with the national contingency plan. Federal On-Scene Coordinator (FOSC) - Is the

predesignated federal official responsible for ensuring immediate and effective response to a discharge or

threatened discharge of oil or hazardous substance. The US Coast Guard designates FOSCs for the US coastal zones and the US EPA designates FOSCs for inland zones.

3.1.15 *Permissible Exposure Limit (PEL)* - The inhalation exposure limit specified in 29 CFR 1910.1000 or applicable state standards. These limits may be expressed as 8-hour time-weighted average (TWA), Ceiling Limit, or 15-minute Short Term Exposure Limit (STEL).

3.1.16 *Personal Protective Equipment (PPE)* - This is equipment provided to shield or isolate a person from a chemical or physical hazard. PPE is typically provided for skin, eyes, face, hands, feet, head, body, hearing, and respiratory system. (NFPA 471, 1-3)

3.1.17 *Post-emergency Phase* - That portion of an emergency response performed after the immediate threat from a release has been mitigated or eliminated and cleanup of the site has begun. Post-Emergency phase can run simultaneously with the Emergency phase in separate geographic areas of the spill response operation.

3.1.18 *Responsible Party* - Generally the owner or operator of a vessel, facility or pipeline. The Responsible Party is liable for spill removal costs and damages.

3.1.19 *Site Safety Officer (SSO)* - The individual located at the site who is responsible to the employer/owner and has the authority and knowledge necessary to implement the site safety and health plan and verify compliance with applicable safety and health requirements.

3.1.20 *Spills of National Significance (SONS)* - Spills of extreme magnitude or severity. Only the Commandant of the US Coast Guard or the Administrator of the EPA can declare a particular incident to be a SONS.

3.1.21 *Support Zone* - See definition of Cold Zone.

3.1.22 *Threshold Limit Value (American Conference of Governmental Industrial Hygienists TLV-TWA)* - Airborne concentrations of substances which represent conditions to whichnearly all workers may be repeatedly exposed, day after day, without adverse health effects. These limits may be expressed as 8-hour time-weighted average (TWA), Ceiling Limit, or 15-minute Short Term Exposure Limit (STEL).

3.1.23 *Unified Command (UC)* - Command and control of a large spill is expected to be coordinated using a UC system. The OSC is charged with establishing a UC organization where appropriate to include the State and Responsible Party representatives. The OSC assigns individuals from the response community (federal, state, local, or private) to the UC organization.

3.1.24 *Work Area* - All the areas designated as either warm or hot zones.

3.1.25 *Work Near Water* - All personnel working in boats, on docks, or generally within 10 feet of water deeper than three feet, shall wear US Coast Guard approved personal floatation devices (PFDs).

3.1.26 *Warm Zone/Contamination Reduction Zone* - The zones where many control functions take place (e.g., personnel log in and out, personnel are decontaminated, and dirty equipment is stored or decontaminated). These zones are also called “decontamination,” “contamination reduction,” or “limited access zones.” (NFPA 472, 1-3)

4. Significance and Use

This guide is intended to help in developing a site safety and health plan (SSHP). The SSHP is intended for use in both the emergency and post-emergency phases of a spill response. The SSHP can be used for both small and large spill responses and can be completed rapidly so that responders can begin cleanup efforts sooner. The concise structure of the SSHP also promotes a readily usable format for spill responders.

5. Contents of the Plan

The Safety and Health Emergency Response Plan consists of three parts:

A basic site specific plan containing the following:

- Site Characterization

- Control Measures
- Work Plan
- Training
- Organization
- Emergency Plan
- Pre-entry Briefing

5.2 Attachments to be used to augment the basic plan and provide additional information and detail:

- Site Map
- Hazardous Substance Information Sheets (MSDS, etc.)
- Site Hazards
- Monitoring Program
- Training Program
- Confined Space Entry Procedure
- Safe Work Practices for Boats
- Personal Protective Equipment Descriptions
- Decontamination
- Communication and Organization
- Site Emergency Response Plan

5.3 Appendices provided as resources and additional information:

- Site Safety Program Evaluation Checklist
- Confined Space Entry Checklist
- Heat Stress Considerations
- Cold Stress and Hypothermia Considerations
- First Aid for Bites, Stings and Poisonous Plant Contact
- Safe Work Practices for Oily Bird Rehabilitation
- Spill Site Pre-Entry Briefing
- Personnel Tracking System

6. Initial Steps for Effective Use of the Plan

6.1 Emergency Response:

A. Complete the two-page Safety and Health Emergency Response Plan checklist for initial site entry and response. In each category check/complete all that apply. Separate checklists should be prepared for each site and a master site list should be maintained.

B. Complete or provide the site map. The map may include:

- evacuation routes
- area to be evacuated (if any)
- contaminated zone
- decontamination zone
- location of first aid/hospital facilities

C. Provide hazard information on the spilled product, such as MSDS or other data.

D. Provide other information in the form of attachments or appendices, as needed.

E. Revise the site plan, site map and attachments as conditions at the site change. Attach these revisions to the original plan and number them consecutively.

6.2 Post-Emergency Response:

A. Complete the two-page Safety and Health Emergency Response Plan checklist or revise the existing plan in use for emergency response. Revise as conditions at the site change.

B. Complete or revise the site map, including the information listed for Emergency Response as well as location of the Command Center and other information as needed.

C. Complete the attachments to provide more site-specific information as required by OSHA 29 CFR 1910.120. Some attachments, such as Confined Space Entry Procedures and Safe Work Practices for Boats may not be applicable, depending on the spill site.

D. Use the appendices as resources and additional information as needed.

SAFETY AND HEALTH / EMERGENCY RESPONSE PLAN

APPLIES TO SITE:

DATE/TIME: **INCIDENT:**

PRODUCT(S): (Attach MSDS)

SITE CHARACTERIZATION: ☐ Marine vessel ☐ Pipeline ☐ Storage facility ☐ Truck/Rail car
(See Site Map) ☐ Other:

Water ☐ Bay ☐ Canal ☐ Creek ☐ River ☐ Ocean ☐ Shoreline ☐ Wetlands
☐ Muddy ☐ Sandy ☐ Rocky ☐ Other:

Waves ☐ Height: ft ☐ Direction:

Current ☐ Speed : mph/kts ☐ Direction:

Land ☐ Brushland ☐ Forest ☐ Grassland ☐ Hills ☐ Mountains
☐ Other:

Use ☐ Commercial ☐ Farmland ☐ Government ☐ Industrial ☐ Public
☐ Recreational ☐ Residential ☐ Other:

Weather ☐ Ice ☐ Rain ☐ Snow ☐ Other:
☐ Temp: °F ☐ Wind/Dir: mph

Pathways for Dispersion ☐ Air ☐ Water ☐ Land ☐ Other:

Site Hazards

☐ Boat safety	☐ Fire, explosion, in-situ burning	☐ Visibility
☐ Chemical hazards	☐ Heat Stress	☐ Pumps and hoses
☐ Cold stress	☐ Helicopter operations	☐ Steam and hot water
☐ Confined spaces	☐ Lifting	☐ UV radiation
☐ Drum handling	☐ Motor vehicles	☐ Slips, trips and falls
☐ Equipment operations	☐ Noise	☐ Trenching/excavation
☐ Electrical hazards	☐ Overhead/buried utilities	☐ Weather
☐ Fatigue	☐ Plants/wildlife	☐ Work near water

Air Monitoring

$\%O_2$ %LEL ppm Benzene ppm H_2S Other (specify):

CONTROL MEASURES:

Engineering Controls

- ☐ Source of release secured
- ☐ Valve(s) closed
- ☐ Facility shut down
- ☐ Site secured
- ☐ Energy sources locked/tagged out
- ☐ Other:

Personal Protective Equipment

- ☐ Impervious suits:
- ☐ Respirators:
- ☐ Inner gloves:
- ☐ Eye protection:
- ☐ Outer gloves:
- ☐ Personal floatation:
- ☐ Flame resistant clothing:
- ☐ Boots:
- ☐ Hard hats
- ☐ Other:

Decontamination ☐ Stations established

Sanitation ☐ Facilities provided per OSHA 29 CFR 1910.120(n)

Illumination ☐ Facilities provided per OSHA 29 CFR 1910. 120(m)

CONTROL MEASURES (continued):

Medical Surveillance ☐ Provided per OSHA 29 CFR 1910.120(f)

WORK PLAN: (Buddy system must be used)

- ☐ Booming
- ☐ Skimming
- ☐ Vac trucks
- ☐ Pumping
- ☐ Excavation
- ☐ Heavy equip
- ☐ Sorbant pads
- ☐ Patching
- ☐ Hot work
- ☐ Shoring
- ☐ Appropriate permits used
- ☐ Other (describe):

TRAINING:

- ☐ Verified site workers trained per OSHA 29 CFR 1910.120

ORGANIZATION:

Title	Name	Telephone/Radio
Incident Commander:		
Deputy Incident Commander:		
Safety Officer:		
Public Affairs Officer:		
Other:		

EMERGENCY PLAN:

- ☐ Alarm system:
- ☐ Evacuation plan:
- ☐ First aid locations:

Notified:

- ☐ Hospital: Phone:
- ☐ Ambulance: Phone:
- ☐ Air Ambulance: Phone:
- ☐ Fire: Phone:
- ☐ Law Enforcement: Phone:
- ☐ Emergency Response/Rescue: Phone:

PRE-ENTRY BRIEFING:

- ☐ Initial briefing prepared for each site
- ☐ Briefing reviewed/updated as necessary

INCLUDED ATTACHMENTS/APPENDICES:

Attachments

- ☐ Site Map
- ☐ Hazardous Substance Info Sheets
- ☐ Site Hazards
- ☐ Monitoring Program
- ☐ Training Program
- ☐ Confined Space Entry Procedure
- ☐ Safe Work Practices for Boats
- ☐ PPE Descriptions
- ☐ Decontamination
- ☐ Communication and Organization
- ☐ Site Emergency Response Plan

Appendices

- ☐ Site Safety Program Evaluation Checklist
- ☐ Confined Space Entry Checklist
- ☐ Heat Stress Consideration
- ☐ Cold Stress and Hypothermia Consideration
- ☐ First Aid for Bites, Stings and Poisonous Plant Contact
- ☐ Safe Work Practices for Oily Bird Rehabilitation
- ☐ Spill Site Pre-Entry Briefing
- ☐ Personnel Tracking System

DATE PLAN COMPLETED: **BY:**

ATTACHMENT: SITE MAP

Site Map may include the following information:

- Site Name and Location
- Work Zones
- First Aid Locations
- Surrounding Land Uses
- Primary and Secondary Evacuation Routes
- Assembly Points
- Staging Area and Command Post Locations

Attach Map in place of this form.

ATTACHMENT: HAZARDOUS SUBSTANCE INFORMATION SHEETS MSDS/RIDS/CHRIS/CHEMTOX/TOMES/etc.

Attach appropriate Hazardous Substance Information Sheets in place of this form.

ATTACHMENT: SITE HAZARDS

☐ BOAT SAFETY.
See Attachment - Safe Work Practices for Boats.

☐ CHEMICAL HAZARDS
See Attachment - Hazardous Substance Information Sheets

☐ COLD STRESS.
Cold stress can occur among responders as a result of prolonged exposure to low environmental air temperatures or from immersion in low temperature water. Cold stress can lead to a number of adverse effects including: frostbite, chilblain, frostnip, acrocyanosis, trench foot, Raynaud's Disease, and hypothermia. The single most important aspect of life-threatening hypothermia is the fall in the deep core temperature of the body. In addition to provision for total body protection, consideration shall also be given to the protection of other body parts, with emphasis on the hands, feet and head. The incidence of cold stress is dependent upon a number of factors such as air and water temperature, wind speed, a person's physical fitness, age, and clothing worn, including protective clothing. Supervisors must monitor their employees for signs of cold stress when weather conditions necessitate. The site safety and health officer will generally be guided by the ACGIH guidelines in determining exposure control methods such as work/rest periods, clothing required, etc. Workers shall be provided with adequate warm clothing, and rest opportunities. Warm and/or sweet fluids shall also be available during rest periods. Protection from the elements, such as with warm rest shelters, shall be made available, where feasible.

☐ CONFINED SPACES.
See Attachment - Confined Space Entry Procedure
See Appendix - Confined Space Entry Checklist

☐ DRUM HANDLING AND SPILL CONTAINMENT.
Drum handling at a spill site will primarily involve drums of waste and contaminated clothing. Several types of drums may be used, ranging from 5 to 55 gallons in size. All drums and containers must be properly labeled in accordance with OSHA and DOT regulations. Manual lifting and moving of drums should be kept to a minimum. Mechanical devices and dollies should be used for moving heavy drums.

☐ EQUIPMENT OPERATIONS FOR CLEANUP/CONTAINMENT
Heavy Equipment:
Operation of heavy equipment, such as a front end loaders, bulldozers and cranes must be done in accordance with applicable OSHA regulations. The operators must be trained and qualified to operate powered industrial vehicles. The operator and helper must be familiar with proper signaling techniques. Buckets must not be used as a lift; hard-hats must be worn; and a fire extinguisher must be present on board equipment.

Cranes must be operated in accordance with the manufacturers' instructions and established construction practices. Outriggers must be fully extended to assure maximum stabilization of the equipment. Cranes must be operated only where the ground provides adequate support. Rigging components must be inspected daily. Only certified wire rope slings with manufactured sledges or manufactured web slings will be used. Certification documents must be received and filed for all slings. Each sling must be

marked or tagged with its rated capacity and slings must not be used with loads in excess of their rated capacity. (29 CFR 1910.184) Personnel shall not be allowed under the boom or load except for the minimum time necessary to hook up or unhook the load. (29 CFR 1910.180)

Forklifts:
Only trained and authorized operators shall be allowed to operate forklifts. Horseplay is not permitted. Only stable or safely arranged loads that do not exceed the capacity of the truck shall be handled. Fuel tanks must not be filled while the engine is running. Operators shall perform daily or pre-use inspections of the forklift to be operated. A separate inspection will be made each shift during multi-shift operations. Records of inspections must be maintained. All inspection discrepancies must be corrected prior to operation of the forklift. If the discrepancy cannot be corrected immediately, the forklift must be tagged out of service. 29 CFR 1910.178

Hand/Power Tools:
Hand tools are non-powered. The greatest hazards posed by hand tools result from misuse and improper maintenance. Saw blades, knives or other tools should be directed away from other employees. Dull tools can be more hazardous than sharp tools. Personal protective equipment, such as wire mesh gloves, wrist guards, arm guards, aprons and belly guards may be appropriated. Spark resistant tools (brass, plastic, aluminum and wood) should be used around flammable substances.

Power tools are based on the power source used: electric, pneumatic, liquid fuel, hydraulic, and powder-actuated. The following general precautions should be observed: never carry power tools by the cord; never yank the cord to unplug the tool; keep cords and hoses away form heat, oil and sharp edges; disconnect tools when not in use and before servicing; keep observers a safe distance away; secure work with clamps or a vise freeing both hands to operate the tool; avoid accidental starting; maintain tools with care; keep them sharp and clean; safeguard hazardous moving parts of the tool; and, protect the operator from: point of operation, in-running nip points, rotating parts, and flying chips and sparks. Many tools including drills, tappers, fastener drivers, disc sanders, belt sanders and others must be equipped with momentary contact “on-off” control switch.

Employees using hand and power tools and exposed to the hazards of falling, flying, abrasive and splashing objects, or exposed to harmful dusts, fumes, mists, vapors or gases must be provided with the particular personal equipment necessary to protect them from the hazard. All hazards involved in the use of [hand] and power tools can be prevented by following five basic safety rules: Keep all tools in good condition with regular maintenance; use the right tool for the job; examine each tool for damage before use; operate according to the manufacturer’s instructions; and provide and use the right protective equipment.

☐ ELECTRICAL HAZARDS.
Electrical hazards shall be identified and marked with suitable placards, barricades, or warning tape as necessary.

☐ FATIGUE.

Working long hours without rest may be required, especially during the early phase of response. This, coupled

with the stress of the situation and wearing required PPE, can contribute to fatigue. Symptoms include loss of concentration, errors in judgment, irritability, sleepiness, soreness and stiffness in joints and muscles. Rest and sleep are the primary treatments for fatigue. Stress can be addressed by relaxation techniques, such as deep breathing, stretching, taking breaks, and other methods.

☐ FIRE, EXPLOSION AND IN-SITU BURNING

Flammable and combustible materials may be encountered at the spill site. These may be fuels for vehicles and equipment or the spilled material itself. However, some cleanup chemicals such as solvents may also be used. Refer to the container label or proper MSDS for more information on these materials.

Precautions should be taken when working with either flammables or combustibles:

- No smoking
- Store in approved, labeled containers
- Ensure containers used to transfer materials are properly grounded
- Provide fire extinguishers in areas where these materials are used

In-situ burning presents health and safety hazards not only to the workers engaged in the burning activities, but also to individuals downwind of the burn site. Health and safety hazards include:

- Physical hazards: explosions, heat, loss of control of burning oil (e.g., flashback to the spill source, loss of containment).
- Inhalation of airborne burn products: These may include toxic and irritating substances such as: smoke particles, carbon monoxide, carbon dioxide, sulfur oxides, nitrogen dioxide, polycyclic aromatic hydrocarbons, acid aerosols, aldehydes, acrolein, polynuclear aromatic hydrocarbons, volatile organic hydrocarbons.

Safety factors to be considered include status of the spill (e.g., burning, being lightened, personnel being evacuated, etc.); weather and sea conditions; distance of intended burn location to the spill source; type and condition of the oil; proximity of ignitable vegetation, docks, and other facilities; and control measures.

A detailed Burn Plan should be prepared. This should include a summary of safety and control measures. Care must be taken to protect all personnel from any harmful exposure to heat and or combustion products.

☐ HEAT STRESS

Heat stress can result as responders perform heavy labor in protective and/or impermeable clothing that does not breathe or allow for the dissipation of normal body heat. Heat buildup can lead to a number of adverse health effects including: heat rash, heat cramps, dehydration, heat exhaustion or heat stroke. The incidence of heat stress is dependent upon a number of factors such as temperature, humidity, a person's physical fitness, age, acclimatization, weight, drug or medication use, and clothing worn, including protective clothing. Therefore, supervisors must continually monitor their employees when work loads are heavy and temperatures and/or humidity are high. The site safety and health officer will generally be guided by the ACGIH guidelines in determining work/rest periods. Fluids shall be available at all times and personnel will be encouraged to drink fluids during rest periods. Shaded rest areas will be made available where feasible.

☐ HELICOPTER OPERATIONS

Helicopters may be in use at the spill site for overflight surveillance; site characterization; personnel/equipment transport; and rescue/medical transport. Safe work practices for passengers and other personnel include:

1. Passengers must receive a safety briefing from the pilot before liftoff. The briefing should include: safety features and equipment and their location on the individual aircraft; helicopter underwater escape procedures when appropriate; and, emergency information.
2. Passengers and ground crew members approaching helicopters shall stay in a crouched position, and must be in clear view of the pilot while approaching or departing a helicopter.
3. Passengers and ground crew should approach/depart from the **FRONT** of the helicopter only when signaled by the pilot; and shall never walk under or around the tail, rotor or exhaust.
4. Loose fitting clothing, hats, hard hats, or other gear, which might be caught in rotor downwash, must be secured or removed within 100 feet of operating helicopters.
5. Passengers shall maintain a distance of 50 feet from helicopters while rotors are turning. Ground crew should also maintain this distance, unless specific work practices are developed for closer work.
6. Passengers shall wear seat belts at all times and personal floatation devices when flying over bodies of water.
7. Passengers and ground crew shall wear hearing protection (which may include communication headsets or helmets) at all times around operating helicopters.
8. Passengers shall assist the pilot in watching for other traffic or ground obstacles, as directed by the pilot.
9. During emergency landing in water:
   a. Do not exit until instructed to do so by the pilot after rotor blades stop turning or pilot signals all clear.
   b. Do not inflate personal floatation devices until outside of the helicopter.

☐ LIFTING

Use available machinery and lift-aiding equipment before lifting heavy loads. Use team work for heavy and numerous small loads. Do not rush work. Use of chemical protective clothing will restrict movement and visibility. Use extra care while lifting in protective gear.

Safe lifting techniques:

1. Position feet properly. Feet should not be close together, but should be close to the load to help keep the body close to the center of gravity. One foot should be positioned in the direction the load will be moved to avoid twisting or turning of the back during the lift. Turn using your feet and not by twisting the back.
2. Before and during the lift keep the load close to you to keep the center of gravity over your feet.
3. Check your grip and test the weight of the load before lifting.
4. The back should be straight when starting the lift and the knees should be bent. This will help to ensure that much of the lifting is done with the legs. To help keep the back straight, the chin should be tucked in and head kept up.
5. Keep the stomach muscles tight while lifting. Keep your back straight during the lift and avoid twisting motions in particular.
6. Move slowly and deliberately.

☐ MOTOR VEHICLES

All motor vehicles must be operated in accordance with all state and local motor vehicle regulations. Posted speed limits must be observed and seat belts worn by all occupants. Check the outside of the vehicle and familiarize yourself with the interior and make all adjustments before driving. Drive

defensively. Employees involved in any accident must inform their supervisor as soon as possible. The driver is responsible for getting as much accident information as possible. 29 CFR 1910.178

Safe use of motor vehicles is essential at the spill site and in traveling to and from the site. Vehicles should be checked:

Tires inflated	Fuel	Spare tire	Lights	Windshield wipers
Brakes	Turn signals	Seat belts	Horn	

☐ NOISE

Noise may be a significant hazard at a spill cleanup site. Noise may be generated by: pumps, generators, compressors, trucks, and, heavy equipment. At a spill site, high noise areas and equipment will be identified. Areas requiring the use of hearing protection will be so posted. Hearing protection will be made available as required. As a general rule, hearing protection should be worn in areas where noise prevents hearing ordinary conversation. Since hearing loss caused by high noise exposure may not be noticed at first, it is important to wear the hearing protection in high noise areas.

☐ OVERHEAD AND BURIED UTILITIES

If work has to be performed near overhead lines, the lines must be de-energized and grounded, or other protective measures must be provided before work is started. Arrangements must be made with the person or organization that operates or controls the electric circuits to de-energize and ground them. If protective measures such as guarding, isolating, or insulating are provided, these precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment. Clearance from overhead power lines to persons or equipment must be at least 10 feet unless the voltage exceeds 50 kV. If a vehicle is in transit with its structure lowered, the clearance may be reduced to 4 feet. If voltage exceeds 50 kV, the clearance must be increased by 4 inches for each 10 kV. There are specific approach distances and insulation requirements given in the referenced OSHA standard. (29 CFR 1910.333)

The estimated location of buried utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground services should be determined before work begins. Utility companies or owners must be contacted, advised of the proposed work and informed of the urgency of the situation. OSHA states the aforementioned companies or owners have 24 hours to respond unless state or local laws allow more time. Excavation may proceed if the exact location of the installation cannot be determined or the utility company or owner does not respond in the time period required by law. When the excavation approaches the estimated location of the underground installations, the exact location must be determined by safe and acceptable means. While the excavation is open the installation must be protected, supported or removed as necessary to safeguard employees. (29 CFR 1926.651)

☐ PLANTS/WILDLIFE

A variety of plants and wildlife will be encountered at most spill sites.

<u>Plants</u>

1. Avoid contact with all plants as much as possible. Poison ivy, poison oak and poison sumac are hard to identify and may be hidden by other plant growth.

2. Train all personnel to recognize poisonous plants and to wear appropriate protective clothing when handling.
3. Train personnel in basic first aid for plant contact.

<u>Wildlife</u>

1. Examples of wildlife possibly encountered at a spill site include: stray dogs; bears; moose; beaver; otters; snakes; birds; fish; skunks and other small animals; alligators; nutria; and, insects.
2. Avoid contact with all wildlife, particularly oiled, injured or dead wildlife. Report visual observation of such wildlife to supervisor.
3. Discuss wildlife hazards at the site during pre-entry briefings to ensure cleanup personnel are aware of preventive and first aid measures.
4. Identify personnel with allergies to wildlife and plants, particularly those allergic to insect stings and bites. Be prepared to provide immediate first aid to these individuals if needed.
5. Train all personnel to recognize wildlife, especially poisonous snakes and insects.
6. Proper response and rescue of wildlife will be made by personnel trained in handling wildlife.
7. Train personnel in basic first aid for bites and stings. First aid should be administered by trained first aid responders if possible.

See Appendix - First Aid for Bites, Stings and Poisonous Plants.

☐ POOR VISIBILITY

Fixed or portable lighting shall be maintained for dark areas or work areas after sunset to ensure that sufficient illumination is provided. (See Table H-120.1 of 29 CFR 1910.120(m) for Minimum Illumination Intensities.)

☐ PUMPS AND HOSES

Pumps and hoses may be used at the spill site to apply water, steam or chemicals for cleanup and/or decontamination. They may also be used for liquid waste collection. Caution should be used when working in areas where hoses are in use as they present a tripping hazard. Additionally, when using pumps and hoses, determine their last contents to avoid contamination or chemical reaction. Use the proper pump and hose for the job.

☐ STEAM AND HOT WATER

Steam and hot water may be used during the spill cleanup. Use caution when working with these materials since they can cause severe burns. Wear gloves and eye/face protection when handling and be careful not to spray in the direction of other personnel.

☐ UV RADIATION

Ultraviolet radiation from sunlight can be a significant hazard at a spill site. Cleanup will primarily be done outdoors; therefore, sunscreens with the appropriate protection factor and UV-tinted safety glasses may be needed. Other types of radiation, such as from welding and cutting, may also be a hazard. Avoid direct visual contact and use proper eye protection as needed.

☐ SLIPS, TRIPS AND FALLS

Slips, trips and falls on oily surfaces are the major cause of injuries at an oil spill site. Many of these injuries occur in the first few minutes of work before workers realize the conditions and begin to take precautionary measures. When entering a spill site, walk slowly and carefully in oil-coated areas. Be

especially careful when walking on oil-covered rocks. Oil-resistant safety-toe boots with non-slip soles should be worn at all times in areas containing oil-covered rocks. This type of footwear can help to minimize the falling hazard, but will not prevent it. Open manholes, mud, pits, trenches, or similar hazards shall be identified and marked with suitable placards, barricades, or warning tape as necessary.

☐ TRENCHING AND EXCAVATION

All surface encumbrances that may create a hazard to employees shall be removed or supported to safeguard employees. Consideration must be given to underground installations. Appropriate precautions must be taken with regard to soil type and conditions to avoid cave-in. Employees must be provided with an approved means of access and egress. Adequate precautions shall be taken to prevent employee exposure to hazardous atmospheres. Where hazardous atmospheres exist, emergency rescue equipment shall be readily available. Employees must be protected from cave-ins, falling loads, mobile equipment, water accumulation, loose rock and soil. A competent person must inspect the excavation, adjacent area, and protective systems prior to the start of work, as needed throughout the shift and after every rainstorm or hazard increasing occurrence. (29 CFR 1926.65 Subpart P)

☐ WEATHER

Spill cleanup operations may be conducted in a wide variety of weather conditions. Weather conditions change frequently and may require halting or modifying cleanup operations. Some typical weather conditions that could impact cleanup operations include: High tides, lightning, rain, hail, snow, sleet and high winds. A management and communication system for responding to changing weather conditions is an essential element of the Site Safety and Health Plan.

☐ WORK NEAR WATER

All personnel working in boats, on docks, or generally within 10 feet of water deeper than 3 feet, shall wear US Coast Guard approved Type I or Type II personal floatation devices unless protected by guardrails.

ATTACHMENT: MONITORING PROGRAM

SITE:
DATE:

A. MONITORING PLAN:

1. Air monitoring at the spill site and surrounding areas will be done to ensure site worker and community safety.
2. 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.
3. All monitoring done at the cleanup site will be documented and the data maintained by qualified personnel on site.
4. Monitoring will be done in accordance with OSHA 29 CFR 1910.120. Monitoring to 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 which may involve potential inhalation exposure.

B. INITIAL SITE MONITORING

1. Monitoring will be done during initial site entry. The monitoring will include checking for:
   - oxygen (O2) 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.
2. Instruments will be calibrated prior to and following use.
3. All monitoring will be documented. (See attached form for example.)

C. POST-EMERGENCY MONITORING (ON-GOING)

1. 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.)
2. Checks for oxygen deficiency and flammable atmospheres will be made if confined spaces are encountered, or as required.
3. 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.
4. 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.

SITE MONITORING DATA (EXAMPLE)

DATE/TIME	LOCATION	%LEL	$\%O_2$	BENZENE (PPM)	H_2S (PPM)	OTHER SPECIFY (PPM)	COLLECTED BY

ATTACHMENT: TRAINING PROGRAM

It is recommended the training program be previously prepared. Provide a copy of Responder's Training Program in place of this form.
This may include:

- Training matrix (jobs vs. training requirements)
- Syllabus
- Training outline
- Site-specific training should be done during pre-entry briefing

ATTACHMENT: CONFINED SPACE ENTRY PROCEDURE

Provide a copy of Responder's Confined Space Entry Program in place of this form (if needed).

ATTACHMENT: SAFE WORK PRACTICES FOR BOATS

Ensure that all boats and operators comply with the appropriate state and federal regulations. In addition to the items discussed below, certain types of vessels will require such items as USCG approved fire extinguishers, backfire flame control, powered ventilation, sound signaling devices (different from emergency signals), navigation lights/signals, pollution placards, and marine sanitation devices.

1. Boat operators must familiarize themselves and passengers with safety features and equipment on their boats.
2. Boats must be operated by qualified individuals.
3. Life jackets, work vests, cold water immersion suits, or other appropriate USCG approved Personal Floatation Devices (PFDs) must be worn by personnel in boats.
   a. Use of cold water immersion suits is particularly critical under conditions of cold stress.
   b. Types of PFDs:
      Type I — Off-shore life jacket provides the most buoyancy. It is effective for all waters and intended specifically for open, rough, or remote waters where rescue may be delayed.
      Type II — Near-shore buoyancy vests are intended for calm, inland water, or where there is a good chance of quick rescue.
      Type III — Floatation aids are good for calm, inland water, or where there is a good chance of quick rescue. Examples: float coats, fishing vests, and ski vests.
      Type IV — These are throwable devices, not intended to be worn or to replace those that are worn.
      Type V — Special Use. These are intended for specific activities (according to the conditions on the labels). Some examples: deck suits, cold water immersion suits, work vests, and hybrid PFDs below.
      Type VI — Hybrid Inflatables. These PFDs contain a small amount of inherent buoyancy and an inflatable chamber. Performance equals that of a Type I, II, or III PFD (as noted on the label) when inflated.
4. Boats should generally not be operated for oil recovery after sunset. If this is required or poses minimal risk, areas of operation should be carefully prescribed, and individual boat operators should maintain a communication schedule with a shore base. Each boat should be fully equipped with appropriate running lights and emergency signaling devices, and personnel onboard should be wearing emergency night signaling devices.
5. Distress signals (three or more for day and three or more for night) should be carried on board all vessels. These devices may be required by regulation. They may be stored on board or issued to individuals. If stored on board, they should be in a sealed, watertight, orange container marked "DISTRESS SIGNALS".
   a. USCG-approved pyrotechnic visual distress signals include red flares (hand-held or aerial), range smoke (hand-held or floating), and launchers (for aerial red meteors or parachute flares). Pyrotechnic devices should not be used near flammable product spills.
   b. Non-pyrotechnic distress signals are not approved individually, but must meet certain requirements. They should be in serviceable condition, readily accessible, and certified by

the manufacturer as complying with USCG requirements. These devices include orange distress flags, and electric distress lights.

c. Distress flags are day signals only. They must be at least 3x3 feet with a black square and ball on an orange background.

i. Electric distress lights are for night use only. These devices automatically flash the international SOS code (...- - -...) so a flashlight IS NOT considered a distress signal. Under inland navigation rules, a high intensity strobe light is considered a distress signal.

ii. It is illegal to display visual distress signals on the water, except when assistance is required.

6. Boat operators must keep their supervisors informed of their area of operations, especially when they change their work area (if plans call for a boat to move to another location during a shift, the operator should advise the supervisor of his actual time of departure).
7. Boat operators should never anchor their boats by the stern. This is typically the lowest point on the boat due to design and/or loading, and is often squared off, making it vulnerable to swamping.
8. Portable fuel tanks should be filled outside of the boat. All sources of ignition in the area of fueling (e.g., engines, stoves, or heat-producing equipment, and electrical equipment) must be removedwhile fueling.
9. Strict adherence to the buddy system must be observed in boats; and all boats should be in direct visual or radio contact with the shore base at all times.
10. To avoid slipping on wet decks or falling in boats, personnel should remain seated while boat is underway. Horseplay and speeding are strictly prohibited. Personnel should keep their center of gravity as low as possible while working in boats.
11. Boat operators must also ensure that boats are not overloaded. The capacity should be marked on a label on the boat; if not, a general rule of thumb is: Length x Width / 15 = People (150 lbs). Since equipment adds to the weight, it should be considered as well. Weight should be distributed evenly.
12. Personnel working in or operating boats should wear appropriate shoes/boots designed to help maintain traction on wet surfaces.
13. Safety sunglasses or hearing protection should be worn by personnel working in, or operating, boats where appropriate.
14. Fixed ladders or other substantial access/egress should be provided at boat transfer locations from low water line to platform.
15. Depending on the specific nature of the operations (e.g., work in remote areas), other emergency equipment that should be considered includes: anchors, radios, bailers, first aid kits, and additional means of propulsion (e.g., paddles).
16. Workers should be cautioned about using their legs or arms to fend off during docking, or getting their hands, arms, or legs between vessels or between vessels and docks or fixed structures.

ATTACHMENT: PERSONAL PROTECTIVE EQUIPMENT (PPE) DESCRIPTIONS

INITIAL SITE ENTRY
If the identity and/or concentration of the spilled substance or its hazardous components are unknown, initial responders will wear level A or level B protective gear or firefighters' protective gear and SCBA. Once the identity and concentrations of the spilled product and/or its hazardous components is known, the following will apply:

1. PPE Selection Based Upon Site Hazards
   PPE selection should be based upon the hazards expected to be encountered at the cleanup site.

   The PPE required at the spill cleanup site may consist of:

- Oil-resistant suit
- Oil-resistant gloves
- Oil-resistant boots
- Splash goggles or safety goggles with side shields
- Face shield
- Hard hat
- Hearing protection
- Personal floatation device
- Flame resistant clothing
- Respiratory protection

2. PPE Use and Limitation of Equipment
   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 used on the site.
- Protective clothing and gloves should be durable enough 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 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.

3. Work Duration
   The work duration is expected to last for the full shift and will involve moderate to heavy physical exertion during cleanup activities.

4. 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.

5. 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.

6. 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.

7. 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.

   Note: Provide additional job-specific PPE information here.

ATTACHMENT: DECONTAMINATION

SITE:
DATE:

1. DECONTAMINATION (DECON) ZONES:

The work areas at the spill cleanup site will be divided into three zones:

1. Clean Zone (Cold Zone)
2. Contamination Reduction Zone (Warm Zone)
3. Contaminated Zone (Hot Zone)

These zones are to be demarcated at each work area by signs and/or barrier tape or other means.

Decon is an important part of the spill cleanup program. This is carried out in the Contamination Reduction Zone. Each time cleanup workers exit the Contaminated Zone they must go through the decontamination procedure.

Decon crews are available to assist in the procedure as needed. The crews must wear appropriate protective clothing. The decon crews are responsible for packaging and labeling of contaminated work clothing and other personal protective equipment (PPE) if not to be reused.

2. DECON STATIONS:

Decon is carried out at a series of stations within the Contamination Reduction Zone. The ground at each station is covered with heavy diked PVC sheets to prevent contamination of the soil. These stations and the procedures at each are as follows:

STATION 1 Deposit contaminated equipment (tools, containers, etc.). Use this station for cool down if needed.

STATION 2 While workers stand in shallow plastic tubs, remove tape, if worn, from glove and boots. Scrub boots, outer gloves and protective clothing with decon solution (detergent in water). Rinse with water from hand-held sprayers as workers step from tubs.

STATION 3 Remove boots and outer gloves. Deposit in designated containers.

STATION 4 Remove protective clothing and deposit in designated containers. Remove inner gloves and deposit in designated containers.

STATION 5 Wash hands and face with mild soap. Shower as soon as practical.

3. EQUIPMENT NEEDED FOR DECON:

- Shallow plastic tubs
- Mild detergent
- Long-handled, soft-bristle scrub brushes
- Benches or stools
- Towels
- Tables
- Wash basins
- Plastic drop cloths
- Various size containers
- Decon solution (detergent in water)

- Hand-held pressure sprayer
- Rinse water
- Tool/equipment drop containers, trash cans, trash bags

ATTACHMENT: COMMUNICATION & ORGANIZATION (EXAMPLE)

CONTACT		**PHONE**					**RADIO**					
Position	Name	Work	Fax	Cellular	Pager	Home	Freq	Chan	UHF	VHF	CB	Other
Air Ambulance												
Ambulance/EMT/Hospital Chemical Emergency												
Ambulance/EMT/Hospital Regular Emergency												
ATSDR												
Contractor												
Deputy Incident Commander												
Environmental Officer												
Federal												
Industrial Hygienist												
Insurance Claims												
Legal												
LEPC												
Local												
Logistics												
Medical Officer												
Operations												
Planning Officer												
Police												
Public Affairs Officer												
Responsible Party's Incident Commander												
Safety Officer												
State												
Other												

COMMUNICATION & ORGANIZATION

CONTACT		**PHONE**					**RADIO**					
Position	Name	Work	Fax	Cellular	Pager	Home	Freq	Chan	UHF	VHF	CB	Other

ATTACHMENT: SITE EMERGENCY RESPONSE PLAN

Site Emergency Responders (list roles and names):

Emergency Response Plan (describe briefly):

Site Communication System (describe or reference):

Site Alerting/Alarm System:

Evacuation Plan:

Emergency Medical Facilities:

First Aid:

Ambulance:

Hospitals:

APPENDIX: SITE SAFETY PROGRAM 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)

1. Comprehensive Workplan [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 program (see 1910.120(f))

2. Safety and Health Program [1910.120(b)]. Note: This is not the same as the site-specific plan addressed in 3. below.

   General:
   - ☐ A written safety and health program [1910.120(b)(1)]. Note: This may be incorporated in other documents
   - ☐ 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

3. 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.

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)
- ☐ Hazardous substances and associated hazards
- ☐ Need for SCBA

☐ If SCBA is not used and potential for inhalation hazard might exist: an approved escape SCBA shall be provided with a minimum of 5 minutes of air supply.

Risk Identification [1910.120(c)(7)]:

☐ Employees on site are informed of identified risks
☐ All information concerning the 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 water (n)(1)
☐ Non-potable water (n)(2)
☐ Toilet facilities (n)(3)
☐ Washing facilities (n)(6)
☐ Shower and change rooms (n)(7)

4. 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

APPENDIX: CONFINED SPACE ENTRY CHECKLIST

These are strictly guidelines for use by field personnel based on NIOSH Publication 87-113, "A Guide to Safety in Confined Spaces"; and NFPA-306 "Control of Gas Hazards on Vessels," and OSHA 29 CFR 1910.146

SAT/UNSAT (if not applicable mark "NA" in SAT column)

☐ ☐ Is entry necessary?

TESTING

☐ ☐ Instruments calibrated?

☐ ☐ Oxygen must be equal or greater than 19.5% and equal or less than 23.5%. There should be no unexplained deflection from the calibrated setting for ambient air - typically 20.9%- outside of normal instrument variability. Atmospheres less than 19.5% should be treated as IDLH (Immediately Dangerous to Life or Health) atmospheres for purposes of respiratory protection selection. Atmospheres greater than 22% should be treated as a flammable atmosphere hazard.
Result: _____

☐ ☐ Combustible atmospheres - where flammable/combustible gases and vapors may be present - must be less than 10% of the LEL (Lower Explosive Limit). There should be no unexplained deflection from the calibrated zero setting without assessment of potential toxic hazards associated with the atmosphere.
Result: _____

☐ ☐ Toxic hazards (per NFPA 306 concentrations should not exceed the OSHA PEL, or ACGIH TLV, or appropriate recognized standards.) If exposure limits are exceeded, consider additional engineering controls such as ventilation or cleaning. If other controls are not effective/feasible, appropriate respiratory protection should be used above exposure limits. Toxic hazards evaluated:
Hazard:
Result:
Hazard:
Result:
Hazard:
Result:
Hazard:
Result:

☐ ☐ Gas sources in, or adjacent to, the confined space have been inspected and adequately isolated (gas sources all present a potential for sudden changes in atmospheric conditions such as oxygen displacement, fires/explosions, or acute toxic atmospheres-continuous monitoring of oxygen deficiency and explosive atmospheres should be considered along with emergency escape respiratory protection.) The following were present:

- ☐ compressed gases
- ☐ liquefied gases
- ☐ welding gases

☐ inerting systems - including dry ice
☐ Other

☐
SAT/UNSAT (if not applicable mark "NA" in SAT column)

MONITORING

When considering monitoring requirements, personnel should consider such things as the potential for sudden changes in atmospheric conditions (e.g., gas sources in or adjacent to the confined space); environmental or work activities which may change conditions over time (e.g., hot sunny weather increases vapor generations; welding/cutting/painting/curing consume oxygen; and internal combustion engines consume oxygen and produce oxygen-displacing gases).

☐ ☐ Appropriate monitoring is established as follows
☐ LEL
☐ continuous
☐ as directed by safety supervisor
☐ daily or when safety supervisor changes watch
☐ every ☐ hour(s)
☐ Oxygen
☐ continuous
☐ as directed by safety supervisor
☐ daily or when safety supervisor changes watch
☐ every ☐ hour(s)
☐ Other
Hazard
Monitoring Equipment
☐ continuous
☐ as directed by safety supervisor
☐ daily or when safety supervisor changes watch
☐ every ☐ hour(s)

ISOLATION

☐ ☐ Connections to confined space have been blinded, double blocked and bled, or offset

CLEANING

☐ ☐ Space has been cleaned prior to entry
☐ ☐ If steam or hot water cleaning systems were used, adequate cooling time has been provided

VENTILATION

☐ ☐ Adequate ventilation has been established as follows:
☐ air changes prior to entry (minutes:
☐ continuous ventilation during entry
location /type/ducts (diagram & description):

☐ ☐ Source of air being blown to space is free of hazards

☐ ☐ Contaminated air is exhausted into a safe location

OTHER PROTECTIVE CLOTHING/EQUIPMENT

☐ ☐ Equipment for entry team
- ☐ PPE ensemble
- ☐ rescue/retrieval
- ☐ harness

SAT/UNSAT (if not applicable mark "NA" in SAT column)

- ☐ other:
- ☐ communication/signaling
- ☐ spark proof tools
- ☐ other:

☐ ☐ Equipment for rescue team
- ☐ PPE ensemble
- ☐ rescue/retrieval
  - ☐ retrieval tripod
  - ☐ other:
- ☐ communication/signaling
- ☐ PPE/respiratory
- ☐ other:

TRAINING/QUALIFICATIONS

☐ ☐ Confined space hazards and safe work practices
☐ ☐ Use of respirators and other PPE
☐ ☐ CPR, first aid, emergency entry/rescue
☐ ☐ Confined space plan briefing
☐ ☐ Work plan

STANDBY and RESCUE PERSONNEL

☐ ☐ Personnel in addition to entry and rescue teams
Supervisor:
Safety Supervisor:

☐ ☐ Standby to maintain contact by
- ☐ visual
- ☐ radio
- ☐ line/rope
- ☐ other:

☐ ☐ Rescue procedures
- ☐ notify safety supervisor of problem
- ☐ test for combustible gas and oxygen prior to rescue
- ☐ enter using SCBA
- ☐ enter using harness and retrieval line

CONFINED SPACE ENTRY PERMIT/ CERTIFICATE

☐ ☐ Issued confined space entry permit. (29 CFR 1910.146)
☐ ☐ Marine chemist or Coast Guard authorized person issued certificate for hot work operations. (29 CFR 1915.14)
☐ ☐ Emergency phone numbers

Checklist completed by:

Date:

Time: Signature:_____

INITIAL TESTING AND PERMIT

Confined / Hazardous Space Entry Authorized: YES
Hotwork Authorized: YES
Location and Description of Space:

Date: Time: Permit Expires:

Entry Team Supervisor:

Special Requirements Met

Lock-Out	YES
De-Energize	YES
Lines Broken, Capped / Blanked	YES
Purge, Flush & Ventilation	YES
Ventilation	YES
Secure Area	YES
Respiratory Protection Adequate	YES
Personal Protective Equipment Adequate	YES
Escape / Rescue Adequate	YES
Fire Suppression Equipment	YES
Lighting	YES

Pre -Entry Test and Monitoring Follow-Up Testing

Test	Limit	Initial Results	Date / Time	Follow-Up Date / Time	Tests Date / Time	Date / Time
$\%O_2$	>19.5% <22%					
%LEL	<10%					
CO	35 ppm TWA					
CO_2	5000 ppm					
THC	1 ppm TWA 5 ppm STEL					
H_2S	10 ppm TWA 15 ppm STEL					
Benzene	1 ppm TWA 5ppm STEL					
#1						
#2						
#3						

O_2 = oxygen, LEL = lower explosive limit, CO = carbon monoxide, CO_2 = carbon dioxide,
THC = total aromatic hydrocarbons; H_2S = hydrogen sulfide

#1= ; #2= ; #3=

Permit Completed by:

Date: Time: Signature:

APPENDIX: HEAT STRESS CONSIDERATIONS

The following heat stress information has been taken primarily from NIOSH Publication 86-112 "Working in Hot Environments".

A. Health Concerns: Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders.

1. Heat Stroke
   a. Signs and Symptoms. Heat stroke is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate to reduce body temperature. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.
      i. a heat stroke victim's skin is hot, usually dry, red, or spotted
      ii. body temperature is usually 105 degrees F or higher
      iii. the victim is mentally confused, delirious, perhaps in convulsions or unconscious
   b. Medical Attention. Unless the heat stroke victim receives quick and appropriate treatment, death can occur. Any person with signs or symptoms of heat stroke requires immediate hospitalization. Send someone to get medical assistance/EMT immediately. While waiting for medical assistance, first aid should be immediately administered. This includes:
      i. removing the victim to a cool shaded area
      ii. removing outer clothing, wetting skin with tepid water to increase conductive loss
      iii. vigorously fanning the body to increase cooling
      iv. avoiding shivering, which will only increase heat production
2. Heat Exhaustion. Heat exhaustion includes several clinical disorders having symptoms that may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt.
   a. Signs and Symptoms. A worker suffering from heat exhaustion:
      i. still sweats
      ii. experiences extreme weakness or fatigue, giddiness, nausea or headache in more serious cases
      iii. victim may vomit or lose consciousness
      iv. skin is clammy and moist
      v. complexion is pale or flushed
      vi. body temperature is normal or only slightly elevated
   b. Medical Attention. General treatment:
      i. notify the site EMT
      ii. have the victim rest in a cool place
      iii. have the victim drink plenty of liquids

Victims with mild cases of heat exhaustion usually recover spontaneously with the

treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

3. Heat Cramps

   a. Signs and Symptoms. Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss.
   b. Medical Attention. Cramps may occur during or after work and may be relieved by drinking liquids.

4. Fainting. A worker who is not accustomed to hot environments and/or who stands erect and immobile in the heat may faint.
   a. Cause. Enlarged blood vessels in the skin and in the lower part of the body due to the body's attempts to control internal temperature, blood may pool in the lower extremities rather than returning to the heart to be pumped to the brain.
   b. Medical Attention. Upon falling down (or fainting), the worker should soon recover. Examine for signs of injury. If no apparent injury, place on side until awake, then offer fluids. Anyone who faints should see medical/EMT.

5. Heat Rash. Heat rash, also known as prickly heat, is likely to occur in hot, humid environments where heat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time.
   a. Signs and Symptoms. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection prickly heat can be very uncomfortable and may reduce a worker's performance.
   b. Medical Attention. Rest in a cool place part of each day. Regularly bathe and dry the skin. Avoid tight fitting undergarments.

6. Transient Heat Fatigue. Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness and vigilance.

B. Preparing for Work in Heat. One of the best ways to reduce the heat stress of workers is to minimize heat in the workplace. However, at oil spills, heat is difficult to control while working outdoors and exposed to various weather conditions. Humans are, to a large extent capable of adjusting to the heat. This adjustment to heat, under normal circumstances, usually takes about 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable. Early on in an exercise, shorter shifts with frequent rotations will help with acclimatization

   A worker who returns to work after vacation or extended illness may be affected by the heat in the work environment. Whenever such circumstances occur, the worker should be gradually reacclimated to the hot environment.

C. Mechanization. Heat stress depends, in part, on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. Therefore, one way of reducing the potential for heat stress is to make the job easier or lessen its duration by providing adequate rest

time. Mechanization of work procedures can often make it possible to isolate workers from the heat source and increase overall productivity by decreasing the time needed for rest.

D. Work/Rest Cycles. Rather than be exposed to heat for extended periods of time during the course of a job, workers should, wherever possible, be permitted to distribute the work load evenly over the day with work-rest cycles and regular (and enforced) breaks should be scheduled. Work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin. Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. Rest areas should be as close to the work area as possible, and provide shade. Shorter, but more frequent work-rest cycles provide the greatest benefit to the worker. Reference "*ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*" for additional information on work-rest regimen.

E. Drinking Fluids. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced.

Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Five to seven ounces of fluids should be consumed every 15 to 20 minutes to replenish the necessary fluids in the body. As a general rule, workers who do not urinate in normal amounts are not drinking enough fluids.

There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones.

Heat acclimatized workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat reduction is high. If for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food. Salt tablets should not be used. Athletic drinks should be diluted at least 50% if used.

F. Protective Clothing and Heat Stress. Clothing inhibits the transport of heat between the body and the surrounding environment. Supervisors must pay particular attention to the condition of their employees, the work environment and the effects of chemical protective clothing as a contributor to heat stress.

APPENDIX: COLD STRESS AND HYPOTHERMIA CONSIDERATIONS

Frostbite and hypothermia are the two major hazards of working in cold temperatures. A cold environment can reduce the temperature of the body and cause shivering, reduced mental alertness, and sometimes loss of consciousness. However, a healthy worker who is properly protected and takes reasonable precautions can function efficiently and safely in cold environments.

A. Factors Affecting Cold Exposure Severity

1. Important factors contributing to cold injury

- exposure to humidity and high winds
- contact with moisture or metal
- inadequate clothing

General health conditions that affect cold stress severity:

- age
- overall health
- fatigue
- allergies
- vascular disease
- smoking
- drinking
- certain drugs or medications

2. If someone becomes fatigued during physical activity, they will be more susceptible to heat loss. As exhaustion approaches, the body's ability to contract the blood vessels diminishes; blood circulation occurs closer to the skin; and rapid loss of heat begins. Sedative drugs and alcohol increase the risk of hypothermia by dilating the blood vessels near the skin, which increases heat loss and lowers body temperature.
3. The actual effects of a cold environment on the body also depend upon how well the skin is protected. An insulating barrier affects the rate of heat loss from radiation, convection, conduction and evaporation.
4. Environmental factors include wind and humidity, as well as temperature. The faster the air movement, the greater the effects of cold exposure.

B. Hypothermia

Cold injury can be localized or generalized. Frostbite, frostnip, or chilblain are examples of localized injuries. Hypothermia is a generalized (threatening the whole body) cold injury that can be life threatening.

1. Hypothermia is an abnormally low body temperature caused by exposure to cold in air or in water. Hypothermia results as the body loses heat faster than it can produce it. Air temperature alone is not enough to judge the cold hazard of a particular environment. Hypothermia cases often develop in air temperatures between 30-50 degrees Fahrenheit. When you figure in such factors as windchill, the effective temperature can be significantly lower.
2. Pain in the extremities may be the first warning of dangerous exposure to cold. Severe shivering is a sign of danger requiring removal from the cold exposure.

3. Early warnings of hypothermia are uncontrollable shivering and the sensation of cold; the heartbeat slows and sometimes becomes irregular; the pulse weakens; and the blood pressure changes. Fits of shivering, vague or slurred speech, memory lapses, incoherence, or drowsiness may occur. Other symptoms, which may be seen before unconsciousness, are cool skin, slow, irregular breathing, low blood pressure, apparent exhaustion, and inability to get up after a rest.

4. Handling cold stress and hypothermia victims

a. A worker should go immediately to a warm shelter if any of the following symptoms occur:

- pain, numbness, white color in the extremities, ears, nose, cheeks (or frostnip)
- onset of heavy shivering
- excessive fatigue
- drowsiness
- euphoria

A litter should be used if possible for all but the mildest cases.

b. The main objective in handling hypothermia is to warm the body core evenly and without delay. However, doing it too rapidly can disrupt body functions such as circulation.

- The outer layer of clothing should be removed when entering a warm shelter
- The remaining clothing should be loosened to permit sweat to evaporate, and changed if wet
- Alcohol and caffeinated drinks should not be consumed
- Anyone on medications, such as blood pressure control or water pills, should consult a physician about possible side effects of cold stress

c. If medical help is not immediately available: keep the person quiet, but awake if possible; avoid unnecessary movement; and if it is necessary to move a hypothermia victim, use a litter - the exertion of walking or rough handling could aggravate circulation problems or cause irregular heartbeats.

d. The sudden return of the cool blood pooled in the extremities to the heart can cause shock. Do not rewarm the core and the extremities at the same time. In a case of mild hypothermia where the person is conscious, the body may be packed with heat packs or warm towels at the neck, groin, and armpits. As the extremities begin to recover warmth give conscious victims sweet, warm drinks. Avoid caffeine or alcoholic drinks.

5. Water immersion victims. Floatation is the most important factor in water immersion survival, but may not be available if not provided in advance (see protective clothing notes below).

a. It is especially important to keep your head dry

b. Avoid thrashing about and assume the HELP position (Heat Escape Lessening Posture) by crossing wrists over chest and draw in knees close to your chest to avoid losing body heat. By using the HELP position, the head, neck, armpit, and groin areas are protected which are all high heat loss areas.

c. If others are in the water with you, huddle together to reduce heat loss, aid in rescue, and boost morale.

COLD STRESS INJURY AND TREATMENT

INJURY	SYMPTOMS	POSSIBLE CAUSES	TREATMENT
Hypothermia	Pain in the extremities; uncontrollable shivering; reduced body core temperature; cool skin; rigid muscles; slowed heart rate; weakened pulse; low blood pressure; slow irregular breathing; memory lapses; slow, slurred speech; drowsiness; incoherence; lack of coordination; diminished dexterity and judgment.	Exposure to low air temperatures; exposure to high winds; water immersion; inadequate clothing; allergies; recent alcohol consumption; smoking; prescription medications; exhaustion; dehydration.	Remove person from wind, snow, rain; minimize use of energy by person; keep person awake; remove wet clothing; get person into dry clothing; wrap blanket around person; pack neck, groin, armpits with warm towels; do not rewarm extremities and body at the same time; give sweet warm drinks to conscious person; remove person to medical facility.
Frostbite	Whitened areas on skin; burning sensation at first; blistering; affected part cold, numb, and tingling.	Exposure to cold; age (very young or old); underlying disease.	Cover the frozen part; provide extra clothing and blankets; bring person indoors; place the part in tepid water or rewarm with *warm packs; if no water is available, wrap gently in a sheet and blanket or place fingers under armpits; discontinue warming when the affected part becomes flushed and swollen; give sweet warm fluids to conscious person; if feet are affected, put on dry socks; if cheeks are affected, cover cheeks with warm hands; do not rub the part with anything; do not use heat lamps, hot water bottles, or place near hot stove; do not break blisters; obtain medical assistance immediately.
Chillblain	Recurrent localized itching, swelling, and painful inflammation of the fingers, toes or ears; severe spasms.	Inadequate clothing; exposure to cold and moisture, underlying disease.	Remove to warmer area; consult physician.
Frostnip	Skin turns white.	Exposure to cold.	Remove to warmer area; refer to treatment for frostbite.
Acrocyanosis	Hands and feet are cold, blue, and sweaty.	Exposure to cold; inadequate clothing; underlying disease.	Remove to warmer area; loosen tight clothing; consult physician.
Trench Foot	Edema of the foot; tingling; itching; severe pain; blistering.	Repeated exposure to cold and moisture.	Remove to warmer area; refer to treatment for frostbite; consult physician.

Raynaud's Disease	Fingers turn white, numb and stiff; intermittent blanching and reddening of the fingers and toes; affected area tingles and becomes very red or reddish purple.	Exposure to low air temperature and high winds; inadequate clothing; underlying disease; stress.	Remove to warmer area; consult physician.

C. Evaluating Cold Exposure Hazards

1. Common sense will dictate how much clothing to wear and when to get into a warm area in most cases. However, some work environments require more complex evaluations.
2. Evaluating a work environment to determine the degree of cold stress involves measuring air temperature, wind speed, and the amount of energy expended by the worker.
3. Air temperature can be measured by an ordinary bulb thermometer. Wind speed can be measured in a variety of ways but can also be estimated as follow:
   5 mph - light flag moves
   10 mph - light flag fully extended
   15 mph - raises newspaper sheet
   20 mph - blowing and drifting snow
4. Table 2 in the Cold Stress section of the ACGIH TLV booklet estimates effective temperature using actual temperature and wind speed. This booklet also provides additional guidelines for controlling cold exposure hazards.

D. Preventing Cold Stress

1. Reduce manual work load. When cold stress is a concern, personnel exposures should be reduced by eliminating manual operations as much as possible. Power tools, hoists, cranes, or lifting aids should be used to reduce the metabolic work load and to reduce the duration of human exposure. Fatigue is also a compounding stress factor.
2. Dehydration. Working in cold areas causes high water losses through the skin and lungs, because of the dryness of the air. Increased fluid intake is essential to prevent dehydration. Warm, sweet, caffeine-free, non-alcoholic fluids, in addition to water, should be available at the work site for fluid replacement and caloric energy.
3. Warm locations for breaks. For outdoor work such as beach cleaning, where it will be difficult to warm the work area, it is particularly important to provide frequent breaks in a warm location. These locations should also be stocked with warm fluids to help warming and prevent dehydration. A work-rest schedule should be implemented using Table 3 in the Cold Stress section of the latest edition of the ACGIH TLV booklet for guidance. Providing movable spot heaters close to the work area can also be effective, and can also prevent secondary hazards from carbon monoxide when workers attempt to warm themselves near running engines. If fine work is to be performed with bare hands, special provisions should be made to keep the worker's hands warm using such things as warm air jets, radiant heaters, or contact warm plates.
4. Indoor/outdoor wind breaks and shelter. The work area should be shielded if the air speed at the job site is increased by winds, draft, or ventilating equipment. For example, bird/mammal rehabilitation may be conducted in large warehouse type buildings where heating may be difficult. Wet work stations (such as washing or drying stations) should be enclosed by barriers to reduce drafts.
5. Scheduling and task management. Schedule the coldest work for the warmest part of the day. Move work to warmer areas whenever possible. Assign extra workers to highly demanding tasks. Make relief workers available for workers who need a break. The buddy system is required for all waste site operations. This is particularly important when working in stressful environments. Minimize sitting still or standing around for long periods. Older workers need to be extra careful in the cold. Additional insulating clothing and reduced exposure time should be considered for these workers. Sufficient sleep and good nutrition are important for maintaining a high level of tolerance to cold.

6. Protective clothing/equipment.

a. General considerations.
Provisions for additional total body protection are required if work is performed in an environment at or below 4° C (39.2°F)
At air temperatures of 2°C (35.6°F) workers who become immersed in water or whose clothing gets wet should be given dry clothing immediately and treated for hypothermia
Continuous exposure of skin should not be permitted when the air sped and temperature results in an equivalent chill temperature of -32°C (-25.6°F).

b. Insulation. It is essential to preserve the air space between the body and the outer layer of clothing to retain body heat. The more air pockets each layer of clothing has, the better the insulation.
   i. Outer layer should be windproof and waterproof. Outer layers should not prevent sweat evaporation.
   ii. Dirty or greasy clothing loses much of its insulative value. Air pockets are crushed or filled, and heat can escape more easily.
   iii. Any interference with the circulation of blood reduces the amount of heat delivered to the extremities. All clothing should be loosely worn and unrestrictive.

c. Chemical protective clothing (CPC) considerations. While CPC is important for protecting personnel from hazardous exposures, it is important to remember that CPC ensembles have undesirable, as well as desirable impacts on the cold stress on personnel.
   i. Undesirable effects. The desired insulating effect of clothing is negated if skin or clothing is wet. Protective clothing (for cold or chemical protection) can also add to the work load/fatigue of workers. When cold stress is a concern, care should be exercised in selecting ensembles particularly for those parts of the ensemble protecting the trunk of the body.
   ii. Desirable. Liquids conduct heat better than air and have a greater capacity for heat than air. For example, a spill of cold gasoline on skin can freeze the tissue very quickly. Chemical resistant gloves, such as neoprene with cotton inserts, should be worn to prevent this localized cold stress.

d. Priority clothing. The most important parts of the body to protect are the feet, hands, head and face. Keeping the head covered is important because as much as 40% of body heat can be lost when the head is exposed.

e. Ensemble options. The following items should be considered for addition to worker ensembles in cold environments:
   i. A cotton t-shirt and shorts under two-piece cotton and wool thermal underwear. Two-piece long underwear is preferred because the top can be removed and put back on as needed.
   ii. Socks with high wool content. Use thin inner socks and thick outer socks. If cold, wet feet are a concern, the socks should be changed during the mid-shift break.
   iii. Wool or thermal trousers (lap trousers over boot tops to keep out snow or water).
   iv. Felt-lined, rubber-bottomed, leather-topped boots, with a removable insole (for heavy work). For chemical protective boots, air insole cushions and felt

liners (steel/shank boots should be avoided unless needed for specific safety reasons).

v. Wool shirt or sweater over a cotton shirt.

vi. Wool knit cap (watch cap) or (if hard hats are required) specially made hard hat liner.

vii. Face mask (vital when working in cold wind). Note: Face protectors must be periodically removed so the worker can be checked for signs of frostbite.

viii. Double-layered goggles with foam padding around the edges (extremely cold environments).

ix. Insulated gloves.
60 degrees F, or lower, for sedentary work
40 degrees F, or lower, for light work
20 degrees F, or lower, for moderate work
0 degrees F, or lower, wool mittens should be used instead of gloves

f. Ensembles for work when water immersion may occur.

i. Floatation (personal or throwable) devices are extremely important to avoid unnecessary swimming that will increase the rate of body heat loss.

ii. Air trapped between layers of clothing will provide buoyancy and heat insulation, but Personal Floatation Devices (PFDs) offer the best chance for survival in cold water. Type III PFDs include float coats and cold water immersion suits which provide floatation and thermal protection.

iii. Position throwable floatation devices in boats or work areas near water.

g. Selection of materials.

MATERIAL	ADVANTAGES	DISADVANTAGES	WEAR IN
Wool	Stretches without damage. Insulates well when wet.	Heavy weight. Absorbs moisture. Skin irritant.	Layer 1-3
Cotton	Comfortable. Lightweight	Absorbs moisture.	Layer 1-2
Silk	Lightweight. Durable. Good insulator. Washes well.	Expensive. Does not transfer moisture well.	Layer 1
Nylon	Lightweight. Durable. Water resistant.	Impervious to perspiration. Flammable.	Layer 3
Down	Lightweight. Durable. Good insulator when dry.	Expensive. Hard to dry. Poor insulator when wet.	Layer 2-3
Polyester	Does not absorb moisture (insulates even when wet).	Heavier than down. Does not compress as well as down.	Layer 2-3

APPENDIX: FIRST AID FOR BITES, STINGS, AND POISONOUS PLANT CONTACT

Personnel briefed on first aid procedures must understand that "FIRST" aid implies that further treatment will probably be needed from trained/qualified medical personnel. See the American Red Cross Standard First Aid Training Manual or the American Academy of Orthopedic Surgeons' "Emergency Care and Transportation of the Sick and Injured" for additional information and updated procedures. Employers of persons required to perform first aid must have an Exposure Control Plan which complies with OSHA's Bloodborne Pathogen Standard. (29 CFR 1910.1030) The employer must ensure adequate training has been provided on the Exposure Control Plan, the OSHA Standard, and in the use of "Universal Precautions." Response team members assigned to staff first aid locations must be trained in the above before participating in first aid activities.

A. Bee Stings: Persons with a severe allergy to bee stings should carry an emergency treatment kit and should notify supervisor of allergy upon arrival on site.

First Aid

1. Wash the wound with soap and water.
2. If symptoms of allergic reaction are present, request medical assistance and treat for shock.
3. If stinger remains embedded, try to remove it without squeezing it (this may inject more poison into the wound). Avoid using tweezers since it may squeeze the venom sac. Scrape the stinger out with a plastic card (e.g., credit card or driver's license).
5. Use a cold pack to reduce/limit swelling. Do not place a cold pack directly on the skin! Place gauze pad or clean cloth on the skin to prevent direct skin contact with the pack.
6 Keep the wounded area below the level of the heart to slow the venom's spread.
7. Do not administer caffeinated beverages or alcohol since this will dilate blood vessels, enhancing spread of poison.

B. Spider Bites:

1. Wash the wound with soap and water.
2. Request medical assistance to address symptoms. The person usually recovers after several days of illness.
3. If symptoms of allergic reaction are present, treat for shock.
4. A cold pack may be helpful if the bite is quickly recognized.

D. Ticks:

1. Grasp the tick with tweezers as close to the bite site as possible and remove it by gently pulling. Do not burn it off or squeeze its body in the attempt to remove it. If the head remains under the skin, soak the area several times daily and use tweezers to attempt to remove.
2. Wash the wound with soap and water.
3. If symptoms of allergic reaction are present, request medical assistance and treat for shock.
4. If fever, rashes, or headaches develop within several weeks, contact medical personnel.

E. Animal Bites/Rabies:

1. Get medical attention immediately to address infection hazards and/or need for vaccination.
2. Determine when person last had tetanus immunization (contact unit holding medical records for assistance).

3. Interview victims and witnesses to attempt to identify the specific animal that inflicted the bite.

4. General first aid for animal bites:
   a. Control serious bleeding. Apply pressure using a gauze pad. Use of tourniquets is not advised unless absolutely necessary.
   b. Wash your hands before touching a wound. Personnel should wear rubber gloves and face shield for working around human blood.
   c. Wash wounds that are not bleeding heavily. Use plain soapy water. Trained medical personnel must clean serious wounds.
   d. Cover with clean dressing and bandage.
   e. Rabies treatment must be administered by medical personnel. Prompt treatment is essential since there is no cure for rabies if it is allowed to develop in a wound. Rabies shots must be started quickly in order to prevent infection by building up immunity.

F. Poisonous Snakes:
1. Get medical attention immediately to address poisoning and infection hazards.
2. Determine when person last had tetanus immunization (contact unit holding medical records for assistance).
3. Interview victims and witnesses to attempt to identify the specific type of animal that inflicted the bite.
4. General first aid for snake bites:
   a. Use of tourniquets is not advised.
   b. Wash your hands before touching a wound. Personnel should wear rubber gloves and face shield for working around human blood.
   c. Wash wounds that are not bleeding heavily. Use plain soapy water. Trained medical personnel must clean serious wounds.
   d. Cover with clean dressing and bandage.
   e. Serious health effects of poisonous snake bites will be greatly reduced by keeping the victim as calm as possible and seeking prompt medical attention.
      i. Keep the victim still. This will slow the spreading of venom.
      ii. Place the bite area below the level of the heart to slow the spread of venom.
      iii. Wash the bite area with soap and water.
      iv. Use a splint to immobilize the bitten area if it is on an arm or leg.
      v. Use a cold pack if medical attention may be delayed. Do not place a cold pack directly on the skin! Place a gauze pad or clean cloth on the skin to prevent direct skin contact with the cold pack.
      vi. Treat for shock if necessary.
      vii. Do not administer caffeinated beverages or alcohol since this will dilate blood vessels.
      viii. Do not use incisions or suction to attempt to draw out poison.
      ix. Seeking prompt medical attention and keeping the victim still are the two most important keys to minimizing this health risk. However, the need to move the victim toward medical attention will also tend to spread the venom. As a general rule, do not move the victims toward medical care unless this will delay treatment by more than a half hour.

G. Poisonous Plants:
1. Do not scratch. Scratching will only spread the poison and work it into the skin.

2. If these plants are accidentally touched, the plant sap should be washed off the affected area with soapy water immediately. Remove and wash any clothing that came in contact with the plant.
3. Medical attention may be needed if prolonged or serious conditions result.
4. Calamine lotion, hydrocortisone cream, or a cool compress my reduce the discomfort.

APPENDIX: SAFE WORK PRACTICES FOR OILY BIRD REHAB

REFERENCES:

Rehabilitating Oiled Sea Birds--A Field Manual. International Bird Rescue Research Center, 699 Potter St., Berkeley, CA 94710.
Oiled Bird Rehabilitation--A Guide for Establishing and Operating a Treatment Facility for Oiled Birds. Tri-State Bird Rescue & Research, Inc., P.O. Box 289, Wilmington, DE 19899.

A. Operations of concern include:

- Hazing
- Bird Capture
- Transportation to Rehabilitation (Rehab) Center
- Triage and Rehab
- Transportation and Return to Habitat
- Logistics and Support

B. Hazards to be addressed.

1. Handling of birds. Handling of birds must be done by properly trained personnel to ensure the protection of both bird and handler. Wild birds have no way of knowing or understanding human intentions. Even a greatly weakened bird can inflict serious injury to handlers, especially to human eyes. Open wounds on hands and arms can present opportunities for oily contaminants and disease to enter the handler's blood system.
2. Contact with oil. The site safety and health plan will provide a more detailed discussion of health hazards of oils.
   a. The primary health hazard associated with oils (crude oil in particular) is dermatitis from skin contact. This condition may be aggravated for personnel conducting washing operations. Prolonged exposure to soapy water initiates defatting of the skin, and waterlogging may contribute to an initial skin injury by aggravating sensitivity to the oil.

   Once an individual sustains an allergic dermatitis reaction it will be nearly impossible to prevent future outbreaks other than by strict avoidance of any further contact with the oil.

   b. Oils splashed in the eyes will also cause acute irritation and perhaps inflammation.
   c. Injuries inflicted by birds open a path for the chemical components of oils to enter the blood.
   d. The smell of crude oil or diesels may be irritating to sensitive individuals and can cause nausea even at otherwise non-toxic concentrations.
3. Slippery & dangerous surfaces. Field personnel will be working on dangerous surfaces. Wet rocks, oily surfaces (including boats), ice, and steep or unstable terrain presents serious injury potential for field personnel. This is a particular concern during capture because the choice of location is purely up to the injured bird. Do not focus attention on capture to the neglect of personal danger.
4. Work near water. Some of the most serious hazards exist near intertidal or surf areas. Public beaches are relatively safe locations but oil spills occur at random locations, including those that may be very dangerous. When working near intertidal areas, serious hazards may include:

- riptides
- undertows

- underwater drop-offs
- unstable banks
- soft bottoms (e.g., mud flats or marshes).

5. Exposure to the weather. Heat stress, cold stress, hypothermia, and sunburn should all be considered as potential hazards for field personnel.
6. Electrical/shock hazards. Electrical equipment used in Rehab centers must be kept away from or adequately protected from wet areas.

C. Safe Work Practices:

1. Never work alone in the field. Always work in teams of at least two people.
2. Personnel Protective Equipment (PPE) for field operations:
   a. Dress for the weather!
      i. Dress adequately for the cold or heat.
      ii. Clothing guidelines for cold/hot weather are provided in other attachments.
      iii. Bring a rain suit if there is any chance of getting caught in the rain.
      iv. Bring a dry change of clothing in case you get wet and/or cold.
      v. Even in hot dry weather personnel are at risk from poisonous plants, ticks, thick brush, or snakes. Dress accordingly.
   b. Prevent skin contact with oil.
      i. Bring a change of work clothing in case you get wet, cold or dirty.
      ii. Wear chemical resistant clothing appropriate for the exposure. Gloves, coverall pants, aprons, rain slicker jackets, and boots may be worn to prevent contact with oils. Neoprene is a common material that is resistant to many oils.
      iii. Plastic trash bags or a suitable container should be available for holding oily gear.
      iv. Clean oily gear at the rehab center or dispose of it properly. Do not bring contaminated clothing or equipment home with you.
   c. Wear floatation work vests or other Personnel Floatation Devices (PFDs) approved by the US Coast Guard while working in boats, over the water, in the surf, or on sloping banks near the water. If hypothermia is a consideration, cold water immersion suits will be required in boats.
   d. Bring sunglasses and sunscreen during the summer. Glasses or goggles should be worn while handling birds.
   e. Wear sturdy rubber boots or hip waders if there is any chance of working in wet or oily locations.
   f. Wear long sleeved garments for working in brushy areas, for sun protection, and for protection from bites.
   g. See Attachment for First Aid for Bites, Stings, and Poisonous Plants.
      i. In particular, wear snake leggings in grassy/marshy areas or snake hazard areas.
      ii. Stay alert for all of these hazards and report encounters to your supervisor in order to pass the word to others.
      iii. If you have allergic reactions to any of the hazards above, let your supervisor know and stay away from recognized hazards.
   h. While handling oily birds during capture, wear sturdy gloves that are resistant to oil.
   i. Avoid leather clothing or articles. Leather is easily contaminated by oil, and cannot be completely cleaned once contaminated.
   j. Use soap and water, or waterless hand cleaner for removing oil after captures.

k. Wear long clothing and insect repellent in tick areas. Partners should examine each other for ticks during breaks and at the end of the day.

l. Carry a throwing line if there is a chance of getting caught in soft muds/sands, or falling into the water.

3. Personal Protective Equipment (PPE) for working rehab centers:
   a. Not all facilities will be heated or air conditioned. Dress adequately and bring a change of clothing. Dress adequately for the cold in particular. Bring a rain suit if there is any chance of working outside in the rain. Clothing guidelines for cold weather are provided in other attachments.
   b. Bring a change of work clothing if you will be working with oil or contaminated water.
      i. Suitable containers should be available for holding oil gear.
      ii. Use aprons, rain slickers & pants, boots or boot covers, and gloves that are resistant to oils (neoprene is a common material that is resistant to many oils).
      iii. Clean oily gear at the Rehab center or throw it away. Do not bring contaminated clothes or equipment home with you.
4. Immunization.
   a. Personnel working in the field or handling birds in centers should have an up-to-date tetanus immunization.
   b. Rabies vaccination should be administered to persons bitten by wild animals. Check with the local ASPCA and/or Center for Disease Control (CDC) to determine if rabies vaccines are recommended for a specific geographical area.
5. Handling birds. Never handle birds unless trained in handling procedures. Reference (a) provides specific details on capturing and handling procedures.
   a. Never hold birds near your face. Keep them down at waist level.
   b. Work with a partner in the field. One person should hold the bird while another helps direct the bird into a transportation container.
   c. For prolonged handling (such as during washing):
      i. use a beak gag to minimize biting and poking hazards; and
      ii. work with a partner (one person controls the head while the other works with the body).
6. Design and construction of rehab centers.
   a. Prior to constructing or using a facility, consult with local fire officials about local fire ordinances.
   b. Electrical outlets, cords, appliances, and power tools should be kept away from cleaning and pool areas as much as possible. Ground fault circuit interrupters must be installed for electrical equipment used in wet locations, and should be used in most others. Depending on the construction of rehab centers, the use of exterior grade electrical wire should be considered for many locations. Electrical cords must be maintained in good condition. See the main text discussion on the use of power tools.
   c. Personal hygiene must be maintained in the field and especially in centers. Contact with bird carcasses, droppings in bedding and on surfaces, and spoiled food are a particular concern.
      i. Washing and sanitation areas should be maintained between treatment/work areas and personnel areas. Hand lotion should also be available to minimize skin irritation from frequent washing.
   d. The general layout of rehab centers should provide careful separation of contaminated areas and clean areas. Hygiene facilities and contaminated equipment drops should be located in a buffer zone between contaminated areas and clean areas.
      Locations that can be easily maintained as clean for administrative areas, rest areas,

eating/drinking areas, and smoking areas should be selected before constructing pens, cleaning stations, or receiving birds for treatment.

e. Food service should be carefully considered for rehab centers and field staging areas.
   i. Hot beverages should be provided for cold weather work (personnel returning from the field, or center personnel working with water). Personnel working in heat or cold stress conditions need to take in extra fluids to avoid dehydration.
   ii. Spoiled/contaminated foods can cause outbreaks of food poisoning. If cooking and refrigerating facilities are not available at centers, food should be selected for resistance to spoiling and discarded before it poses a health hazard. Support from public health officials is recommended.

f. For the protection of personnel and animals, procedures must be established for the regular cleaning of handling and holding areas. Provisions must be made for holding all water wastes from cleaning stations and pools.

g. Locations for handling diseased or dead birds should be chosen before construction. These locations should provide isolation, and separate provisions for waste removal.

h. Plan for visitors at rehab centers. Visitors pose a hazard to the animals under care and vice versa. It is highly recommended that a procedure be specifically adapted for receiving visitors and providing tours.
   i. Provide visitors with a briefing in an uncontaminated/non-working area including rules and precautions.
   ii. Tour guides should take visitors on a brief tour that has been specifically approved. Visitors should not be allowed to touch or approach animals.
   iii. Child visitors should generally be discouraged or be provided with a special tour that involves a minimal exposure to the animals and work.

i. Children should not be allowed in the work areas. If children volunteers are used in a rehab effort, they should be kept away from the working areas in the center or the field. Tasks should be carefully selected for safe administrative or support functions.

D. Remember

1. A sick or injured person cannot help rehab efforts. Take care of yourself.
2. There are lots of opportunities to support bird rehab that do not involve handling birds, contacting oil, or working in dangerous field conditions. Food service, cleaning, supply driving, tours for visitors, computer data, working the phones and many other administrative tasks are available for those people that are not prepared for working directly with the birds.

APPENDIX: SPILL SITE PRE-ENTRY BRIEFING

Spill Incident:

Site:

Date: Time: Shift:

Meeting Conducted By: (Name/Company Title)

Topics Discussed:

- ☐ Weather Conditions
- ☐ Injuries and Illnesses
- ☐ Corrective Actions/Precautions
- ☐ Site Emergency Plan
- ☐ Review of Site Health and Safety Hazards
- ☐ Oil/Chemical Hazards
- ☐ PPE to be Worn
- ☐ Decontamination Procedures
- ☐ Other Topics (list)

Attendees:

NAME (printed)	SOC. SEC. NO.	SIGNATURE

APPENDIX: PERSONNEL TRACKING SYSTEM

Anyone entering or departing a work area, shall report to the site supervisor or designated representative.

Please complete upon entering or departing the site:

NAME	LOCATION	TIME - ENTRY/EXIT

WIND CHILL CHART

Wind speed	50^{0}F	40^{0}F	30^{0}F	20^{0}F	10^{0}F	0^{0}F	-10^{0}F	-20^{0}F	-30^{0}F
5 mph	48^{0}F	37^{0}F	27^{0}F	16^{0}F	6^{0}F	-5^{0}F	-15^{0}F	-26^{0}F	-36^{0}F
10mph	40^{0}F	28^{0}F	16^{0}F	4^{0}F	-9^{0}F	-24^{0}F	-33^{0}F	-46^{0}F	-58^{0}F
15mph	36^{0}F	22^{0}F	9^{0}F	-5^{0}F	-18^{0}F	-32^{0}F	-45^{0}F	-58^{0}F	-72^{0}F
20mph	32^{0}F	18^{0}F	4^{0}F	-10^{0}F	-25^{0}F	-39^{0}F	-53^{0}F	-67^{0}F	-82^{0}F
25mph	30^{0}F	16^{0}F	0^{0}F	-15^{0}F	-29^{0}F	-44^{0}F	-59^{0}F	-74^{0}F	-88^{0}F
30mph	28^{0}F	13^{0}F	-2^{0}F	-18^{0}F	-33^{0}F	-48^{0}F	-63^{0}F	-79^{0}F	-94^{0}F
35mph	27^{0}F	11^{0}F	-4^{0}F	-21^{0}F	-35^{0}F	-51^{0}F	-67^{0}F	-82^{0}F	-98^{0}F
40mph	26^{0}F	10^{0}F	-6^{0}F	-21^{0}F	-37^{0}F	-53^{0}F	-69^{0}F	-85^{0}F	-100^{0}F
Over 40mph adds little to the effect		LITTLE DANGER (properly clothed)			DANGER OF FREEZING OF EXPOSED FLESH			GREAT DANGER	
* TRENCH FOOT & IMMERSION FOOT can occur at any point on the chart!									

ADVERSE EFFECTS OF THE COLD

Carbon Monoxide Poisoning: Occurs when exhaust fumes from fuel burning equipment such as vehicles, oil heaters, etc., enter a closed space such as the inside of a vehicle or tent. The symptoms are extreme weakness and drowsiness. Death will result unless individual is moved to fresh air.

Frostbite: Is the crystallization of tissue fluid cased by exposure to cold below freezing. Most common areas of frostbite are the face, nose, ears, hands and feet. The symptoms include redness and pain in the early stages, followed by a waxy white appearance, numbness and the skin may feel stiff and even brittle.

Trench Foot: Caused by a combination of cold wet conditions at 50^{0}F and below. The symptoms include redness, swelling, numbness, blistering, bleeding or having swelling in severe cases.

Immersion Foot: Caused by the restriction of blood circulation in the presence of moisture and cold starting at 50^{0}F and below. The symptoms are little or no pain, cold feeling, gradual paling, numbness, and the feet feel like blocks of wood.

PREVENTION OF COLD INJURY

To Stay Warm Remember The Word C-O-L-D

C - Cleanliness and Care: Feet, Socks, and clothing are warmer when clean. Constant foot care is imperative.

O - Overheating: Prevent overheating by adjusting your clothing to the job being performed.

L - Loose and Layered: Loose-fitting clothing assures good circulation and insulation. Clothing in layers assures air spaces that hold body heat. Again, allow the member to adjust the number of layers to the temperature and activity being performed.

D - Dampness: Any wet garment is a cold garment, just as tight-fitting garments are cold producing garments. Wear the field jacket as a wind breaker and for its water-repellence. Keep clothing dry.

FIRST AID FOR COLD INJURIES

1. Get individual off their feet.
2. Get individual into warm dry clothing.
3. Get individual warm fluids to drink (**NO ALCOHOLIC BEVERAGES**)
4. Do not smoke.
5. Keep the effected area clean, warm and dry. Do not allow to REFREEZE. If you cannot keep area warm, leave it frozen.
6. Do not rub effected area.
7. Evacuate through medical channels ASAP.

HYPOTHERMIA

The condition of low internal body heat dropping steadily from a healthy 98.6^{0}F, and if not reversed, can bring fatal consequences. Hypothermia can develop without much warning. Dress for the weather and avoid getting wet or damp.

**** Use the Buddy system, this is the best way to prevent cold injury. If you start feeling cold do some exercises until you start feeling warm again.***