

Emergency Planning, Preparedness, and Response

A COORDINATED APPROACH TO
THE EMERGENCY PLANNING &
RESPONSE REQUIREMENTS OF
EPA, OSHA & DOT REGULATIONS



About KY Chapter of A&WMA



The Kentucky Chapter of the Air & Waste Management Association
is a non-profit, non-partisan professional organization
that provides training, information, and networking opportunities
to environmental professionals throughout Kentucky and Kentuckiana.

Our mission is to strengthen the environmental profession,
expand scientific and technological responses to environmental concerns,
and assist professionals in critical environmental decision-making
to benefit human health and the environment.

Learn more about the Kentucky Chapter at <http://awma-ky.org>

The Kentucky Chapter is affiliated with
the International Air & Waste Management Association (www.awma.org)
and is part of its East Central Section (<http://www.ecs-awma.org>).

A&WMA IS GLAD YOU JOINED US FOR THIS ENVIRONMENTAL PRACTITIONERS' WORKSHOP!
We hope you got a lot out of it! ☺



About the Presenter

Corinne M. Greenberg, CHMM

Environmental Manager, Carbide Industries LLC

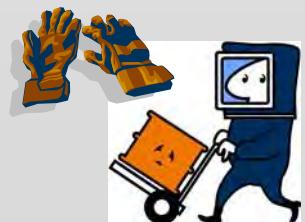
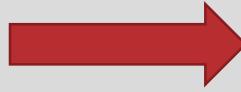
Manufacturer of calcium carbide, acetylene, and calcium hydroxide
Louisville, Kentucky & Calvert City, Kentucky

cgreenberg@carbidellc.com

- Ms. Greenberg has over 24 years' experience in environmental health & safety management across a broad spectrum of industrial sectors, including waste management, recycling, the manufacture of durable consumer goods, DoD's military-industrial complex, and the chemical industry.
- She has been credentialed as a Certified Hazardous Materials Manger (CHMM) since 1995.
- Ms. Greenberg is active at the national and local levels of the Air & Waste Management Association (A&WMA, currently KY-AWMA Chair 2015-16) and also the Alliance of Hazardous Materials Professionals (AHMP, locally KCHMM). She represents Carbide Industries in the Compressed Gas Association (CGA), represents CI's Louisville facility in its Local Emergency Planning Commission (LEPC), its metro chamber of commerce, and the Rubbertown Community Advisory Council, and she represents CI's Calvert City facility in the Calvert Industrial Mutual Aid Program and the Calvert City Environmental Consortium.

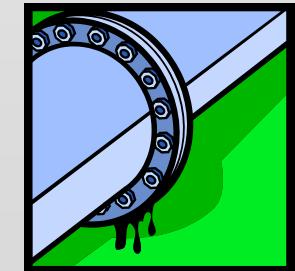
“Planning & Preparedness” vs. “Response”

- The Environmental Protection Agency ([EPA](#)),
the Occupational Safety & Health Administration ([OSHA](#)), and
the Department of Transportation ([DOT](#))...
... each have program-specific requirements that dictate specific
emergency planning, preparedness, and/or response elements that
must be incorporated into a facility's emergency procedures, depending
on the nature of the facility and the hazmats present.
- For the purposes of this presentation, we will review the
“PLANNING AND PREPAREDNESS” requirements first, then we will
discuss the **“EMERGENCY RESPONSE”** requirements...





- EPA, under the authority of the Oil Pollution Prevention Act of 1990 (OPPA), has requirements for Spill Prevention, Control, and Countermeasures (**SPCC**).
- These requirements are generally applicable to industrial or commercial facilities with onsite above-ground storage of oil totaling >1320 gallons, or >42,000 gallons underground storage capacity.
- EPA standards at 40 CFR 112.7 require an SPCC plan including:
 - A discussion of your facility's OPPA conformance;
 - Compliance with applicable requirements of 40 CFR 112;
 - Diagram of the facility, noting location and contents of each oil storage area;
 - Spill reporting procedures; and
 - Emergency response procedures.
- SPCC plans must be certified by a Professional Engineer (**PE**). Appropriate facility inspections and tests shall be performed and records maintained.



- EPA has also promulgated regulations to manage hazardous waste in accordance with the **Resource Conservation & Recovery Act of 1976 (RCRA)**.
- EPA standards at **40 CFR 264 Subpart D (paragraphs 264.50 – 264.56)** stipulate RCRA's **Contingency Plan** and emergency procedure requirements for **Large Quantity Generators (LQGs)** of hazardous waste, as incorporated by reference at 40 CFR 262 Subpart C.
Specific Contingency Plan requirements include:
 - Designation of an onsite Emergency Coordinator and alternates, and listing of their names, addresses, and phone numbers;
 - Emergency equipment onsite and procedures;
 - A site evacuation plan; and
 - Arrangements with local emergency responders.



- EPA standards at **40 CFR 264 Subpart C (paragraphs 264.30 - 264.37)** stipulate RCRA's **Preparedness & Prevention** requirements for **hazardous waste treatment, storage or disposal facilities (TSDFs)**.

These standards specify:

- Design & operation of each TSDF to minimize the possibility of fire, explosion, or release to the environment;
- Required equipment including communications devices, fire extinguishers, and water supply;
- Equipment testing & access to communications systems; and
- Required aisle space; and
- Arrangements with local authorities.



Planning & Preparedness:
EPA - CERCLA

40 CFR 302.4 - .5

- EPA requires notification of **Reportable Quantity (RQ)** releases of listed hazardous substances under the authority of the 1980 **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**.
- EPA standards at 40 CFR 302.4 - .5 designate **hazardous substances** which are subject to CERCLA notification requirements, and establishes the RQ for each.
- A facility's emergency plan should list the RQ for each listed hazardous substance present onsite so that, in the event of an emergency, this need-to-know info is already readily available.



United States
Environmental Protection
Agency

Office of Solid Waste
and
Emergency Response

EPA 560-B-15-001
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www.epa.gov/emergencies

LIST OF LISTS

Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 112(r) of the Clean Air Act

- EPCRA Section 302 Extremely Hazardous Substances
- CERCLA Hazardous Substances
- EPCRA Section 313 Toxic Chemicals
- CAA 112(r) Regulated Chemicals for Accidental Release Prevention

Planning & Preparedness:

EPA – “The List of Lists”

- One can go directly to Table 302.4 in the CERCLA regulations to see the “List of Hazardous Substances and Reportable Quantities,” but note that this list only includes the CERCLA hazardous substances...
- There’s another widely used EPA reference called **“The List of Lists”** that shows not only the CERCLA substances and their RQs but also the reportable quantities and threshold quantities for other regulatory programs, including EPCRA* and RMP*

(*wait for it...!)

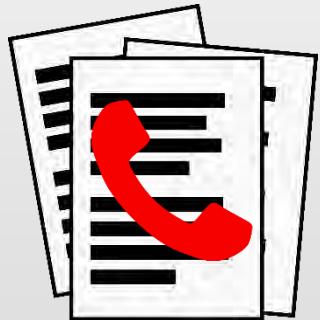
NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
n-Butyl phthalate	84-74-2			10	X	U069	
1-Butyne	107-00-6						10,000
Butyraldehyde	123-72-8				313		
Butyric acid	107-92-6			5,000			
iso-Butyric acid	79-31-2			5,000			
Cacodylic acid	75-60-5			1		U136	
Cadmium	7440-43-9			10	313		
Cadmium acetate	543-90-8			10	313c		
Cadmium bromide	7789-42-6			10	313c		
Cadmium chloride	10108-64-2			10	313c		
Cadmium Compounds	N078			&	313		
Cadmium oxide	1306-19-0	100/10,000	100		313c		

Source:

<https://www.epa.gov/epcra/consolidated-list-lists>



Title III of the **Superfund Amendments & Reauthorization Act (SARA)** tasked EPA with establishing a system to allow for coordinated emergency planning and release notifications. Collectively, the **Emergency Planning and Community Right-to-Know Act (EPCRA)**, specific requirements are found under 40 CFR Subchapter J, parts 350-372:

- 
- 40 CFR 350 does allow for some Trade Secrecy protections
 - 40 CFR 355 “**Emergency Planning and Notification**” requires:
 - **Emergency Planning**... submittal of MSDSs and EHS Plans (KY: “Tab Q-7”) to LEPCs... for facilities with Extremely Hazardous Substances (**EHS**) present above listed Threshold Planning Quantities (**TPQs**). Part 355 obligates affected facilities to participate in their Local Emergency Planning Committee (**LEPC**)
 - **Emergency Release Notification**... for EHS releases > specified EPCRA RQs... notification shall be made to Local Emergency Planning Committees (**LEPCs**) and State Emergency Response Commissions (**SERCs**), in addition to reporting of CERCLA RQ releases to National Response Center
 - 40 CFR 370, the first component of “**Community Right-to-Know**,” outlines the Tier I and Tier II hazardous chemical **inventory reporting** requirements, due to a facility’s LEPC, SERC, and local fire department by March 1 of each year.
 - 40 CFR 372, the second component of “**Community Right-to-Know**,” provides reporting requirements for the **Toxic Release Inventory (TRI)** program, due to EPA by July 1 of each year.



- Section 112(r) of the **Clean Air Act** gives EPA the authority to require that facilities with a regulated substance in a quantity greater than its listed **Threshold Quantity (TQ)** shall prepare a **Risk Management Plan (RMP)**.
- 40 CFR 68 Subpart F lists 77 **toxic** substances and 63 **flammable** substances subject to RMP accident prevention regulations.
 - Flammable substances are subject to RMP if the total quantity contained in a single process exceeds 10,000 lbs. (*Fuels held for sale at a retail facility are excluded from RMP.*)
 - The TQ for each toxic substance is set in consideration of its relative toxicity. TQs for toxic substances range from 500 lbs to 20,000 lbs.
- EPA standards at **40 CFR 68 Subpart G** require an **RMP plan** including:
 - An executive summary;
 - RMP registration;
 - An **offsite consequence analysis**;
 - A five-year accident history; .
 - A release Prevention Program;
 - An Emergency Response program; and
 - Operator certification of the RMP.
- RMPs must be made available to the public.





- Similar to EPA's RMP program, OSHA **Process Safety Management (PSM)** regulations require facilities that process listed toxic, reactive or highly hazardous chemicals to develop and implement a PSM program in accordance with the regulatory requirements of **29 CFR 1910.119**.
- Appendix A to 29 CFR 1910.119 lists **137 chemicals** which are subject to PSM when present above a **Threshold Quantity (TQ)**.
 - The TQ for each chemical is set in consideration of its relative toxicity. TQs for toxic substances range from 100 lbs (e.g., sarin) to 15,000 lbs (e.g., ammonia solutions).
- There are **14 required PSM elements**:

<p>Process Safety Information Training Hot Work Compliance Audits Pre-startup Safety Review</p>	<p>Process Hazard Analysis Contractor provisions Management of Change Trade Secrets <u>Emergency Planning & Response</u> – see 29 CFR 1910.119(n)</p>	<p>Operating Procedures Mechanical Integrity Incident Investigation Employee Participation</p>
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- OSHA has specific **Emergency Action Plan** requirements at **29 CFR 1910.38** that are applicable whenever any other OSHA standard requires an **EAP**.
- An Emergency Action Plan must be in writing, must be kept in in the workplace, and must be made available to employees for review.
(Exception: employers with ≤10 employees may communicate the plan orally.)
- An OSHA-compliant EAP will include:
 - Procedures for reporting a fire or other emergency;
 - Procedures for emergency evacuation;
 - Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;
 - Procedures to account for all employees after evacuation;
 - Procedures to be followed by employees performing rescue or medical duties;
 - The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.
- An Employee Alarm System shall be installed and maintained.
- Evacuation assistants must be trained in their roles.
- The EAP must be reviewed with each affected employee when the EAP is developed and/or when employees are assigned to a job and/or when their responsibilities under the plan change.



- OSHA has specific **Fire Prevention Plan** requirements spelled out at **29 CFR 1910.37** that are applicable whenever any other OSHA standard requires an **FPP**.
- An Fire Prevention Plan must be in writing, must be kept in in the workplace, and must be made available to employees for review.
(Exception: employers with ≤10 employees may communicate the plan orally.)
- An OSHA-compliant FPP will include:
 - A list of all major fire hazards
(including proper handling & storage procedures for hazmat, potential ignition sources, and fire protection equipment necessary to control each hazard)
 - Procedures to control accumulations of flammable and combustible waste materials;
 - Procedures for regular maintenance of safeguards installed on heat-producing equipment;
 - Identification of employees responsible for maintaining equipment to prevent or control sources of ignition or fires; and
 - Identification of employees responsible for the control of fuel source hazards.



OSHA – Fire Protection

29 CFR 1910 Subpart L

- Eleven (11!) discrete OSHA standards **29 CFR 1910.155 – 1910.165** comprise “Subpart L,” collectively referred to as OSHA’s **“Fire Protection”** requirements.
- 1910.156 is the **“Fire Brigade”** standard. This standard contains definitions applicable elsewhere in Subpart L, but the key definition to note is the definition for “Fire Brigade”:

“Fire brigade” (private or industrial fire department) “means an organized group of employees who are knowledgeable, trained, and skilled in at least basic fire fighting operations.”
- 1910.156 has specific requirements for **Portable Fire Extinguishers**
- 1910.158 has specific requirements for **Standpipe and Hose Systems**
- 1910.159 has specific requirements for **Automated Sprinkler Systems**
- 1910.160 - 1910.163 apply to different types of **Fixed Extinguishing Systems** (general, dry chemical, gaseous agent, water spray & foam)
- 1910.164 specifies requirements for **Fire Detection Systems**
- 1910.165 specifies requirements for **Employee Alarm Systems**
- Subpart L has five mandatory appendices A-E. Of these, note this from Appendix A:

This section does not require an employer to organize a fire brigade. However, if an employer does decide to organize a fire brigade, the requirements of this section apply...



OSHA – Medical & First Aid

29 CFR 1910.151



- In anticipation of emergency response, including the possible need to render assistance and care to injured individuals, be aware of requirements of OSHA's Medical and First Aid standard at **29 CFR 1910.151**:
 - In the absence of an infirmary, clinic, or hospital in near proximity to the workplace, a person or persons shall be adequately trained to render first aid.
 - Adequate first aid supplies shall be readily available.
 - Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate use.
- Appendix A to 1910.151 provides *non-mandatory* guidance for the preparation of First Aid Kits.
- Additionally, OSHA's Bloodborne Pathogens standard at 29 CFR 1910.1030(d)(3) requires appropriate PPE to protect potentially exposed employees (including emergency responders and evacuation assistants).





- The Department of Transportation (DOT) Pipeline & Hazardous Materials Safety Administration (PHMSA) has jurisdiction over all hazardous materials in transport ("hazmats"). This jurisdictional authority extends from loading dock to receiving dock, inclusive of all points in-between (whether by road, rail, air, or vessel).
- 49 CFR 172 Subpart I (parts 172.800 – 172.822) requires the development and implementation of a security plan for shippers of certain hazardous materials, including:

Explosives
Materials poisonous by inhalation
Spontaneously combustible solids
Organic Peroxides
IAEA Category 1 & 2 radionuclides

Bulk quantities of flammable gas
Bulk quantities of flammable liquids
"Dangerous when Wet" hazmats
Select agents or toxins per CDC
Radionuclides listed as RAM-QC by NRC

Bulk oxidizer gases
Desensitized explosives
Bulk quantities of oxidizers
Uranium hexafluoride
Bulk PG I corrosives

- Components of a shipper's DOT Security Plan include:
 - Assessment of transportation security risks, including site-specific and location-specific risks associated with facilities at which the hazmat is prepared, stored, or unloaded;
 - Personnel security;
 - Provisions against unauthorized access;
 - *En route* security; with
 - Additional planning requirements for transportation by rail.

Other Planning Considerations

???



- **State and Local authorities** will frequently also have **jurisdictional requirements** that should also be incorporated into a facility's Emergency Preparedness Plan. Such requirements may include the need to address:
 - Provisions to self-report excess air emissions (including those associated with equipment startup, shutdown, or malfunction... excess opacity... odors... etc...)
 - "Slug Control" (i.e., unpermitted discharges to a wastewater **POTW**)
 - **NPDES** Permit Best Management Practices, Stormwater Pollution Prevention Plans, Groundwater Protection Plans...
 - State and Local Hazmat Ordinances
 - etc. (!)
- **EPA recommends** development of a single, coordinated plan based on the National Response Team's **Integrated Contingency Plan** Guidance (**"One Plan"**). Guidance can be found in the June 5, 1996, Federal Register at 61 FR 28642:
 - <https://www.gpo.gov/fdsys/pkg/FR-1996-06-05/pdf/96-13712.pdf>

Response – Now What?!

- Even with the best of plans, accidents do happen. In the event of an actual emergency – fire, spill, release – one would hope that a facility's preparedness would lead to effective, safe, complete, and timely response.
- Over the next few slides, we will focus on some additional regulatory elements and reference resources that are directly applicable to the act of discovery and response to emergencies.
- This section will include discussion of regulatory requirements established with the specific intent of protection of human health and the environment...



Response:

EPA – CERCLA

40 CFR 302.6

CERCLA Release Notification Requirements per 40 CFR 302.6(a):



***Any person in charge of a vessel or an offshore or onshore facility shall,
as soon as he or she has knowledge of any release
(other than a federally permitted release or application of a pesticide)
of a hazardous substance from such vessel or facility
in a quantity equal to or exceeding the reportable quantity determined by this part
in any 24-hour period,
immediately notify the National Response Center (1-800-424-8802)...***

- **NOTE:** Although the regulatory imperative states only “immediately notify” and does not state a specific time frame, EPA policy has evolved to imply an expectation of notification within the first 15 minutes of discovery...!

Response:

EPA – EPCRA

40 CFR 355

EPCRA has additional release notification requirements per 40 CFR 355:

§355.30: Release a reportable quantity (RQ) of any EHS or of a hazardous substance as defined by CERCLA...

§355.31: You do not have to provide emergency release notification under this subpart for... any release that results in exposure to persons solely within the boundaries of your facility...

§355.33: The release of an RQ of an EHS or CERCLA hazardous substance within any 24-hour period triggers the emergency release notification requirements. RQs for EHSs are listed in Appendices A and B of this part... RQs for CERCLA hazardous substances are listed in Table 302.4 of 40 CFR 302.4...

§355.40: You must make two separate notifications to comply with the emergency release notification requirements of this subpart: an immediate notification, and as soon as practicable thereafter a written follow-up notification (or notifications, as more information becomes available).

§355.41: The immediate notification... should be oral. The follow-up emergency notification... shall be in writing... (Note: The LEPC may request a specific format for this information.)

§355.42: You must provide the immediate emergency release notification information... to:

- (1) **The community emergency coordinator for the LEPC of any area likely to be affected by the release, and**
- (2) **The SERC of any State likely to be affected by the release...**



Response :

DOT - Incident Notification

49 CFR 171.15



- All incidents involving hazmat in transport must be reported in accordance with the regulatory requirements of 49 CFR 171.15 and 171.16:
 - 49 CFR 171.15 requires immediate notification “as soon as practical but no later than 12 hours” by calling the National Response Center ([NRC](#), 1-800-424-8802) to report certain hazmat incidents including:
 - Any fatality or injury requiring admission to a hospital, sustained as a direct result of a hazardous material
 - Any time the general public is evacuated or a major transportation artery or facility is closed or shut down for one hour or more due to release or threatened release of hazmat in transport
 - Any time the operational flight pattern or routine of an aircraft is altered due to hazmat incident
 - Fire, breakage, spillage, or suspected contamination involving radioactive material or infectious substance
 - Release of a marine pollutant >119 gallons (>450 liters) for a liquid or >882 lbs (400 kg) for a solid
 - Any fire, violent rupture, explosion, or dangerous evolution of heat during transport of hazmat by aircraft
 - Any other situation where the judgment of the person in possession of the hazmat suggests that it should be reported to the NRC

Response :

DOT - Incident Reporting

49 CFR 171.16



- 49 CFR 171.16 requires submittal of a detailed hazmat incident report utilizing DOT Form F 58001 (01/2004) within 30 days of any of the following:
 - For any of the incidents reported under 49 CFR 171.15 on the preceding slide, or
 - Unintentional release of hazmat or hazardous waste, or
 - Structural damage to hazmat lading retention system for any specification cargo truck with capacity \geq 1000-gallons, or
 - Discovery of an undeclared hazmat, or
 - Fire, violent rupture, explosion, or dangerous evolution of heat as a direct result of a battery or battery-powered device.
- Reports shall be submitted to the Information Systems Manager at PHMSA. Additionally, for any hazmat incident involving transportation by aircraft, a copy of the incident report shall be submitted to the Federal Aviation Administration (**FAA**) Security Field Office nearest the location of the incident.

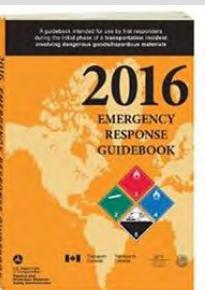


Response:

DOT – Emergency Response Info

49 CFR 172 Subpart G

- 49 CFR 172.600 - 172.606 require certain, specific information to accompany hazardous materials in transit, specifically for reference in the event of a hazmat emergency.
 - §172.604 requires that shippers provide an emergency response telephone number that is:
 - Monitored at all times that the hazmat is in transportation (24/7) *and*
 - Will be answered by a person who is either knowledgeable of the hazmat being shipped and has comprehensive emergency response and incident mitigation information for that material, or has immediate access to a person who possesses such knowledge and information.
 - A commercial service hotline may be used for this purpose (e.g., Chemtrec), but the hazmat must be covered by a pre-existing contract between the shipper and the service provider.
 - §172.602 requires that shippers must provide emergency response information for use in the mitigation of a hazmat incident:
 - Info provided must include basic description and technical name of the hazmat, immediate health hazards, risks of fire or explosion, immediate precautions to be taken in the event of an incident, immediate methods for handling fires, initial methods for handling spills or leaks, and preliminary first aid measures.
 - This info must be printed legibly in English and available for use away from the hazmat packaging.
 - This information can be presented on a shipping paper, in a separate document (e.g., SDS), or one can reference the appropriate guide number in the Emergency Response Guidebook.



Response:

OSHA – HAZWOPER

29 CFR 1910.120

- OSHA requires that only HAZWOPER -trained responders may respond to a hazmat emergency.
- “HAZWOPER” stands for:

Hazardous Waste Operations & Emergency Response

- The HAZWOPER regulations at 29 CFR 1910.120 spell out requirements for emergency preparedness, training, and response, all for the protection of hazmat responders.
- While the HAZWOPER regs are codified within the OSHA volume of federal regulations (29 CFR), they are administered and enforced by OSHA and/or EPA.



Response:

OSHA - HAZWOPER *(cont.)*

29 CFR 1910.120

HAZWOPER applies to...

- Environmental **clean-up** operations required by any governmental body (whether federal, state, or local) to address releases of **“hazardous substances”**
 - This includes clean-up of “Superfund” sites on EPA’s National Priority List (NPL)
 - This also includes initial investigations of government-identified sites which are conducted before the presence (or absence) of hazardous substances has been ascertained.
- Corrective Actions at **“hazardous waste”** sites covered by **RCRA**
- Voluntary clean-up operations at recognized **“hazardous waste”** sites
- All operations (routine & non-routine) involving handling of **“hazardous waste”** at EPA-regulated Treatment, Storage & Disposal (**TSD**) facilities
- Emergency response operations for **releases (or threatened releases)** of **“hazardous substances”** without regard to location of the hazard



Response:

OSHA - HAZWOPER (cont.)

29 CFR 1910.120

- With regard to “emergency response,” HAZWOPER §1910.120(a)(2)(iv) says:

“Emergency response operations for releases of, or substantial threats of releases of hazardous substances which are not covered by (any other) paragraphs... of this section must only comply with the requirements of paragraph (q) of this section...”

- §1910.120(q) spells out requirements for a HAZWOPER-compliant:
“Emergency response program to hazardous substance releases”
- Paragraph (q) requires or regulates **11 specific emergency response elements**:

An Emergency Response Plan (**ERP**)
Skilled support personnel (contractors)
Trainers
Chemical protective clothing

Specified elements of an ERP
Specialist employees
Refresher training
Post-emergency response operations

Procedures for emerg resp
Training
Medical surveillance



Response:

OSHA - HAZWOPER *(cont.)*

29 CFR 1910.120

- HAZWOPER §1910.120(q)(6) specifies five levels of training for individuals assuming different emergency response roles:
 - First Responder Awareness Level (*applies everybody who may encounter a hazmat emergency*)
 - First Responder Operations Level (*allows for defensive responses only!*)
 - Hazardous Materials Technician (*requires 24 hours of initial training*)
 - Hazardous Materials Specialist (*requires at least 24 hours of initial training*)
 - On-Scene Incident Commander (*requires at least 24 hours of initial training*)
- HAZWOPER §1910.120(q)(8) requires:
 - Annual refresher training “of sufficient content and duration to maintain their competencies” *or alternately*
 - That trained responders shall “demonstrate competency in those areas at least yearly.”



Response:

OSHA - HAZWOPER (cont.)

29 CFR 1910.120

- HAZWOPER §1910.120(q)(6)(iii) defines **HazMat Technicians** as:

“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. Hazardous materials technicians shall have received at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify...”



Response:

OSHA - HAZWOPER *(cont.)*

29 CFR 1910.120

- A HazMat Technician shall:
 - Know how to implement the employer's emergency response plan *(q)(6)(iii)(A)*
 - Know the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment *(q)(6)(iii)(B)*
 - Be able to function within an assigned role in the Incident Command System *(q)(6)(iii)(C)*
 - Know how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician *(q)(6)(iii)(D)*

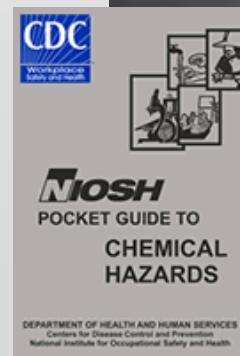


Response:

OSHA - HAZWOPER *(cont.)*

29 CFR 1910.120

- A HazMat Technician shall also:
 - Understand hazard and risk assessment techniques *(q)(6)(iii)(E)*
 - 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 *(q)(6)(iii)(F)*
 - Understand and implement decontamination procedures *(q)(6)(iii)(G)*
 - Understand termination procedures *(q)(6)(iii)(H)*
 - Understand basic chemical and toxicological terminology and behavior *(q)(6)(iii)(G)*



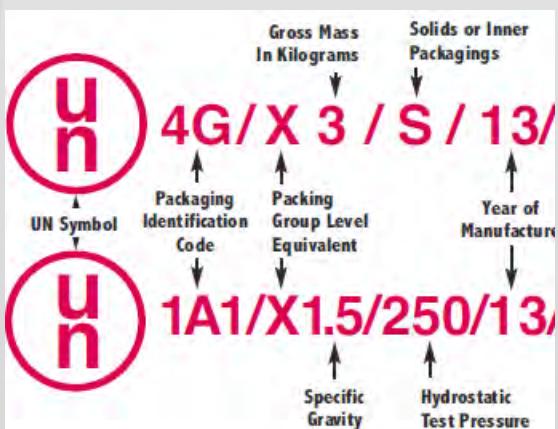
Response:

DOT – Use of Authorized Packagings 49 CFR 173



- DOT requires that any hazmat to be transported may only be shipped in **authorized packagings** (with “UN” markings appropriate to the hazmat to be shipped).
- This requirement would be triggered at the time that the packaging is offered for shipment, however, if emergency responders are containerizing spilled hazmat in anticipation of shipping it offsite, it only makes sense that they should select containers appropriate for subsequent offsite shipment!
- This “Shipper’s Responsibility” is codified at 49 CFR 173.22:

The person shall determine that the packaging or container is an authorized packaging, including part 173 requirements, and that it has been manufactured, assembled, and marked in accordance with section 173.7(a) and 173, 178, or 179 of this subchapter...



- At a minimum, an authorized packaging will have a “UN” mark.
- A container marked X or Y should be selected to meet or exceed the specific hazmat’s packaging group (PG) as listed in the HazMat Table at 49 CFR 172.101 (column 5).
- Additionally, the container shall be marked with either solids rating (“S,” in kg) or a specific gravity rating (for liquids or solid equivalence) that will meet or exceed the mass or density of the hazmat to be shipped.



Response:

DOT – Salvage Drums

49 CFR 173.3(c)



- Where emergency response requires containerization of damaged, leaking, or otherwise compromised containers, DOT's "Salvage Drum" requirements at 49 CFR 173.3(c) apply:

Packages of hazardous materials that are damaged, defective, or leaking; packages found to be not conforming to the requirements of this subchapter... and hazardous materials that have spilled or leaked may be placed in a metal or plastic removable head salvage drum that is compatible with the lading...



- A salvage drum must be UN **1A2**, **1B2**, **1N2**, or **1H2** tested and marked for PG III or higher performance standards for liquids or solids and a leakproofness test of 20 kPa. Alternately, a salvage packaging marked "T" in accordance with applicable provisions in the UN recommendations may be used.
- When necessary, each drum shall be provided with sufficient (compatible) cushioning and absorption material to prevent excessive shifting of the damaged package and to eliminate the presence of any free liquid at the time the salvage drum is closed.
- Each salvage packaging must be marked... "**SALVAGE**." The lettering of the marking must be at least 0.5 inches high.

Response:

EPA – RCRA Haz Waste Mgt

40 CFR 261, 262, 265

- When clean-up materials will be characterized or listed as “**Hazardous Waste**” (per 40 CFR 261 Subpart C or Subpart D), RCRA hazardous waste management standards will apply to any such waste containerized and accumulated onsite, including:



- §265.172: ... *must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored...*
- §265.177(b): *Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material...*
- §265.171: *If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition...*
- §265.173(a): *A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.*
- §265.176: *Containers holding ignitable or reactive waste must be located at least (50 feet) from the facility's property line.*
- §262.34(a)(1)(iv)(B)(3): *While being accumulated onsite, each container and tank is labeled or clearly marked with the words "Hazardous Waste."*
- §262.34(a)(1)(iv)(B)(2): *The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container.*
- §265.174: *At least weekly... must inspect areas where containers are stored...*

Response:

Afterthoughts

- As the incident transitions from emergency response to clean-up and mitigation, don't forget follow-up notifications and reports, including:
 - Report of any fatalities (within 8 hours) or any employee's amputation, loss of an eye, or hospitalization (within 24 hours) to OSHA per 29 CFR 1904.39(a)
 - For an EPCRA incident, submit a written follow-up report to your LEPC per 40 CFR 355:40 as soon as practicable.
 - For a transportation incident, submit a follow-up report to PHMSA utilizing DOT Form F 58001 within 30 days.
 - Double-check to see if any state or local regulatory programs or authorities require additional follow-up reports.
 - Your are **strongly advised** to consult legal counsel to ensure that all regulatory obligations have been met. This presentation is not intended as a substitute for legal counsel...
- Contract qualified professionals to complete clean-up work and to remediate the site, as may be necessary.
- Debrief affected employees and responders after the incident. With their input, review your emergency response plan(s) for any deficiencies and revise as appropriate. Retrain your employees on any revisions to the site emergency response plan(s).
- Restock spill response, firefighting, and first aid supplies as soon as possible.
- Ship solid or hazardous wastes to an appropriate RDF or TSDF within 90 days, in accordance with RCRA and DOT requirements.



Any Questions?

Thank you for your interest!

Corinne M. Greenberg, CHMM
Environmental Manager
Carbide Industries LLC
cgreenberg@carbidellc.com

This slide deck (as well as all the others from today's workshop) will be available online at the Chapter website, <http://awma-ky.org>.