

ESF-10 Hazardous Materials

ESF Coordinator	Snohomish County Special Operations Policy Board
Primary Agencies	Snohomish County Hazardous Materials Response Team Washington State Patrol (WSP)
Supporting Agencies	Snohomish County Department of Emergency Management Local Emergency Planning Committee (LEPC) Emergency Services Coordinating Agency LEPC 911 Dispatch Centers (SNOCOM/SNOPAC) Fire / Emergency Medical Services County / Local Law Enforcement Snohomish Health District County / Local Public Works Agencies Washington State Department of Ecology Washington Military Department Emergency Management Division Washington State Department of Transportation Regulated Facilities

Federal and State primary and supporting agency responsibilities for this ESF are outlined in the National Planning Frameworks (Federal) and Washington State Comprehensive Emergency Management Plan.

I. INTRODUCTION

Purpose

To insure a coordinated response to a Hazardous Materials (HAZMAT) incident, oil spill, or other release while minimizing the effects of a hazardous materials incident on people and the environment.

To provide guidance for establishing and maintaining information available to the public under SARA Title III, “The Emergency Planning and Community Right-To-Know Act of 1986,” hereafter referred to as EPCRA.

This plan shall be used in conjunction with the Snohomish County Comprehensive Emergency Management Plan (CEMP) and other State and Federal Plans as applicable.

Scope

This Emergency Support Function (ESF 10) describes the situation, planning assumptions, concept of operations and the responsibilities of a hazardous materials response in Snohomish County.

Agencies responding to hazardous materials releases have their own internal procedures. This ESF does not supersede those procedures; instead, it is designed to support coordination of the efforts of the various agencies responding to the same incident.

The Snohomish County Hazardous Materials Response Team operates under the Snohomish County HAZMAT Suggested Operating Guideline (SOG).

II. POLICIES

Federal and State regulations require that local jurisdictions form Local Emergency Planning Committees (LEPC's). It is the responsibility of each LEPC to develop a comprehensive hazardous materials response plan.

Planning may include coordination with outside agencies, recognition procedures, safe distances, identification of places of refuge, site security, control procedures, evacuation routes and procedures, and a list of required personal protective equipment.

III. SITUATION

Emergency/Disaster Conditions and Hazards

Hazardous materials emergencies could occur anytime and anywhere throughout Snohomish County from any one of several sources including shipping, roadway and rail transportation, aircraft accidents, or fixed facility accidents.

Emergency response operations for a hazardous materials incident may require a multi-agency and multi-disciplinary response. Disciplines may include fire responders, law enforcement, environmental containment and cleanup specialists, fish and wildlife experts, emergency medical services, and environmental health. While upon initial assessment, some incidents may not have obvious impacts on life, property, and the environment. They may have subtle long-term consequences for human health and the environment that will require further remediation.

Oil spills and hazardous materials have some different characteristics:

- The predominant threat presented by oil spills is damage to the environment. Oil spills can occur on water, or on land. While oil spills can be large in terms of volume of product released and environmental damage, they often present a lesser degree of risk to public health and safety.
- The threat presented by hazardous material incidents is often to both public health and safety, and the environment. While most hazardous material incidents involve smaller volumes of material, they do require specific approaches to different types of chemical and waste releases.

It is important to assess the characteristics of the hazard, acquire the necessary resources and develop a site-specific emergency response plan.

Fixed Facilities:

- There are 348 fixed facilities located throughout Snohomish County with hazardous substances (Tier II Reporters). These substances range in quantity from 100 - 2,000,000 pounds per facility site.

Transportation:

- **Road:**
 - Hazardous substances are transported through Snohomish County primarily on I-5, I-405, SR 2 and SR 9.
 - Hazardous substances transported to intermediate and final destinations within Snohomish County can generally be expected on any primary or secondary state, county, or municipal road.
 - The majority of tractor-trailer/tanker transport vehicles (~79%) are in the 80,000 pound and larger category of vehicles.
 - The majority of hazardous items shipped by road are petroleum products (~63%) which include diesel, gasoline, aviation fuel, and liquefied petroleum gas (LPG).
- **Rail:**
 - Burlington Northern Santa Fe (BNSF) operate over 44 miles of north/south and 41 miles of east/west rail lines, sidings, and switch junctions in Snohomish County.
 - The majority of rail-cargo cars carry 100,000 to 220,000 pounds of product. The majority of rail-tank cars carry 33,000 gallons of product.
 - The majority of hazardous chemicals shipped by rail are chlorine, anhydrous ammonia, methanol, caustic soda, LPG, and vinyl chloride.
- **Pipeline:**
 - Olympic Pipeline operates over 44 miles of north/south running bulk liquid petroleum pipeline. This system consists of 16 and 20 inch diameter lines and operates between 960 and 1440 PSI. Primary products are diesel and gasoline; secondary product is jet fuel.
 - Williams Pipeline operates over 44 miles of north/south and 66 miles of east/west running bulk distribution natural gas pipeline. This system consists of 36 inch diameter lines and operates at 960 PSI. Bulk natural gas is odorless and colorless; scent agents are added to retail 8 inch lines to aid in identification of gas leaks.
- **Airport:**
 - Paine Field is a General Aviation airport. Primary operations are include small single engine recreational aircraft, corporate jets, Boeing manufacturing plant for 747, 767, 777, and 787 aircraft, and Aviation Technical Services (ATS) provides repair and maintenance services for commercial/cargo aircraft.

- Arlington Airport is a General Aviation airport. Primary operations are small single/multi-engine recreational aircraft.
- Harvey Field is a General Aviation airport. Primary operations are small single/multi-engine recreational aircraft.
- **Seaports / Terminals:**
 - Port of Everett is multi-mode cargo shipping port. Primary operations are bulk concrete and timber; secondary operations include bulk container shipping.
 - Washington State Ferry Terminals at Edmonds and Mukilteo that provide both passenger and vehicle service to the Kitsap Peninsula and Whidbey Island respectively.
 - Point Wells is a bulk petroleum and asphalt storage facility.

Planning Assumptions

A hazardous material release or spill may develop slowly, or occur suddenly without warning.

A hazardous materials incident may be caused by or may occur during another emergency, such as flooding, fire, or earthquake.

Business and industrial facilities located in Snohomish County have complied with EPCRA rules and have coordinated their facility emergency response plans with their serving Fire Department / District and Emergency Management Organization.

A hazardous materials incident may require the evacuation of citizens at any location within Snohomish County.

Victims of a hazardous materials incident may require unique or special medical treatment.

The length of time available to determine the scope and magnitude of a hazardous materials incident will impact protective action recommendations.

During the course of an incident, winds may shift and other changes in weather conditions may necessitate changes in protective action recommendations.

Vulnerable and special needs population may require assistance to evacuate during an emergency.

Hazardous materials could possibly enter water or sewer systems and may necessitate the shutdown of those systems.

Protective actions that may be necessary for the public in the affected area may include sheltering in place; evacuation; protection of animals; water and food supplies. The choice of protective actions will depend on many factors including the magnitude, severity / urgency of

the situation, characteristics of the area, populations involved, and weather and road conditions.

Limitations

Extreme weather conditions or other unforeseen factors can cause a response delay; response can be delayed by location, availability, storage and/or dispersal of the appropriate response equipment; initial response may be affected by limitations to alert and warning systems in the community; or the incident may overwhelm staff and equipment.

It is neither implied nor should it be inferred that this plan guarantees a perfect emergency or disaster response will be practical or possible. No plan can shield individuals from all events.

While every reasonable effort will be made to respond to emergencies or disasters, resources and or systems may be overwhelmed.

Some events provide little or no warning to implement operational procedures and all emergency plans are dependent upon tactical execution which may be imperfect.

This plan can only be fulfilled if the situation, information exchange, extent of actual capabilities and resources are available at the time of the incident.

IV. CONCEPT OF OPERATIONS

General

A hazardous materials incident includes but is not limited to the following conditions:

- Any release of a hazardous material which poses or has the potential to pose a threat to public health, safety or the environment.
- Any condition that has the potential to become a release that will pose a threat to public health, safety or the environment.

Response to a Hazardous Materials incident may be defensive, offensive, or non-intervention based on the nature of the release.

Responding departments will perform only to the level trained and equipped.

All members of the Snohomish County Hazardous Materials Response Team are trained as Hazardous Material Technicians in accordance with National Fire Protection Association (NFPA) 472 and WAC 296-824-300005.

Primary consideration will be protection of the life, environment, and property.

The authorized representatives of regulated facilities and transportation companies involved in the actual or suspected release of hazardous material will promptly notify the Public Safety Answering Point (911) and/or appropriate response agency(s), LEPC, SERC, tribal governments of the incident. They will also make recommendations to the responding agencies on how to contain the release and protect the public and environment.

The Incident Commander (IC) is responsible for coordination and management of the on-scene response. For the purposes of this plan, the IC will be the senior on-scene official from the first response agency until relieved by a person that meets the requirements for IC at a hazardous materials incident.

The first priority of the incident commander will be to identify the release product and determine the appropriate protective actions to protect life, environment, and property.

All responders will assist with the identification of the party responsible for the hazardous materials incident through the collection and reporting of relevant information related to their response activities.

Medical facilities within Snohomish County are limited in the capability to receive contaminated patients:

- Decontamination operations should be conducted on-site IAW the response agencies established procedures and capabilities to preclude contamination of EMS personnel / vehicles and subsequent contamination medical personnel / facilities.
- When contaminated victims must be transported to a medical facility the IC or their designated representative must contact the receiving medical center so that they may initiate preparations to setup decontamination stations and ensure staff / facility safety.

The Snohomish County Hazardous Materials Response Team operates IAW Snohomish County Hazardous Materials and Weapons of Mass Destruction Suggested Operating Guideline, the Snohomish County Hazardous Materials and Technical Rescue Team Administrative Procedures, and other internal guidelines as appropriate.

Organization

LEPCs in Snohomish County:

- The Snohomish County Department of Emergency Management (DEM) LEPC serves Unincorporated Snohomish County and the municipal areas of Arlington, Darrington, Everett, Gold Bar, Granite Falls, Index, Lake Stevens, Marysville, Monroe, Snohomish, Stanwood, and Sultan.
- The Emergency Services Coordinating Agency (ESCA) LEPC serves the Snohomish County municipal areas of Brier, Edmonds, Lynnwood, Mill Creek, Woodway, Mountlake Terrace, and Mukilteo.

The above noted LEPC will assist respective jurisdictions and agencies in preparing and reviewing hazardous material response plans and procedures.

The Snohomish County Hazardous Materials Response Team is the primary response agency that will function under command of the authority having jurisdiction for the incident.

The Snohomish County Hazardous Materials Response Team is comprised of personnel and equipment from seven member agencies who deliver service through three technical response units and one decontamination unit based at various locations throughout the county.

Departments where personnel and/or equipment are available include but are not limited to:

- Snohomish County Fire District 1
- Snohomish County Fire District 3
- Snohomish County Fire District 7
- Arlington Fire Department
- Everett Fire Department
- Lynnwood Fire Department
- Marysville Fire Department

Procedures

Release Identification

The recognized methods and procedures facilities use for determining a release occurred are:

- Consult with facility emergency coordinators from key, regulated facilities in the planning district to develop a synopsis of the tools, methods and procedures used by the facility to determine a release occurred and to identify the material released.
- First responders will limit their actions to identify the occurrence of a release to those protocols specified for the hazardous materials response qualification level to which they are trained and currently qualified.
- The transport agent, citizens and/or responders, will most likely observe releases of hazardous materials in transit. The methods and procedures used to determine a release occurred will also vary by the qualification of the responder and the resources available to the transport agent.

Notification

Hazardous materials release notifications come from multiple sources. The most reliable notifications come from the individual regulated facilities or responders.

- The facility is responsible for immediately notifying the local Public Safety Answering Point/911, the SERC and the National Response Center of any releases of hazardous materials on their site.

- The facility emergency coordinator, authorized representative or responsible party will normally provide reliable, effective and timely notification of a release on behalf of the facility.

Response agencies and responders will be notified of a hazardous materials release through the appropriate 911 Dispatch Center.

The public will receive emergency warning and notification of a hazardous materials release through multiple channels of communication such as:

- Emergency Telephone Notification
- Emergency Alert System (EAS)
- Public Radio
- Door-to-door notification will be handled by law enforcement, fire, or emergency management volunteers

Emergency Response

The methods and procedures used to respond to the release of hazardous materials conform to the standards set forth in the National Fire Protection Association (NFPA) 472 - Standard for Professional Competence of Responders to Hazardous Materials Incidents and only vary by training and competency. First responder competencies, like training, are defined at the awareness, operational and hazardous materials technician levels.

Awareness level personnel shall be able to perform the following tasks when on scene of a hazardous materials/WMD incident:

- Analyze the incident to determine both the hazardous materials/WMD present and the basic hazard and response information for each hazardous material/WMD agent by completing the following tasks:
 - Detect the presence of hazardous material/WMD.
 - Survey the hazardous material/WMD incident from a safe location to identify the name, UN/NA identification number, type of placard or other distinctive marking applied for the hazardous material/WMD involved.
 - Collect hazard information from the current edition of the DOT Emergency Response Guidebook.
- Implement actions consistent with the emergency response plan, the standard operating procedures and the current edition of the DOT Emergency Response Guidebook by completing the following tasks:
 - Initiate protective actions.
 - Initiate the notification process.

Operations level responders shall be able to perform the following tasks when responding to a hazardous materials/WMD incidents:

- Analyze a hazardous materials/WMD incident to determine the scope of the problem and potential outcomes by completing the following tasks:
 - Survey the hazardous materials/WMD Incident to identify the containers and materials involved, determine whether hazardous materials/WMD have been released and evaluate the surrounding conditions.
 - Collect hazard and response information from MSDS, CHEMTREC/CANUTEC/SETIQ; local, state and federal authorities and shipper/manufacturer contacts.
 - Predict the likely behavior of a hazardous material/WMD and its container.
 - Estimate the potential harm at a hazardous material/WMD incident.
- Plan the initial response to a hazardous materials/WMD incident within the capabilities and competencies of available personnel and personal protective equipment by completing the following tasks:
 - Describe the response objectives for the hazardous materials/WMD incident.
 - Describe the response options for each objective.
 - Determine whether the personal protective equipment provided is appropriate for implementing each option.
 - Describe emergency decontamination procedures.
 - Develop a plan of action, including safety considerations.
- Implement the planned response for a hazardous materials/WMD incident to favorably change the outcomes consistent with the emergency response plan and/or standard operating procedures by completing the following tasks:
 - Establish and enforce scene control procedures, including control zones, emergency decontamination and communications.
 - Where criminal or terrorist acts are suspected, establish means of evidence preservation.
 - Initiate Incident Command System (ICS) for hazardous materials/WMD Incidents.
 - Perform tasks assigned as identified in the incident action plan.
 - Demonstrate emergency decontamination.
- Evaluate the progress of the actions taken at a hazardous materials/WMD incident to ensure the response objectives are being met safely, effectively and efficiently by completing the following tasks:
 - Evaluate the status of the actions taken in accomplishing the response objectives.
 - Communicate the status of the planned response.

Hazardous materials technician level responders shall be able to perform the following tasks when responding to a hazardous materials/WMD incidents:

- Analyze a hazardous materials incident to determine the magnitude of the problem in terms of outcomes by:
 - Surveying the hazardous materials incident to identify special containers involved, to identify or classify unknown materials, and to verify the presence and concentrations of hazardous materials through the use of monitoring equipment.
 - Collecting and interpreting hazard and response information from printed resources, technical resources, computer databases, and monitoring equipment.
 - Determining the extent of damage to containers.
 - Predicting the likely behavior of released materials and their containers when multiple materials are involved.
 - Estimating the size of an endangered area using computer modeling, monitoring equipment, or specialists in this field.

- Plan a response within the capabilities of available personnel, personal protective equipment, and control equipment by:
 - Identifying the response objectives for hazardous materials incidents.
 - Identifying the potential response options available by response objective.
 - Selecting the personal protective equipment required for a given action option.
 - Selecting the appropriate decontamination procedures.
 - Developing a plan of action which includes safety considerations, is consistent with the local emergency response plan and the organization's standard operating procedures, and is within the capability of the available personnel, personal protective equipment, and control equipment.

- Implement the planned response to favorably change the outcomes consistent with standard operating procedures and site safety and control plan by completing the following tasks:
 - The following site safety and control plan considerations are from the NIMS Site Safety and Control Plan (form ICS 208HM):
 - Site description
 - Entry objectives
 - On-site organization
 - On-site control
 - Hazard evaluation
 - Personal protective equipment
 - On-site work plans
 - Communication procedures
 - Decontamination procedures

- Site safety and health plan
 - Perform the duties of an assigned hazardous materials branch position within the local incident management system (IMS).
 - Don, work in, and doff personal protective clothing, including, but not limited to, both liquid splash- and vapor-protective clothing with appropriate respiratory protection.
 - Perform the control functions identified in the plan of action.
 - Perform the decontamination function identified in the Incident Action Plan.
- Evaluate the progress of the planned response by evaluating the effectiveness of the control functions:
 - Evaluate the effectiveness of the control functions.
 - Evaluate the effectiveness of the decontamination process.
- Terminate the incident by:
 - Assisting in the incident debriefing
 - Assisting in the incident critique
 - Providing reports and documentation of the incident.

An After Action Review (AAR) will be provided after the incident.

Facilities and responders will monitor a verified release using the following capabilities and methods.

- Facility methods and capabilities for monitoring a release include consulting with facility emergency coordinators from key, regulated facilities in the planning district to develop a synopsis of the tools, methods and procedures used by the facility.
- Responders will monitor releases in accordance with agency policy

Public Safety

The primary objective of every hazardous materials response is to protect the people at risk. This includes the employees of the affected facility and/or transportation company as well as citizens and visitors in the immediate area of the release and/or the projected plume. Protection of the public during a chemical emergency is a complex undertaking.

Evacuation is the recognized standard for population protection; however, recent research indicates shelter-in-place should be considered as a better alternative for many hazardous materials incidents.

Each strategy (evacuation or shelter-in-place) has inherent advantages and disadvantages.

- The advantage of evacuation is it removes employees, citizens and visitors from the present and any future risks in the affected area. The concept of removing the population from risk is also an acceptable and preferred strategy for many members of the public. Evacuations are, however, highly disruptive events which create other challenges such as traffic control and sheltering. An effective evacuation may take hours to complete, during which evacuees may be exposed to unsafe concentrations of the toxic substance they are attempting to avoid.
- Shelter-in-place can be instituted in a relatively short period of time. The population does not have long distances to travel and they are, for the most part, familiar with their surroundings. The speed with which a shelter-in-place effort can be implemented may make it the only reasonable short-term protective option for hospitals, nursing homes and corrections facilities. However, the concept of shelter-in-place is a foreign notion to many citizens who will self-evacuate. Training and exercising sheltering-in-place plans for those facilities where it might prove useful will facilitate its use when it is needed. It should be considered only for incidents expected to last for a short duration.

No single protective strategy is applicable in all situations whereas some incidents may be suited to either evacuation or shelter-in-place. The two strategies are not mutually exclusive and may be combined to achieve the maximum population protection in some situations. For example, shelter-in-place for the public in an appropriate radius around a toxic release, combined with evacuation of downwind populations, might result in the best protection potential for the greatest number of people.

The decision to evacuate or order shelter-in-place should be based upon known data or perceived risk when insufficient data is immediately available. Reference materials and resources which will aid the decision making process includes:

- Emergency Response Guidebook (Current Edition), <http://www.phmsa.dot.gov/portal/site/PHMSA/menuitem.ebdc7a8a7e39f2e55cf2031050248a0c/?vgnextoid=ebfeca57e196d110VgnVCM1000009ed07898RCRD&vgnnextchannel=d248724dd7d6c010VgnVCM10000080e8a8c0RCRD&vgnnextfmt=print>
- Material Safety Data Sheets (MSDS), <http://www.osha.gov/dsg/hazcom/msdsformat.html>
- Chemical Transportation Emergency Center (CHEMTREC), <http://www.chemtrec.com/>
- AIHA Emergency Response Planning Guidelines, <http://www.aiha.org/INSIDEAIHA/GUIDELINEDEVELOPMENT/ERPG/Pages/default.aspx>
- NIOSH Pocket Guide to Chemical Hazards, <http://www.cdc.gov/niosh/npg/>
- CAMEO Chemicals, <http://cameochemicals.noaa.gov/>
- Areal Locations of Hazardous Atmospheres (ALOHA), <http://www.epa.gov/oem/docs/cameo/ALOHAManual.pdf>
- Mapping Applications for Response, Planning, and Local Operational Tasks (MARPLOT), <http://www.epa.gov/oem/docs/cameo/MARPLOTManual.pdf>

The Incident Command (IC) is authorized to order the protective measures appropriate to the type of threat, current weather conditions, condition of population at risk, response capabilities and timeliness, available transportation resources, time of day and ability to communicate with the at risk population. The procedures for implementing the evacuation and shelter-in-place strategies are found in Appendix C Public Safety Procedures. USC Title 42 Chapter 116 Subchapter I Section 11003(c)(7), requires plans include “Evacuation plans, including provisions for a precautionary evacuation and alternative traffic routes.”

Regulated facilities are required to have evacuation plans for employees and visitors. Washington State Administrative Code (WAC) 296-24-567 requires each facility to have an emergency action plan which includes, at a minimum:

- Evacuation procedures and route assignments;
- Procedures for employees who remain to operate critical plant operations before they evacuate;
- Procedures to account for all employees after emergency evacuation has been completed;
- Rescue and medical duties for those employees who are to perform them;
- The preferred means of reporting fires and other emergencies; and
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

Responder Safety

It is essential on-scene response personnel are protected from the adverse effects of hazardous materials contamination to safely perform their role in protecting the public and mitigating the incident. The safety of response personnel is a priority of the IC system. A Safety Officer will be appointed to the Command Staff to assist the Incident Commander (IC) with responder safety. If the IC does not appoint a Safety Officer for some reason, the IC assumes the responsibilities of the Safety Officer. The Safety Officer shall be assigned to monitor operations, identify potential safety hazards, correct unsafe situations and develop additional methods and procedures to ensure responder safety. The Safety Officer will be given authority to alter, suspend or terminate any activity he/she deems is unsafe. Safety Officers must be trained to the level of the incident, i.e., an operations level incident (gasoline spill) requires a Safety Officer trained to the operations level.

All responders to a hazardous materials incident will:

- Adhere to applicable local, state and federal laws, statues, ordinances, rules, regulations, guidelines and established standards pertaining to responder safety.
- Not exceed individual response certification level in accordance with CFR 1910.120 (HAZWOPER) and Chapter 296-824 WAC training under any circumstance.

The minimum procedures by responder certification level are:

- Awareness level responders are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They will not take any further action beyond notifying the authorities of the release.
- Operations level responders are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release and as such will maintain a safe distance, keep the release from spreading and prevent exposures.
- Hazardous materials technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. As such they will be able to:
 - Perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit.
 - Understand and implement decontamination procedures.
- Hazardous materials specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. As such they will be able to:
 - Select and use proper specialized chemical personal protective equipment.
 - Perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.
 - Determine and implement decontamination procedures.
 - Develop a site safety and control plan.

Resource Management

The response and recovery resources available to Snohomish County come from federal, state and local partners, public and private stakeholders and nongovernmental organizations. During response operations, acquisition of resources will be by preexisting memorandums of understanding (MOUs), memorandums of agreement (MOAs), interagency agreements (IAAs) and contracts or through emergent contracting in accordance with Revised Code of Washington (RCW) 38.52.070.

Containment / Clean-Up

Coordination of spill containment and clean-up is the responsibility of the designated Incident Command agency. Responding agencies will:

- Identify, contain, recover and properly treat or remove hazardous materials and dispose of at state permitted site.
- Limit incident site entry to trained personnel with appropriate personal protective equipment.
- Follow decontamination procedures to limit area of contamination and restrict further spread of hazardous materials.
- Plan for restoration and mitigation of damage to the environment.

A list of hazardous materials spill contractors is available through the Department of Ecology at http://www.ecy.wa.gov/programs/spills/response/HAZMAT_Spill_Contractor_List.pdf.

Documentation and Investigation

- Responding agencies will complete incident reports which will conform with the National Fire Incident Reporting System.
- Cost recovery for response and cleanup costs is the responsibility of responding agencies according to their specified procedures. Costs will be accounted for with material receipts and equipment, personnel and apparatus rates as prescribed by the Washington State Fire Chiefs.
- Criminal acts related to hazardous materials incidents will be investigated by the law enforcement agency having jurisdiction in cooperation with the Washington State Patrol.
- All responses will be followed by an After Action Review during which all agencies will participate.

Mitigation Activities

Snohomish County Residents

- Residents are given the opportunity to dispose of chemicals at the Snohomish County Hazardous Waste collection station. Residents are encouraged to inspect their homes for chemical hazards and to properly store and dispose of chemicals.

Facilities & Businesses

- Facilities and Businesses within Snohomish County will make themselves aware of and comply with the Local, State and Federal Environmental regulations that apply to their operations.

Fire Service

- Snohomish County Fire Service Agencies, the County Fire Marshal, and the County Hazardous Materials Response Team conduct building and facility safety inspections.

Fire department personnel make recommendations as needed. However, fire districts do not have the authority to enforce codes.

Washington State Patrol

- Washington State Patrol conducts safety inspections on vehicles transporting hazardous materials/waste, and enforces state and federal transportation regulations, per Chapter 46.48 RCW. The Patrol provides technical assistance to shippers and carriers and also enforces rules and regulations pertaining to the transportation of hazardous materials. They also investigate all transportation accidents involving hazardous materials, on State Highways or when requested by the Incident Commander, to determine the cause.

Emergency Management / LEPCs

- Emergency Management and the LEPC maintain and review issues relating to hazardous material vulnerability analysis. Records pertaining to EPCRA and individual organization Risk Management Plans (RMPs) are maintained and accessible to the staff and the public. Coordination with county and city planning agencies is vital, as the location of hazardous materials fixed sites and transportation routes could have a significant impact on life and property, as well as future construction of roads and buildings.

Washington State Department Of Labor & Industries (L&I)

- Department of Labor and Industries conducts inspections of facilities where hazardous materials are generated, used, stored, disposed of or destroyed.

Washington State Department Of Ecology-Spill Prevention, Preparedness And Response Program

- DOE Prevention Section identifies high-risk vessels that may pose a threat to people, property and the environment.

Washington State Department Of Natural Resources

- Washington State DNR manages State owned aquatic lands and associated habitat to reduce or eliminate the effects of hazardous materials.

Washington State Department of Transportation

- Assists first responders by providing supporting information on shippers and handlers of hazardous materials statewide. Provides personnel and equipment to support response operations on highways and lands under state and federal jurisdiction.

United States Coast Guard (Vessel Inspection)

- Primary responsibility for management of and response to hazardous materials spills on coastal and inland waterways.

Environmental Protection Agency (Monitoring, Rmp's, Etc.)

- Respond with advice and technical resources to protect the environment from all types of hazardous substances. Responsible for enforcement of applicable federal hazardous materials statutes. Has authority to conduct inspections and levy fines.

Preparedness Activities

Fire Services

- Develop, test and maintain SOP's for responding to hazardous materials incidents in coordination with this plan.
- Train personnel to identify potential hazardous materials incidents through the use of the North American Emergency Response Guidebook, and additional and advanced training offered through the Washington State Patrol, fire service, and other vendors.
- Train all personnel to understand and use the Incident Command System as required by NIMS.
- EMS personnel should be trained in proper initial medical care for patients exposed to hazardous materials.

Washington State Patrol

- Develop and conduct hazardous materials training for all levels of local and state responders.
- Equip the Washington State Patrol Regional Communication Center with appropriate plume modeling software and associated computer hardware.
- Participate on the state Emergency Management Council and SERC, a sub-committee of the Emergency Management Council, to address hazardous materials issues.

Emergency Management / LEPCs

- Maintain and coordinate the updating of this plan, and develop interagency agreements for response to hazardous materials incidents.
- Coordinate training of non-uniform personnel for HAZMAT response/recovery support functions.
- Sponsor exercises and drills, and plans for evacuation and shelter.
- Develop lists of specialized resources available.
- Coordinate and host local LEPC meetings.
- In conjunction with the LEPC, conduct outreach to review organizations' plans and preparedness for HAZMAT incidents.

Local Law Enforcement

- Develop, test, and update their SOP's for response to hazardous materials incidents in coordination with this plan.
- Assure that personnel are familiar with the SOP's and this plan, and that all personnel are trained to identify potential hazardous materials incidents. Training for identification of hazardous material includes how to use the North American Emergency Response Guidebook (Awareness Level, Minimum).
- Train personnel in the Incident Command System and NIMS.
- Maintain lists of available resources.
- Coordinate with other responding agencies in the event a criminal element is present in a HAZMAT incident.

Public Safety Answering Points (PSAPs)

- Maintain emergency contingency plans and resources to ensure continuation of service.

Municipal & County Public Works

- Equip and train personnel consistent with their emergency response requirements.
- Provide current 24-hour call rosters to respective emergency management departments and a state of readiness to provide for a rapid deployment of resources when requested.

Snohomish Health District

- Develop procedures and criteria to close an incident site for health and safety reasons.
- In conjunction with the DOE and DOH, develop procedures to help investigate and mitigate possible threats to public health as the result of impacts to water supplies and sewer systems.

Washington State Emergency Management Division

- Maintain 24-hour notification capability.
- Provide communications links to state agencies and local jurisdictions to the state EOC.
- Coordinate and update notification lists of local, state and federal resources.
- Coordinate and participate in local training and exercises.

Washington State Department Of Transportation

- Develop procedures for non-hazardous materials clean-up activities on state and interstate highways.

- Assist first responders by providing supporting information on shippers and handlers of hazardous materials statewide. Provide personnel and equipment to support response operations on highways and lands under state and federal jurisdiction.

Washington State Department of Ecology

- Conduct 24-hour HAZMAT response activities as provided in the State DOE Spill Response Operation Manual.
- Train staff to use the 24-hour response procedures, and conduct exercises to evaluate those procedures.
- Coordinate Natural Resources Damage Assessment (NRDA) activities for the state.

Other Supporting Agencies

- Maintain and share current internal plans, standard operating procedures, and checklists detailing status of resources with other supporting agencies to this plan.
- Maintain current mutual aid agreements as indicated.

Tier II Businesses

- Prepare hazardous materials emergency plans and provide copies to jurisdictional respective LEPC when requested.
- Train and equip personnel to implement the plans.
- Coordinate the plans with the local fire jurisdictions.

Response Activities

Snohomish County Residents

- Residents who encounter a hazardous material situation, which they do not have the ability to mitigate, are advised to call the local emergency phone number (911) to report the hazardous situation as an emergency.

Fire Service

- Identify the type or types of materials involved, and the scope of the incident as quickly as possible. Information can be gathered from the reporting party, 9-1-1 dispatch, the Responsible Party, placards, and references such as the North American Response Guidebook, and CHEMTREC.
- The first emergency responder on-scene should report and size-up the incident, request assistance as needed, and begin establishing the Incident Command System. The size-up and other information gathered will determine the establishment of exclusion and evacuation zones, as well as what emergency medical aid may be needed for anyone exposed to the hazard.

- Incident Commander must communicate all known or suspected incident site hazards through dispatch and/or other communications means to all responding agencies to provide the greatest assurance for responder safety.
- As other responders are en route, it is imperative to identify a safe route of entry and an area for staging.
- Depending upon the size and nature of the incident, initial notifications should be made by the first responding agency to the National Response Center, Jurisdictional Emergency Management Agency, and Washington State Emergency Operations Center (SEOC).
- Incident Command staff and other personnel should try to determine who the Responsible Party is, so they can be contacted for further information, assistance and financial responsibility.

Washington State Patrol

- Provide 24-hour response to all hazardous material or oil spill incidents in areas under their jurisdiction, or when requested by local authorities.
- Assume the role of Incident Commander on highways and other specified jurisdictions, unless local MOU's provide for local assumption of incident command.
- Assist local jurisdictions with law enforcement and evacuations when requested.
- When acting in the role of Incident Command, initiate proper notification procedures as discussed above.
- Coordinate and maintain liaison with other state agencies involved with an incident, and assist in receiving and disseminating warning information.
- Provide communications and technical support to the incident, when requested.
- Provide, when requested and practical, aerial reconnaissance of the impacted area.
- Coordinate with fire responders when emergency mobilization is authorized for a hazardous materials incident.

Emergency Management / LEPCs:

- Support First Response agencies and the Incident Commander with information and resource coordination as required.
- Assist the Responsible Party (or Incident Commander) in making Federal, State, and other notifications, obtaining cleanup assistance, and meeting applicable Federal requirements.
- Assist Incident Commander in determining need for evacuation or shelter-in-place.

Snohomish Health District

- In conjunction with DOE and DOH assist water and sewer utilities in the investigation and mitigation of impacts from the effects of a hazardous materials incident.
- Initiate actions to close contaminated sites when indicated.

Washington State Department of Ecology

ESF-10 Hazardous Materials

1 December 2013

- Act, within the Unified Command System, as the State On-Scene Coordinator for hazardous material and oil spill incidents.
- Provide 24-hour response to oil spills or hazardous material incidents. DOE spill response personnel will make necessary emergency notifications, and determine the source and course of the incident.
- Identify the Responsible Party for the incident. Assume responsibility for incident management and clean-up (in conjunction with EPA), if the Responsible Party is unavailable, unresponsive, or unidentified.
- Set clean-up standards for the incident in accordance with Federal and State laws, and ensure that source control, containment, clean-up, and disposal are accomplished.
- Assist in monitoring and ensuring the safety of first responders and other personnel.
- Initiate enforcement actions as appropriate.
- Coordinate spill response with other state and federal agencies and local jurisdictions using the Incident Command System (ICS) as promulgated by NIMS.
- As required by the size and/or duration of the incident, establish a Joint Information Center with involved agencies and the Responsible Party to provide current and accurate information to the community.
- Activate and coordinate the activities of the Natural Resource Damage Assessment Team.
- Participate in the activities of the Washington Wildlife Rescue Coalition, and notify the appropriate resource trustee agency of injury to fish, shellfish, habitat, or other wildlife.

United States Coast Guard

- Operates the National Response Center which takes reports of hazardous chemical spills and relays information to SEOC and federal response agencies as necessary.
- Acts as the On-Scene Coordinator for spills that originate in coastal zone waters.

Tier II Facilities

- Notify 911 and other agencies as required / necessary, or when a hazardous materials incident occurs.
- Using NIMS, implement emergency plans in coordination with local fire jurisdiction.
- Develop response plans for incidents occurring at their facilities and coordinate with serving Fire Service.
- Facility Emergency Coordinator provides direct contact / coordination with the IC or their designated representative for all aspects related to access, inventory, location, and hazards of chemicals on-site.

Recovery Activities

- The Responsible Party must pay for any cleanup. If the Responsible Party is unable to pay for cleanup cost or cannot be identified, funding may be available from the State DOE or the US EPA.
- General recovery activities include documentation of the incident and any actions taken as well as participation in post-event critiques. It is the responsibility of responding agencies to follow recovery procedures specific to their agencies.

V. RESPONSIBILITIES

General

All primary and supporting ESF agencies must have established disaster related policies, systems, and procedures for:

- Personnel accountability, safety, lines of authority and succession
- Providing logistical support to their personnel and equipment
- Facility / infrastructure damage assessment and reporting
- Continuity of operations to maintain essential services
- Facility / infrastructure repair and restoration

Primary

Snohomish County Hazardous Materials Response Team

- Respond in support of first response agencies when requested.
- Assess actions taken by first-in units.
- Provide a technical level response to hazardous materials incidents.
- Provide incident management expertise and equipment.
- Establish exclusionary zones.
- Determine the proper level of personal protective equipment, emergency medical treatment, decontamination techniques, and additional authorities requiring notification.
- Perform control actions to achieve incident stabilization as directed by the Incident Commander (IC).

First Responders

- Provide a limited initial response to hazardous materials incidents based on responder training and expertise.
- Notify the appropriate dispatch agency when the magnitude of the incident exceeds the expertise of the initial responder(s).
- Isolate the area according to the Emergency Response Guide (ERG) book or other appropriate resource information.
- Identify hazardous material(s) without compromising safety (placard number, shipping documents, driver comments, etc.).

- Provide for the safety of the public by whatever actions are necessary (evacuation, shelter-in-place).
- Support Snohomish County HAZMAT team with personnel, equipment, and other assistance as required.

Fire Service

- Act as incident commander (except on state, interstate highways or in undesignated areas where the Washington State Patrol will assume incident command).
- Effectively deploy all necessary, and available, fire jurisdiction equipment and manpower.
- Deploy mutual aid as requested.
- Provide coordination and control of manpower and equipment through the communications center and at a command post near the scene.
- Provide manpower and equipment for decontamination and emergency medical aid at the scene of a hazardous material incident.
- Provide manpower and equipment for control and containment of a hazardous material release or fire involving hazardous materials whenever possible.
- Provide emergency medical care and transportation for those injured in a hazardous material incident.
- Other operations which may be appropriate in accordance with training.

Washington State Patrol

- Unless otherwise identified, the Washington State Patrol (WSP) is the designated state incident command agency for HAZMAT incidents on interstate and state highways.
- Within Snohomish County, if the local jurisdiction does not designate an incident command agency, the Washington State Patrol assumes incident command for that jurisdiction (RCW 70.136.030).
- The WSP is the state incident commander (IC), overseeing HAZMAT response operations. The WSP will establish a unified command system with fire departments, emergency medical services, and other state and federal agencies.

Washington State Department of Ecology

- Provide overall responsibility for 24-hour environmental pollution prevention, preparedness and response within the State of Washington.
- Act as the pre-designated state agency for incidents, which occur on marine and fresh waters, and for inland spills where the WSP or local incident command has curtailed emergency response operations.
- Provide advice on response equipment and training needs.
- Provide technical assistance to businesses regarding compliance with EPCRA.
- Manage reports and notifications submitted by businesses.

- Provide the state on-scene coordinator to continue management of the response when appropriate.
- Act as the lead agency for spill containment, cleanup and the natural resources damage assessment activities.

Snohomish County Department of Emergency Management or Emergency Services Coordinating Agency (as jurisdictionally applicable)

- Function as lead agency for the respective LEPC.
- Designate a coordinator to work with the Local Emergency Planning Committee.
- Provide public education materials to the public and businesses on hazardous materials and preparedness.
- Provide public information on response activities and public safety as necessary during major incidents.
- Provide duty officer support for of hazardous materials emergency response.
- The duty officer, or other Emergency Management staff will as necessary:
 - Provide notification of agencies and organizations as requested by either the facility representative or first responders.
 - Open the EOC when indicated.
 - Provide on-scene liaison when requested by incident/unified commander.
 - Script and transmit emergency alert system (EAS) messages when requested and appropriate.
 - Attempt other methods of notification to the public either for informational purposes, shelter-in-place or for evacuation as dictated by the situation.

Supporting

Municipal / Tribal Office(s) of Emergency Management

- Notify local, state, and federal authorities as requested by the incident commander or as appropriate to the situation.
- Implement the currently approved operations plan as applicable.
- Activate the local EOC when necessary.
- Support the incident commander on scene as requested.
- Provide resource coordination as requested.

Law Enforcement

- Lead agency for all drug lab operations.
- Provide coordination of resources during a hazardous materials emergency.
- Provide for traffic control and maintenance of evacuation during a hazardous materials emergency.

- Insure that law enforcement personnel are familiar with procedures for the identification and movement of essential personnel during a hazardous material emergency.
- Perform evacuation within parameters established for specific incident action plans.
- Other operations which may be appropriate in accordance with training.
- Assist where necessary in the rapid dissemination of warning and evacuation information to the public.

Washington State Military Department Emergency Management Division

- Provide 24-hour duty officer staffing in support and coordination of field, local, state, and federal operations, as requested.
- Make all indicated notifications and contacts.

Washington State Department of Health

- The DOH is responsible for providing comprehensive assessments of the public health impacts of chemical events/incidents.
- Coordinate utilization of resources with federal agencies.
- Assist local health districts with inventory and supply of medical equipment and facilities.
- Provide laboratory support in the detection, identification, and analysis of biological, chemical, and radiological agents, and other hazardous substances that may present a threat to public health.
- Provide technical assistance and consultation regarding human exposure to hazardous materials.

Local Emergency Planning Committee (LEPC) – DEM or ESCA as appropriate

- The LEPC is responsible for the development of this plan and the distribution of emergency response plans to the appropriate agencies and the general public.
- Will set up and coordinate an annual hazardous materials exercise.
- Will act as the repository of the annual Tier II submittals.
- Will compile a list of companies with reportable quantities of hazardous materials.

Municipal/County Public Works

- Provide equipment and manpower to assist in the containment of a hazardous material release.
- Provide equipment and manpower to repair essential city and county facilities damaged as a result of a hazardous material release.
- Provide assistance to law enforcement with regard to traffic control on evacuation routes and at the incident scene.
- Provide protection / mitigation measures to ensure safety and integrity of drinking water and waste water systems.

Public Safety Answering Points

- Maintain current run cards for fire dispatch.
- Dispatch the appropriate HAZMAT team.
- Notify County DEM or ESCA duty officer (as jurisdictionally applicable).
- Script and transmit emergency alert system (EAS) messages when requested and appropriate.

Snohomish Health District

- In conjunction with DOE and DOH, assist water and sewer utilities in the investigation and mitigation of impacts from the effects of a hazardous materials incident.
- Establish procedures and criteria for the closure of contaminated sites.
- Provide information to the public on the health affects of, and how to avoid contamination from a hazardous materials release as needed.

Fire-Based & Private Emergency Medical Services

- Provide advanced and basic life support services to hazardous materials exposure victims when requested.

American Red Cross, Snohomish County Chapter

- Provide temporary housing, mass care shelter and feeding facilities, emergency first aid and medical service, welfare inquiries. Information services and financial aid for essentials based on the immediate need at the time of emergency.

Tier II Facilities

- Designate a Facility Emergency Coordinator to act as the contact for facility and hazardous materials information.
- Submit Tier II and other information as required, by federal, state or local law to SERC, appropriate Snohomish County LEPC, and serving fire department/district in accordance with Section 311.
- Notify SERC and appropriate county LEPC, per Section 304, of a release at the facility in excess of the reportable quantity for the substance and when the release could result in exposure of person(s) outside the facility.

Responsible Party

- The responsible party (owner or shipper) has ultimate accountability for ensuring effective and expeditious abatement of a release or threatened release of oil or hazardous materials (WAC 4.24.314) to include cleanup costs and reimbursement for the local responders.

- Will notify all required agencies as required under Sections 301,302, 303, 304, 311, 312, 313, and 324 of EPCRA and any enabling legislation at the state level.

VI. REFERENCES

FEMA, Guide for All-Hazard Emergency Operations Planning (SLG-101).

US Department of Transportation and Transport Canada, Emergency Response Guidebook.

SARA Title III – Emergency Planning and Community Right-to-Know Act (EPCRA).

Public Law 99-499 – Superfund Amendment and Reauthorization Act (SARA)

Chapter 118-40 WAC – Hazardous Chemical Emergency Response Planning

VII. TABS

Appendix A Promulgation

Appendix B Terms & Definitions

Appendix C Population Protection Measures

Appendix D Sample Evacuation / Shelter in Place Messages

Appendix A – Promulgation

Emergency Support Function (ESF) 10 - Hazardous Materials

Approval & Implementation

The Snohomish County LEPC developed the ESF 10 – Oil and Hazardous Materials Response Plan to identify and implement hazardous materials emergency preparedness and response responsibilities in accordance with Chapter 118-40 Washington Administrative Code (WAC). The ESF details the purpose, policy, concept of operations, direction/control, actions and responsibilities of primary and support agencies to ensure a mutual understanding and a coordinated plan of action is implemented with appropriate agencies within Snohomish County.

The Snohomish County LEPC directs each office, department and agency to study the ESF and prepare or update, as needed, the supporting plans and operating procedures needed to implement the ESF in the event of a hazardous material event.

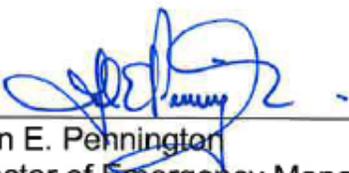
The Snohomish County LEPC is responsible for publishing and distributing this ESF and will issue changes as required.



The Honorable John Lovick,
County Executive

1-20-14

Date



John E. Pennington
Director of Emergency Management

1/15/2014

Date

Appendix B – Terms & Definitions

Terms

ALOHA	Areal Locations of Hazardous Atmospheres
ARC	American Red Cross
AWC	Alert and Warning Center
CAA	Clean Air Act
CAMEO	Computer Aided Management for Emergency Operations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CHEMTREC	Chemical Transportation Emergency Center
DEM	Department of Emergency Management
DOC	Department Operations Center
EAS	Emergency Alert System
EHS	Extremely Hazardous Substances
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPCRA	Emergency Planning and Community Right-to-Know Act
ERG	Emergency Response Guide Book
ESF	Emergency Support Function
GIS	Geographic Information System
HAZMAT	Hazardous Material
HC	Hazardous Chemicals
HS	Hazardous Substances
IC	Incident Commander
ICS	Incident Command System
ICP	Incident Command Post
JIC	Joint Information Center
LEPC	Local Emergency Planning Committee
MARPLOT	Mapping Applications for Response, Planning, and Local Operational Tasks
NAWAS	National Alert & Warning System
NIMS	National Incident Management System
NRC	National Response Center
PIO	Public Information Officer
RCW	Revised Code of Washington
ESF-10 Hazardous Materials	

1 December 2013

SERC	State Emergency Response Commission
SOP	Standard Operating Procedures
UC	Unified Command
WAC	Washington Administrative Code

Definitions

ACCIDENT SITE - The location of an unexpected occurrence, failure or loss, either at a regulated facility or along a transportation route, at which a release of listed chemicals occurs.

ACUTE EXPOSURE - Exposures, of a short duration, to a chemical substance that results in adverse physical symptoms.

ACUTELY TOXIC CHEMICALS - Chemicals that can cause both severe short-term and long-term health effects after a single, brief exposure of short duration. These chemicals can cause damage to living tissue, impairment of the central nervous system and result in severe illness. In extreme cases, death can occur when ingested, inhaled or absorbed through the skin.

AEROSOL - Fine liquid or solid particles suspended in a gas such as fog or smoke.

CHEM-TEL - A private company listed in the Emergency Response Guidebook that provides emergency response organizations with a 24-hour phone response for chemical emergencies.

CHEMICAL AGENT - A chemical substance intended for use in military operations to kill, seriously injure or incapacitate people through its physiological effects. Excluded from consideration are riot control agents, smoke, and flame materials. The agent may appear as a vapor, aerosol or liquid. It can be either a casualty/toxic agent or an incapacitating agent.

CHEMICAL TRANSPORTATION EMERGENCY CENTER - a centralized toll-free telephone service providing advice on the nature of chemicals and steps to be taken in handling the early stages of transportation emergencies where hazardous chemicals are involved. Upon request, CHEMTREC may contact the shipper, or manufacturer of hazardous materials involved in the incident for additional, detailed information and appropriate follow-up action, including on-scene assistance when feasible.

COLD ZONE - The area outside the Warm Zone (contamination reduction area) that is free from contaminants.

DECONTAMINATION - The process of making people, objects or areas safe by absorbing, destroying, neutralizing, making harmless or removing the hazardous material.

DIRECTION AND CONTROL EXERCISE - An activity in which emergency management officials respond to a simulated incident from their command and control centers. It mobilizes emergency management and communications organizations and officials. Field response organizations are not normally involved.

EMERGENCY - An event or set of circumstances which: (1) demands immediate action to preserve public health, protect life, protect public property, or to provide relief to any stricken community overtaken by such occurrences or (2) reaches such a dimension or degree of destructiveness as to warrant the Governor proclaiming a state of emergency pursuant to RCW 43.06.010.

EMERGENCY ALERT SYSTEM (EAS) - Established to enable the dissemination of emergency information to the public via the Commercial Broadcast System by the President and federal, state and local jurisdiction

authorities. Composed of amplitude modulation (AM), frequency modulation (FM), television broadcasters, and the cable industry. Formerly known as the Emergency Broadcast System (EBS).

EMERGENCY OPERATIONS CENTER (EOC) - The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, and medical services), by jurisdiction (e.g., federal, state, regional, tribal, city, county), or some combination thereof.

EMERGENCY SUPPORT FUNCTION (ESF) – The functional approach that groups the types of assistance a state and/or local jurisdiction is most likely to need, (e.g. mass care, health and medical services) as well as the kind of federal operations support necessary to sustain state response actions (e.g., transportation, communications). ESFs are expected to support one another in carrying out their respective missions.

EXTREMELY HAZARDOUS SUBSTANCES - These are substances designated as such by the EPA. EHS inventories above certain threshold quantities must be reported to the Washington SERC, or TERC, and local fire department pursuant to Sections 302, 304, 311 and 312 of EPCRA. EHS releases which exceed certain quantities must be reported to the National Response Center, the SERCs, TERCs, LEPCs, and local fire departments that may be affected, pursuant to EPCRA Section 304. The EHSs and pertinent, reportable quantities are listed in 40 CFR 355 and EPA Consolidated List of Lists.

FACILITY - Fixed-site required to report under EPCRA.

FULL-SCALE EXERCISE - An activity intended to evaluate the operational capability of emergency management systems in an interactive manner over a substantial period of time. It involves the testing of a major portion of the emergency plan and organizations in a highly stressful environment. It includes the mobilization of personnel and resources to demonstrate coordination and response capabilities. The SEOC is activated and field command posts may be established. A full-scale exercise is always formally evaluated.

FUNCTIONAL EXERCISE - An activity designed to evaluate the capability of individual or multiple emergency management functions. It is more complex than a tabletop exercise in that activities are usually under time constraints and are followed by an evaluation or critique. It usually takes place in some type of coordination or operating center. The use of outside resources is often simulated. No field units are used.

HAZARD - The chance that injury or harm will occur to persons, plants, animals or property.

HAZARD ANALYSIS - The use of a model or methodology to estimate the movement of hazardous materials at a concentration level of concern from an accident site, either at fixed site or on a transportation route to the surrounding area in order to determine which portions of a community may be affected by a release of such materials.

HAZARDOUS CHEMICALS OR SUBSTANCES - Chemicals, mixtures, and other chemical products determined by US Occupational Health and Safety Administration (OSHA) regulations to pose a physical or health hazard. No specific list of chemicals exists, but the existence of a Material Safety Data Sheet (MSDS) for a substance indicates it may be reportable under EPCRA. Reporting information software and current LEPC contact information is available at www.ecy.wa.gov/epcra.

HAZARDOUS MATERIAL - A substance in a quantity or form posing an unreasonable risk to health, safety, property, and/or environment when manufactured, stored, or transported in commerce. A substance which by its nature, containment, and reactivity has the capability for inflicting harm during an accidental occurrence, characterized as being toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer and thereby posing a threat to health and the environment when improperly managed. Hazardous materials include extremely hazardous and hazardous substances of oil and other petroleum products.

Other toxic substances include some infectious agents, radiological materials and materials such as industrial solid waste substances.

HAZARDOUS SUBSTANCE - Chemicals, chemical mixtures, and other products determined by US Occupational Health and Safety Administration (OSHA) regulations to pose a physical or health hazard. No specific list of chemicals or substance exists, but the existence of a Material Safety Data Sheet (MSDS) for a product or substance indicates it may be reportable under EPCRA regulations. Facilities that store 10,000 pounds or more of a HS at any time are required to report chemical inventories annually to the SERC, or TERC, LEPC, and local fire department in accordance with EPCRA regulations. Substances can also be designated as such by the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). HS releases above certain levels may need to be reported to the National Response Center and must be reported to the SERC, TERC, and local agencies pursuant to CERCLA, Section 304 of EPCRA, and related state regulations.

HOT ZONE - The area surrounding a particular incident site where contamination does or may occur. All unauthorized personnel may be prohibited from entering this zone.

INCIDENT COMMANDER - The IC is the overall coordinator of the response team. Responsible for on-site strategic decisions and actions throughout the response phase and maintains close liaison with the appropriate government agencies to obtain support and provide progress reports on each phase of the emergency response. Must be trained to a minimum of Operations level and certified in the Incident Command System.

INCIDENT COMMAND SYSTEM (ICS) - An all-hazards, on-scene functional management system that establishes common standards in organization, terminology and procedures. ICS provides a means (unified command) for the establishment of a common set of incident objectives and strategies during multi-agency/multi-jurisdiction operations while maintaining individual agency/jurisdiction authority, responsibility and accountability. ICS is a component of the National Interagency Incident Management Systems (NIMS).

JOINT INFORMATION CENTER (JIC) - A facility that may be used by affected utilities, state agencies, counties, local jurisdictions and/or federal agencies to jointly coordinate the public information function during all hazards incidents.

LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) - The planning body designated in the Superfund Amendments and Reauthorization Act Title III legislation as the planning body for preparing local hazardous materials plans.

NATIONAL RESPONSE CENTER - Interagency organization, operated by the US Coast Guard, which receives reports when reportable quantities of dangerous goods, hazardous and/or extremely hazardous substances are spilled. After receiving notification of an incident, the NRC will immediately notify appropriate federal response agencies, which may activate the Regional Response Team or the National Response Team.

ON-SCENE - The total area that may be impacted by the effects of a hazardous material incident. The on-scene area is divided into mutually exclusive on-site and off-site areas.

PLUME - A vapor cloud formation that has shape and buoyancy. The cloud may be colorless, tasteless, or odorless and may not be visible to the human eye.

PRIMARY AGENCY - An agency assigned primary responsibility to manage and coordinate a specific ESF. Primary agencies are designated on the basis of who has the most authorities, resources, capabilities or expertise relative to accomplishment of the specific Emergency Support Function (ESF) with assistance, if requested, from the EOC. An example of a primary agency is the Department of Transportation for ESF 1 - Transportation.

REGULATED FACILITY - A site where handling and transfer, processing, and/or storage of chemicals is performed. For the purposes of this document, regulated facilities produce, use, or store EHSs in quantities which exceed threshold planning quantities or they store one or more HS in a quantity of 10,000 pounds or more at any one time. Facilities that meet either criterion must annually report their chemical inventories of such materials to the SERC, LEPCs, local fire department. When appropriate, the tribe must be reporting to the Tribal Emergency Response Commission (TERC).

REPORTABLE QUANTITY - The minimum quantity of hazardous substances released, discharged, or spilled that must be reported to federal, state, local and/or tribal authorities pursuant to statutes and EPCRA regulations.

RESPONSE - Actions taken immediately before, during or directly after an emergency occurs to save lives, minimize damage to property and the environment and enhance the effectiveness of recovery. Response measures include, but are not limited to: emergency plan activation, emergency alert system activation, emergency instructions to the public, emergency medical assistance, staffing the emergency operations center, public official alerting, reception and care, shelter and evacuation, search and rescue, resource mobilization and warning systems activation.

RISK MANAGEMENT PLAN - Pursuant to Section 112r of the Clean Air Act (CAA), facilities that produce, process, distribute or store certain toxic and flammable substances are required to have a RMP that includes a hazard assessment, accident prevention program, and emergency response program. A summary of the RMP must be submitted to the EPA. RMP guidance is available at <http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/RMPS.htm>.

SUPPORT AGENCY - An agency designated to assist a specific primary or joint primary agency with available resources, capabilities or expertise in support of Emergency Support Function (ESF) activities under the coordination of the primary or joint primary, agency.

TABLETOP EXERCISE - An activity in which officials, key staff and/or others with emergency responsibilities gather to informally discuss simulated emergency situations. It is designed to elicit constructive discussion by the participants without time constraints. Participants evaluate plans and procedures and resolve questions of coordination and assignment of responsibilities in a non-threatening format under minimum stress.

TITLE III - Public Law 99-499, Superfund Amendment and Reauthorization Act (SARA) of 1986, Title III, Emergency Planning Community Right-to-Know Act (EPCRA), requires the establishment of state and local planning organizations, State Emergency Response Commission (SERC), a subcommittee of the Emergency Management Council, and Local Emergency Planning Committees (LEPCs) to conduct emergency planning for hazardous materials incidents. The law requires site-specific planning for extremely hazardous substances, participation in the planning process by facilities storing or using hazardous substances and notifications to the SERC or LEPC of releases of specified hazardous substances. It also provides a mechanism for information sharing on hazardous chemicals and emergency plans for hazardous chemical events to the public.

TOXIC SUBSTANCES - Toxic substances are chemical or compounds which may present an unreasonable threat to human health and the environment. Human exposure to toxic substances can cause a variety of health effects including long-term adverse health effects. Certain facilities which have 10 or more full-time employees and manufacture, process or use a toxic substance in excess of threshold amounts during the calendar year are required to submit a Toxics Release Inventory Report annually to the US EPA and the Washington SERC. A current list of substances covered, reporting guidance, and software is available at the US EPA TRI website at www.epa.gov/tri.

TOXICITY - A measure of the harmful effect produced by a given amount of a toxin on a living organism. The relative toxicity of an agent can be expressed in milligrams of toxin needed per kilogram of body weight to kill experimental animals.

VULNERABLE FACILITIES - Facilities which may be of particular concern during a HAZMAT incident because they 1) are institutions with special populations that are particularly vulnerable or could require substantial assistance during an evacuation (schools, hospitals, nursing homes, day care centers, jails), 2) fulfill essential population support functions (power plants, water plants, fire/police/EMS dispatch center), or 3) include large concentrations of people (shopping centers, recreation centers).

WARM ZONE - An area over which the airborne concentration of a chemical involved in an incident could reach a concentration that may cause serious health effects to anyone exposed to the substance for a short period of time.

Appendix C – Population Protection Measures

Warning and Notification

Warning and notification shall be performed in accordance with ESF-2 of the Comprehensive Emergency Management Plan (CEMP). The law enforcement officer-in-charge will be responsible for additional evacuation notification. Assembly, staging areas and shelter selection will be determined by the Incident Commander based upon recommendation from the local American Red Cross and the Office of Emergency Management in accordance with the ESF-6. The population within the determined vulnerability zone will be alerted by the emergency warning siren(s) (EWS) in nearest proximity to that effected area.

Evacuation

The determination to evacuate will be made by the on-scene Incident Commander. If evacuation is deemed necessary, the Incident Commander will have the communications center (911) inform the broadcast media to activate the Emergency Alert System (EAS). EAS personnel will issue the following information: area(s) to be evacuated, designated shelter sites, evacuation routes, and an emergency number to call for those who need evacuation transportation. Special facilities may be evacuated or instructed to shelter-in-place as determined by the Incident Commander. Evacuation and assembly areas designation will be performed in accordance with guidance provided in ESF-6. The Incident Commander will determine the primary evacuation routes or law enforcement officer-in-charge based on the conditions of the release and available road networks.

Shelter

Temporary Displacement Shelters: When time and/or resources permit evacuation of the affected area of a vulnerability zone, the Incident Commander or his designee shall select appropriate and available shelters in coordination with local American Red Cross and/or local Emergency Management representatives. Shelter information will be communicated through the local media and participating local EAS stations. Shelter periods of over 12 hours in length shall be considered short-term shelters and involve the use of public health and sanitation officials to ensure that minimum health standards are enforced.

Shelter-In-Place: When time and/or resources do not permit the evacuation of the effected area of a vulnerability zone, the Incident Commander or his designee may generate a shelter-in-place directive. Such directive shall recommend a floor level to shelter-in-place, guidance on substance defense in the shelter, and general shelter-in-place time duration. Special facilities such as hospitals, nursing homes, schools and day care centers may be required to shelter-in-place because of resident population disposition or population numbers constraints. Shelter-in-place directives shall be communicated through the broadcast media and local participating EAS stations. Shelter-in-place guidance shall include, but not be limited to, the following:

- Close all doors to the outside and close and lock all windows.
- Shut down or set to "re-circulate" all HVAC systems.
- Turn off all exhaust fans in kitchens, bathrooms and other spaces.
- Close all fireplace dampers.
- Close as many internal doors as practicable.

- Seal all building vents and gaps that may cause substance infiltration.
- If necessary, hold a wet cloth over nose and mouth when inhaling.
- If necessary, stay in closed bathroom with shower on to "wash" the air.
- Minimize use of elevators. Elevators shafts create chimney effects.
- Stay tuned to a local EAS station for further information and guidance.

Appendix D – Sample Evacuation/Shelter In Place Messages

(Substitute Specific Local Information At Underlining)

ATTENTION! (SCSO, Police Chief, or Mayor/City Manager of _____, and the _____ Fire Department has issued the following emergency bulletin at (time) this morning/afternoon/evening: A chemical leak of _____ occurred at (time) this morning/afternoon/evening at facility name at (address). This is a highly poisonous chemical and you are in immediate danger if exposed. No leak of the chemical is occurring at this time, I repeat there is no leak at this time, but a leak is possible while workers repair the damaged valve/pipe. You are directed to follow these emergency instructions now!

All persons within the area bounded by _____ Street on the north, _____ Street on the east, _____ Avenue on the south and _____ Avenue on the west are directed to evacuate immediately / shelter-in-place immediately.

Shelter-in-Place. Shelter-in-Place is used when there is not time to evacuate or when the chemical released is expected to disperse with the weather before causing injuries. Close all outside windows tightly and lock all exterior doors, shut down all heating and air conditioning, and take your family to an inside room that can be effectively sealed. Tune your radio to (Local station) and listen for further instructions and the all-clear.

Evacuate. If instructed to evacuate, tie a white cloth or towel to the outside front door knob to indicate the premises are vacated. Police will secure the area vacated and no one will be allowed to enter.

Use _____ Avenue to the north and _____ Street to the east as evacuation routes. Public shelters are set up at (name and address of facility) and (name and address of facility) if you need shelter. The (Public Transit System) buses will provide transportation for residents of (facility name, facility name... and (facility name). School children will (shelter-in-place) / be evacuated to (facility name) by their school buses. DO NOT go to the school to pick them up.

Evacuation of (name of facility) shall be accomplished in accordance with published emergency plans.

If you need transportation or special help, call (telephone number). DO NOT call 9-1-1 for assistance or information. Emergency workers are in the area to assist. Stay tuned to this (radio or TV) station for further instructions and for the "All Clear" to be issued.

The County and/or City Public Information Officer (PIO) shall coordinate information to be released to the public.

For evacuations, the County EOC Manager will provide the County Executive, Mayor, or City Manager with an evacuation order for signature as soon as possible.