

**Yakima County Fire District 12– Standard Operating Guidelines**  
**SOG 5-1 – Hazardous Materials Operations**

**1. General**

**1.1 Purpose.** This Standard Operating Guideline is intended to provide general guidelines for District personnel in responding to hazardous materials incidents. This includes, but is not limited to; flammable vapor releases, such as natural gas, liquefied petroleum gas (LPG), acetylene, and any volatile vapors, liquid fuel spills such as gasoline, diesel fuel, and any other flammable or combustible liquid, acids, explosives, or any other substance that presents a threat to public safety or to the environment.

**1.2 Scope.** This Standard Operating Guideline shall apply to all members Yakima County Fire District 12

**1.3 Enforcement.** Enforcement of this standard operating guideline is the responsibility of the District's officers. Any person deviating from the provisions of this guideline may be required, at the discretion of the officer in charge, to submit in writing, within five (5) calendar days, an explanation for such deviation to the requesting officer who will forward the explanation up the chain of command for further review.

**1.4 Note.** For the purposes of this standard, the term "small spill" shall generally mean a spill of less than 200 liters (approximately 53 gallons). The term "large spill" shall generally mean a spill of more than 200 liters (approximately 53 gallons).

**2. Minor Incident Responses (Level 1 Hazardous Material Incident)**

**2.1** The report of the following types of incidents shall initially be considered minor in nature and shall receive a single engine company response:

- Natural gas odors outside a structure.
- Leaking fuel from the tank of a passenger vehicle
- Small combustible or flammable liquid spills

The resources of the Fire District can generally handle these types of incidents. It may be necessary, however, to request the response of Washington State Patrol (WSP) and/or Department of Ecology or a mutual aid Hazardous Materials Team.

**3. Moderate Incident Responses (Level 2 Hazardous Material Incident)**

**3.1** The report of the following types of incidents shall be considered moderate in nature and shall receive the response of the minimum of a single engine response.

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- A motor vehicle accident involving freight haulers that have unknown type loads or placarded vehicles with no obvious leakage.
- A large spill of a combustible or flammable liquid outside a structure.
- The spillage of a known hazardous material outside of a structure.

These types of incidents will generally require the response of the Washington State Patrol (WSP) and/or Department of Ecology or a mutual aid Hazardous Materials Team.

**4. Serious Incident Responses (Level 3 Hazardous Material Incident)**

**4.1** The report of the following types of incidents shall be considered serious in nature and shall receive a full first alarm assignment.

- The release of natural gas or propane within a structure.
- Any small spill of a combustible or flammable liquid within a structure.
- A train derailment.
- Any release of an extremely hazardous substance (as defined by the EPA).

These types of incidents may exceed the capabilities of both the District and the mutual aid Hazardous Materials Team. Should this occur, the Emergency Management Office (EMO) should be notified.

**5. Incident Management**

**5.1** The District's Incident Command System shall be utilized at every hazardous materials incident, regardless of how minor the incident is. Federal law mandates the use of the Incident Command System.

**5.2** Command shall be established as in any other incident of the District. It is not necessary for a Hazardous Materials Specialist or Technician to serve as the Incident Commander.

**5.3** A Hazardous Materials Specialist or Technician should be utilized in the positions of Planning, Entry Group, or any other position within the Incident Command System where specific technical knowledge of hazardous materials and training is required for adequate performance.

**6. Communications**

**6.1** When a hazardous materials incident is received by the Dispatch Agency, the Dispatcher should attempt to obtain pertinent information and relay that information to the senior ranking officer responding to the incident. Such information should include, but is not limited to:

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1. Any visible labels or placards
2. Type of material believed to be involved.
3. Amount of the spill or release
4. Amount in the container that is subject to release
5. The number and nature of injured persons

**6.2** Control shall then dispatch the alarm as set forth in their Standard Operating Guidelines. As soon as possible, Control should relay the current weather conditions to include: wind speed and direction, air temperature, and relative humidity.

**7. Initial Response**

**7.1** The initial responding unit shall establish an operational mode of investigation, attack, or command.

**7.1.1** The investigation mode shall be utilized when the units will be attempting to recognize and identify the hazardous materials problem.

**7.1.2** The attack mode shall be utilized when the problem is obvious upon arrival and initial containment operations are instituted immediately.

**7.1.3** The command mode shall be utilized when the situation is of such magnitude that all of the personnel of the initial arriving response will be used to initiate an Incident Command System at the scene.

**7.2** On motor vehicle accidents involving trucks, trains, aircraft, and other freight carriers, the initial arriving company shall position in a Level One staging area.

**7.2.1** Binoculars should be utilized to attempt to identify the possibility of hazardous materials being involved in the accident.

**7.2.2** Any personnel sent into the immediate area to investigate shall wear full protective clothing, including SCBA.

**7.2.3** A minimum of two members shall be used as a reconnaissance team and should take a combustible gas meter, an oxygen meter, and a radiological meter. Constant meter readings will be taken as the team approaches the scene.

**7.3** If a hazardous materials situation is determined to be probable, a fire line (cold zone) perimeter will be established with fire line tape.

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**7.4** After completing the above, the personnel, involved in the initial response shall confine their operations to the first responder/operations level activities such as:

- Containment of the material
- Diking operations
- Protecting of exposures
- Rescue, if adequate personnel and equipment are available.
- Evacuation
- Monitoring

**7.5** Every member on the initial response shall take the appropriate precautions to avoid exposure to any hazardous materials liquid, solid, or vapor cloud that could permeate normal structural firefighting protective clothing.

**8. Hazardous Materials Team Response**

**8.1** If it is determined that because of the type of material involved, necessary equipment to control the spill, personnel or training needs, or the protective clothing needed is inadequate among the initial response WSP shall be requested to respond.

**8.2** The mutual aid Hazardous Materials Team should be directed to respond to a Level Two staging area.

**8.3** No District personnel, other than those qualified and on a team, shall be utilized in fully encapsulating suits or in any mitigation operations involving any extremely hazardous substance.

**9. Safety**

**9.1** All normal safety standard operating guidelines of the District shall be adhered to.

**9.2** At any hazardous materials incident that requires a first alarm response or greater, the position of Safety Officer within the Incident Command System shall be filled. At smaller incidents the Incident Commander may, at his/her discretion, fill that role.

**9.3** No personnel shall cross a hot zone line without being in the personal protective equipment as prescribed by the Incident Commander.

**9.4** The two-in / two-out rule shall be utilized at every hazardous materials incident.

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**9.5** Charged hose lines or master stream devices shall be deployed and kept ready for immediate use whenever personnel are working with a flammable or combustible liquid or vapor.

**10. Notifications**

**10.1** The Chief of the District shall be notified whenever District personnel are engaged in a hazardous materials response.

**10.2** WSP and Department of Ecology shall be contacted whenever one of the following criteria is met:

- Technical Assistance Team is needed or desired.
- Whenever the release involves an extremely hazardous substance.
- Whenever there is a large spill a flammable or combustible liquid that is not contained to the spiller's premises.

**10.3** CHEMTREC shall be contacted whenever the Incident Commander needs assistance in determining the characteristics of the material involved or desires assistance in notifying the shipper and/or manufacturer. This agency can also be utilized to access various chemical manufacturing organizations that have emergency response teams.

**11. Mitigation Methods**

**11.1** This District has not established a specific Standard Operating Guideline for the mitigation of hazardous materials. The education, training, and experience of those involved with the incident and participating agencies shall formulate a proper mitigation plan. The Incident Commander shall approve the final mitigation plan.

**11.2** Generally, small spills of flammable or combustible liquids shall be handled by applying an absorbent agent to the spill.

**11.3** Large spills shall be contained and the spiller shall be requested to mitigate the spill. If this is not practical, District personnel may be used to conduct emergency mitigation efforts.

**11.4** Life safety shall be the highest priority at hazardous materials incidents, as it is in all District operations. Fire protection of property must be considered in relationship to the possible damage to the environment and the highest priority be established at the scene. It may be necessary to allow some situations to "burn themselves out."

**11.5** Members of the District shall not be involved in any "clean up" operations that are not necessary for the emergency protection of life, property, or the environment.

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