

# State of Oregon Regional Hazardous Material Response Teams



## Hazardous Materials Technician Individual Compliance Training

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**Team Name/Number**

This book issued to:

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Name

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Current Contract Period

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Training Coordinator



## State of Oregon Hazardous Materials Technician Compliance Training

### Introduction

Completion of the following tasks is intended to meet requirements of 29 CFR 1910.120 (q) (6) and the following guidelines or documents: NFPA 472 Hazmat for WMD incidents, IAFF HMRT Technician Training Manual and the DOT ERG book, in order to maintain competence for Hazardous Materials Technicians. This task book will serve as documentation of that training/experience for members of Team # \_\_\_\_ of the Oregon Office of State Fire Marshal Hazardous Materials Emergency Response Program.

In addition to completion of individual compliance training, members may also complete other relevant training through your department, the Oregon Office of State Fire Marshal and other resources. Those training hours are not meant to be excluded from annual refresher training hours for maintaining competence.

### Completion of Task Book

The HazMat Team Coordinator or designee qualified and proficient, will evaluate the tasks that have been completed successfully. The focus on this evaluation will not be on a time standard, but on *demonstrating competency*. Evaluators shall initial and date each task as the team member successfully completes it. Team members shall complete all tasks from the mandatory list within the identified two-year period. Additional training is encouraged and may consist of topics from the optional list. In addition, teams may chose to conduct an annual team training session that covers selected topics from the task book. *Note: this task book is intended for continuing skills re-certification, but new techs just completing weeks 1-4 training can check off appropriate areas with approval of the training designee.*

When the task book is completed, return it to the Hazardous Materials Team Training Coordinator for review. The task book will then be forwarded to your department Training Officer for inclusion in your training records, and a notification of successful completion will be sent to the Office of State Fire Marshal (See Document of Completion form at the end of this Task Book).

In addition to achieving the previously listed minimum individual competencies, all HMRT Technicians are highly encouraged to attend regularly scheduled team drills to meet the minimum training requirements adopted by your department/agency. Members shall attempt to participate in at least on hands-on team field exercise or multi-team drill with a neighboring team, each quarter.



## **State of Oregon Hazardous Materials Technician Compliance Training** **Mandatory Tasks to be completed within the Two Year Period**

### **Team Positions**

	<b>Date</b>	<b>Initials</b>
<b>Perform the following Hazmat Team Duties during an actual incident or training exercise and complete related documentation for that position</b>		
1. Hazmat Group Supervisor	_____	_____
2. Safety Officer	_____	_____
3. Resource Leader	_____	_____
4. Entry Leader	_____	_____
5. Backup Leader	_____	_____
6. Decontamination	_____	_____
7. Medical Officer	_____	_____

### **Personal Protective Equipment**

	<b>Date</b>	<b>Initials</b>
1. Demonstrate donning, working in, doffing, and care of Level A PPE.	_____	_____
2. Demonstrate donning, working in, doffing, and care of Level B PPE.	_____	_____
3. Select proper level of PPE for at least three given chemicals using manufacturer's permeation and breakthrough information. Review types of chemical and physical stresses to PPE.	_____	_____
4. Identify the respiratory protection required for a given response and the following: SCBA's, PAPR's, APR's and particulate respirators.	_____	_____



## **State of Oregon Hazardous Materials Technician Compliance Training** **Mandatory Tasks to be completed within the Two Year Period**

### **Monitoring Equipment**

	<b>Date</b>	<b>Initials</b>
1. Demonstrate the proper use, field maintenance and bump/confidence testing of a multi-gas monitor (At least one type per year).		
Model/Type _____	_____	_____
Model/Type _____	_____	_____
Model/Type _____	_____	_____
2. Demonstrate the proper use, field maintenance and bump/confidence testing of a photo ionization detector.		
Model/Type _____	_____	_____
3. Demonstrate the proper use of the SensIR HazMat ID Command system and explain its uses and maintenance procedures.	_____	_____
4. Demonstrate the proper use of the Drager CDS or Sensidyne Hazmat Detection Kit and explain its uses and maintenance procedures.	_____	_____
5. Demonstrate the use of colorimetric sampling tubes, test strips, and other reagents available.	_____	_____
6. Demonstrate sampling of liquids and solids using barrel samplers and other tools.	_____	_____
7. Demonstrate maintenance, bump testing and proper use of a Canberra Mini-Radiac Dosimeter. Also review same with Dositec backup Electronic Personal Dosimeter's.	_____	_____



## **State of Oregon Hazardous Materials Technician Compliance Training Mandatory Tasks to be completed within the Two Year Period**

### **Chemical Hazard Categorization and Sampling**

	<b>Date</b>	<b>Initials</b>
1. Describe/Demonstrate the use the Ten Step Method and Kit by analyzing an unknown. At a minimum, hazard-class and physical properties shall be identified.	_____	_____

### **Special Kits / Gear**

	<b>Date</b>	<b>Initials</b>
1. Demonstrate proper use of the chlorine "A" kit.	_____	_____
2. Demonstrate proper use of the chlorine "B" kit.	_____	_____
3. Demonstrate proper use of the chlorine "C" kit.	_____	_____
4. Demonstrate operation and use of thermal imaging camera.	_____	_____

### **Plugging, Patching and Containment**

	<b>Date</b>	<b>Initials</b>
1. Properly apply pressurized container kits for non-bulk and bulk containers.	_____	_____
2. Contain liquid leaks in non-pressure bulk/non-bulk containers using materials provided: putty, air bag patches, wedges/other devices.	_____	_____
3. Review and demonstrate general chemical confinement/containment techniques and procedures. Properly contain leaking materials using sorbents, booms, pads, or other material.	_____	_____
4. Demonstrate building dikes, dams (over flow and under flow) and diversion systems to prevent environmental contamination.	_____	_____



## **State of Oregon Hazardous Materials Technician Compliance Training** **Mandatory Tasks to be completed within the Two Year Period**

	<b>Date</b>	<b>Initials</b>
5. Demonstrate techniques for grounding and bonding containers or tankers.	_____	_____

### **Scene Management**

	<b>Date</b>	<b>Initials</b>
1. Given a scenario, or at an actual emergency, survey the scene and conduct an assessment. Brief HazMat division, team or branch on the hazards, environmental assessment, incident outcome and possible incident tactics to stabilize the situation.	_____	_____
2. Provide an incident safety briefing with all components according to department protocol and 29 CFR 1910.120, or NFPA 472.	_____	_____
3. Develop and manage an incident action plan at an actual emergency or at a drill.	_____	_____
4. Set up Weather Station and demonstrate ability to integrate current weather data into other programs and or resources	_____	_____
5. Determine Site control zones and measures: designation of Hazard Zones for chemical, rad, explosive and other scenes. Clearly define zones to include sheltering in place, evacuation and emergency decon/monitoring.	_____	_____
6. Formulate/communicate a decon plan: site selection, staffing, appropriate monitoring, solutions and decon for ambulatory vs non-ambulatory patients.	_____	_____
7. Initiate personnel accountability system and implement appropriate documentation process.	_____	_____



## **State of Oregon Hazardous Materials Technician Compliance Training** **Optional Tasks Recommended but not Required**

### **Personal Protective Equipment**

	<b>Date</b>	<b>Initials</b>
1. Describe the requirements for annual testing of Level A garments and/or perform this test as part of your team's PPE inspection process, including: maintenance and storage, decon and disposal, according to manufacturers specifications.	_____	_____

### **Monitoring Equipment**

	<b>Date</b>	<b>Initials</b>
1. Explain the difference between a survey instrument and a field strength meter. Demonstrate how to screen for background levels and contamination on a victim.	_____	_____
2. Explain knowledge of typical background radiation levels, levels to cause ARS and death, occupational dose levels, life saving dose levels, levels for radiation control zones.	_____	_____

### **Chemical Hazard Categorization and Sampling**

	<b>Date</b>	<b>Initials</b>
1. The Medical Officer shall identify the signs and symptoms of exposure to various agents, target organs and treatment/decon options for each.	_____	_____
2. Be able to distinguish between different health and safety terms: TLV, PEL, STEL, IDLH. Be able to identify key categories of toxic substances and their health effects for: Asphyxiants, Corrosives, Irritants, Sensitizers, Carcinogens, Neurotoxins, Mutagens, Teratogens, Infectious Agents.	_____	_____
3. Recognize hazards of nine DOT classes of hazardous materials.	_____	_____



## **State of Oregon Hazardous Materials Technician Compliance Training** **Optional Tasks Recommended but not Required**

	<b>Date</b>	<b>Initials</b>
4. Demonstrate basic term mastery: SG, VP, Flamm Limits, VD, Fire Point, Ig Temp, PH, Solubility, Miscible, Polar, Oxidizers, Catalyst, Corrosive, Polymerization, Exo/Endothermic, Neutralization.	_____	_____
5. Define Cryogenics and 3 main responder hazards.	_____	_____
6. Show understanding of basic atomic terms: atom, molecule, proton, neutron and electron. Show an understanding of the Periodic Table and these concepts: Atomic number, weight, oxidizers, electronegativity, metals vs non-metals, ionic vs covalent compounds, earth metals, inert gases.	_____	_____
7. Explain the concept of radiation and demonstrate knowledge of : half-life, ionizing vs non-ionizing radiation, time/distance/shielding, contamination vs exposure, alpha, beta, neutron, gamma and x-ray.	_____	_____
8. Recognize basic H-C Derivatives and major properties of each: Halogenated Hydrocarbons, Alcohols, Ethers, Organic Peroxides, Amines, Nitros, Ketones, Aldehydes, Carbonyls, Esters.	_____	_____
9. Describe/Demonstrate the use of the HazCat Hazard Categorization Kit.	_____	_____
10. Identify the capabilities and limiting factors associated with the selection and use of bio test strips and indicators.	_____	_____

### **Special Kits / Gear**

	<b>Date</b>	<b>Initials</b>
1. Identify the main types of rail and highway cargo tanks and specific features of each.	_____	_____



## **State of Oregon Hazardous Materials Technician Compliance Training** **Optional Tasks Recommended but not Required**

### **Plugging, Patching and Containment**

	<b>Date</b>	<b>Initials</b>
1. Given a 55 gallon drum and applicable tools and materials, demonstrate the ability to contain the following types of leaks: bung leak, forklift puncture, chime leak, nail puncture.	_____	_____
2. Demonstrate techniques for overpacking drums.	_____	_____

### **Scene Management**

	<b>Date</b>	<b>Initials</b>
1. Construct an ICS Branch structure for a large scale CBRNE incident with multiple agencies.	_____	_____
2. Review State HMRT Policy Book and all Individual team policies.	_____	_____
3. Review requirements for and/or fill out a state incident report form with all sections.	_____	_____
4. Demonstrate familiarity w/PEAC software and look up info when given a chemical scenario.	_____	_____
5. Initiate CAMEO/MARPLOT/ALOHA programs and generate an initial report and plume model when given a scenario. Estimate endangered area size, dispersion pattern prediction, likely extent of the physical, safety and health hazards in the area.	_____	_____
6. Show how to look up a given occupancy with the HSIS system (Hazardous Substance Information System) and demonstrate the ability to access information from the program.	_____	_____



**State of Oregon Hazardous Materials Technician Compliance Training**  
**Optional Tasks Recommended but not Required**

	<b>Date</b>	<b>Initials</b>
7. Describe/demonstrate evidentiary sampling techniques, sampling options for liquid/solids, labeling, packaging and field screening protocols. Identify documentation and chain of custody procedures during WMD incidents.	_____	_____
8. Demonstrate ability to use equipment to access the internet and obtain information from WebWiser and/or MSDS informational sites.	_____	_____
9. Describe how to access the NARAC / IMAAC system for hazmat release plume modeling.	_____	_____
10. Demonstrate knowledge of forms/check sheets for team positions, Hazmat ICS, scene survey, exposures, critique reports, equipment maintenance, medical checks and monitoring.	_____	_____
11. Demonstrate an understanding of and use of the DOT ERG Guidebook.	_____	_____
12. Be familiar with statutes to include: EPA, DOT, SARA Title III, OSHA, CFR 1910.1200 (Hazard Communication Standard)	_____	_____
13. Identify and list the main capabilities of key response partner agencies at the state and federal level (including but not limited to): EPA(Environmental Protection Agency), FBI (Federal Bureau of Investigation), BES (Bureau of Environmental Services), DEQ (Department of Environmental Quality), RPS (Radiation Protective Services), RAP Team (Radiological Assistance Program), FRMAC (Federal Radiological Assessment and Monitoring Center), CST (Civil Support Team), Poison Control.	_____	_____



## State of Oregon Hazardous Materials Technician Compliance Training

### INSTRUCTIONAL ACTIVITIES

	<b>Date</b>	<b>Initials</b>
Team members may complete one or more of the following:		
1. Coordinate a hazardous materials related drill.	_____	_____
2. Instruct/co-instruct a Hazardous Materials Operations class.	_____	_____
3. Participate on a committee or OSFM project	_____	_____
4. Participate in a local LEPC planning project	_____	_____
5. Provide Outreach Training	_____	_____

**State of Oregon  
Regional Hazardous Materials Response Teams**



**Hazardous Materials Technician  
Individual Compliance Training  
*Document of Completion***

**This certifies that:**

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Name

**From:**

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Team Name/Number

**Has successfully completed all mandatory HMRT technician training tasks  
for the following contract period:**

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Current Contract Period

**As certified by:**

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Training Coordinator