



HAZWOPER Emergency Response Made Easy

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OSHA HAZWOPER Standard

- 29 CFR 1910.120 – Effective since May 1996
- HAZWOPER covers three categories of work operations
 - Paragraphs (b)-(o): Cleanup of uncontrolled hazardous waste sites.
 - Paragraph (p): Operations of hazardous waste TSD facilities.
 - **Paragraph (q): Emergency Response to releases**



Scope of Emergency Response (q) Responses

- Emergency response operations for releases of or substantial threats of releases of, hazardous substances without regard to the location of the hazards



What is an Emergency Response?

- “...a response effort from employees outside the immediate release area or by other designated responders (i.e., mutual-aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance.” (29CFR 1910.120)



What is the Immediate Release Area?

- Area, process, or machine which is creating the hazardous release
- Not used solely to determine HAZWOPER coverage (performance based standard)
- Key factor on a case-by-case determination is actual/estimated exposure and danger to workers and public
- Emergency Planning determines what is an ER event



Examples of Designated Responders

- Fire Department
- Well Control Team/Company
- Designated HAZMAT Team
- Employees working in the immediate release area (not just outsiders) designated as emergency responders



Scope of Emergency Response (q) Responses

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What is a Hazardous Substance?

- CERCLA listed substance
- Biological or disease causing agent
- DOT listed substance
- Hazardous waste

Hazardous Substances

- Oil
- Natural Gas
- Residue Gas
- Condensate
- Methanol
- Propane
- Produced Water – Maybe
- Other Well Site Chemicals



Scope of Emergency Response (q) Responses

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What is Considered a Release or Substantial Threat of a Release?

- Can be categorized into three (3) distinct groups in terms of planning
 - Releases that are “clearly” incidental regardless of circumstances.
 - Releases that may be incidental or may be require ER depending on the circumstances.
 - Releases that “clearly” require ER regardless of circumstances.



What is a “Clearly” Incidental Release?

- Does not pose a significant S&H hazard to workers in area or workers cleaning up
- Limited in quantity, exposure potential, toxicity, etc.
- Can be absorbed, neutralized or otherwise controlled at the time of the release by employees in the immediate release area or by maintenance personnel



What is a “Clearly” ER Release?

- Requires a response from outside the immediate release area
- Requires evacuation of employees
- Poses, or has the potential to pose, conditions that are immediately dangerous to life or health (IDLH)
- Requires immediate attention because of imminent danger
- May cause high levels of exposure to toxic substances
- There is uncertainty whether workers in the area can handle the severity of the hazard with the PPE and equipment provided and the exposure limit could easily be exceeded
- The situation is unclear, or data are lacking on important factors



What is a Release that May be Incidental or an ER Depending on Circumstances?

- Distinction is site-specific and its impact is a function of the Emergency Response Plan (ERP)
 - Properties of hazardous substance (toxicity, volatility, flammability, corrosiveness, etc.)
 - Quantity, confined space considerations, ventilation, etc.
 - Training and experience of employees in release area
 - PPE on hand
 - Pre-established SOPs for response to releases
 - Existence of engineering controls to help mitigate the release



Is It HAZWOPER?

- Uncontrolled release, or likely release, of hazardous substance **AND**
- Personnel from outside the immediate release area respond **OR** designated response team respond to release
- If both are true, then it **is a HAZWOPER ER event**
- If either is not true, then it **is NOT a HAZWOPER ER event**



Examples and Scenarios



December 2-3, 2014

Spill from Tanker Truck

- HAZMAT spill from tanker truck loading/unloading station
- Product can be contained by workers in immediate vicinity using absorbent w/o threat to S&H of workers



Spill from Tanker Truck

- HAZMAT spill from tanker truck loading/unloading station
- Employees evacuated and outside spill response called



Spill to Secondary Containment

- Large oil or condensate spill from vessel
- Product contained by secondary containment
- Serious threat of fire (potential to exceed LEL)



Spill to Secondary Containment

- Large HAZMAT spill from vessel
- Product contained by secondary containment
- Advanced knowledge of product by workers in area
- Equipment readily available to clean up spill
- Pre-established SOP for handling spill





Well Head

- Gas venting or a fire and an uncontrolled release





Response Area

- Responding from offsite to a toxic gas release above IDLH levels, obscuring visibility and moving through site
- Responding from onsite (plant, compressor station, well site, rig) to same scenario





Designated Team

- Designated Response Team (Fire or HAZMAT) responds to uncontrolled release



Training Requirements



December 2-3, 2014



HAZWOPER Response Roles

Emergency Responder Role	Training Requirement
First Responder Awareness – Witnesses or discovers a release and notifies proper authorities	<ul style="list-style-type: none">- Sufficient initial training and competencies- Annual refresher
First Responder Operations – Responds to release in a defensive manner, w/o trying to stop the release (i.e. shut valves, berm, contain from safe distance)	<ul style="list-style-type: none">- 8 hours initial training and competencies- Annual refresher
Hazardous Material Technician – Responds aggressively to stop the release (i.e. approach point of release to stop release)	<ul style="list-style-type: none">- 24 hours initial training and competencies- Annual refresher



HAZWOPER Response Roles

Emergency Responder Role	Training Requirement
Hazardous Material Specialist – Responds with and in support of HAZMAT technicians, but who have specific knowledge of various hazardous substances	<ul style="list-style-type: none">- 24 hours initial training and competencies- Annual refresher
On Scene Incident Commander – Assumes control of the incident scene beyond the first responder awareness level	<ul style="list-style-type: none">- 24 hours initial training and competencies- Annual refresher





HAZWOPER Response Roles

Emergency Responder Role (Other)	Training Requirement
Skilled Support Personnel – Temporarily perform immediate emergency support work (i.e. crane, earthmoving or other heavy equipment operators)	- Safety and health briefing at response site (chemical hazards, wearing of proper PPE, duties, etc.)
Specialist Employees – Provide technical advice/assistance on specific hazardous substances	- Annual demonstration of specialized competencies



When is the Emergency Response Over?

- When Incident Commander determines the site and release is under control and is ready for clean up





Post Emergency Clean Up

- Once emergency response is complete, site needs to be cleaned up in 1 of 2 ways:
 - Comply with paragraphs (b) – (o) in standard. **Typically not the first choice.**
 - If **not on property or not using worksite employees** then must comply with paragraphs (b) – (o) and other applicable S&H standards
 - If on property and using responsible party employees or workplace employees, then training only needs to include: EAP, HAZCOM, PPE and other appropriate S&H standards



Additional Resources

- OSHA Publication 3114 (2008) Hazardous Waste Operations and Emergency Response
- OSHA CPL 02-02-073 (2007) Inspection Procedures for 29CFR 1910.120 and 1926.65, Paragraph (q): Emergency Response to Hazardous Substance Releases
- National STEPS network website
- OSHA website (Hazardous Waste in index)

