



MNOSHA Instruction **CPL 2-2.59B**

December 8, 2020

## **SUBJECT: Inspection Procedures for the Hazardous Waste Operations and Emergency Response Standard, 29 CFR 1910.120 and 1926.65, Paragraph (q), "Emergency Response to Hazardous Substance Releases."**

### **Purpose:**

To establish policies and provide clarification to ensure uniform enforcement of paragraph (q) of the Hazardous Waste Operations and Emergency Response Standards (HAZWOPER), 1910.120 and 1926.65, which cover emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.

### **Scope:**

This instruction applies MNOSHA-wide.

### **References:**

1. Federal OSHA Instruction CPL 02-02-073, "[Inspection Procedures for 29 CFR 1910.120 and 1926.65, Paragraph \(q\): Emergency Response to Hazardous Substance Releases](#)" dated August 27, 2007.
2. Federal OSHA Instruction CPL 02-02-071, "[Technical Enforcement and Assistance Guidelines for Hazardous Waste Site and RCRA Corrective Action Clean-up Operations HAZWOPER 1910.120 \(b\)-\(o\) Directive](#)" dated November 5, 2003.
3. Federal OSHA Instruction HSO 01-00-001, [National Emergency Management Plan](#), dated December 18, 2003.
4. MNOSHA Instruction CPL 2-2.45, "29 CFR 1910.119 and 29 CFR 1926.64, Process Safety Management of Highly Hazardous Chemicals-Compliance Guidelines and Enforcement Procedures."

5. MNOSHA Instruction CPL 2.94-“MNOSHA’s Emergency Response Contingency Plan.”
6. 29 CFR Part 1910.120 and Part 1926.65, Hazardous Waste Operations and Emergency Response
7. Field Compliance Manual, OSHA Technical Manual, and MNOSHA Field Safety and Health Manual.
8. Standard Interpretation, Assistant Secretary for Occupational Safety and Health, dated November 8, 1991, “[Emergency Situations That Fall Under HAZWOPER.](#)”
9. Standard Interpretation, Directorate of Enforcement Programs, dated June 29, 1992, “[Definition of an Emergency Response.](#)”
10. Standard Interpretation, Director Office of Health Compliance Assistance, dated November 8, 1994, “[Clarification on HAZWOPER Emergency Response Training Requirements.](#)”
11. Standard Interpretation, Directorate of Compliance Programs, dated January 15, 1999, “[Comparing Medical Evaluation Requirements in the HAZWOPER, Respiratory Protection, and Fire Brigade Standards.](#)”
12. Standard Interpretation, Directorate of Enforcement Programs, dated February 14, 2004, “[Process Operators’ Training Requirements to Take Limited Action in Stopping an Emergency Release; Role in an Incident Command System.](#)”
13. Many additional Standard Interpretations available for review on federal OSHA website related to standard 1910.120

## **Cancellation:**

This instruction supersedes MNOSHA Instruction CPL 2-2.59A, “Inspection Procedures for the Hazardous Waste Operations and Emergency Response Operations Standard, 29 CFR Part 1910.120, paragraph (q), Emergency Response to Hazardous Substance Releases” dated February 13, 2013.

## **Background:**

### **A. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).**

Commonly known as Superfund, CERCLA was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public

health or the environment. Over five years, \$1.6 billion was collected and the tax went into a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA also:

1. Established prohibitions and requirements concerning closed and abandoned hazardous waste sites.
2. Provided for liability of persons responsible for releases of hazardous waste at these sites.
3. Established a trust fund to provide for clean-up when no responsible party could be identified.

## **B. Superfund Amendments and Reauthorization Act of 1986 (SARA), Title I.**

CERCLA was amended by SARA on October 17, 1986. SARA Title I required OSHA to develop standards for the protection of employee health and safety during hazardous waste operations, including emergency responses to releases of hazardous substances.

OSHA published an interim final rule in December 1986. In August 1987, OSHA issued a Notice of Proposed Rulemaking and Public Hearings that set forth OSHA's proposed language for the rule, based on the outline given in SARA Title I. This language eventually became the current final rule.

The final HAZWOPER standard was published in the Federal Register on March 6, 1989 and became effective March 6, 1990. The HAZWOPER standard was incorporated into the Construction standards as 29 CFR 1926.65 on June 30, 1993. The U.S. Environmental Protection Agency (EPA) also adopted HAZWOPER in 40 CFR Part 311 (Federal Register June 23, 1989) for public employees that are both compensated and non-compensated (volunteers) in States where no OSHA-approved State Plan is in place, and, therefore, there is no OSHA coverage for State and local government employees.

## **C. Superfund Amendments and Reauthorization Act (SARA), Title III.**

SARA Title III, also referred to as the "Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)," requires States and local jurisdictions to develop emergency response plans (ERPs). In addition, certain facilities must share information about the hazardous substances they have on site with community emergency response planners.

SARA Title III directed Governors of each State to appoint a State Emergency Response Commission (SERC), which would in turn appoint and coordinate the activities of Local Emergency Planning Committees (LEPCs). The LEPCs must develop a community ERP that contains emergency response methods and procedures that can be followed by facility owners, local emergency responders, and emergency medical personnel.

The HAZWOPER standard for the construction industry, 29 CFR 1926.65, is identical to 29 CFR 1910.120. For brevity, the HAZWOPER standard is referenced as 1910.120 throughout most of this instruction.

## **Action:**

### **A. General Considerations:**

The 1910.120 standard applies to all operations that require, or have the potential to require, emergency response operations involving exposure to hazardous substances. Paragraph (q) of the standard applies to situations where employees participate, or are expected to participate, in those emergency response operations.

1. HAZWOPER's provisions require facilities to consider both overall performance and specific elements when complying with the standard. HAZWOPER is referred to as a performance-oriented standard, which allows employers the flexibility to develop a safety and health program suitable for their particular facility or operations. The standard offers work practice guidelines to protect employees from potential risks, but also has specific requirements. In evaluating compliance with 1910.120, OSHIs shall consider both the specific requirements and whether the intent of the standard has been met.

The most important aspect of HAZWOPER paragraph (q) is planning for emergencies through the development of an emergency response plan (ERP) or an emergency action plan (EAP) under 29 CFR 1910.38.

- a. When reviewing an ERP, the OSHI must evaluate the employer's ability to protect the health and safety of employees, while the employees contain, control, and clean-up hazardous substance(s) if an emergency were to occur.
- b. If an employer intends to have all employees evacuate immediately in the event of an emergency and not respond to the emergency, the employer is exempt from the requirement for an ERP but must implement an EAP.
- c. If a facility does not have an ERP or an EAP, the employer must prove that the chemicals and the quantities used in the facility will not develop into an emergency incident if released in a (reasonably predictable) worst-case scenario to which the employees are expected to respond or evacuate. In other words, if there is a potential for an emergency, the employer must plan for it, and if there is no potential, then the employer does not fall within the scope of HAZWOPER (see Appendix E of this instruction for guidance on the types of releases that require an emergency response). Although HAZWOPER may not apply to a particular incident, incidental hazardous substance releases are still covered by other standards including, but not limited to training in the 1910.1200 Hazard Communication/5206.0700 Employee Right-to-Know Act. In

addition, other standards may apply to the situation (1910.119, 1910.146, etc.). The OSHI should review what, if any, written procedures exist in the employer's written hazard communication program for handling incidental releases.

- d. OSHA does not consider terrorist events to be foreseeable workplace emergencies for purposes of standards requiring employers to anticipate and prepare for such emergencies. The release of chemicals or hazardous substances into a workplace, whether caused by an accidental release or by a terrorist event would, however, be considered a hazardous materials (HAZMAT) incident. All emergency responders and employees performing emergency response efforts for such releases would, therefore, fall under 1910.120(q). The level of emergency responder training must be based on the duties and functions to be performed by each responder. Although following the direction of 1910.120(q), employers would not be required specifically to prepare for a potential terrorist event and to develop an ERP for such an event, using the elements of the standard may be of assistance to employers in developing a useful plan of action to respond to any emergency situation.
  - e. Workplaces located in areas prone to natural phenomena, such as earthquakes, floods, tornadoes and hurricanes, and potentially subject to a "substantial threat of release of hazardous substances" are covered by 1910.120. The ERP required in 1910.120(q)(1) must include responses to emergencies caused by such natural phenomena. The requirements of the ERP clearly state in paragraph (q)(1), that emergency response plans "shall be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations." This means that employers in areas prone to natural phenomena should anticipate whether such natural phenomena are likely to cause releases of hazardous substances and, if so, incorporate emergency response procedures to such natural phenomenon in their ERP.
2. Paragraph (q) of HAZWOPER lists seven emergency responder categories, which include the following five principal training levels under (q)(6): first responder awareness level, first responder operations level, HAZMAT technician, HAZMAT specialist, and on-scene incident commander. The remaining two categories include skilled support personnel (q)(4) and specialist employees (q)(5). Employees responding to emergencies at different levels in the command structure are required by OSHA to have specific training that is intended to ensure that emergency responders are properly trained and equipped to perform their assigned tasks.
  3. OSHA Instruction CPL 02-00-094, "OSHA Response to Significant Events of Potentially Catastrophic Consequences," offers guidance and procedures that will apply to many inspections covered under this instruction. Compliance staff is advised to review this instruction to ensure the safety and health of OSHA personnel and employees, and to provide consistent and uniform application of OSHA policy.

Additionally, OSHA Instruction HSO 01-00-001, National Emergency Management Plan (NEMP), clarifies policy and procedures for OSHA during response to nationally significant incidents. The NEMP outlines procedures to ensure that trained and equipped personnel and logistical and operational assistance are in place to support OSHA's role as the primary Federal agency for the coordination of technical assistance and consultation for emergency response and recovery worker health and safety.

When the NEMP is activated, any decision to discontinue consultation and assistance in favor of enforcement, including at what point during an incident this transition should occur, if at all, will be made by the Regional Administrator in consultation with the Assistant Secretary or designee. When the NEMP is not activated, OSHA personnel will respond in accordance with CPL Directive 02-00-094 and their respective Regional Emergency Management Plan (REMP).

## **B. Protection of MNOSHA Personnel:**

The paramount concern addressed in this section is the protection of the OSHI. **NO ENFORCEMENT ACTION, ON-SITE CONSULTATION, OR ON-SITE TECHNICAL ASSISTANCE IS SO IMPORTANT AS TO PLACE THE LIFE AND HEALTH OF THE OSHI IN DANGER.**

### **1. For Routine Inspections:**

Follow normal inspection procedures to ensure the safety and health of the OSHI. As part of a routine programmed or unprogrammed inspection (no on-going release or clean-up occurring), evaluate the conditions in the workplace to determine the necessary PPE. During the opening conference or walkaround, inquire about the types and quantities of hazardous substances in the facility that could cause a hazardous situation (flammability, toxicity, etc.) should a release occur. If a release occurs during an on-site visit, the health and safety of the OSHI is the primary concern, which could include leaving the site immediately. If the OSHI has already determined that the employer's emergency response plan appears to comply with the standard, it may be safe to remain on site, but in a safe location remote from the incident area.

### **2. For Inspections of On-going Emergency Responses or Post-emergency Responses:**

Under no circumstances shall an OSHI be unprotected from any hazard encountered during the course of an investigation.

- a. For inspections of an on-going emergency response or post-emergency response operations an OMT Director/Supervisor shall determine the overall role that MNOSHA will play in accordance with the MNOSHA Emergency Response Contingency Plan (CPL 2.94). (See Appendix C of this instruction for inspection guidance pertaining to on-going or recently completed emergency response operations.)

- b. Where it is determined by the OMT Director/Supervisors that an inspection of an on-going emergency response is to be conducted, the OMT shall ensure that OSHIs have the proper training (under 1910.120), PPE (in accordance with Appendix B of 1910.120 and the MNOSHA Field Safety Health Manual), and decontamination facilities.

### **3. Medical Examinations for MNOSHA Personnel:**

- a. Many of the hazards that OSHIs may encounter are already regulated by the medical surveillance requirements in other standards—review any applicable standards requiring medical surveillance to ensure compliance.
- b. On-going medical surveillance (as opposed to medical consultation or emergency treatment), which is addressed in 1910.120(q)(9), applies to designated hazardous material (HAZMAT) teams and hazardous materials specialists. MNOSHA personnel will not be expected to participate in an emergency in either of these capacities; therefore, the medical surveillance requirements of 1910.120 would not apply.
- c. Section 1910.120(q)(9)(ii) requires that any employee who exhibits signs or symptoms, which may have been a result of exposure to hazardous substances during the course of an emergency incident, be provided medical consultation. During any investigation of emergency incidents, any OSHI experiencing signs or symptoms shall be entitled to a medical consultation.
- d. OSHIs who are required to wear a negative pressure air-purifying respirator and protective clothing shall be medically cleared via the OSHI Physical Examination procedures. Further, MNOSHA Directive CPL 2-2.120 Respiratory Protection Enforcement Procedures, includes medical evaluation requirements for those MNOSHA personnel expected to wear respiratory protection. The instruction requires that OSHIs be medically evaluated and found eligible to wear the respirator selected for their use prior to fit testing and first-time use of the respirator in the workplace.

### **C. Inspection Guidance for HAZWOPER Paragraph (q):**

Paragraph (q) describes the response program required for any situation covered by paragraph (a)(v), responses to releases without regard to the location of the hazard. Included in this paragraph are the required elements of a response program, the necessary training for responding personnel depending on their expected duties, and any post-response medical surveillance. The following guidance provides a general framework to assist the OSHI in conducting an inspection where 1910.120(q) applies. See Appendices A through F of this instruction for detailed inspection guidelines and citation assistance.

1. Request a briefing of the procedures to be followed in the event of an emergency. This ensures that the OSHI is familiar with the emergency response procedures at the facility in the event an emergency occurs during the inspection.
2. Review the required elements of the emergency response plan, in accordance with 1910.120(q)(2), or the emergency action plan, in accordance with 1910.38(a), to determine if the response plan adequately addresses the elements of 1910.120(q)(2). (See Appendix A of this instruction for discussion on the different elements of an emergency response plan, and Appendix B of this instruction for audit guidelines.)
3. Identify the Incident Commander(s) (IC), defined in the emergency response plan, and review how the incident command position is passed up the ranks to those in higher authority. It may be helpful to review the pertinent sections of the emergency response plan with an IC. OSHIs shall also interview employees to determine the extent to which the plan is implemented. (See Appendix B of this instruction for audit guidelines.)

If an Incident Commander is not on-site at all times, the employer must have an individual on-site at all other times (when the facility is occupied) that is trained sufficiently to identify when a release or incident occurs that would require an emergency response. NOTE: Any emergency response, including a defensive/operations level response, requires the presence of an on-site IC. However, process operators in the immediate area may be able to take limited defensive actions prior to the IC's presence at the scene. (See standard interpretation February 14, 2004 "Process operators' training requirements to take limited action..."). Operators whose actions are conducted in the danger area are limited to their responsibilities and current training.

4. Evaluate the emergency responder training required in 1910.120(q)(5) and (q)(6), and the refresher training required in 1910.120(q)(8), to ensure compliance and interview the employer, employee representatives, and employees who may be involved in an emergency involving hazardous substances in order to determine their ability to perform their designated response roles and responsibilities. (See Appendix B of this instruction for audit guidelines.)

For the training requirements, evaluate the levels of training employees have received to ensure that training provided fulfills the roles employees are expected to have in an emergency response. Example: an employee trained in the First Responder Operations Level can conduct defensive activities (i.e. placing of sorbent, shutting off valves outside the danger area, or activating emergency control systems), but cannot enter the danger area to attempt to stop a release. If all employees at the facility are only trained to First Responder Operations Level, a pre-arranged HAZMAT team would have to be called in if the defensive actions were unable to control the release.

5. Ensure that the employer is providing medical consultations and evaluations to those employees who are entitled to them (employees in a designated HAZMAT Team or employees that are injured



or develop signs or symptoms of overexposure to health hazards), as detailed in 1910.120(q)(9). A sample of affected employees shall be interviewed to determine that medical evaluations/consultations are being conducted.

Keep in mind that medical surveillance does not replace the requirement for the respiratory protection medical evaluation. The employer can choose to have the respiratory medical evaluation elements addressed in the 1910.120 medical surveillance program, but the employer would still need to have a written respirator determination provided from the physician or other licensed health care professional. The reverse applies that the 1910.134 medical questionnaire does not meet the 1910.120 medical surveillance requirements. Standard interpretations on the 1910.120 medical surveillance program dated January 15, 1999 stated that “the intent of the HAZWOPER medical surveillance requirements is two-fold: (1) to determine fitness-for-duty, including the ability to work while wearing PPE (e.g. respirators), and (2) to establish baseline data for comparison with future medical data. The respiratory protection standard, however, requires a medical evaluation for the sole purpose of establishing an employee’s ability to use a respirator.”

6. Evaluate the employer's Personal Protective Equipment (PPE) program for compliance with 1910.120(q)(10), in addition to 1910, Subpart I. [1910.120 (q)(10) requires employers to meet the requirements of paragraph (g)(5): Personal Protective Equipment Program.]
7. Where the employer intends to use the local fire department or other agencies in any part of the emergency response, whether under 1910.120 or 1910.38, OSHIs should contact the local fire department to determine whether the employer has notified them concerning the company’s ERP, including the circumstances or conditions under which outside responders will provide emergency response to the site or facility. Verify the fire department’s role in the response and ask whether responders are capable and trained to respond to the hazards at the facility. Determine what role the fire department would play in the emergency response, what they know about the company, etc. If the local fire department agrees to act as the HAZMAT team in the response, determine that the fire department is familiar with the site, chemicals used, and that they have the capability of responding appropriately. Ensure that the local fire department and all personnel responding to the incident under investigation are properly trained under paragraph (q).

Contact other randomly selected emergency response organizations listed in the Emergency Response Plan (ERP) and/or Emergency Action Plan (use main office numbers, not emergency dispatch numbers) to determine accuracy of contact information and to verify that the facility or site has in fact coordinated with these outside parties. Emergency dispatch phone numbers that should be used only in true emergencies should not be dialed. Where the facility uses outside contractors, ensure that preplanning is done, that the qualifications, training, and equipment is adequate for a response at the facility.

8. Ask the employer if the facility has EPA reportable quantities and, if they do, has the facility notified the local committee of the hazardous substances. Ask the employer if the facility has experienced

any chemical releases in excess of reportable quantities. Ask the employer for information regarding the facility's emissions inventory. This would establish the quantities and types of hazardous substances at a facility and provide documentation through EPA's reporting requirements. Referrals, as appropriate, shall be made in writing to the Minnesota Emergency Response Commission.

9. Guidelines and clarifications relating to specific provisions of the standard are provided in Appendices A through F to assist OSHIs in conducting inspections.

## **D. Compliance and Citation Guidance:**

### **1. General Considerations:**

For detailed assistance in assessing violations of paragraph (q) of the 1910.120 (and ensuring compliance with other standards that may apply to situations with hazardous substances) see Appendices A through F.

### **2. Compliance where employees will be evacuated:**

The employer intends to evacuate all employees.

- a. Cite 1910.120(q)(1) where the employer does not have an EAP (Note: The EAP may be communicated orally to employees by employers with 10 or fewer employees.)
- b. Cite 1910.120(q)(1) where the employer has an EAP but elements of it are missing and reference the missing elements in 1910.38

### **3. Compliance where emergency response could occur:**

Sections (q)(1-11) all should be evaluated for compliance where situations requiring an emergency response could occur at a facility or have recently occurred. [An emergency response does not need to be presently occurring to evaluate these elements of 1910.120.]

NOTE: Applicability of the standard is based on what actions the employer intends the employees to perform for a release whether or not the employer designates it as emergency response. In addition, PPE and refresher training must be evaluated and if an established HAZMAT team is present at the facility (q)(9) must also be evaluated.

- a. Cite 1910.120(q)(1) where the employer does not have an emergency response plan, the ERP is not in writing, or the ERP is not accessible to employees and the employer intends for employees to participate in actions that would be considered emergency response.
- b. Cite 1910.120(q)(2) where an emergency response plan is in place but contains deficiencies. The specific deficiencies should be identified in the AVD for the citation.

- c. For 1910.120(q)(3)(i-x) cite the appropriate subparagraphs for deficiencies identified in a specific emergency response that has occurred within the last six months.
- d. Cite 1910.120(q)(4) if skilled support personnel (employees who are needed temporarily to perform immediate emergency support work, such as those who may occasionally assist the Incident Commander (IC) by operating cranes, backhoes, or truck) are not provided an appropriate initial briefing at the site prior to their participation in an emergency response or are not provided other appropriate safety and health precautions.
- e. Cite 1910.120(q)(5) if specialist employees (employees from off-site who assist, counsel, or advise the on-scene IC or HAZMAT team) are not provided training or do not demonstrate competency in the area of their specialization annually.
- f. Cite 1910.120(q)(6) for lack of training provided to employees who participate, or are expected to participate, in an emergency response. If training was deficient, cite the appropriate subparagraph i-v. The AVD should include language indicating that employees were not trained to the expected level(s) of response.
- g. Other subparagraphs of 1910.120(q) may be cited as appropriate. NOTE: other paragraphs of the standard may apply due to references in paragraph (q), such as paragraphs (f) and (g).
- h. REMINDER: deficiencies in respiratory protection frequently exist along with violations of 1910.120(q) and need to be addressed separately under the respiratory protection standard (see CPL 2-2.120 "Respiratory Protection Enforcement Procedures").
- i. REMINDER: all citations need to include documentation in the 1B that 1910.120(q) applies.

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Attachments: Appendix A - Procedures for Reviewing an Emergency Response Plan.  
Appendix B - Guidance for 1910.120 Emergency Response Compliance Inspection.  
Appendix C - Inspection Procedures at On-going or Recently Completed Emergency Response Operations.

Appendix D - HAZWOPER Interpretive Guidance.

Appendix E - Releases of Hazardous Substances that Require an Emergency Response

Appendix F - Relationship of 1910.120(q) with Other OSHA Standards and Other Agencies' Standards.

Appendix G – Employer Response to Releases of Hazardous or Potentially Hazardous Substances from Damaged Packages During Shipping

Appendix H - List of Acronyms.

Appendix I - Reference Materials for Hazardous Waste Operations.

NOTICE: Minnesota OSHA Directives are used exclusively by MNOSHA personnel to assist in the administration of the OSHA program and in the proper interpretation and application of the occupational safety and health statutes, regulations, and standards. They are not legally binding declarations, and they are subject to revision or deletion at any time without notice

## **APPENDIX A PROCEDURES FOR REVIEWING AN EMERGENCY RESPONSE PLAN**

(See Appendix B for audit guidelines or self-audit.)

The function of this appendix is to present a thorough discussion of the required elements of an emergency response plan as required in 1910.120(q)(2) and to enable adequate technical review of emergency response plans during compliance inspections.

### **A. Background.**

The Hazardous Waste Operations and Emergency Response standard is a performance oriented standard. However, there are several parts of the standard that specify what the employer must do to be in compliance. This is particularly true of the requirements in 1910.120(q).

1. Paragraph (q) is the broadest in its scope of coverage. It applies to any emergency response operations for releases of, or substantial releases of, hazardous substances without regard to the location of the hazard. There is a spectrum of compliance options ranging from evacuation of the area and calling outside assistance, to development of sophisticated hazardous material response teams.
2. The key to compliance with 1910.120(q) is the emergency response plan (ERP) required in 1910.120(q)(1) and elaborated on in (q)(2). It is this document that must be reviewed carefully to determine whether employers are in compliance with 1910.120. [An ERP is not required by 1910.120 if employers elect to develop an emergency action plan in accordance with 1910.38(a) and evacuate all employees.] If an employer has developed an Integrated Contingency Plan (ICP) according to the National Response Team's Integrated Contingency Plan Guidance, OSHA recognizes this type of document as demonstrating compliance with the requirements of 1910.120(q)(1) and 1910.38(a). The ICP must still be carefully reviewed against the requirements of 1910.120, in the same manner as an ERP.)
3. It may be that some of the requirements of an ERP are not applicable to the place of employment in question. While OSHA does not expect the employer to meet requirements that are not applicable, an explanation of how the specific requirement is inappropriate, or is otherwise met, must be addressed in the ERP.

### **B. The Initial Inspection.**

The first step in a compliance inspection should be a paper review of the 1910.120 ERP, or the emergency action plan in accordance with 1910.38(a). If an employer does not have an ERP, he or she must have an emergency action plan and evacuate all employees when there is a release that would require an emergency

response, or demonstrate that the chemicals used will not require an emergency response if released in a reasonably predictable worst-case scenario. (The OSHI must still document that 1910.120 applies and document violations fully and be able to defend any citations.)

1. The OSHI can establish that the employer would fall under the scope of 1910.120 by documenting the existence of a hazardous substance that would cause, or could potentially cause, an emergency if released in an uncontrolled manner.
  - a. Although OSHIs should be aware of the quantities of hazardous substances at a site, the standard does not define an emergency in terms of a threshold quantity of a hazardous substance spilled. The term "emergency" is dependent upon several factors, including the hazards associated with the substance, the exposure level, the potential for danger, and the ability to safely contain the substance (see Appendix E for further information on distinguishing incidental releases from releases that require an emergency response under 1910.120(q)). OSHIs can establish the quantities of a hazardous substance before visiting a site by asking the local emergency planning committee (or State emergency planning commission) to supply Tier I or Tier II reporting forms. These forms must be submitted by the employer in accordance with SARA Title III and offer useful documentation about the chemicals for enforcement purposes. In addition, Toxic Release Inventory (TRI) <https://www.epa.gov/toxics-release-inventory-tri-program/find-understand-and-use-tri> data is available on EPA's website. Additional EPA databases containing environmental information can be found on the EPA database "envirofacts <https://enviro.epa.gov/>."
  - b. OSHIs shall look at the employer's list of hazardous chemicals developed in accordance with Employee Right-to-Know and Hazard Communication.
  - c. The OSHI may also inquire about the hazardous substances on site and the quantities in which they are stored as they observe tanks. A determination of quantities of a particular hazardous substance that warrants compliance with 1910.120(q) can be made later in the inspection.
  - d. The OSHI shall also examine whether chemicals are present that are incompatible with each other which could cause an emergency if accidentally mixed. For example, if two vessels are stored close to each other, and one contains ammonia and the other bleach, the two solutions would generate toxic chlorine gas if they become accidentally mixed.

### **C. Review Procedures for Emergency Action Plans.**

Facilities that intend to evacuate their employees from the danger area when a release that requires an emergency response occurs are not required to comply with the other provisions of 1910.120(q) if they provide an emergency action plan complying with 1910.38(a) and all employees are in fact evacuated. (See Appendix F, paragraph A.3. of this instruction.)

1. The employer must provide the appropriate training and necessary PPE in order to minimize the risks to employees when they are expected to handle incidental releases. If the employer expects employees to handle incidental releases of hazardous substances and the release incident escalates beyond an incidental release, the employees are then expected to evacuate in accordance with the employer's emergency action plan. The employer must have plans and procedures for these activities. If workers are required to respond to occurrences that are likely to result in an uncontrolled release of a hazardous substance, then the appropriate requirements of 1910.120(q) are applicable. The level of training required is based on the responsibilities and duties expected of a worker during an emergency response operation.
2. There is a certain level of knowledge which is needed to distinguish between incidental spills that can be handled by employees who are not trained to handle releases that would require an emergency response, and spills that require evacuation and the assistance of emergency responders. First responder awareness level training would meet this requirement.
  - a. If the employer cannot utilize 1910.38(a) to ensure that employees can identify an emergency, at least one employee per shift should be given training equivalent to the first responder awareness level. This designated employee would determine whether a situation poses an emergency and whether all employees in the area need to be evacuated. Employees must be told how to act when a release that required an emergency response occurred - if employees who are not trained as emergency responders were to take action during a release of hazardous substances that would pose an emergency, 1910.120(q)(6) shall be cited.
  - b. Employers may choose to include the competencies described in 1910.120(q)(6)(i) - first responder awareness level - in their Employee Right-to-Know/ Hazard Communication training program. This must include training in recognizing when a situation has escalated beyond the employee's ability to respond.
3. In reviewing an emergency action plan, ask:
  - a. What chemical releases have occurred at the facility in the past?
  - b. Does 1910.120 apply?
  - c. Is the plan in writing?
  - d. Are emergency escape procedures and emergency escape routes assigned? (For example, if wind direction is a factor, has the employer provided any wind direction indicators such as wind socks to help employees determine where to seek refuge.)
  - e. Are procedures established to account for all employees after the emergency evacuation has been completed?

- f. Has an employee alarm system, which complies with 1910.165, been established?
- g. If an employee alarm system is used for other purposes, have distinctive signals for each purpose been developed?
- h. Has the employer designated and trained a sufficient number of persons to assist in the safe and orderly evacuation of employees?
- i. Has the employer reviewed the emergency action plan with each employee covered by the plan initially, and when the plan or employee's responsibilities under the plan change?
- j. Is the written plan kept at the workplace and made available for employee review?
- k. Does the employer intend to have employees respond to emergencies in any way? Is the plan just a means to avoid compliance with 1910.120(q)?
- l. Does the employer have procedures for notifying both inside and outside parties of incidents so that employees are not at risk? Examples of at-risk employees may include those employees who are required by the plan to remain to operate critical operations prior to their evacuation, and where the plan does not have procedures for the employer to ensure that outside responders are notified and are capable of a timely response. OSHIs should look closely at emergency action plans that do not have procedures for immediately contacting the local fire department and other outside responders in order to determine whether such plans place any workers at risk.

#### **D. Review Procedures for Emergency Response Plans.**

If an employer has chosen to have its own employees respond to releases that would require an emergency response, the employer must develop emergency response capabilities that are appropriate to their individual situation. The OSHI shall examine the ERP in terms of what is expected of the employees during an emergency response. Are all the employees that are expected to respond:

- Adequately trained for their intended job duties?
- Properly equipped for the intended tasks?
- Capable of responding in a safe manner?
- Managed by competent leaders?



1. The non-mandatory appendix to 1910.120, Appendix C, Section 6, states that in response to a small incident, the Incident Commander (IC), in addition to normal command activities, may become the safety officer and may designate only one employee (with proper equipment) as a backup to provide assistance if needed. It is recommended, however, that at least two employees be designated as backup personnel since the assistance needed may include rescue. Section 1910.120(q)(3) requires that operations in hazardous areas of an emergency response be performed using the buddy system in groups of two or more. Furthermore, 1910.120(q)(3)(vi) requires at least two additional personnel outside the hazardous area as backup personnel. Thus, there must be at least four individuals at the site. One of the two individuals outside the hazard area can be assigned to another task, provided that the second assignment does not interfere with the performance of the standby role.
2. OSHIs shall review ERPs for the following 1910.120(q)(2) components:

**(q)(2)(i) Pre-emergency planning and coordination with outside parties.**

NOTE: The term “outside parties” means outside responders (fire departments, police, private hazmat teams, emergency medical service personnel, and other pertinent components of the local, state, and federal emergency response system) and other employers in the surrounding area who could be affected by a hazardous substance emergency incident.

- a. OSHIs may ask the following questions:
  - (1) Does the plan address coordination with outside emergency response organizations?
  - (2) Have employers notified and coordinated their ERP with the organizations listed? OSHIs must verify with the local fire department that the employer has contacted them regarding the employer’s emergency response capabilities and needs and the fire department’s role, if any, in providing emergency response. The planning and coordination procedures in the employer’s written emergency response plan should state the conditions or circumstances under which outside responders will provide emergency response to the site or facility. The OSHI should also verify with other randomly-selected emergency response organizations listed in the ERP that these outside parties are aware and capable of their role under the site’s ERP.
  - (3) Are telephone numbers and contact personnel for in-plant officials and local authorities correct?
  - (4) Do the employer’s pre-emergency planning and coordination procedures address how outside parties are notified of a potential emergency situation and what role each would

play in an incident? Verify whether the employer has conveyed these elements of the ERP by contacting several of the affected outside parties.

- (5) Are outside responders aware of any circumstances that were either not disclosed or considered by the employer that would delay or prevent them from responding to an incident (e.g., distance, lack of training, etc.)?
- b. In addition, under SARA Title III, facilities are required to share information on hazardous chemicals on site with the local emergency planning committee. You may refer industry personnel to the SARA Title III hotline at 1-(800)-424-9346 or to the State Emergency Response Commission at (651) 297-7372. OSHIs are encouraged to refer facilities that have not complied with SARA Title III to the State Emergency Response Commission.

**(q)(2)(ii) Personnel roles, lines of authority, training and communication.**

- a. Personnel roles must be defined clearly in the ERP. One method of doing this is to list job titles and describe their projected role in emergency response operations. Although specific titles are not required, employees should be designated to assume duties that parallel 1910.120(q)(6) and must be trained accordingly. For example, an employer may use the job title "containment operator" to describe a responder whose responsibilities are equivalent to the first responder operations level. Employers would indicate in the ERP that the employee with this job title had acquired training equal to the first responder operations level, and OSHIs would cite any inadequacies in training under 1910.120(q)(6)(ii).
- b. Lines of authority must also be made clear in the ERP. The on-scene IC must be notified expeditiously by a predefined chain of communication in the event of a release that would require an emergency response. Although employees at the scene of the release may be expected to inform their supervisors (as opposed to the on-scene IC), the supervisor, unless properly trained, can do nothing other than call for the emergency response personnel and report what is known to be present.
  - (1) Are the lines of authority established in the emergency response plan that prescribe the roles and responsibilities of outside responders (e.g., fire, police, etc.) during a response?
- c. Provisions for employee training should be incorporated into the ERP. This might include a general outline of the training to be completed for each of the various levels of emergency responders addressed in the ERP, or reference to the location of the training manual. The plan should also address a schedule for required annual refresher training.

- d. The lines of communication need to be defined clearly in the ERP. Essentially all employees that may encounter a release that requires an emergency response should be addressed in the ERP and must understand to whom they are to report a release. These lines of communication can be developed for groups of employees in specific areas that would be required to report to the same individual in the event of an emergency. A system to communicate the need and method for evacuation of all employees who are not designated as emergency responders must be developed. These evacuation procedures should, at a minimum, meet the requirements of 1910.38(a).
- e. Means of communication to be used during an emergency response must be established and written into the ERP. This might include dedicated radio frequencies, hand signals, and siren blasts or any other system devised by the employer to alert employees that an emergency response operation has begun. 1910.165 may be used as a guide for employee alarm systems.

**(q)(2)(iii) Emergency recognition and prevention.**

- a. This section of an ERP must define the types of releases that could potentially require an emergency response and should define what types of releases would not be an emergency, or, in other words, what may be handled as an incidental release. (See [Appendix E](#) of this instruction for criteria.)
  - (1) The ERP should include an inventory of the hazardous substances found on site, the quantities in which they are stored and the consequences of an uncontrolled release. Scenarios or circumstances that trigger activation of the ERP should be described for the various hazardous substances stored in sufficient quantities to cause a potential emergency. Reasonably predictable worst-case scenarios must be made in the planning phase.
  - (2) Employees such as chemical process operators may be required to shut down processes, close emergency valves and otherwise secure operations that are not in the hot zone or danger area before evacuating in the event of an emergency. [See 1910.38(a)(2)(ii)] These procedures need to be delineated carefully, and employees must be trained to be able to perform these pre-evacuation procedures safely. Employees who perform these operations are not considered "emergency responders;" however, if they perform duties in the hot zone, or danger area, then they would be expected to be trained as emergency responders in accordance with 1910.120.
  - (3) Chemical process operators who have informed the incident command structure of an emergency, who have adequate PPE and training in the procedures they are to perform and who employ the buddy system, may take limited action in the danger area (e.g., turning a valve) before the emergency response team arrives. The limited action taken by process operators must be addressed in the Emergency Response Plan. Once the emergency

response team arrives, these employees would be restricted to the actions that their training level allows.

- This limited section assumes that the emergency response team is on its way, their arrival is imminent, and that the action taken is necessary to prevent the incident from increasing in severity (i.e., to prevent a catastrophe). Employers must inform employees during their training that they are to evacuate when they lack the capabilities to respond in a safe manner and in accordance with the standard operating procedures defined in the emergency response plan.
- If the process operator takes action beyond what they have been trained to do, and the action was comparable to the aggressive role that a HAZMAT technician would take, OSHIs shall cite a violation of 1910.120(q)(6)(iii). If the operator takes action beyond that which they have been trained to do, and the action was comparable to the defensive role that a First Responder at the Operations level would take, OSHIs shall cite a violation of 1910.120(q)(6)(ii).

**(q)(2)(iv) Safe distances and places of refuge.**

- a. The ERP should contain a map with safe places of refuge identified for each section of the area where HAZMAT emergencies could occur, if possible. Ideally, the map should contain the location of all buildings, structures, equipment, emergency apparatus, first aid stations, routes of entry and exit, emergency exit routes and alternate routes, staging areas, and safe places of refuge. The adequacy of safe refuge areas needs to be determined for the worst-case scenario.
  - (1) The safe places of refuge (outdoors or shelter-in-place) should be the areas in which accounting of all employees will be performed. This can be critically important for identifying individuals that did not get out and for estimating where they may be.
  - (2) Information on safe places of refuge must be given to the emergency response organization in a timely fashion.
  - (3) In some cases, because of the quantity and/or proximity of a contaminant release, it may be safer to remain indoors rather than to evacuate employees. If an employer intends to include a shelter-in-place option in their ERP, they must be sure to include provisions in their ERP to implement a means of alerting their employees to shelter-in-place that is easily distinguishable from that used to signal an evacuation, and to train employees in the shelter-in-place procedures and their roles in implementing them. Examples of situations that might result in a decision by an employer to institute shelter-in-place include an explosion in an ammonia refrigeration facility across the street, a derailed and leaking tank

car of chlorine on the rail line near a place of business, or a chemical, biological or radiological event. The ERP must identify who is responsible for determining whether to institute shelter-in-place and what situations may require it.

- (4) The OSHI should evaluate the employer's shelter-in-place procedures to determine their suitability. For example, do the procedures include turning off, sealing, or disabling the HVAC air exchange? OSHA's [Evacuation Plans and Procedures e-Tool](#) provides additional specific shelter-in-place procedures as guidance.

**(q)(2)(v) Site security and control.**

- a. Areas surrounding the danger area need to be controlled during emergencies by prohibiting unauthorized personnel from entering the emergency release area, or hot zone. Personnel expected to set up boundaries designating safe and unsafe areas must be trained to the first responder operations level. Once these areas are set, first responder operations level personnel must control entry and exit in the area. An employee trained to first responder awareness may not set up safe distances because they lack knowledge regarding the potential for exposure, explosion, or radiation. For example:
  - (1) An employee trained to the first responder awareness level could assist (from a safe remote location) in preventing unauthorized entry into an emergency release area; while
  - (2) An employee trained to first responder operations level could set up the exclusion zone to determine how close to the accident cars should be permitted to drive.
- b. Methods of excluding areas and defining various zones need to be addressed in the ERP. Emergency responses are coordinated from a command post a safe distance away from the emergency release area. The way this command post is assembled and its functions must also be addressed in the ERP. (See 1910.120, Appendix C, Section 7, for further guidance.)

**(q)(2)(vi) Evacuation routes and procedures.**

- a. All employees that are not trained in emergency response and who will not be needed during the response operation should be evacuated from the exclusion and decontamination zones. This aspect of the emergency response plan should be in compliance with 1910.38. OSHIs must use 1910.38 as a model to evaluate the employer's "evacuation routes and procedures."

**(q)(2)(vii) Decontamination.**

- a. The ERP must contain provisions for decontamination of emergency responders leaving the exclusion zone. Individuals who will assist the responders as they leave the exclusion area must be trained in decontamination procedures. These individuals should wear PPE at the same level or one level below the emergency responders they are supporting; the PPE level must be appropriate to the hazards.
  - (1) Decontamination of response equipment left in the exclusion zone and the contaminated area may be handled in the post-emergency response and, therefore, decontamination procedures for these areas and equipment do not necessarily need to be part of the ERP.
  - (2) If emergency responders are expected to decontaminate their own equipment or the contaminated area, then the procedures to be followed must be included in the ERP. (See 1910.120, Appendix C, Section 3, for further guidance.)

**(q)(2)(viii) Emergency medical treatment and first aid.**

- a. The plan must provide for advance first aid personnel (i.e. qualified Basic Life Support personnel such as EMTs) or better [which must be on standby as per 1910.120(q)(3)(vi)] and list all qualified emergency medical personnel on site, their certifications and how best to contact them during an emergency. OSHIs must verify that emergency medical personnel are aware of their roles in an emergency and are trained to fulfill their roles.

**(q)(2)(ix) Emergency alerting and response procedures.**

- a. This section of the ERP should address how employees will be informed that an emergency exists and how they should respond. The alarm systems must inform "all affected employees" that an emergency exists and what their immediate response should be based on the alarm sequence. There are three important questions that need to be addressed:
  - Who needs to be made aware of the emergency?
  - What do they need to be told to do?
  - How will they be alerted?
- (1) Depending on the size and the magnitude of the emergency "all affected employees" may include all employees, employees who work for other employers in the same facility or nearby facilities, or just employees from a limited area. If employers intend to evacuate

people from a limited area, they must have alerting procedures in place that can communicate who must evacuate.

- (2) The following list outlines the information necessary to inform the employees of what their immediate response should be. All these criteria may not be applicable to all employers, depending on the size and nature of the place of work and the employer's pre-planning efforts:
- Notification: making the existence of the emergency situation known.
  - Level & Type of Response: the required response based on the extent and type of emergency.
  - Nature of the Response: the type of emergency condition (explosion, chemical spill, medical).
  - Location: critically important in large facilities.
  - Ambient Conditions: environmental factors that influence evacuation or response procedures (wind speed and direction).

**(q)(2)(x) Critique of response and follow-up.**

- a. Emergency response plans are based on site specific needs and experience. It is important to consider previous emergency incidents in preparing an ERP. It is just as important to consider new information, experience, and incidents with the goal of enhancing the effectiveness of the ERP and keeping it current.
- (1) Written procedures for the critique of an emergency response must be part of the ERP. Appropriate changes should be made in the ERP in accordance with the results of a critique of a specific incident.
- (2) Time spent by emergency response employees reviewing incidents can be credited toward their refresher training requirements under 1910.120(q)(8).

**(q)(2)(xi) PPE and emergency equipment.**

- a. This section of the ERP lists the inventory of PPE and emergency response equipment and materials. The ERP should include instructions on how the PPE and equipment and materials are to be used, their limitations, and when emergency responders will use them.
  - (1) 1910.120 requires the IC to be aware of the equipment and PPE available during an emergency, and responders trained to the HAZMAT technician and HAZMAT specialist levels must be trained in the selection of and proper use of PPE.
  - (2) Emergency responders must be made aware of the inventory in order to utilize the PPE and emergency response equipment effectively.

**(q)(2)(xii) Emergency response organizations**

may use the local emergency response plan (LERP) or the state emergency response plan (SERP) or both, as part of their emergency response plan to avoid duplication. Those items of the emergency response plan that are properly addressed by the SARA Title III plans may be substituted into their emergency plan or otherwise kept together for the employer's and employees' use.

- a. Community emergency response agencies should be integral components of the community ERP. The community wide ERP should spell out specific roles and responsibilities for various organizations or agencies and will state which function each agency is expected to play in the event of an emergency. This pre-determined role will be the basis for an agency's ERP.



## APPENDIX B: GUIDANCE FOR 29 CFR 1910.120 EMERGENCY RESPONSE COMPLIANCE INSPECTION

The function of this non-mandatory appendix is to supply guidance on pertinent information to be collected relating to various subparagraph requirements in 1910.120(q) *Emergency Response to Hazardous Substance Releases*.

**Name of Site:**

**Street Address or Geographic Location of Incident:**

**City, State, Zip Code:**

**Name of Manager/Owner:**

**Phone Number:**

### A. Review of the Emergency Response Plan (ERP)

(See Appendix A of this instruction for a discussion of Emergency Response Plan (ERP) requirements and strategies.)

	<b>Applicable Standards</b>	<b>Met Y/N</b>
A. Do the provisions of 29 CFR 1910.120(q) apply to the employer? (Would the substances present on-site require an emergency response if released?) (See Appendix A of this instruction.)	1910.120(q) 1926.65(q)	
B. Which compliance strategy does the employer use? Evacuation of all employees in accordance with 29 CFR 1910.38, or emergency response by employees in accordance with 29 CFR 1910.120(q)?	1910.120(q)(1) 1926.65(q)(1)	
C. Does the employer have an ERP or an EAP? If not, cite paragraph 29 CFR 1910.120(q)(1).	1910.120(q)(1) 1926.65(q)(1)	
D. If the employer does not have an ERP but expresses an intent to evacuate all personnel and not allow any employees to respond, does the employer have an EAP in accordance with 29 CFR 1910.38 (may be communicated orally to employees by employers with 10 or fewer employees)? If not, then 29 CFR 1910.120(q)(1) shall be cited. The determination that the employer intends to evacuate all employees must be documented on the Narrative, OSHA-1A Form.	1910.120(q)(1) 1926.65(q)(1)	
E. If the employer does not have an ERP but has an EAP, is the EAP adequate? If not, then 29 CFR 1910.120(q)(1) shall be cited.	1910.120(q)(1) 1926.65(q)(1)	
F. Emergency Action Plan compliance checklist:		
1. Is the plan in writing (may be communicated orally to employees by employers with 10 or fewer employees)? (1910.38(b))	1910.120(q)(1) 1926.65(q)(1)	
2. Does the plan include procedures for reporting fires or other emergencies? (1910.120(c)(1))	1910.120(q)(1) 1926.65(q)(1)	
3. Are emergency evacuation procedures and type of evacuation and exit route assignments designated? (1910.120(c)(2))	1910.120(q)(1) 1926.65(q)(1)	

4. Does the plan include procedures to be followed by employees performing rescue or medical duties or employees who remain to operate critical plant operations? (1910.38(c)(3), 1910.38(c)(5))	1910.120(q)(1) 1926.65(q)(1)	
5. Are procedures established to account for all employees after the emergency evacuation has been completed? (1910.38(c)(4))	1910.120(q)(1) 1926.65(q)(1)	
6. Has an employee alarm system which complies with 29 CFR 1910.165 been established? (1910.38(d))	1910.120(q)(1) 1926.65(q)(1)	
7. If an employee alarm system is used for other purposes, have distinctive signals for each purpose been developed? (1910.38(d))	1910.120(q)(1) 1926.65(q)(1)	
8. Has the employer designated and trained a sufficient number of persons to assist in the safe and orderly evacuation of employees (generally one per 20 employees)? (See Appendix to 29 CFR 1910 Subpart E – Emergency action plan training, 3.) (1910.38(e))	1910.120(q)(1) 1926.65(q)(1)	
9. Has the employer reviewed the EAP with each employee covered by the plan initially, and when the plan or the employee's responsibilities under the plan change? (1910.38(f))	1910.120(q)(1) 1926.65(q)(1)	
10. Is the written plan kept at the workplace (may be communicated orally to employees by employers with 10 or fewer employees) and made available for employee review? (1910.38(b))	1910.120(q)(1) 1926.65(q)(1)	
11. Has the plan been effectively communicated and implemented by the employer to ensure that employees do not assist in handling emergencies, or does the employer actually intend to have employees respond to emergencies?	1910.120(q)(1) 1926.65(q)(1)	
12. Does the employer intend to have employees handle incidental releases? If so, are the training, tools, equipment, and PPE appropriate for handling incidental releases of the hazardous substance available in the work area?	1910.1200 1926.59 1910.132 1926.95	
13. Does the employer have procedures for notifying both inside and outside parties of incidents? Employees may be placed at risk in situations where they are required by the plan to remain in a temporarily safe area to shut down an operation, and the plan does not have procedures for the employer to ensure that outside responders are notified in a timely manner. OSHIs should look closely at EAPs that do not have procedures for immediately contacting the local fire department and other outside parties in order to determine whether such plans place any employees at risk. (1910.38(c)(1)) NOTE: The term "outside parties" means outside responders (fire departments, police, private HAZMAT teams, emergency medical service personnel, and other pertinent components of the local, state, and Federal emergency response system) and other employers in the surrounding area who could be affected by a hazardous substance release requiring an emergency response.	1910.120(q)(1) 1926.65(q)(1)	
G. Is the ERP in writing?	1910.120(q)(1) 1926.65(q)(1)	
H. Is the ERP easily accessible to employees?	1910.120(q)(1) 1926.65(q)(1)	
I. Does the employer make use of the local or State ERP in the company ERP? If so, does the local or State ERP adequately provide employee protection for this employer? NOTE: Emergency response organizations may use the local or State ERP as	1910.120(q)(2)(xii) 1926.65(q)(2)(xii)	

part of their ERP to avoid duplication. However, the plan must address all of the provisions listed in 29 CFR 1910.120(q)(2) and (q)(3).		
J. Does the ERP reflect pre-emergency planning and coordination with outside parties?	1910.120(q)(2)(i) 1926.65(q)(2)(i)	
1. Does the plan describe procedures or existing agreements addressing how the outside parties are to be notified of a potential emergency situation and what role each should play in an incident?	1910.120(q)(2)(i) 1926.65(q)(2)(i)	
2. If any response coordination procedures or agreements are included in the plan, are the local fire department and other selected outside emergency response parties aware of their roles and responsibilities as described in the plan?	1910.120(q)(2)(i) 1926.65(q)(2)(i)	
3. Can outside responders identify any reasons that were not considered by the employer that would delay or prevent them from responding to an incident (e.g., distance, lack of training, etc.)?	1910.120(q)(2)(i) 1926.65(q)(2)(i)	
K. Are personnel roles, lines of authority, training, and communication provided in the ERP? (Suggestion: review personnel roles and lines of authority with the designated On-Scene Incident Commander if possible. These should be consistent with the NIMS.)	1910.120(q)(2)(ii) 1926.65(q)(2)(ii)	
L. Does the ERP address emergency recognition and prevention? (Suggestion: Determine if the employer established the kinds of emergencies that could occur in the workplace, trained employees to recognize potential emergencies, and/or installed monitoring devices to alert employees to an emergency.)	1910.120(q)(2)(iii) 1926.65(q)(2)(iii)	
M. Does the ERP address safe distances and places of refuge adequate for all employees who may need it?	1910.120(q)(2)(iv) 1926.65(q)(2)(iv)	
N. Does the ERP designate equipment, people, and procedures to ensure site security and control?	1910.120(q)(2)(v) 1926.65(q)(2)(v)	
O. Are evacuation routes and procedures developed, and do they work well with the methods developed for emergency alerting and the designation of places of refuge? (Suggestion: Check the evacuation routes and procedures against the requirements given in 29 CFR 1910.38, emergency action plans.)	1910.120(q)(2)(vi) 1926.65(q)(2)(vi)	
P. Does the ERP address the setting up of a decontamination station, and the decontamination of personnel and equipment?	1910.120(q)(2)(vii) 1926.65(q)(2)(vii)	
Q. Are emergency medical treatment and first aid available to employees during an emergency response? (Suggestion: Verify that emergency medical personnel are aware of their roles in an emergency and trained to fulfill their roles.)	1910.120(q)(2)(viii) 1926.65(q)(2)(viii)	
R. Are emergency alerting and response procedures addressed in the ERP? Is there evidence of an alerting and response system? (Suggestion: If the emergency situation calls for special instructions, determine if the emergency alerting system indicates the location of the hazard, the direction employees should evacuate, what the hazard is, and any special PPE employees must don.)	1910.120(q)(2)(ix) 1926.65(q)(2)(ix)	
S. Does the ERP address the types and uses of PPE and emergency response equipment to be used?	1910.120(q)(2)(xi) 1926.65(q)(2)(xi)	
T. Does the ERP provide procedures for the critique of emergency responses?	1910.120(q)(2)(x) 1926.65(q)(2)(x)	
U. Are there any other features that are missing or should be addressed in the employer's ERP?	1910.120(q)(1) 1926.65(q)(1)	
NOTE:		

<p>The elements listed in 29 CFR 1910.120(q)(2) are minimum requirements. The performance-oriented aspect of the ERP is in 29 CFR 1910.120(q)(1), which states that the ERP "shall be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations."</p>		
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**B. Review of Procedures for Handling Emergencies**

<p>A. Has a single individual been identified as the On-Scene Incident Commander?</p>	<p>1910.120(q)(3) 1926.65(q)(3)</p>	
<p>B. Is there a system in place that passes the senior official position up the line of authority as more senior officials arrive on the scene? NOTE: The senior official assists the On-Scene Incident Commander, "the individual in charge of the Incident Command System" in 29 CFR 1910.120(q)(3).</p>	<p>1910.120(q)(3) 1926.65(q)(3)</p>	
<p>C. Has a safety official (officer) been identified? NOTE: In smaller responses the On-Scene Incident Commander may play this role.</p>	<p>1910.120(q)(3)(vii) 1926.65(q)(3)(vii)</p>	
<p>D. Is the site/facility system consistent with the NIMS and does it ensure that responders are familiar with/trained in NIMS?</p>	<p>1910.120(q)(3) 1926.65(q)(3)</p>	

**C. Review of Training Requirements**

<p>A. Has the employer certified that the employee has been provided training? NOTE: The employee does not necessarily have to be provided with a certificate, although the employer must certify in writing that employees who have successfully completed the first responder operations, HAZMAT Technician, HAZMAT Specialist, and On-Scene Incident Commander levels are trained.</p>	<p>1910.120(q)(6) 1926.65(q)(6)</p>	
<p>B. If employee training is done in-house, is training based on the specific duties and functions to be performed at the site? NOTE: Keep in mind that OSHA does not endorse training programs but may offer suggestions as to their comprehensiveness.</p>	<p>1910.120(q)(6) 1926.65(q)(6)</p>	
<p>C. Does the employer have a "statement of training" or "statement of competency" for annual refresher training or competency for all employees trained in emergency response? NOTE: Methods of demonstrating competency include critiques of actual incidents or "dress rehearsals" which identify any weakness and effectiveness of the response effort.</p>	<p>1910.120(q)(8) 1926.65(q)(8)</p>	
<p>D. If employee annual refresher training is done in-house, is training adequate for the site? NOTE: Keep in mind that OSHA does not endorse training programs, but may offer suggestions as to their comprehensiveness.</p>	<p>1910.120(q)(8) 1926.65(q)(8)</p>	

**D. Review of Medical Surveillance**

A. Have HAZMAT team members and HAZMAT specialists received medical surveillance?	1910.120(q)(9)(i) 1926.65(q)(9)(i)	
B. Does the employer furnish the employee with the physician's written opinion indicating medical results and whether the employee is capable of working with HAZMAT?	1910.120(q)(9)(i) 1926.65(q)(9)(i) 1910.1020	
C. Are emergency response workers who exhibit signs or symptoms of hazardous substance exposure during an emergency incident offered medical consultation?	1910.120(q)(9)(ii) 1926.65(q)(9)(ii)	
D. Is medical recordkeeping done in a manner consistent with 29 CFR 1910.1020, Access to Employee Exposure and Medical Records?	1910.1020	

**E. Review of Personal Protection Equipment Program Ask to review the written PPE Program required in 29 CFR 1910.120(q)(10). NOTE: Subparagraph 29 CFR 1910.120(q)(10) refers to the provisions for PPE in 29 CFR 1910.120(g)(3)-(g)(5).**

A. Is the PPE chosen sufficiently protective of employees, based on hazards and potential hazards?	1910.120(q)(10) 1926.65(q)(10)	
B. Is the PPE maintained and inspected routinely?	1910.120(q)(10) 1926.65(q)(10)	
C. Does the PPE appear to be in good condition and up to date?	1910.120(q)(10) 1926.65(q)(10)	
D. Is air monitoring equipment available to assist the Incident Commander in determining when to increase or lower the level of PPE?	1910.120(q)(3)(iv) 1926.65(q)(3)(iv)	

**F. Employee Interview Questions**

**Employee Name:**

**Home Address:**

**Home/Work Phone Number:**

**Employee Job Title/Years Employed in Present Position:**

A. Does the employee have access to the ERP?	1910.120(q)(1) 1926.65(q)(1)	
B. Has the employee ever been through an emergency response drill or an evacuation drill? Is the employee aware of the evacuation route in the event of an emergency? NOTE: Drills may be required by SARA Title III if the facility or emergency response organization is designated to be part of a community emergency response.	1910.120(q)(2)(i) 1926.65(q)(2)(i)	

C. Is the employee expected to take any action, other than evacuation, during an emergency? If so, what level of training does the employee have? (Suggestion: Review with the employee the competencies for the level of training that the employee has received.)	1910.120(q)(6) 1926.65(q)(6)	
D. Does the employee feel the training was sufficient to perform expected duties and functions during an emergency as an emergency responder?	1910.120(q)(6) 1926.65(q)(6)	
E. Does the employee know how to select, use, and inspect the PPE designated for employee use during an emergency?	1910.120(q)(6)(ii)-(iv) 1926.65(q)(6)(ii)-(iv)	
F. Have the employees been fitted properly for PPE? NOTE: Paragraph 29 CFR 1910.120(q)(10), Chemical protective clothing, refers to the provisions in 29 CFR 1910.120(g)(3-5): PPE selection (which requires selection and use of PPE in compliance with 29 CFR Part 1910, Subpart I), totally encapsulating chemical protective suits, and a written PPE program.	1910.120(q)(10) 1926.65(q)(10) 1910.132 1910.134	
G. Does the employee know how to use the emergency response equipment designated for use in performing control, containment and/or confinement operations?	1910.120(q)(6)(ii)-(iv) 1926.65(q)(6)(ii)-(iv)	
H. If possible, interview the designated On-Scene Incident Commander to determine if the individual:		
1. Is aware of the potential hazards and/or benefits associated with certain PPE and engineering controls;	1910.120(q)(3) 1926.65(q)(3)	
2. Is capable of implementing appropriate emergency operations;	1910.120(q)(3) 1926.65(q)(3)	
3. Can really designate a safety official (officer);	1910.120(q)(3)(vii) 1926.65(q)(3)(vii)	
4. Can implement appropriate decontamination procedures;	1910.120(q)(3) 1926.65(q)(3)	
5. Has received training as an On-Scene Incident Commander.	1910.120(q)(6)(v) 1926.65(q)(6)(v)	
I. Has the employee gone through refresher training or demonstrated competency annually?	1910.120(q)(8) 1926.65(q)(8)	
J. Have employees who are entitled to a baseline physical and periodic consultations received them? NOTE: Designated members of HAZMAT Teams and HAZMAT Specialists must receive baseline physicals and be part of a medical surveillance program.	1910.120(q)(9)(i) 1926.65(q)(9)(i)	
K. Are employees offered medical consultation following the development of signs or symptoms resulting from exposure to hazardous substances during an emergency incident?	1910.120(q)(9)(ii) 1926.65(q)(9)(ii)	

## **APPENDIX C: INSPECTION PROCEDURES AT ON-GOING OR RECENTLY COMPLETED EMERGENCY RESPONSE OPERATIONS**

The function of this appendix is to provide guidance for inspection activity at on-going or recently completed emergency response operations. The focus of this appendix is a review and discussion of the requirements of 1910.120(q)(3) Procedures for handling emergency response.

At on-going or recently completed emergency response operations there is a shift in emphasis from the planning requirements of the standard toward the procedural requirements of the standard. An inspection of an actual emergency response should focus on the appropriate implementation of the emergency response plan and compliance with the requirements of 1910.120(q)(3). If the on-going incident is a "catastrophic event" as defined in MNOSHA Instruction CPL 2.94 Emergency Response, the OSHI must be familiar with, and follow, appropriate guidelines of that instruction.

### **G. General Considerations.**

1. The OSHI, upon arriving at an emergency response incident, should immediately seek out and report to the On-Scene Incident Commander (IC) (or the On-Scene Coordinator (OSC) if the NCP is activated), or the appropriate official within the Incident Command System (ICS), such as the safety and health officer. The purpose of this meeting is to inform the IC/OSC of your presence and the purpose of your visit.
2. The OSHI may find it necessary to conduct an abbreviated opening conference, during which the OSHI should obtain a copy of the emergency response plan.
3. The OSHI must establish whether contamination zones have been created and if so, must avoid entry into zones for which the OSHI has not been appropriately trained or equipped.
4. OSHIs should make every effort to comply with the restrictions imposed by the IC/OSC.
5. The primary question to be answered is whether the emergency response procedures have been followed. These procedures are outlined in the emergency response plan as well as in 1910.120(q)(3).

If the employer fails to follow his/her emergency plan and also responds inappropriately, cite the employer for both actions. An example would be where an employer has designated the local fire department as the emergency responder, and then during an incident, fails to notify the department and sends inadequately trained employees to respond to the incident. In that case, the employer should be cited under 1910.120(q)(2) and (q)(6).

## H. Inspection Procedures.

### 1. HAZWOPER's Incident Command System.

- a. Is there an Incident Command System as required by 1910.120(q)(3)(i)?
- b. The standard requires one individual, the most senior official on the site who has the responsibility for controlling site operations, to be in charge of the incident from beginning to end. The Incident Command System is to include a pre-established chain of command, in which control of the incident is passed up the chain of command as more senior officers arrive.

### 2. Site Monitoring and Characterization.

- a. The IC or designated safety officer has the responsibility to "identify, to the extent possible, all hazardous substances or conditions present and shall address as appropriate site analysis, use of engineering controls, maximum exposure limits, hazardous substance handling procedures, and use of any new technologies."
- b. The IC has a responsibility to utilize all available resources to characterize the hazards associated with response activities. The information gathering/site characterization stage of an emergency response operation is critical in that it influences all other aspects of the response (delineation of contamination zones, PPE, etc.)

### 3. Appropriate Emergency Response Operations.

- a. **Site Characterization.** Based on characterization of the site, the IC is responsible for implementing appropriate emergency response operations and ensuring that appropriate PPE is used. To establish the appropriateness of the response operation, the OSHI must ask the IC, or appropriate official within the ICS, after the incident is over, what he/she knew about the hazardous substances present and how he/she knew it? Did the IC rely on placards, labels, manifests, or information from the plant? This is required in 1910.120(q)(3)(iii).
- b. **Lines of Communication.** The IC must establish and maintain lines of communication including links to the senior official present for each employer. If a senior official for an employer was not incorporated in the lines of communication, there may have been a violation of 1910.120(q)(3)(i).
- c. **Coordination.** Adequate coordination of emergency responders is critical to a safe emergency response operation. The OSHI should explore any evidence of inadequate coordination of emergency responders. Were responders receiving direction from more than one source? Was there more than one command post? Did one employer's employees refuse to take direction from the IC? Were the responders aware of the existence of any pre-emergency planning procedures or agreements between the facility and their organization? Were they aware of their roles once response operations were initiated?



**4. Positive Pressure Self-Contained Breathing Apparatus (SCBA).**

- a. The standard requires that positive pressure SCBA be used "while engaged in emergency response, until such time that the individual in charge of the ICS determines through the use of air monitoring that a decreased level of respiratory protection will not result in hazardous exposures to employees," in 1910.120(q)(3)(iv).
- b. If the IC is limited in his or her ability to monitor and characterize the site, positive pressure SCBA must be used. If the site has not been adequately characterized and respiratory protection less protective than positive pressure SCBA is used, then the employer is in violation of 1910.120(q)(3)(iv).

**5. Limited Number of Emergency Response Individuals/Buddy Systems.**

- a. The number of individuals in areas of potential or actual exposure must be limited to those individuals actually engaged in emergency response operations. If there are excess personnel on site, or the facility was not properly evacuated there may be a violation of 1910.120(q)(3)(v).
- b. Although the IC has the responsibility to limit the number of emergency responders in areas of exposure or potential exposure, the IC must employ the buddy system for all operations in hazardous areas. At a minimum, the buddy system must be used within the hazardous area (entry by at least two persons) and at least two additional personnel must standby outside the hazardous area. One of the two individuals outside the hazard area can be assigned to another task, but the second assignment cannot interfere with the performance of the standby role. If the OSHI determines that the buddy system was not used or that the buddy system used was ineffective (i.e., individuals in the danger area were out of sight of others), cite 1910.120(q)(3)(v).

**6. Backup Personnel.**

For emergency responders that enter the danger area, there must be backup personnel standing by who are identically equipped (or have a higher level of protection). If not, cite 1910.120(q)(3)(vi).

**7. First Aid.**

The standard requires that advanced first aid personnel with medical equipment and transportation also be standing by. If not, cite 1910.120(q)(3)(vi).

**8. Safety Official/Safety Officer (SO).**

- a. The IC has the responsibility to designate a safety official (the IC may designate him/herself as safety official). The safety official must have the following competencies as required by 1910.120(q)(3)(vii):
  - (1) Be knowledgeable in the operations being implemented at the emergency response site.

- (2) Have the ability to identify the hazards and to provide direction with respect to the safety of operations for the emergency at hand.

NOTE: Although a Certified Industrial Hygienist or Certified Safety Professional may play the role of safety official, this certification should not be regarded as an absolute criteria of eligibility.

- b. When the safety official believes that there is a situation that poses an imminent danger to life or health, the safety official must be vested with the authority to suspend operations. Evidence to the contrary should be cited as a violation of 1910.120(q)(3)(viii).

## **9. Decontamination.**

The IC has the responsibility to institute appropriate decontamination procedures as part of the emergency response operations. Cite 1910.120(q)(3)(ix) if the ICS has not instituted appropriate decontamination procedures.

## **10. Training Levels of Emergency Responders.**

- a. The IC, or appropriate official in the ICS, should be cognizant of the training levels of the various emergency responders under his/her command. Some HAZMAT teams have reportedly color-coded their response personnel based on the HAZWOPER training level. This is not required; however, Incident Commanders do need to be informed as to the training levels of responders under their command.
- b. If the IC inappropriately orders an employee to take actions for which the employee has not been adequately trained, the employer would be cited for a violation of the training requirements-- 1910.120(q)(6).

## **APPENDIX D: HAZWOPER INTERPRETIVE GUIDANCE**

This appendix includes clarifications and interpretations which respond to the most frequently asked questions and points of common misunderstanding regarding 29 CFR 1910.120 (q) Emergency Response to Hazardous Substance Releases. Where possible, clarifications are keyed to the most applicable paragraph or subparagraph of the standard.

### **1910.120(a): SCOPE, APPLICATION, AND DEFINITIONS**

#### **How (a)(1), "Scope," affects certain employers who may be engaged in hazardous waste operations:**

##### **(a)(2)(i) Application.**

Paragraph (a)(2)(i) states that all requirements of 1910 and 1926 apply pursuant to their terms to hazardous waste and emergency response operations whether covered by the HAZWOPER standard or not, and when there is a conflict between requirements, "the provision more protective of employee safety and health shall apply...."

##### **(a)(1)(v) Asbestos Removal.**

Occupational exposure to asbestos in all industries falls under the scope of 1910.1001, except as provided by 1910.1001(a)(2) and (a)(3). Employees are covered under 1926.1101 when involved in construction activities (see CPL 2-2.63). Elements of both the HAZWOPER and asbestos standards would apply to any emergency response to an uncontrolled hazardous substance release involving the presence of asbestos. Paragraph (a)(2)(i) requires that the provision which is more protective of employee safety and health shall apply (e.g., the monitoring requirements of the asbestos standard are more protective than those of the HAZWOPER standard).

##### **Ethylene Oxide Release.**

Similarly, elements of both the HAZWOPER and ethylene oxide standards, 1910.1047, would apply to the internal release of ethylene oxide gas (e.g., a leak in a hospital sterilizer unit). Although 1910.1047 sets forth medical surveillance, handling procedures, and emergency response training, most leaks would probably require an emergency response under 1910.120(q) due to the hazards that ethylene oxide presents. A hospital that has current procedures for handling ethylene oxide leaks, under 1910.1047, may adapt these procedures to comply with 1910.120(q).

**(a)(1)(i)-(iv) Construction.**

Hazardous waste operations and emergency response for construction sites is covered by 1926.65, and this directive.

If an employee on a construction site is directed to engage in emergency response involving hazardous substances, then the employer is subject to all of the provisions of 1926.65(q). However, construction employers may direct that all of their employees evacuate in an emergency and would comply with HAZWOPER paragraph (q) by having a written emergency action plan in accordance with 1926.35. (Employers who have 10 or fewer employees may communicate the emergency action plan verbally.)

**(a)(1) Contractors.**

Contractor employees must receive HAZWOPER training if their duties or activities fall within the scope of the standard. If a contractor is expected to be part of an emergency response, the employer must comply with the provisions of 1910.120(q). [1926.65(q) at construction sites]. Contractors who have employees that will be called in as specialists or skilled support personnel must act in accordance with the HAZWOPER standard.

**Shared Responsibility.**

Both contractors and their clients are responsible for complying with OSHA regulations. OSHA considers personnel providers or contractors who send their own employees to work at other facilities (e.g., utility workers) to be employers whose employees may be exposed to hazards.

- Since the contractor maintains a continuing relationship with employees, but it is the client who creates and controls the hazards, there is a shared responsibility for ensuring that employees are protected from workplace hazards. The client has the primary responsibility for such protection; however, the contractor-employer has a responsibility under the OSH Act.(See the FCM for citation policy for multi-employer worksites.)

**Contracts.**

It is in the interest of the contractor-employer to ensure that all steps required in the OSHA standards have been taken by the client employer to ensure a safe and healthful workplace for the contracted employees. Written contracts with clients should clearly describe the responsibilities of both parties in order to ensure that all requirements of the standards are met. (See the FCM for citation policy for multi-employer worksites.)

**(a)(1)(v) Hospitals as Part of a Community Emergency Response.**

Under SARA, the National Contingency Plan (NCP) was revised to require communities to prepare local Emergency Response Plans (ERPs). Designated local hospitals who will participate in the local planning committee are considered part of the emergency response organization.

**Hospitals with Responsibility Under the NCP.**

Hospitals or other emergency medical services who are designated by the LEPC, SERC, or local fire department, do not have to develop an entire emergency response plan for community emergency response because their role will be addressed in the contingency plan. The hospital should have designated decontamination areas, although areas dedicated solely to decontamination need not be set aside.

- In terms of a community emergency response, a hospital is not expected to comply with 1910.120 if it has not been designated by a planning committee or by a hazardous waste site as a decontamination facility. The hospital may have responsibility under 1910.120(q) in terms of the potential for an emergency caused by the release of hazardous substances used at the hospital.

**Training in Decontamination.**

Hospitals that will receive contaminated accident victims must stress decontamination and personal protective equipment (PPE) in the training for personnel designated to set up decontamination. For medical personnel who will receive and decontaminate accident victims, employers may develop an in-house training course that would focus on decontamination and PPE or provide additional training in decontamination and PPE after sending personnel to a standard "first responder operations level" course.

OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances

[http://www.osha.gov/dts/osta/bestpractices/firstreceivers\\_hospital.html](http://www.osha.gov/dts/osta/bestpractices/firstreceivers_hospital.html). OSHA offers this guidance (non-mandatory) document that provides practical information to assist hospitals in developing and implementing emergency management plans. The guidance addresses the protection of hospital-based emergency department personnel during the receipt of contaminated victims from mass casualty incidents occurring at locations other than the hospital. This document, often called the "First Receivers Document," makes a distinction between first responders and first receivers, and it covers victim decontamination, PPE, employee training, and includes several informational appendices.

**Emergency Medical Services at Release Area.**

Facilities that create an emergency response plan under 1910.120 must coordinate with hospitals or other medical care providers prior to emergencies in case victims will need to be decontaminated at a hospital [1910.120(q)(2) and (l)(2) list "emergency medical treatment and first aid" as one of the elements to be covered in the emergency response plan]. If a hospital is selected by a facility, it must be made aware of a facility's intent to use its services so that the hospital may ensure that it is prepared for its duties (e.g., has PPE, methods of containing the hazardous material, waste water, etc.).

- Hospitals that employ emergency medical service personnel, who would be exposed to hazardous substances because they are expected to treat contaminated patients at the release area (i.e., ambulance personnel), are required by 1910.120(q) to train these personnel to safely perform these duties.
- Other medical personnel (e.g. ambulance drivers) whose expected job duties do not include treating contaminated patients may be needed to respond to accidents where the chemical's hazards were unforeseen. These employees may be considered "skilled support personnel" and must be given an initial briefing which includes instruction in the wearing of appropriate PPE, any limitations of the PPE, the chemical hazards involved, and the facility's safety and health precautions.

**(a)(1) Employee Exposure.**

Employee exposure or the reasonable possibility of employee exposure to safety or health hazards must consider all routes of entry (inhalation, ingestion, and skin absorption) without regard to the use of PPE. The exposure or potential exposure must be associated with a hazardous substance from operations addressed in (a)(1)(i-iv) or with the release of a hazardous substance during operations addressed in paragraph (a)(1)(v) of the standard. Safety hazards from a hazardous substance could include fire, explosion, corrosive action, etc., from flammables, corrosive materials, etc. associated with the worksite or emergency site. Health hazards from a hazardous substance could include cancer or organ function impairment from toxic, carcinogenic, or infectious material associated with the work site or emergency site. Safety hazards from sources not specifically associated with the hazardous substances at the work site or the emergency site (e.g., trenching, moving machinery, slips, trips, and falls) do not require coverage under HAZWOPER. Employees are considered "exposed" when they encounter any amount of a hazardous substance in the work environment that could cause them harm.

**Jurisdictional issues involving the provisions in 1910.120(a)(2) application:****(a)(2) U. S. Department of Transportation.**

The Hazardous Materials Transportation Uniform Safety Act (HMTUSA) of 1990 concerns the handling of hazardous materials in the transportation industry. Under 49 CFR, Part 172, Subpart H (49 CFR 172.700 - 704), employers are required to train their employees in the safe loading, unloading, handling, storing, and transportation of hazardous materials.

- OSHA has limited jurisdiction for over-the-road vehicle operation. If operators of vehicles in transportation become actively involved in an emergency response to a release of hazardous substance, then they are covered by 1910.120(q).
- The operators of vehicles involved in an emergency response would need to be trained at least to the first responder awareness level to recognize an emergency situation, understand their role in an emergency response, and call predesignated authorities for the containment and control of the release.

**(a)(2) DHS - U. S. Coast Guard (USCG).**

Occupational safety and health coverage by the U.S. Coast Guard and OSHA is primarily based on whether the vessel is "Inspected" or "Uninspected." Federal OSHA CPL 02-01-020, OSHA/U.S. Coast Guard Authority over Vessels, November 8, 1996, provides complete details regarding the extent of occupational safety and health coverage by each agency.

**(a)(2) Employees of Governmental Agencies and Non-compensated Workers.**

Public sector employees in States with an OSHA-approved State plan are protected by the hazardous waste standards adopted by these State plans.

- States with OSHA-approved State plans are encouraged both by Federal OSHA Instruction STP 2-1.154C and EPA's standard, 40 CFR 311, to cover volunteer workers engaged in hazardous waste operations, including emergency response.
- EPA and OSHA have agreed that interpretations regarding compliance with HAZWOPER will be made by OSHA.

**Clarification and interpretation of terms used in 1910.120(a)(3). Definitions.****(a)(3) Emergency Response.**

An "emergency response" is an organized response to an incident that is, or may pose, an emergency. Since every industry will experience different kinds of emergencies, OSHA will not attempt to create a formula into which all emergencies will fit. (See [Appendix E](#) of this instruction for further guidance.)

**(a)(3) Hazardous Substance.**

Hazardous substance means any substance designated or listed under the paragraphs below, and exposure to which results or may result in adverse effects on the health or safety of employees:

- Any substance defined under section 101(14) of CERCLA;
- Any biological agent and other disease-causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring;
- Any substance listed by the U.S. DOT as a hazardous material under 49 CFR 172.101 and appendices; and
- Hazardous waste which means a waste or combination of wastes defined in 40 CFR 261.3, or those substances defined as hazardous wastes in 49 CFR 171.8.

**First Receiver.**

(not found in 1910.120(a)(3)). First receivers include hospital-based staff (e.g., triage, decontamination, medical treatment, and security) that receive and treat contaminated victims from mass casualty incidents. These personnel are removed from the site of the emergency and the point of release and do not need to be trained – or equipped – for control, containment, or confinement operations as is required for a HAZMAT team. First receivers are still considered to be part of an emergency response and will be required to wear appropriate PPE and be provided effective training based on the duties and functions to be performed.



**(a)(3) Immediate Release Area.**

The immediate release area is the area, process, or machine which is creating the hazardous spill. This term is not meant to be used exclusively to determine whether a situation is an emergency under this standard. The key factor which must be considered on a case-by-case basis is the actual or estimated exposure or degree of danger to responders, other employees, neighbors, etc. In order to determine this, factors such as the size of the spill/release, the material of the spill, and the location of the incident (e.g., confined space) play a significant role. Planning must take place prior to any releases that pose an emergency. An employer must determine all likely potentials for emergencies using worst-case assumptions and plan response procedures accordingly; past history of emergencies at the site should be used as a guide.

**(a)(3) Hazardous Substance, Radioactive.**

The term "hazardous substance" as defined by 1910.120, includes radioactive waste in addition to hazardous waste, and should not be confused with 1910.1200, Hazard Communication, which specifically excludes any radioactive chemicals.

- The U. S. Nuclear Regulatory Commission (NRC) has jurisdiction "inside the fence" at NRC licensed nuclear facilities for the risks involved with licensed radioactive materials, including emergency response procedures. OSHA has jurisdiction "inside the fence" for non-licensed radioactive materials such as x-ray equipment, some electron microscopes, and some naturally occurring radioactive materials.
- There may be both NRC and OSHA jurisdiction when there is an emergency involving mixed wastes (licensed radioactive materials and other hazardous substances) "inside the fence." HAZWOPER may also be applicable "outside the fence" to emergency response and clean-up activities involving hazardous substances, including licensed radioactive wastes.

**(a)(3) Infectious Materials.**

Employers must include infectious materials in their effort to comply with 1910.120(q) if there is a possibility that a release could cause an emergency.

- The definition of "hazardous substance" used in the standard includes "any biological agent and other disease-causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring."

- Employers with employees engaged in emergency response activities involving infectious materials must comply with the requirements of 1910.120(q) and may also have to comply with the Bloodborne Pathogens Standard, 1910.1030. If there is a conflict or overlap, the provision that is more protective of employee safety and health applies.

**(a)(3) Mixtures Containing a Hazardous Substance.**

The hazards of a mixture containing hazardous substances would be expected to be treated as a hazardous substance for compliance purposes, unless test data on the mixture shows that the mixture does not possess hazardous characteristics.

## **1910.120(q) EMERGENCY RESPONSE TO HAZARDOUS SUBSTANCE RELEASES (Interpretations)**

**(q)(2) Lack of an Emergency Response Plan.**

If a facility does not have an emergency response plan, the employer must at least have an emergency action plan and evacuate all employees. If an employer does not comply with either provision, the employer must prove that the chemicals used in the facility will not require an emergency response if released in a reasonably predictable worst-case scenario. OSHIs must still document that 1910.120 applies, that violations are fully documented, and be able to defend any citations. History of emergencies at the site may be used as a guide.

**(q)(2) Pre-emergency Planning and Coordination with Outside Parties.**

This means the establishment of procedures between employers and outside parties addressing how each party is to be notified, and what their roles are in the event of an emergency incident. The term "outside parties" means outside responders (e.g., fire, police, etc.) and other employers and employees in the surrounding area who could be affected by a hazardous substance emergency incident.

**(q)(2) Evacuation Routes and Procedures.**

OSHIs shall use 1910.38(a) to serve as an example of what employers need to address in the section of the emergency response plan that requires "evacuation routes and procedures" to be addressed in 1910.120(q)(2)(vi).

**(q)(4) Skilled Support Personnel.**

The employees who are needed temporarily to perform immediate emergency support work, such as those who may occasionally assist the IC by operating cranes, backhoes, or trucks. This category of employee was included in paragraph (q) to recognize the need at times for fast assistance by individuals who possess needed skills and equipment at an emergency scene.

If Skilled Support Personnel are not provided an appropriate initial briefing at the site prior to their participation in an emergency response or are not provided other appropriate safety and health precautions, cite (q)(4).

**(q)(5) Specialist Employees.**

The "specialist employees" category is to be used for employees from off-site who assist or advise the on-scene Incident Commander (IC) or HAZMAT team. These employees may work with and are trained in the hazards of a specific hazardous substance, but do not necessarily have all of the competencies of the HAZMAT technician or HAZMAT specialist.

- Specialist employees who may be sent to the scene of an emergency to advise and assist the person in charge must receive training or demonstrate competency annually. (See 1910.120, Appendix C, Section 2, for more details).
- Activities of all emergency responders responding to or on the scene of a release of a hazardous substance must be coordinated and controlled through the individual in charge of the Incident Command System, as per 1910.120(q)(3)(i). Specialist employees are not exempted from this requirement.

**(q)(6) Training.**

Training for emergency responders is based on the duties and functions that each employee performs or is expected to perform in the event that hazardous substances have been or may be released. 1910.120(q)(6) outlines the training and/or competency levels.

Fire fighters and police officers who are expected to be engaged in responding to emergencies involving hazardous substances are subject to the HAZWOPER training requirement.

**(q)(6)(i) First responder awareness level (no hours specified but such courses often run 4 to 12 hours):**

These personnel are usually the first to witness an incident or discover a release of a hazardous substance; they must be able to recognize and identify hazardous materials, secure the site, and

notify appropriate responders. Awareness level responders may include police and other law enforcement personnel, plant security personnel, and public works employees.

**(q)(6)(ii) First responder operations level (at least 8 hours of demonstrated competency beyond the awareness level).**

Operations level personnel respond to releases or potential releases in a defensive fashion from a safe distance to contain the release and prevent it from spreading without trying to stop it.

Operations level responders include most fire departments and some EMS and rescue personnel.

- Firefighters expected to respond to releases of hazardous substances must be trained to at least the first responder operations level, since they will respond to releases, or potential releases, of hazardous substances for the purpose of protecting nearby persons, property, or the environment.

Firefighters responding to propane and gasoline fires:

- Firefighters trained to the operations level, who are also trained in the hazards of propane, may enter the danger area to shut off the valves that will starve the fire and thus extinguish it. Normally, employees trained to the operations level would be restricted from taking aggressive action. This is considered to be a special case. The principal hazards from propane are fire and explosion, not toxicity. Because propane fires are common, most firefighters are fully trained and equipped to respond to propane fires, including taking aggressive action by shutting off the valves in the danger area.
  - If firefighters are fully trained and equipped (which is a high degree of training), and have also received first responder operations level training, OSHA believes they have sufficient training to take aggressive action due to propane's relatively low toxicity. However, it would be only a technical violation of 1910.120(q)(6) for not having the additional training required of a HAZMAT technician if a firefighter took aggressive action in the danger area during a propane fire or leak, was fully trained and equipped to handle the fire and had first responder operations level training. In this circumstance, a citation would not be issued.
- Releases of gasoline similar to the example involving propane discussed above may be addressed by operations level emergency responders if they have the required PPE, emergency response equipment, and specific training in the safety and health hazards associated with gasoline.
  - Employers who expect firefighters to shut off a gasoline valve in the danger area, and who can show that employees are trained to the operations level and adequately

trained in the hazards of gasoline, have committed a technical violation of 1910.120(q)(6)(iii) for such employees not having the training required of a HAZMAT technician.

NOTE: The fire and explosion hazards of propane and gasoline are very substantial. The interpretations herein are applicable only when firefighters are fully trained and equipped to handle the explosion and fire hazards of propane, gasoline, or similar flammable gases and liquids.

- If an injury occurred during an emergency response involving these responders (operations level plus additional training) the OSHI would need to consider whether the responders' training and experience were sufficient for the tasks being performed.
  - A violation of training requirements that resulted in an actual injury to an employee during an emergency response by definition cannot be a "technical violation." Thus, if an injury occurred and the OSHI determined that the responders' training and experience were not sufficient for the tasks being performed, then a citation should be issued noting a violation of 1910.120(q)(6)(iii) and carrying a penalty that requires abatement. Whether abatement should require full training in all of the competencies of the HAZMAT technician level, or whether certain training requirements could safely be omitted, would depend on the training needed to safely perform the tasks in question.
  - If, however, the OSHI determined that the training which had been provided to the employees in question had been adequate, then the training violation would be considered a de minimus violation and no citation would be issued for inadequate training. In this situation, the OSHI might determine that the cause of the injury was due to a violation of some other requirement of 1910.120 or other standards, for which a citation carrying a penalty and requiring abatement would be appropriate.

**(q)(6)(iii) Hazardous materials technician (at least 24 hours training to the operations level plus competency in additional areas).**

Hazardous materials technicians respond to releases or potential releases to stop the release. They approach the spill/leak and plug/patch or otherwise stop the release. Technician level responders include fire department and industrial HAZMAT Teams.

- **Process Operators Responding within a Facility.** Process operators who have: (1) informed the incident command structure of an emergency [defined in the facility's emergency response plan], (2) adequate PPE, (3) adequate training in the procedures they are to perform, and (4) employed the buddy system, may take limited action in the danger area

(e.g., turning a valve) before the emergency response team arrives. The limited action taken by process operators must be addressed in the emergency response plan.

- Once the emergency response team arrives, these employees would be restricted to the actions that their training level allows. This limited action assumes that the emergency response team is on its way and that the action taken is necessary to prevent the incident from increasing in severity (i.e., to prevent a catastrophe).
- Employers must inform employees during their training that they are to evacuate when they lack the capabilities to respond in a safe manner and in accordance with the standard operating procedures defined in the emergency response plan.
- If the process operator or other employee takes action beyond what they have been trained to do, and the action was comparable to the aggressive role that a HAZMAT technician would take, OSHIs shall cite the employer for violation of 1910.120(q)(6)(iii). If an employee takes action beyond that which they have been trained to do, and the action was comparable to the defensive role that a first responder at the operations level would take, OSHIs shall cite the employer for violation of 1910.120(q)(6)(ii).

**(q)(6)(iv) Hazardous materials specialist (at least 24 hours training to the technician level plus competency in additional areas).**

Hazardous materials specialists are more knowledgeable in specific substances and provide expertise and assistance to the hazardous materials technician during an incident.

**(q)(6)(v) On-Scene Incident Commander (at least 24 hours training to the operations level plus competency in additional areas).**

The On-Scene Incident Commander assumes control of the incident scene and is responsible for implementing all aspects of the emergency response plan.

The intent of the standard is to provide an incident command system that is headed by one person who is well-trained in managing emergencies of differing severity, as well as overseeing the HAZMAT team, but does not necessarily have extensive knowledge of certain technical aspects such as classification and verification of hazardous materials. Appendix C, section 6, of the standard explains:

"This enables] one individual to be in charge of managing the incident, rather than having several officers from different companies making separate, and sometimes conflicting, decisions. The individual in charge of the [incident command system] would delegate responsibility for performing various tasks...."

Consequently, the IC requires more training in general matters, plus extensive training in command and management.

- Training for the IC may require more than 24 hours of total training. The 24 hours covers 1910.120(q)(6)(ii)(A)-(F), and additional training would be needed for (6)(v)(A)-(F). The training hours suggested in the standard are minimums. HAZWOPER training programs often must exceed the 8, 24, or 40-hour minimums in order to include all of the required subjects.

### **(q)(6) Limiting Training Components.**

An employer with a limited range of hazardous substances on-site may opt to supply their personnel with one type of PPE and require employees to wear the entire complement of PPE for any response. This strategy would relieve that particular employer of the requirement of training HAZMAT technicians to be able to "select appropriate PPE," if employees are trained in the PPE that they are required to wear and this PPE will always provide sufficient protection.

NOTE: If an employer selects a single type of PPE for all releases that require an emergency response, the employer must be sure to evaluate the full range of performance criteria that PPE must meet, such as likely chemical exposures, heat stress, physical constraints, maintenance, and permeability.

- Another example of requirements specified in the standard that may not be universally applicable is found in 1910.120(q)(6)(iii)(B), training for HAZMAT technicians, where knowledge of "the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment" is required. In many chemical manufacturing facilities this may not be necessary because all hazardous substances that have a potential for being released are known.
  - The emergency response plan and training components may cover this by identifying the known hazardous substances that would cause, or have the potential to cause, an emergency if released. Where mixtures of hazardous substances may occur in an emergency and/or hazardous byproducts may be formed during an emergency, the plan must anticipate, identify, and include training components about these mixtures or byproducts.
  - Employees trained in this limited manner would only be able to respond to spills on site that involve the limited range of hazardous substances in which they are trained. For example, employees trained to respond only to releases of chlorine may not respond to a release of ethylene oxide, without broadening their limited training.

**(q)(7) Training Alternatives for Employers.**

A video-only approach to train employees would not be sufficient, although videos could be used for part of the training if the employer can fully assure that the employee has sufficient knowledge and skills. Providing an instructor to respond to the employees' questions after the video presentations, and evaluating employee understanding of the material, would be required. First responder operations level training (q)(6)(ii) and higher levels of training would require hands-on training and more interaction with the instructor.

- An in-house training program, among other options, may be developed. Credential requirements for trainers is defined in 1910.120(q)(7).
- Computer-based training can serve as a valuable training tool in the context of an overall training program but, by itself, would not be sufficient to meet the intent of the training requirements. Training under HAZWOPER includes site-specific elements and must be tailored to employees' assigned duties, including hands-on training involving PPE and equipment.

**(q)(8) Refresher Training.**

Annual refresher training is required because employees must stay up-to-date in their skills and knowledge. If the employee has gone without refresher training, the employer must evaluate whether the initial comprehensive training may need to be repeated.

**(q)(9) Medical Surveillance.**

Under 1910.120 employers are obligated to make medical surveillance and medical consultation available to specific employees without cost to the employees. Employees covered by this provision include members of organized HAZMAT Teams, hazardous materials specialists, and any emergency response employees who exhibit signs or symptoms which may be the result of exposure to hazardous substances during an emergency incident. Employees are not required to participate in the employer's medical surveillance program. A record should be made in the employees' personnel files indicating that the employees voluntarily chose not to take part in the medical surveillance program. The OSHI may choose to interview the employees entitled to medical surveillance whose personnel files indicate that they waived their right.

**(q)(10) Selection of Personal Protective Equipment.**

PPE shall be selected and used with the intent to protect employees from hazards and potential hazards. Chemical protective clothing and equipment used by HAZMAT team members and



HAZMAT specialists must meet the requirements contained in (g)(3)-(g)(5), i.e., PPE selection criteria, totally-encapsulating chemical protective suit testing protocols, and PPE program.

- In situations where the type of hazard is fire or thermal energy, 1910.120(q)(3)iii) must be followed, and when the type of chemical and its concentration are "totally unknown" or "somewhat known," the appropriate level of protection must be based on experience, judgment, and professional knowledge.
- Obtaining air measurements with monitoring equipment for toxic concentrations of vapors, particulates, explosive potential, and the possibility of radiation exposure, would be appropriate in determining the nature, degree, and extent of the hazards. Also, visual observation, reviewing the existing data (including safety data sheets) and any past experience can help determine the potential risks.

**(q)(11) Post-Emergency Response Operation.**

Post-emergency clean-up begins when the individual in charge of the initial emergency response declares the site to be under control and ready for clean-up. As long as an emergency response team is still in control of the site and a safety or health hazard exists, the emergency situation continues to be in effect. For example, if a vacuum truck arrives to remove spilled gasoline while an emergency response team is managing the activity, the vacuum truck operator's activity is part of the emergency response operations. Once the IC has declared the response activity over or finished, and the immediate threat has been stabilized, any remaining clean-up would be considered a post-emergency operation.

- In a large release, emergency response and post-emergency response activities may occur simultaneously, as in a marine oil spill. The IC must be careful to define the boundaries between the emergency response area and the post emergency response area in this scenario.
- The IC must convey information on all of the hazards that may still remain at a post-emergency clean-up site to employees who are involved in the clean-up operations. The individuals who will take control of the site to perform the post-emergency response clean-up also have a responsibility to contact the IC to determine if there are any remaining hazards or any special conditions on the site. If the IC feels that the post-emergency response clean-up crews are not sufficiently trained or prepared to perform their duties, the Commander may notify the employer or OSHA.

**(q)(11) Post-Emergency Response Personnel.**

Clean-up operations conducted by a separate group of employees is considered to be post-emergency response and subject to 1910.120(q)(11).

- Contract personnel assigned full-time at a plant facility are considered "plant or workplace employees" for the purposes of 1910.120(q)(11)(ii) when such employees are conducting clean-up in areas they routinely work.
- Contractors brought in specifically for clean-up operations are covered by 1910.120(q)(11)(i).

**(q)(11) Emergency Response During a Post-Emergency Response.**

If an emergency release of a hazardous substance occurs during a post-emergency response clean-up, the HAZWOPER emergency response provision that applies would depend upon who is handling the clean-up, who will be responding, and whether the clean-up is done on plant property.

- If the emergency is responded to by an outside response team or responders, 1910.120(q) would apply.
- Employees who work at a hazardous waste clean-up site or RCRA corrective action (a post-emergency response may be considered either), and are trained in accordance with 1910.120(e)(7), may respond to emergencies at that site.
- The contractor hired for clean-up the procedures may respond to emergencies during the clean-up if the contractor's employees who are involved in the clean-up are trained in accordance with 1910.120(e)(7) and (l).

## **APPENDIX E: RELEASES OF HAZARDOUS SUBSTANCES THAT REQUIRE AN EMERGENCY RESPONSE**

The function of this appendix is to present a thorough discussion of the distinction between incidental releases of hazardous substances and releases that require an emergency response, and hence, compliance with the provisions of 1910.120(q) Emergency Response to Hazardous Substance Releases. This has been a point of considerable inquiry to and interpretation by OSHA.

An understanding of the distinction between an incidental release of a hazardous substance and a release that requires an emergency response is fundamental to proper compliance with 1910.120(q). This part of the standard was written to cover a wide array of facilities and situations: "Emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard." [1910.120(a)(1)(v)]

Potential releases of hazardous substances in the workplace can be categorized into three distinct groups in terms of the planning provisions of 1910.120(q). These groups are:

1. Releases that are clearly incidental regardless of the circumstances,
2. Releases that may be incidental or may require an emergency response depending on the circumstances, and
3. Releases that clearly require an emergency response regardless of the circumstances.

### **RELEASES THAT ARE CLEARLY INCIDENTAL**

The scope of the HAZWOPER standard does not cover the inevitable release of a hazardous substance that is limited in quantity and poses no emergency or significant threat to the safety and health of employees in the immediate vicinity. This type of release is referred to as an "incidental release" in 1910.120(a)(3), where "emergency response" is defined.

An incidental release is a release of a hazardous substance which does not pose a significant safety or health hazard to employees in the immediate vicinity or to the employee cleaning it up, nor does it have the potential to become an emergency within a short time frame. Incidental releases are limited in quantity, exposure potential, or toxicity and present minor safety or health hazards to employees in the immediate work area or those assigned to clean them up.

If the hazardous substances that are in the work area are always stored in very small quantities, such as a laboratory which handles amounts in pint sizes down to test tubes, and the hazardous substances do not pose a

significant safety and health threat at that volume, then the risks of having a release that escalates into an emergency are minimal. In this setting incidental releases will generally be the norm and employees will be trained to protect themselves in handling incidental releases per the training requirements of Employee Right-to-Know/ Hazard Communication.

For example, a tanker truck is receiving a load of hazardous materials at a tanker truck loading station. At the time of an accidental spill, the product can be contained by employees in the immediate vicinity and cleaned up utilizing absorbent without posing a threat to the safety and health of employees. As such, the employer may respond to such incidental releases (as permitted by 1910.120 definitions: “Emergency Response” or “Responding to Emergencies.”)

This situation describes an “incidental spill” under the standard. An incidental spill poses an insignificant threat to health or safety and may be safely cleaned up by employees who are familiar with the hazards of the chemicals with which they are working.

## **RELEASES THAT MAY BE INCIDENTAL OR REQUIRE AN EMERGENCY RESPONSE DEPENDING ON THE CIRCUMSTANCES.**

The properties of hazardous substances, such as toxicity, volatility, flammability, explosiveness, corrosiveness, etc., as well as the particular circumstances of the release itself, such as quantity, confined space considerations, ventilation, etc., will have an impact on what employees can handle safely and what procedures should be followed. Additionally, there are other factors which may mitigate the hazards associated with a release and its remediation, such as the knowledge of the employee in the immediate work area, the response and personal protective equipment (PPE) at hand, and the pre-established standard operating procedures for responding to releases of hazardous substances. There are some engineering control measures that will mitigate the release which employees can activate to assist them in controlling and stopping the release.

These considerations (properties of the hazardous substance, the circumstances of the release, and the mitigating factors in the work area) combine to define the distinction between incidental releases and releases that require an emergency response. The distinction is facility-specific and is a function of the emergency response plan.

For example: A spill of the solvent toluene in a facility that manufactures toluene may not require an emergency response because of the advanced knowledge of the personnel in the immediate vicinity and equipment available to absorb and clean up the spill. However, the same spill inside a furniture refinishing shop with personnel that have had only the basic Right to Know/Hazard Communication training on toluene, may require an emergency response by more highly trained personnel. The furniture refinishing shop's emergency response plan in this case would call for evacuation for all but the most minor spills, while evacuation and emergency response would be necessary for only much larger spills at the chemical manufacturing facility.

Personnel responding to an overturned aircraft leaking jet fuel would likely be performing emergency response due to the significant and uncontrolled hazards posed by the aircraft and jet fuel. These personnel would be conducting operations such as firefighting, passenger rescue, and working to stop the release of jet fuel. However, a fuel spill from a tanker truck that can be absorbed, neutralized, or otherwise controlled by employees in the immediate release area through the placement of absorbent pads may qualify as an incidental release, provided that there are no significant health or safety hazards. (Note: If the release of jet fuel is covered by 40 CFR 300, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), an employer may be required by the EPA to follow HAZWOPER.)

## **RELEASES THAT REQUIRE AN EMERGENCY RESPONSE REGARDLESS OF THE CIRCUMSTANCES.**

There are releases of hazardous substances that pose a significant enough threat to health and safety that, by their very nature, require an emergency response regardless of the circumstances surrounding the release or the mitigating factors. An employer must determine the potential for an emergency in a reasonably predictable worst-case scenario [or "anticipated emergencies," 1910.120(q)(1)], and plan response procedures accordingly.

For example, a motor carrier is engaged in the transportation of hazardous materials. At the time of an accidental release, the product cannot be contained by employees in the immediate vicinity and cleaned up utilizing absorbent. Because of the larger problem, the motor carrier's employees evacuate the area and call for outside help, as instructed by the employer.

In this instance, if the employer has instructed all employees to evacuate the danger area in the event of a spill of a hazardous substance, the employer may not be required to train those employees under 1910.120. However, the ability to decide whether a spill is an incidental spill or one requiring an emergency response requires training. Also, any employees who are expected to become actively involved in an emergency response due to a release of a hazardous substance are covered by 1910.120 and must be trained accordingly. (Note: OSHA has limited jurisdiction for over-the-road vehicle operation. In the instance of spills occurring while the material is on the vehicle or otherwise "in transportation," the HAZWOPER standard does not cover the operator per se. It does, however, cover emergency response personnel who respond to the incident.) If the operator of the vehicle in transportation becomes actively involved in an emergency response, then he/she becomes an emergency responder and is covered by 1910.120(q).

### **Table B.1.**

An emergency response includes, but is not limited to, the following situations:

1. The response comes from outside the immediate release area;
2. The release requires evacuation of employees in the area;

3. The release poses, or has the potential to pose, conditions that are immediately dangerous to life and health (IDLH);
4. The release poses a serious threat of fire or explosion (exceeds or has the potential to exceed the lower explosive limit or lower flammable limit);
5. The release requires immediate attention because of imminent danger;
6. The release may cause high levels of exposure to toxic substances;
7. There is uncertainty that the employee in the work area can handle the severity of the hazard with the PPE and equipment that has been provided and the exposure limit could easily be exceeded; and
8. The situation is unclear, or data is lacking on important factors.

## **RESPONDERS FROM OUTSIDE THE IMMEDIATE RELEASE AREA.**

"Emergency response" is defined in 1910.120(a)(3) as follows:

"Emergency response" means a response effort by employees from 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. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses."

The standard covers responses "by other designated responders." The use of the "or" means that responders are a separate group, different from employees within the immediate release area, directed to respond to the emergency by the employer. Employees working in the immediate release area (not just outsiders) are covered if the employer designates them as emergency responders. The standard, 1910.120(q), uses the term "responders" generally to refer to employees who respond to emergencies.

The Superfund Amendments and Reauthorization Act (SARA), the statute that mandated HAZWOPER, directs broad coverage of all employees responding to emergencies with no limitation on their location. SARA states, "...standards shall set forth responding requirements for training of workers who are responsible for responding to hazardous emergency situations who may be exposed to toxic substances" [See SARA 126(d)(4)]. For an emergency to be covered by the standard, conditions causing a dangerous situation which involve hazardous

substances are sufficient, there need not be both an emergency and a response by outside responders before the employer prepares for an emergency.

**For example:** A release of chlorine gas above the IDLH, obscuring visibility and moving through a facility is an emergency situation even if the initial responders are from the immediate release area. Employees who would respond to this hypothetical situation, whether they work in the immediate area or come from outside, would need to act in accordance with 1910.120(q).

Employees must not be made to respond to releases in the immediate release area that would otherwise require outside assistance from a trained hazardous materials team merely because the definition of an emergency response states that an emergency response is "...a response effort by employees from outside the immediate release area."

Conversely, incidental releases of hazardous substances that are routinely cleaned up by those from outside the immediate release area need not be considered emergency responses solely because the employee responsible for cleaning it up comes from outside the immediate release area.

**For example:** Paint thinner is spilled in an art studio and the janitor is called from outside the immediate release area to mop it up. The janitor does not have to respond in accordance with 1910.120, although the janitor would be expected to understand the hazards associated with paint thinner through Right-to-Know/Hazard Communication training.

## **OTHER OSHA STANDARDS**

Other standards that impact emergency response to fires, chemical releases, or other incidents should be part of an emergency response compliance evaluation. Flammable chemical spills and other small fires are covered by 1910.157 as well as 1910.156. The "Process Safety Management for Highly Hazardous Chemicals," 1910.119, "Hazard Communication" 1910.1200, and "Employee Right-to-Know," Minnesota Rules Chapter 5206, as well as some of the specific expanded health standards in Subpart Z would also apply.

## **APPENDIX F: RELATIONSHIP OF 29 CFR 1910.120(q) WITH OTHER OSHA STANDARDS AND OTHER AGENCY REGULATIONS**

The function of this appendix is to explain the HAZWOPER standard's interface with other OSHA standards and regulations of other agencies as well as consensus guideline documents.

### **A. Relationship of 1910.120 with Other OSHA Standards.**

#### **1. Expanded Health Standards.**

Paragraph 1910.120(a)(2)(i) states that when there is a conflict or overlap of coverage between standards, the provision that is more protective of employee safety and health shall apply. Employers must comply with all safety and health standards that are applicable to their workplace; however, certain provisions of HAZWOPER may be more protective than the analogous provisions of an expanded health standard. HAZWOPER does not completely supersede any standard; only those provisions of another standard that are addressed by HAZWOPER may be superseded if HAZWOPER is more protective. For example:

- a. OSHIs may cite the provisions of one of two standards, the Ethylene Oxide (EtO) Standard and HAZWOPER, depending on which provision offers more protection. The EtO Standard provides instruction on exposure monitoring that is more protective than HAZWOPER; however, HAZWOPER offers more protection to employees responding to emergencies involving releases of EtO through its incident command system and HAZMAT training requirements.
- b. When a hospital uses EtO to sterilize instruments and there is a potential for a release that would cause an emergency, the hospital must establish an emergency action plan, in accordance with 1910.38(a) if it evacuates all employees in the danger area and calls in outside assistance, or an emergency response plan in accordance with 1910.120(q)(1) if it expects its own employees to respond to releases.
- c. Other hazardous substances used by the hospital must also be addressed in their emergency response plan and/or emergency action plan, if there is a potential for release that would cause an emergency.



## **2. 1910.1200 Hazard Communication and Minnesota Rules Chapter 5206, Employee Right-to-Know Standard (ERTK).**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>.

<https://www.revisor.mn.gov/rules/5206/>. These require that employers train employees who may be exposed or potentially exposed to hazardous chemicals. Employers are to train employees in (1) methods to detect a hazardous chemical; (2) the hazards of chemicals in the work area; (3) measures employees can take to protect themselves; and (4) the details of the Hazard Communication/ERTK program. It is important to note the objectives of both HAZWOPER and Hazard Communication/ERTK, especially where all the standards require training.

- a. Hazard Communication/ERTK are designed to ensure that employees are informed of the hazards associated with hazardous chemicals in the workplace, so that they may make informed judgments to protect themselves from exposure. Hazard Communication/ERTK do not require the employer to develop emergency procedures but do require training in emergency procedures if the employer has already developed them. For example, when another standard (such as the Formaldehyde standard) requires an employer to develop emergency procedures the employer would be required to incorporate those procedures into the Hazard Communication/ERTK training program.
- b. Employers who fall under the scope of HAZWOPER must have either a written emergency response plan and/or an emergency action plan in accordance with 1910.38(a). If employers expect their own employees to respond to a potential emergency involving hazardous substances, then the employer must create an emergency response plan and the employees must be trained to perform the duties expected of them. HAZWOPER does not cover responses to incidental spills that do not have the potential for becoming an emergency. MNOSHA enforces other applicable standards such as Hazard Communication/ERTK, 1910.119, 1910.132, 1910.134, and other OSHA standards.
- c. Once employees are required to respond to spills that have the potential for becoming an emergency then all of the provisions of 1910.120(q) are applicable. Therefore, in workplaces where there is a potential for emergencies, the employer's Hazard Communication/ERTK training program would have to address the HAZWOPER emergency response plan and/or emergency action plan. (Note that the Hazard Communication/ERTK training can be adapted easily to encompass all of the required training competencies in 1910.120(q)(6)(i), the first responder awareness level, and that a single training session could satisfy the requirements of these standards.)

## **3. 1910.38 Emergency Action Plans.**

[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_id=9726&p\\_table=standards](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=9726&p_table=standards).

Employers who will evacuate all employees from the danger area, and who will not permit any employees to assist in handling the emergency, have the option of creating a written emergency action plan in accordance with 1910.38 in lieu of an emergency response plan. Employers with ten or fewer employees can communicate the plan orally and the employer need not maintain a written plan.

- a. Because chemical, biological, or radiological contaminants may be released into the environment in such quantity and/or proximity to a place of business that it is safer to remain indoors rather than to evacuate employees, some employers may develop shelter-in-place procedures. "Shelter-in-place" means selecting an interior room or rooms within a facility, or ones with no or few windows, and taking refuge there. In many cases, local authorities issue advice to shelter-in-place via TV or radio that employers may follow. In addition, an employer may decide to institute shelter-in-place for particular situations, for example, an explosion in an ammonia refrigeration facility across the street or a derailed and leaking tank car of chlorine on a rail line behind their place of business.

The employer must ensure that the shelter-in-place procedures instituted are adequate and suitable for that workplace and will protect the employees. OSHA's [Evacuation Plans and Procedures e-Tool](#) provides some specific shelter-in-place procedures as guidance.

If an employer intends to include a shelter-in-place option in their Emergency Action Plan, they must have a signal for alerting employees to shelter-in-place that is easily distinguishable from that used to signal an evacuation. They must also train employees in the shelter-in-place procedures and in their roles in implementing them.

- b. When used to meet the requirements of HAZWOPER, 1910.38 requires employers to have an effective alarm system to alert employees of an emergency, evacuate all employees and notify an emergency response team, such as a fire department, which is trained in accordance with HAZWOPER.
- c. Employers who will train some of their employees to respond to an emergency release must create an emergency response plan (ERP). (See [Appendix A](#) of this instruction.) An emergency action plan (EAP) is to be part of the emergency response plan for the evacuation of all employees in the area that are not essential for the response to the emergency.
- d. 29 CFR 1910.38 provides for alternative means of employee protection from hazardous substance releases by implementing an effective EAP that includes evacuating all employees from the release area. In case of a HAZWOPER release, an employer must adhere to the provisions of 1910.120(q). Federal OSHA directive states that 1910.38 should not be cited when it serves as an exemption from a particular OSHA standard.

If the employer chose total evacuation as afforded by the exemptions but then did not comply with 1910.38, the employer shall be cited for a violation of 1910.120(q)(1).

#### **4. Personal Protective Equipment (General Requirements) – 1910.132.**

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9777](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9777) The Personal Protective Equipment standard requires that protective equipment for the eyes, face, head, and extremities, protective clothing, respiratory devices and other barriers be provided, used, and maintained in a sanitary and reliable condition. The standard also requires an employer to assess the workplace to determine if hazards are present, or are likely to be present, which require the use of PPE. An employer must verify that a hazard assessment has been performed through a written certification including an identification of the workplace, the date(s) of the assessment, and the person certifying that the assessment was completed. The standard also addresses employee owned equipment, safe design, defective and damaged equipment, and training.

- a. Paragraph (q) covers PPE requirements under certain paragraphs such as (q)(3)(iii), (q)(3)(iv), and (q)(10). As such, HAZWOPER PPE requirements apply to these scenarios (e.g., paragraph (q)(10) requires organized and designated HAZMAT team members to use chemical protective clothing and equipment in accordance with paragraphs (g)(3) through (g)(5) of HAZWOPER). Where there is a conflict or overlap between 1910.120(q) and Subpart I requirements, the provision more protective of employee safety and health applies.
- b. General protective equipment requirements under 1910.132 are applicable when HAZWOPER PPE requirements do not apply to a particular situation. For example, first receivers decontaminating chemically-contaminated patients are not operating as members of a designated HAZMAT team, and therefore the chemical protective clothing requirements under 1910.120(q)(10) would not apply. The employer must still, however, conduct an appropriate hazard assessment and provide the necessary PPE pursuant to 1910.132. The selection of PPE should be based on worst-case employee exposure scenarios as well as the hospital's role within the local community ERP. Respiratory protection is addressed separately below.

#### **5. Respiratory Protection – 1910.134.**

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=12716](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716) The Respiratory Protection standard requires that employers establish and maintain an effective respiratory protection program when employees must wear respirators to protect against workplace airborne hazards. The standard contains requirements for program administration, worksite-specific procedures, respirator selection, employee training, fit testing, medical evaluation, and respirator use, cleaning, maintenance, and repair. The employee's equipment must be properly selected, used, and maintained for a particular work environment and contaminant. In addition, employers must train employees in all aspects of the respiratory protection program. See CPL 2-2.120 Respiratory Protection Enforcement Procedures, for additional citation guidance.

- a. Since respirators may be needed during an emergency response to an uncontrolled release of a hazardous substance, the written personal protective program developed in compliance with

HAZWOPER must address the selection, limitations, maintenance, storage, training, fitting, and donning and doffing procedures for respirators in addition to other PPE. In addition, all the requirements of CFR 1910.134, including paragraph (g), must be met when employees are required to use respirators to meet HAZWOPER requirements.

- b. In facilities where an uncontrolled release of a hazardous substance could create an emergency IDLH atmosphere, employers must follow the requirements of HAZWOPER paragraph (q). These situations must be addressed in the employer's ERP and the response procedures must be consistent with that standard.

Under the respirator standard, the outside personnel must maintain communication with entrants in an IDLH atmosphere. The outside personnel may perform outside rescue but are required to be trained and suitably equipped to enter the IDLH atmosphere to provide emergency rescue if needed. The expectations and outcomes in an emergency should be the same in either case. If the IDLH is a result of an uncontrolled release of a hazardous substance, then the appropriate section of the HAZWOPER standard, 1910.120 shall be cited. Otherwise, violations shall be cited under the applicable subparagraph of 1910.134(g)(3). If adequate communication is not maintained between the entrants and the standby personnel located outside the IDLH area, 1910.134(g)(3)(ii) shall be cited.

- c. The medical questionnaire for 1910.134 will not satisfy the HAZWOPER requirement for medical surveillance. The intent and the requirements for medical surveillance under HAZWOPER are much different than those required by the Respiratory Protection standard. The intent of the HAZWOPER medical surveillance requirements is two-fold: (1) to determine fitness-for-duty, including the ability to work while wearing PPE (e.g., respirators), and (2) to establish baseline data for comparison with future medical data. The Respiratory Protection standard, however, requires a medical evaluation for the sole purpose of establishing an employee's ability to use a respirator while performing assigned work tasks with the added psychological and/or physiological burden of wearing the protective equipment.

## **6. 1910.1450 Occupational Exposure to Hazardous Chemicals in Laboratories.**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1450>. Spills or releases of hazardous substances, emergency situations, etc., that occur inside a laboratory under the purview of the Laboratory standard, 1910.1450, and require an emergency response are covered by HAZWOPER. Incidental releases that can be safely handled by employees working with a chemical are not considered emergency responses. (For discussion of the distinction between an incidental release and a release that requires an emergency see [Appendix E](#) of this instruction.)

**7. 1910.119 Process Safety Management for Highly Hazardous Chemicals.**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.119>. The standard for Process Safety Management of Highly Hazardous Chemicals (PSM) covers processes in quantities at or above the threshold quantities specified in 1910.119(a)(1), except as provided by 1910.119(a)(2). The purpose of the standard is to prevent catastrophic releases of highly hazardous chemicals.

- a. Due to the nature of the facilities covered by the scope of the PSM standard, facilities covered by 1910.119 would have the potential for an emergency release.
- b. Facilities that fall under the scope of PSM shall establish and implement an emergency action plan in accordance with 1910.38(a). Paragraph (n) of the PSM standard states that employers covered by PSM "may also be subject" to the hazardous waste and emergency response provisions of 1910.120. If the employer plans to direct its employees to respond to emergency releases, the employer would be subject to 1910.120(q). [For further guidance see Appendix C in 1910.119 and MNOSHA Instruction CPL 2-2.45 Process Safety Management of Highly Hazardous Chemicals--Compliance Guidelines and Enforcement Procedures.]
- c. The requirements of the PSM standard are geared toward preventing catastrophic releases, but they do not address the specific procedures for responding to such releases. HAZWOPER's emergency response provisions apply to the actual emergency response effort at facilities covered by the PSM standard.

**8. 1910.1030 Occupational Exposure to Bloodborne Pathogens.**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030>. The definition of "hazardous substance" found in HAZWOPER includes any biological agent or infectious material which may cause disease or death. The following are three scenarios where the Bloodborne Pathogens standard may interface with HAZWOPER:

- Clean-up of a hazardous waste site containing infectious waste [overlap with 1910.120(b)-(o) for clean-up operations];
  - Operation of a RCRA-permitted incinerator that burns infectious waste [overlap with 1910.120(p) for treatment storage and disposal (TSD) facilities]; and
  - Response to an emergency caused by the uncontrolled release of an infectious waste, or where infectious waste is part of the release [overlap with 1910.120(q) for emergency responses not otherwise covered by the standard].
- a. In the past, a medical waste incinerator was defined as a treatment, storage, and disposal (TSD) facility by EPA. However, EPA allowed this definition to lapse and left the responsibility of

specifying the status of a medical waste incinerator as a TSD facility to the State. Therefore, in states (such as Minnesota) where medical waste incinerators are considered TSD facilities, 1910.120(p) applies. [NOTE: The Minnesota Pollution Control Agency regulates infectious waste storage, treatment, and disposal facilities; such facilities must submit a management plan and must comply with MPCA standards for storage, transport, spill response, treatment and disposal of infectious waste.]

- b. 1910.120(q) may apply to any other medical waste incinerator. In addition to complying with the Bloodborne Pathogens standard, these employers would be expected to comply with 1910.120(q), which would require an emergency response plan and/or an emergency action plan. Employers may create one plan that would incorporate all of the applicable components of both standards.

## **9. 1910.146 Permit-Required Confined Spaces.**

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.146>. The Permit-Required Confined Spaces (PRCS) standard covers sites or facilities that contain permit-required confined spaces as defined in 1910.146(b), Definitions. The purpose of the standard is to prevent unauthorized entry into a permit space and to establish adequate precautions and procedures for entry into permit spaces.

- a. Hazardous substances emergency response may involve permit-required confined spaces. Emergency response personnel and outside response parties may be required to enter permit spaces for rescue operations.
- b. While HAZWOPER addresses response procedures to emergency releases, it does not address response to incidents involving PRCs with the detail provided in 1910.146. The requirements of the PRCs standard are targeted specifically toward work and emergency rescue as they relate to permit spaces. Employers who decide that their employees will enter PRCs shall establish a PRCs program in accordance with 1910.146(d).
- c. The PRCs standard details specific requirements applicable to employers who have employees enter permit spaces to perform rescue services. These requirements include employee training, coordination with outside rescue services, and rescue retrieval systems, methods, and annual rehearsals.

## **10. 1910.156, Fire Brigades.**

[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_id=9810&p\\_table=standards](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=9810&p_table=standards). The Fire Brigade standard contains requirements for organization, training, selection of PPE, and preplanning during emergencies for private or industrial fire departments and fire brigades.

- a. The Fire Brigade standard uses broader language than HAZWOPER in 1910.156(c): "The employer shall provide training and education for all fire brigade members commensurate with those duties and functions that members are expected to perform."
- b. The Fire Brigade standard addresses the need for industrial firefighters to be aware of the SDS, and requires written procedures and training for flammable, toxic and radioactive materials; however, the emphasis is on structural fires. Employees within a fire brigade who are expected to respond to incidents involving hazardous substances must receive HAZWOPER training as well.

## **11. Shipyard Employment (Part 1915); Marine Terminals (Part 1917); and Longshoring (Part 1918)**

[http://www.osha.gov/pls/oshaweb/owastand.display\\_standard\\_group?p\\_toc\\_level=1&p\\_part\\_number=1918](http://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1918). Employers are required under 1917.30 and 1918.100 to develop and implement EAPs to ensure employee safety from fires and other emergencies. However, if employees are directed by their employer to respond to an emergency beyond the scope of an EAP, then paragraph (q) of HAZWOPER will apply (see footnotes at bottom of 1917.30 and 1918.100). HAZWOPER is also applicable to Shipyard work under 1915.

## **B. Relationship of 1910.120 with Other Agencies' Response Plans and Standards.**

### **1. Division of Homeland Security and Emergency Management (DPS/HSEM).**

Incidents of state significance are coordinated through this division at the Minnesota Department of Public Safety. Actions for participating state agencies are outlined in the Minnesota Emergency Operations Plan (MEOP) and the Governor's executive order. Actions are either in a Primary or Support role. All of DLI's actions are considered Support. The MEOP was prepared in concert with all presidential directives. A representative of MNOSHA will be contacted in the event of an incident and may attend all or portions of the activity at the State Emergency Operations Center should it be activated by the Governor. The representative will inform the SEOC of DLI's capabilities, requests for services, and its responses. The representative will also inform the homeland security contact at USDOL, Region V. MNOSHA's role in regard to catastrophic events is clarified in the directive CPL 2.94 Emergency Response.

If an emergency event escalates and additional resources are needed, MNOSHA may request assistance from federal OSHA.

## **APPENDIX G: EMPLOYER RESPONSE TO RELEASES OF HAZARDOUS OR POTENTIALLY HAZARDOUS SUBSTANCES FROM DAMAGED PACKAGES DURING SHIPPING**

The purpose of this appendix is to discuss employer responsibilities for protecting employees who may discover, respond to, or clean-up hazardous or potentially hazardous substances from damaged packages during shipping.

Employees with the greatest risk of being exposed to potentially hazardous substances include package handlers, hub employees, and delivery employees engaged in package handling operations. OSHA has conducted numerous inspections of incidents where employees were exposed to hazardous substances leaking or being released from shipped packages. These incidents were reported primarily in the parcel shipping industry but may apply wherever employees handle packages that could contain hazardous substances, either declared (labeled) or undeclared (unlabeled). Previous experiences with undeclared hazardous substances that have leaked from packages at parcel shipping facilities include carcinogens (e.g., formaldehyde), corrosive materials (e.g., sodium hydroxide), highly toxic materials (e.g., sodium bromide), explosive materials (e.g., ammunition), and flammable substances (e.g., acetone). Employee responses to the releases have ranged from unprotected, direct contact with the leaking package to evacuation and activation of a trained hazardous materials response team.

For the purposes of this appendix, the term "damaged package" includes, but is not limited to, a labeled or unlabeled package that is suspected of, or is actively leaking or emitting a chemical that may be hazardous as defined by the Hazard Communication/Employee Right to Know standards, a substance that may be hazardous as defined by the Hazardous Waste Operations and Emergency Response standard (29 CFR 1910.120), or a material that is unknown.

The issues addressed by this appendix include:

1. Determining the employer's need for policies and procedures for handling damaged packages.
2. The standards applicable to the employer's workplace conditions and existing response procedures, if any.

Where there is a reasonable possibility of a hazardous substance release from a damaged package, an employer should have procedures for distinguishing an incidental release from a release that requires an emergency response. Incidental releases are not considered emergency situations and, therefore, are not covered by 1910.120. An incidental release is one that does not pose a significant safety or health hazard to employees in the immediate vicinity or to the employee cleaning it up and does not have the potential to become an emergency within a short time frame. This determination is based on criteria such as the properties of the hazardous substance, the circumstances of the release, and any mitigating factors in the work area. Most packages that are shipped are limited in quantity and potentially present only minor safety or health hazards to employees in the immediate work area or those assigned to clean it up. For example, major package carriers have established procedures and designated personnel who are trained and equipped to respond to, and clean-up, such spills. As a result, most damaged package incidents would be classified as incidental in nature.



However, packages that are generating smoke, visible fumes, fumes irritating to the skin, nose, throat, mouth, or eyes, or a strong odor may indicate the need for initiating an emergency response under 1910.120. Furthermore, in situations where the contents of a package are unknown (e.g., package not labeled) or the package label indicates an extremely hazardous substance (e.g., corrosives, explosives, or radioactive materials) it may be necessary to summon emergency responders as part of the response. [Appendix E](#) provides a thorough discussion of the criteria used to differentiate between an incidental release and a release requiring an emergency response.

Although 1910.120 does not apply to the response and clean-up of incidental spills, employers are covered by other OSHA standards. Where engineering and work practice controls do not adequately protect employees, the employer must select and provide appropriate personal protective equipment (PPE) in accordance with the requirements of the general PPE standard (29 CFR 1910.132) and the Respiratory Protection standard (29 CFR 1910.134). These procedures must include the selection of PPE for handling a release from a damaged package. The PPE selection procedures must be based on the employer's hazard assessment as required by 1910.132(d) and 1910.134(d). The hazard assessment and PPE must be based on the known or anticipated hazards from damaged packages. For respiratory hazards, the employer must assess the exposures in the workplace (this may include, but is not limited to personnel air sampling, mathematical modeling, or some other means), what the exposure levels are, and what level of respiratory protection is necessary to keep employee exposure within the prescribed limits set forth in 1910 Subpart Z when handling a release from a damaged package. All of the unique conditions at the site must be considered, e.g., existing ventilation controls, work practices, and potential duration of exposure. Employees who are required to use PPE must be adequately trained in accordance with 1910.132(f) and 1910.134(k). Employees must also be trained to protect themselves in accordance with the training requirements under the HCS, 1910.1200 and ERTK, MN Rule 5206. For exposure to blood or other potentially infectious materials (OPIM), the employer must select and provide PPE in accordance with the Bloodborne Pathogens standard (29 CFR 1910.1030).

Where there is the potential of a hazardous substance release requiring an emergency response under 1910.120, an employer must develop and implement an emergency response plan (ERP) in accordance with (q)(1) and (q)(2) of the standard if employees are expected to respond to the emergency release. An employer must determine the potential for an emergency in a reasonably predictable worst-case scenario (e.g., anticipated emergency). Furthermore, employers must develop procedures for handling emergency response in accordance with (q)(3) of the standard, train emergency responders to the appropriate level as specified in (q)(6) of the standard, and provide necessary PPE to protect employees performing emergency response and clean-up.

(Note: An employer who elects to evacuate all employees under an EAP is not covered by 1910.120.)

## **RESPONSE TO DAMAGED PACKAGES – QUESTIONS AND ANSWERS**

**1. What types of employees and operations are covered by this Appendix?**

Employees involved in a damaged package response would typically include package handlers and drivers who perform loading, unloading, sorting and delivery work; managers and supervisors of package handlers; and employees in the package or customer service areas. This directive covers employers engaged in package handling operations designated in the North American Industrial Classification System (NAICS) codes-groups 48 and 49. Specific Industry NAICS may include but are not limited to 492110 (Couriers and Express Delivery Services) and 491110 (US Postal Service).

A careful assessment of the employer's worksite must be made by the OSHI. Not only should the employer's history of releases be examined, but also employee interviews should be used to evaluate the company's work practices to determine applicability of this directive.

Employers who do not transport packages or have no previous employee exposure incidents from unlabeled damaged packages are not covered by this appendix. Flight crews, crews of Coast Guard inspected vessels and others who are subject to Department of Transportation regulations that supersede OSHA's standards also are not covered.

**2. Must all package handling operations have an ERP under 1910.120(q)(1)-(2) in place?**

Employers must first determine, for each package handling operation, the possibility for a release to occur that would require an emergency response under 1910.120. This determination is based on criteria such as the existence of prior unknown releases from damaged packages and whether such an incident is a reasonable possibility for that package handling operation. If there is that potential, the employer must develop an ERP. The sole exception to this requirement is if the employer evacuates all their employees under an EAP from the danger area and does not permit any of their employees at the site to assist in handling the emergency.

**3. Are all responses to damaged packages emergency responses under 1910.120(q)(1)?**

[Appendix E](#) provides three categories of releases, those that are "purely incidental," those that "may be incidental or require emergency response depending on the circumstances" and "releases requiring an emergency response regardless of circumstances." An incidental release is a release of a substance which does not pose a significant safety or health hazard to employees in the immediate vicinity or to the employee cleaning it up. Furthermore, an incidental release does not have the potential to become an emergency within a short time frame. Incidental releases are limited in quantity, exposure potential, or toxicity and present minor safety or health hazards to employees in the immediate work area or those assigned to clean them up.

Most packages that are shipped are limited in quantity and would present only minor safety or health hazards to employees in the immediate work area or those assigned to clean it up. As a result, most such releases would be

incidental in nature. However, an emergency response under 1910.120 may be required for the following situations: 1) a damaged package appears outwardly hazardous (e.g., emitting irritating fumes), 2) the label indicates an extremely hazardous or toxic material, or 3) the contents are unknown, but there is a reasonable belief that it may contain a hazardous substance capable of causing an exposure to a serious safety or health hazard.

**4. What level of training is appropriate for employees who will perform emergency response under 1910.120?**

The level of training required for each employee will vary based on that employee's assigned duties and responsibilities during an emergency response. Employees who are likely to discover a damaged package, and whose only responsibility is to summon assistance, must be trained to the first responder awareness level (1910.120(q)(6)(i)). First responder operations level training would be appropriate for employees who respond in a defensive manner to releases or potential releases from damaged packages from a safe distance (1910.120(q)(6)(ii)). Hazardous materials technician level training is required for all employees expected to take offensive measures to approach and control a release (1910.120(q)(6)(iii)). Additional training may be necessary based on each employee's expected response to an emergency.

**5. What are the PPE requirements under 1910.120 for HAZMAT team members?**

The PPE selected and used must protect these employees from the hazards and potential hazards that they are likely to encounter. The selection criteria must be based on the employer's assessment of the hazards or potential hazards. Furthermore, PPE selected for designated HAZMAT teams must meet the requirements under 1910.120(g)(3)-(g)(5).

**6. What type of respiratory protection must be worn during an emergency response under 1910.120?**

HAZWOPER paragraph (q)(3)(iv) requires use of positive pressure SCBAs during emergency responses until the individual in charge of the Incident Command System (ICS) determines through the use of air monitoring that a decreased level of respiratory protection will not result in hazardous exposures to the employees.

**7. What types of hazards must employers include in their hazard assessments for general PPE under 1910.132(d) and for respiratory protection under 1910.134(d)?**

Each employer is required to assess their workplace to determine the hazards present, or that are likely to be present, that may require the use of PPE. This determination is required by 1910.132(d) for PPE, except for respiratory protection. The hazard determination for PPE (other than respiratory protection) must document the name of the person who conducted the assessment and the date that it was conducted (1910.132(d)(2)). Employers must provide the appropriate PPE if they cannot eliminate employee exposure through engineering and administrative controls.

Paragraph 1910.134(d) includes hazard determination requirements. A written Respiratory Protection Program is also required by 1910.134(c) when respirators are required to protect the health of the employee. These determinations, at a minimum, must include the types of packages the employer accepts. Because previous release incidents are indicators of future potential hazardous exposures in the workplace, assessments following incidents involving damaged packages that created or had the potential for creating hazards to employees should also be used as a basis for a hazard determination. Employers should consider the potential for chemical or physical events including, but not limited to, reactivity, flammability and explosivity in their assessments.

**8. What engineering and administrative controls for respiratory protection under 1910.134(a)(1) must employers use to protect employees from respiratory hazards arising from releases of hazardous substances from damaged packages?**

The engineering and administrative (work practice) controls implemented by the employer must address the hazards identified in the respiratory hazard assessment and must be used as primary means of hazard control before PPE is used. Employees who are potentially exposed to the contents of damaged packages must be trained in the proper use and implementation of control systems. Possible control measures include isolating packages in an unoccupied location, use of spill tubs, local exhaust ventilation and other control technologies. If engineering and work practice controls are not feasible, the use of PPE is required.

**9. What general PPE under 1910.132(d) and what respiratory protection under 1910.134(d) must employers provide to employees responding to damaged packages?**

Employers must select and provide PPE that adequately protects employees from hazards that are present, or likely to be present, as specified in the hazard determination(s). 29 CFR 1910 Subpart I (1910.132 - 1910.138) addresses the requirements for PPE. OSHA does not prescribe what PPE must be provided to deal with an incidental release from a damaged package. OSHA only specifies that the choice of PPE by the employer must be based on the potential hazards determined to exist. Employers should use prior incidents, employee complaints and other relevant criteria in their hazard determination. Employers must also consider employee exposure, or the reasonable possibility of employee exposure, to safety or health hazards for all routes of entry including inhalation, ingestion, and skin absorption when determining the need for and selecting PPE. PPE must maintain employee exposures below the permissible exposure limits listed in 29 CFR 1910 Subparts G and Z. Defective or damaged equipment may not be used (1910.132(e)).

Information on PPE for hazardous substance clean-up is available in the "4-Agency Manual" (Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities

<http://www.osha.gov/Publications/complinks/OSHG-HazWaste/4agency.html> ).

**10. What training in the use of general PPE under 1910.132(f) and what training in the use of respiratory protection under 1910.134(k) must be provided to employees responding to damaged packages?**

Employees who will wear PPE under 1910.132(f) must be trained to know at least the following: 1) when PPE is necessary, 2) what PPE is necessary, 3) how to properly don, doff, adjust, and wear PPE, 4) the limitations of the PPE, and 5) the proper care, maintenance, useful life and disposal of the PPE.

Employers must make sure that each employee demonstrates an understanding of the PPE training as well as the ability to properly wear and use equipment before they are allowed to perform work requiring the use of the PPE. If an employer believes that a previously trained employee is not demonstrating the proper understanding and skill level in the use of PPE, that employee should receive refresher training. Other situations that require additional or retraining of employees include changes in the workplace or types of PPE that make that make prior training obsolete.

Employees who will wear respiratory protection must be trained in accordance with 1910.134(k). The employer must ensure that employees demonstrate knowledge of the items listed in 1910.134(k)(1)(i-vii), and the training must be provided before the employee has to use the respirator. Retraining must be performed annually, and when any of the conditions listed in (k)(5)(i-iii) occur.

**11. Are responses to blood or other potentially infectious materials (OPIM) spills considered emergency responses under 1910.120?**

The Bloodborne Pathogens standard may interface with HAZWOPER when it involves a response to an emergency caused by the uncontrolled release of an infectious waste, or where infectious waste is part of the uncontrolled release.

Employers with employees engaged in emergency response activities involving blood or OPIM must comply with the requirements in 29 CFR 1910.120(q), and may also have to comply with the Bloodborne Pathogens standard, 29 CFR 1910.1030. 29 CFR 1910.120(a)(2)(i) states: "If there is a conflict or overlap, the provision that is more protective of employee safety and health shall apply without regard to 29 CFR 1910.5(c)(1)."

Employees who respond to incidental releases of biological hazards must be protected according to other OSHA standards. For example, if you anticipate that employees will be exposed to blood or other potentially infectious materials (OPIM) in the workplace, then those employees are covered by OSHA's Bloodborne Pathogens

standard, 1910.1030. Employees exposed to other biohazards from incidental spills must be protected by personal protective equipment in accordance with 1910 Subpart I, Personal Protective Equipment (PPE), and provided training consistent with 1910.132(f).

If an employer is using their own employees for post-emergency response clean-up (see 1910.120(q)(11)) on their site, compliance with all applicable portions of 1910.134, including the hazard assessment in paragraph (d), is required.

## **12. Under what conditions is it acceptable for employers to provide escape-only respirators?**

Employers may provide escape-only respirators to those whose only action is to leave the area immediately and take no part in the response. Escape-only respirators must be NIOSH-approved and appropriate for the potential airborne concentration and class of substances specified in the employer's hazard determination (1910.134(d)). Emergency escape-only respirators must be inspected before being carried into the workplace for use (1910.134(h)(3)(i)(C)). All respirators maintained for emergency situations must be inspected at least monthly and in accordance with the manufacturer's recommendations. They also must be checked for proper function before and after each use (1910.134(h)(3)(i)(B)). Employees only wearing escape-only respirators do not have to be medically evaluated or fit tested, however, the employer would still be responsible for compliance with all other provisions of the respirator standard, as applicable, such as the written program and training requirements.

## **EXAMPLE SCENARIOS OF DAMAGED PACKAGE RESPONSE**

### **Example Scenario #1a – Response to an incidental release of a damaged package in a package-handling facility**

Upon discovery of a damaged package on a conveyor belt that appears to be leaking a fluid, a package handler who has been trained to the first responder awareness level observes that the package does not appear outwardly hazardous, but notices that it is labeled as containing a hazardous material. The package handler alerts the other employees in the immediate area to evacuate and notifies the on-site supervisor of the leaking package. As the package handler evacuates, the conveyor belt is stopped to isolate the package which reduces potential exposure hazards to other employees. The supervisor contacts designated employees who are trained under 1910.120 (e.g., first responder operations level) to determine whether the spill is incidental or requires an emergency response performed by the company's on-site HAZMAT team. After evaluating the circumstances of the release, the team makes the determination whether the spill is or is not incidental and whether it can or cannot be immediately cleaned up by personnel in the immediate area. If the spill is incidental, the clean-up personnel must be trained under 1910.1200 and equipped under 1910.132 and 1910.134 (if necessary).

**Example Scenario #1b – Emergency response to damaged package in package-handling facility**

Upon discovery of a damaged package on a conveyor belt that is emitting an irritating odor, a package handler who has been trained to the first responder awareness level alerts the other employees in the immediate area to evacuate and initiates an emergency response sequence by notifying the on-site supervisor of the fuming package. As the package handler evacuates, the conveyor belt is shut down to isolate the package which reduces potential exposure hazards to other employees. Because the emanating odor poses a potentially serious health hazard, the supervisor immediately contacts the facility's on-site HAZMAT team to respond to the release and takes measures (if necessary) to ensure that the HVAC system is shut down. Members of the HAZMAT team, who are trained to the first responder operations level, don the appropriate PPE including respiratory protection and set up a boundary around the damaged package to designate safe and unsafe areas. Operations level personnel also control entry and exit from the release area and work to contain the release from a safe distance. Other members of the HAZMAT team, who are trained to the first responder technician level, don the appropriate PPE and approach the damaged package with the intent of stopping the release and cleaning up the spill.

**Example Scenario #2 – Emergency response to damaged package in delivery truck**

During a routine package delivery stop, a truck driver discovers a damaged package labeled as a corrosive in the back of the truck and immediately begins to experience a strong irritating sensation. The driver, who has been trained to the first responder awareness level, realizes that this is a potentially hazardous situation and notifies the supervisor of the discovery. Through established procedures, the supervisor contacts the city fire department which has a dedicated and organized HAZMAT team, to respond to the release. While waiting for emergency responders to arrive, the driver maintains a safe distance from the truck and ensures that no one approaches the truck. When the HAZMAT team arrives, first responder operations level trained personnel set up a boundary around the truck to designate safe and unsafe areas and take over the responsibility of controlling entry and exit from the release area. First responder technician level trained personnel don the appropriate PPE and enter the back of the truck to contain and clean-up the spill.

**Example Scenario #3 – Emergency response to damaged package at a drop-off box**

During a routine stop at a drop-off box to pick up packages, a truck driver discovers an unlabeled damaged package that has been torn and a powder is spilling out. The driver, who has been trained to the first responder awareness level, cannot determine what the material may be and notifies the supervisor. The supervisor follows established procedures for treating a release of an unknown substance as an emergency response and contacts the local HAZMAT team who covers the location of the drop-off box. While waiting for emergency responders to arrive, the driver maintains a safe distance from the box and ensures that no one approaches the area. When the HAZMAT team arrives, first responder operations level trained personnel set up a boundary around the box

to designate safe and unsafe areas and take over the responsibility of controlling entry and exit from the release area. First responder technician level trained personnel don the appropriate PPE and clean-up the spill.



## APPENDIX H: LIST OF ACRONYMS IN THIS DOCUMENT

ACRONYM	DESCRIPTION
BLS	basic life support
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response Compensation and Recovery Act of 1980 (also, Superfund)
CFR	Code of Federal Regulations
CPR	cardiopulmonary resuscitation
DHS	Department of Homeland Security
DOT	U.S. Department of Transportation
EAP	emergency action plan
EMS	emergency medical services
EMT	emergency medical technician
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	emergency response plan
ERTK	Employee Right to Know
EtO	ethylene oxide
HAZMAT	hazardous materials
HAZWOPER	Hazardous Waste Operations and Emergency Response standard, 29 CFR 1910.120
HCS	Hazard Communication standard, 29 CFR 1910.1200
HHS	U.S. Department of Health and Human Services
HMTUSA	Hazardous Material Transportation Uniform Safety Act of 1990
HSPD-5	Homeland Security Presidential Directive
IC	[On-scene] incident commander
ICP	Integrated Contingency Plan
ICS	Incident Command System
IDLH	immediately dangerous to life or health
INS	incident of national significance
JFO	Joint Field Office
LEPC	local emergency planning committee
LERP	local emergency response plan
MOU	Memorandum of Understanding

ACRONYM	DESCRIPTION
NCP	National Contingency Plan
NEMP	National Emergency Management Plan
NFPA	National Fire Protection Association
NIJ	National Institute of Justice
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration
NRC	U.S. Nuclear Regulatory Commission
NRP	National Response Plan
NRT	National Response Team
OPA 90	Oil Pollution Act of 1990
OPIM	Other potentially infectious materials
OSC	On-scene coordinator (term used in NCP)
OSHA	Occupational Safety and Health Administration
OSH Act	Occupational Safety and Health Act of 1970
OSHI	MNOSHA Investigator
OTE	Office of Training and Education
OTI	OSHA Training Institute
PPE	personal protective equipment
PRCS	Permit-Required Confined Space
PSM	Process Safety Management of Highly Hazardous Chemicals standard, 29 CFR 1910.119
RCRA	Resource Conservation and Recovery Act of 1976
REMP	Regional Emergency Management Plan
RMP	Risk Management Plan
RRTs	Regional Response Teams
SARA	Superfund Amendments and Reauthorization Act of 1986
SCBA	Self-contained breathing apparatus
SDS	Safety Data Sheet
SERC	State emergency response commission
SERP	State emergency response plan
SLTC	Salt Lake Technical Center
SRTs	Specialized Response Teams
SSP	Skilled Support Personnel
SO	Safety Official (Officer)
TRI	Toxic Release Inventory
TSD	treatment, storage and disposal
USCG	United States Coast Guard

## **APPENDIX I: REFERENCE MATERIALS FOR HAZWOPER**

**Emergency Response Guidebook**, U.S. Department of Transportation, Washington, D.C., 1996.

Federal Register, Vol. 58, June 30, 1993, pages 35076-35306: **Incorporation of General Industry Safety and Health Standards Applicable to Construction Work; Final Rule.** (29 CFR 1926).

Federal Register, Vol. 57, No. 95, May 15, 1992, pages 20944-20954: **Hazardous Materials; Training for Safety Transportation; Final Rule.** (49 CFR Parts 171-177)

Federal Register, Vol. 57, No. 36, February 24, 1992, pages 6356-6417: **Process Safety Management of Highly Hazardous Chemicals; Explosives and Blasting Agents; Final Rule.** (1910.119)

Federal Register, Vol. 56, No. 75, April 18, 1991, pages 15832-15833: **Hazardous Waste Operations and Emergency Response; Final Rule; Corrections.**

Federal Register, Vol. 55, No. 72, April 13, 1990, pages 14072-14075: **Hazardous Waste Operations and Emergency Response; Final Rule; Corrections.**

Federal Register, Vol. 55, No. 18, January 26, 1990, pages 2776-2794: **Accreditation of Training Programs for Hazardous Waste Operations; Notice of Proposed Rulemaking.**

Federal Register, Vol. 54, No. 120, June 23, 1989, pages 26654-26658: **Worker Protection Standards for Hazardous Waste Operations and Emergency Response; Final Rule** (40 CFR Part 311).

Federal Register, Vol. 54, No. 42, March 6, 1989, pages 9294-9336: **Hazardous Waste Operations and Emergency Response; Final Rule.** (29 CFR 1910.120)

Federal Register, Vol. 52, No. 85, May 4, 1987, pages 16241-16243: **Hazardous Waste Operations and Emergency Response; Interim Final Rule; Corrections.**

Federal Register, Vol. 51, No. 244, December 19, 1986, pages 45654-45675: **Hazardous Waste Operations and Emergency Response; Interim Final Rule.**

**Guide for the Selection of Chemical and Biological Decontamination Equipment for Emergency First Responders**, National Institute of Justice (NIJ), October 2001, (Guide 103 00).

**Health and Safety Audit Guidelines, SARA Title I, Section 126**, December 1989, United States Environmental Protection Agency: Office of Solid Waste and Emergency Response, Office of Emergency and Remedial Response, and Emergency Response Division. (EPA/540/G-89/010).

“Memorandum of Understanding Between the United States Coast Guard, U.S. Department of Transportation, and the Occupational Safety and Health Administration, U. S. Department of Labor, Concerning Their Authority to Prescribe and Enforce Standards or Regulations Affecting the Occupational Safety and Health of Seamen Aboard Vessels Inspected and Certificated by the United States Coast Guard, March 4, 1983.

**"Memorandum of Understanding between OSHA and the NRC that delineates worker protection responsibilities for each agency at facilities licensed by the NRC,"** effective October 21, 1988.

**National Oil and Hazardous Substances Pollution Contingency Plan,** Environmental Protection Agency [40 CFR Part 300 (2003)].

**National Response Plan,** Office of Homeland Security, December 2004.

**OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances,** OSHA, December 20, 2004.

**Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities.**

NIOSH/OSHA/USCG/EPA; October 1985. (Publication Number: 85-115)

**Recommended Practice for Responding to Hazardous Materials Incidents; National Fire Protection Association Standard 471;** August 14, 1992.

**Standard for Professional Competence of Responders to Hazardous Materials Incidents; National Fire Protection Association Standard 472;** August 14, 1992.

**State of Washington Industrial Safety and Health Administration, May 3, 1991; “Inspection Guidelines for Post-Emergency Response Operations Under WAC 296-62-300.”**