# HAZMAT / WMD RESPONSE

## PURPOSE

To provide a standard by which companies trained to the "First Responder Operations" level and Incident Commanders trained to the “On-Scene Incident Commander” level respond to hazardous materials incidents.

## DEFINITIONS

**First Responder – Operations:** A level of training for first responders to hazardous materials incidents, required by federal and state law; as defined in Oregon Administrative Rule (OAR) 437-01-100(q).

**Full Protective Clothing:** As it relates to hazardous materials response, full protective clothing means turnouts, SCBA, or other PPE as required.

**On-Scene Incident Commander:** A level of training for Incident Commanders on hazardous materials incidents, required by federal and state law; as defined by OAR 437-01-100(q).

**Responsible Party:** Federal and state regulators assign responsibility for incident clean-up (and costs) to the party who is responsible for the hazardous materials incident (i.e., a fixed facility, transportation agent, etc.).

**HMRT:** Hazardous Materials Response Team.

**Hazardous Materials Group Supervisor:** Hazardous Materials Group Supervisor reports to the Incident Commander (or Operations Section Chief, if staffed) and is responsible for hazardous materials tactical operations. The Hazardous Materials Group Supervisor position is staffed by the Regional Hazardous Materials Response Team Leader.

**Emergency Response Guidebook:** North American Emergency Response Guidebook; formerly “DOT Emergency Response Guidebook”.

## PROCEDURE

### 1. TRAINING REQUIREMENTS

A. All response personnel must meet the training requirements for 'First Responder - Operations' level. OAR 437-01-100(q) and 29CFR1910.120 (q)(6)(ii).

B. Incident Commanders on hazardous materials incidents must meet the training requirements for 'On-Scene Incident Commander'. 29CFR1910.120(q)(6)(v)

C. Employees trained to the above levels shall receive annual refresher training of sufficient content and duration to maintain their competencies. 29CFR1910.120(q)(8)

### 2. INCIDENT COMMANDER

A. All incidents involving hazardous materials in a spill, release or fire, require an Incident Commander trained to the "On-Scene Incident Commander" level. All personnel on the Incident Management Team that may serve as an Incident Commander are trained and required to maintain competency to the "On-Scene Incident Commander" level.

B. The Incident Commander may call for a full or partial Regional HMRT response if incident mitigation is beyond the training and capabilities of a company response.

The IC may also call for technical assistance from the Regional HMRT without a response to the incident site, if the situation warrants.

## 3. COMPANY FUNCTIONS

A. Companies will respond for the purpose of protecting life, property, and the environment from a hazardous materials release.

B. Companies will respond in a defensive fashion without coming in contact with the release or without taking actions to stop a release that would place them in danger of contact.

C. The primary functions of the Operations Level responder are to confine the release from a safe distance, keep it from spreading, and protect exposures. Initial actions are:

i. Evaluate dispatch information for indications of deliberate release.

ii. Approach the incident scene safely.

iii. Isolate the hazard area and control access.

iv. Identify hazard and assess associated risks.

v. Basic control, containment and/or confinement operations appropriate to the level of training and personal protective clothing and equipment.

D. Companies will only take offensive/defensive actions on hazardous materials incidents that can be safely performed in full protective clothing.

## 4. HAZARDOUS MATERIALS RESPONSE AND OPERATIONS

A. While enroute to the scene:

i. Contact the dispatch center and obtain available information regarding:

a. The nature of the incident, e.g., fixed facility, transportation related, etc.

b. Indications of deliberate release (criminal/terrorist).

c. The type of product(s) involved, if known.

d. The best direction for approaching the scene from upwind, upgrade and upstream.

e. Which unit is on-scene that may have information on the nature of the incident.

f. Any information on the incident conditions that may be known and can be provided while enroute to the incident scene.

ii. The Regional HMRT may be contacted via dispatch for technical assistance or response, as appropriate.

iii. Approach the incident scene with caution.

a. Upwind, upgrade, upstream or at a right angle to the wind direction and/or gradient.

b. Consider escape routes. Be aware of situations that require entering areas with egress restrictions, such as fenced compounds.

c. Be aware of secondary devices.

d. Position vehicle/apparatus headed away from the incident scene at a safe distance.

B. Upon Arrival

i. Establish Command and give size-up.

a. Place Command Post in cold zone

b. Place Staging/Base in cold zone.

c. Communicate locations to dispatch and incoming units

ii. Establish a Unified Command if multiple agencies/jurisdictions are involved.

iii. Ensure a qualified "On-Scene Incident Commander" is enroute to the scene.

iv. Evaluate the need for Regional HMRT technical assistance or response.

C. Establish Control Zone and Deny Access

i. Determine the hazard area and establish the Hot Zone, Warm Zone and Cold Zone boundaries.

a. Based on initial observations, identify a safe distance for initial incident isolation to begin, utilize Guide 111until the product is identified. If/when the product is positively identified specific recommendations can be taken from the Emergency Response Guidebook.

b. Isolate and deny entry to:

1) The general public

2) Anyone not in proper protective clothing and equipment

3) Anyone without a specific assignment

ii. Communicate the Zone information to dispatch and incoming units.

iii. Determine a safe approach for incoming units and direct them to locations at the Safe Zone Perimeter that will facilitate isolation of the incident, i.e., intersections to block and re-direct traffic, etc. All others should be directed to the Staging/Base Area until assigned.

iv. Request police assistance as needed to:

a. Handle Cold Zone Perimeter control to relieve fire units for incident mitigation.

b. Handle public evacuations.

c. Handle public notification for sheltering in place

v. While isolating the incident scene:

a. Treat all vapor clouds as being toxic and handle accordingly.

b. Utilize air monitors

c. Do not walk into, through or touch any spilled materials.

d. Observe local on-site weather and wind conditions and adjust accordingly.

e. Position at a safe distance and utilize your binoculars!

D. Attempt to Identify the Product.

i. If the product is known, proceed to Section V and isolate in accordance with appropriate Emergency Response Guidebook recommendations. Record observations on the hazmat incident worksheet. (Provide the diagram to the incoming Incident Commander or Regional HMRT.)

ii. If the product is unknown, from a safe distance attempt to gather as much information as possible.

iii. Use Emergency Response Guide #111 isolation recommendations until the material is identified. Record observations on the hazmat incident worksheet and begin site diagram.

a. Responder Life Safety is the number one priority. Do not rush into the scene to affect a rescue without first identifying the hazards.

b. Attempt to identify outward warning signs that are indicators of the presence of hazardous materials. These include:

1) Individuals that have collapsed or are vomiting inside the hazardous area (Regional HMRT response).

2) Any evidence of fire, as indicated by smoke, greatly increases all hazards.

3) A loud roar of increasing pitch from a container's operating relief valve (Regional HMRT response).

4) Evidence of a leak, indicated by a hissing sound.

5) Birds and insects falling out of the sky (Regional HMRT response).

AND/OR

c. Attempt to identify the material(s) involved by using:

1) Placards/labels

2) Container markings

3) Driver/operator provided information including shipping papers.

d. After determining product:

1) Perform rescue, if needed, using safety guidelines related to that product.

2) Re-evaluate distances for isolated area.

e. Communicate your observations to dispatch and incoming units.

f. Anticipate shifting winds when establishing perimeters; consult with the weather service to obtain accurate forecasts of changes that might impact your incident scene and perimeters.

g. Eliminate ignition sources if flammable materials are involved. Remember that non-flammable materials, such as anhydrous ammonia are, in fact, flammable, so always identify if the product has a flammable range.

h. Request additional fire, law enforcement and public works resources, as needed, to secure the incident scene and maintain perimeter control.

i. If large dikes and dams need to be built to control spill, consider requisition for heavy equipment and/or assistance of a public works type resources.

E. Conduct a Risk/Benefit Analysis which includes asking the following questions in relation to the incident you are addressing:

i. What would the outcome be if we did absolutely nothing and allowed the incident to go through natural stabilization?

ii. Once you have identified the outcomes of natural stabilization, the next question you should ask is "Can we change the outcomes of natural stabilization?"

iii. If the answer to this question is "NO", then isolate the hazard area, deny entry, and protect exposures such as people, the environment and adjacent property/equipment.

iv. If the answer to this question is "YES", then the next question to ask is "What is the cost of my intervention?"

IF THE INCIDENT COMMANDER DETERMINES DEFENSIVE OPERATIONS CAN STABILIZE/CONTAIN THE INCIDENT AND IT CAN BE DONE IN FULL PROTECTIVE CLOTHING (TURNOUTS AND SCBA), THE IC SHALL CONDUCT OPERATIONS IN ACCORDANCE WITH THE "DEFENSIVE OPERATIONAL GUIDELINES".

**5. DEFENSIVE OPERATIONAL GUIDELINES**

A. Attempt to stop/slow/control leak using defensive techniques (such as turning off a valve, etc.).

B. If the leak cannot be stopped, utilize an appropriate confinement procedure to prevent the material from flowing and increasing the exposed surface area (i.e., using dirt or absorbent).

**6. DECONTAMINATION**

Perform field decontamination as directed by the Incident Commander and/or Regional HMRT.

NOTE: ALL CONTAMINATED PATIENTS MUST BE DECONTAMINATED OR PACKAGED FOR TRANSPORT IN A WAY TO PREVENT CONTAMINATION OF TRANSPORT UNITS AND HOSPITALS.

**7. CLEAN-UP**

A. If the incident is on a roadway or public access area, the Incident Commander must ensure that a public safety agency (coordinate with law enforcement officials, if available) remains on-scene to continue isolation procedures and standby until the clean-up company arrives.

B. If a responsible party is not on-scene and making arrangements for clean-up and disposal, contact the on-duty Regional HMRT Team Leader for further instructions.

NOTE: FIRE DEPARTMENT PERSONNEL SHALL NOT ENGAGE IN CLEAN-UP OPERATIONS. THE APPROPRIATE ROLE IS

CONTAINMENT/ STABILIZATION. DO NOT TAKE HAZARDOUS MATERIALS FROM AN INCIDENT TO ANY FIRE DISTRICT FACILITY.

**8. CONDUCT TERMINATION PROCEDURES**

A. Prior to the demobilization and release of any equipment from the scene, conduct a debriefing of all response personnel (including cooperating agencies).

B. An effective debriefing should:

i. Inform all responders exactly what hazardous materials were involved and the accompanying signs and symptoms of exposure.

ii. Provide information for personal exposure records.

iii. Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation.

iv. Conduct a post-incident analysis and critique. This may be done at the station