



NATIONAL TRANSPORTATION SAFETY BOARD - **Public Hearing**

Conrail Derailment in Paulsboro, NJ with Vinyl Chloride Release

GROUP	3
EXHIBIT	
BK	

Agency / Organization

Occupational Safety and Health Administration

Title

Federal Occupational Safety and
Health Standards 29 CFR 1910

Federal Occupational Safety and Health Standards

Hazardous Waste Operations and Emergency Response

29 Code of Federal Regulations 1910.120(q)

1910.120(q)

Emergency response program to hazardous substance releases. This paragraph covers employers whose employees are engaged in emergency response no matter where it occurs except that it does not cover employees engaged in operations specified in paragraphs (a)(1)(i) through (a)(1)(iv) of this section. Those emergency response organizations who have developed and implemented programs equivalent to this paragraph for handling releases of hazardous substances pursuant to section 303 of the Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. 11003) shall be deemed to have met the requirements of this paragraph.

1910.120(q)(1)

Emergency response plan. An emergency response plan shall be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations. The plan shall be in writing and available for inspection and copying by employees, their representatives and OSHA personnel. Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this paragraph if they provide an emergency action plan in accordance with 29 CFR 1910.38.

1910.120(q)(2)

Elements of an emergency response plan. The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following areas to the extent that they are not addressed in any specific program required in this paragraph:

1910.120(q)(2)(i)

Pre-emergency planning and coordination with outside parties..

1910.120(q)(2)(ii)

Personnel roles, lines of authority, training, and communication.

1910.120(q)(2)(iii)

Emergency recognition and prevention.

1910.120(q)(2)(iv)

Safe distances and places of refuge.

1910.120(q)(2)(v)

Site security and control.

1910.120(q)(2)(vi)

Evacuation routes and procedures.

1910.120(q)(2)(vii)

Decontamination.

1910.120(q)(2)(viii)

Emergency medical treatment and first aid.

1910.120(q)(2)(ix)

Emergency alerting and response procedures.

1910.120(q)(2)(x)

Critique of response and follow-up.

1910.120(q)(2)(xi)

PPE and emergency equipment.

1910.120(q)(2)(xii)

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

1910.120(q)(3)

Procedures for handling emergency response.

1910.120(q)(3)(i)

The senior emergency response official responding to an emergency shall become the individual in charge of a site-specific Incident Command System (ICS). All emergency responders and their communications shall be coordinated and controlled through the individual in charge of the ICS assisted by the senior official present for each employer.

NOTE TO PARAGRAPH (q)(3)(i). - The "senior official" at an emergency response is the most senior official on the site who has the responsibility for controlling the operations at the site. Initially it is the senior officer on the first-due piece of responding emergency apparatus to arrive on the incident scene. As more senior officers arrive (i.e., battalion chief, fire chief, state law enforcement official, site coordinator, etc.) the position is passed up the line of authority which has been previously established.

1910.120(q)(3)(ii)

The individual in charge of the ICS shall 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.

1910.120(q)(3)(iii)

Based on the hazardous substances and/or conditions present, the individual in charge of the ICS shall implement appropriate emergency operations, and assure that the personal protective equipment worn is appropriate for the hazards to be encountered. However, personal protective equipment shall meet, at a minimum, the criteria contained in 29 CFR 1910.156(e) when worn while performing fire fighting operations beyond the incipient stage for any incident.

1910.120(q)(3)(iv)

Employees engaged in emergency response and exposed to hazardous substances presenting an inhalation hazard or potential inhalation hazard shall wear positive pressure self-contained breathing apparatus 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.

1910.120(q)(3)(v)

The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations. However, operations in hazardous areas shall be performed using the buddy system in groups of two or more.

1910.120(q)(3)(vi)

Back-up personnel shall be standing by with equipment ready to provide assistance or rescue. Qualified basic life support personnel, as a minimum, shall also be standing by with medical equipment and transportation capability.

1910.120(q)(3)(vii)

The individual in charge of the ICS shall designate a safety officer, who is knowledgeable in the operations being implemented at the emergency response site, with specific responsibility to identify and evaluate hazards and to provide direction with respect to the safety of operations for the emergency at hand.

1910.120(q)(3)(viii)

When activities are judged by the safety officer to be an IDLH and/or to involve an imminent danger condition, the safety officer shall have the authority to alter, suspend, or terminate those activities. The safety official shall immediately inform the individual in charge of the ICS of any actions needed to be taken to correct these hazards at the emergency scene.

1910.120(q)(3)(ix)

After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures.

1910.120(q)(3)(x)

When deemed necessary for meeting the tasks at hand, approved self-contained compressed air breathing apparatus may be used with approved cylinders from other approved self-contained compressed air breathing apparatus provided that such cylinders are of the same capacity and pressure rating. All compressed air cylinders used with self-contained breathing apparatus shall meet U.S. Department of Transportation and National Institute for Occupational Safety and Health criteria.

1910.120(q)(4)

Skilled support personnel. Personnel, not necessarily an employer's own employees, who are skilled in the operation of certain equipment, such as mechanized earth moving or digging equipment or crane and hoisting equipment, and who are needed temporarily to perform immediate emergency support work that cannot reasonably be performed in a timely fashion by an employer's own employees, and who will be or may be exposed to the hazards at an emergency response scene, are not required to meet the training required in this paragraph for the employer's regular employees. However, these personnel shall be given an initial briefing at the site prior to their participation in any emergency response. The initial briefing shall include instruction in the wearing of appropriate personal protective equipment, what chemical hazards are involved, and what duties are to be performed. All other appropriate safety and health precautions provided to the employer's own employees shall be used to assure the safety and health of these personnel.

1910.120(q)(5)

Specialist employees. Employees who, in the course of their regular job duties, work with and are trained in the hazards of specific hazardous substances, and who will be called upon to provide technical advice or assistance at a hazardous substance release incident to the individual in charge, shall receive training or demonstrate competency in the area of their specialization annually.

1910.120(q)(6)

Training. Training shall be based on the duties and function to be performed by each responder of an emergency response organization. The skill and knowledge levels required for all new responders, those hired after the effective date of this standard, shall be conveyed to them through training before they are permitted to take part in actual emergency operations on an incident. **Employees who participate, or are expected to participate, in emergency response, shall be given training in accordance with the following paragraphs:**

1910.120(q)(6)(i)

First responder awareness level. First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

1910.120(q)(6)(i)(A)

An understanding of what hazardous substances are, and the risks associated with them in an incident.

1910.120(q)(6)(i)(B)

An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.

1910.120(q)(6)(i)(C)

The ability to recognize the presence of hazardous substances in an emergency.

1910.120(q)(6)(i)(D)

The ability to identify the hazardous substances, if possible.

1910.120(q)(6)(i)(E)

An understanding of the role of the first responder awareness individual in the employer's emergency response plan including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook.

1910.120(q)(6)(i)(F)

The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

1910.120(q)(6)(ii)

First responder operations level. First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level and the employer shall so certify:

1910.120(q)(6)(ii)(A)

Knowledge of the basic hazard and risk assessment techniques.

1910.120(q)(6)(ii)(B)

Know how to select and use proper personal protective equipment provided to the first responder operational level.

1910.120(q)(6)(ii)(C)

An understanding of basic hazardous materials terms.

1910.120(q)(6)(ii)(D)

Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.

1910.120(q)(6)(ii)(E)

Know how to implement basic decontamination procedures.

1910.120(q)(6)(ii)(F)

An understanding of the relevant standard operating procedures and termination procedures.

1910.120(q)(6)(iii)

Hazardous materials technician. Hazardous materials technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. Hazardous materials technicians shall have received at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify:

1910.120(q)(6)(iii)(A)

Know how to implement the employer's emergency response plan.

1910.120(q)(6)(iii)(B)

Know the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.

1910.120(q)(6)(iii)(C)

Be able to function within an assigned role in the Incident Command System.

1910.120(q)(6)(iii)(D)

Know how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician.

1910.120(q)(6)(iii)(E)

Understand hazard and risk assessment techniques.

1910.120(q)(6)(iii)(F)

Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit.

1910.120(q)(6)(iii)(G)

Understand and implement decontamination procedures.

1910.120(q)(6)(iii)(H)

Understand termination procedures.

1910.120(q)(6)(iii)(I)

Understand basic chemical and toxicological terminology and behavior.

1910.120(q)(6)(iv)

Hazardous materials specialist. Hazardous materials specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with Federal, state, local and other government authorities in regards to site activities. Hazardous materials specialists shall have received at least 24 hours of training equal to the technician level and in addition have competency in the following areas and the employer shall so certify:

1910.120(q)(6)(iv)(A)

Know how to implement the local emergency response plan.

1910.120(q)(6)(iv)(B)

Understand classification, identification and verification of known and unknown materials by using advanced survey instruments and equipment.

1910.120(q)(6)(iv)(C)

Know the state emergency response plan.

1910.120(q)(6)(iv)(D)

Be able to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialist.

1910.120(q)(6)(iv)(E)

Understand in-depth hazard and risk techniques.

1910.120(q)(6)(iv)(F)

Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.

1910.120(q)(6)(iv)(G)

Be able to determine and implement decontamination procedures.

1910.120(q)(6)(iv)(H)

Have the ability to develop a site safety and control plan.

1910.120(q)(6)(iv)(I)

Understand chemical, radiological and toxicological terminology and behavior.

1910.120(q)(6)(v)

On scene incident commander. Incident commanders, who will assume control of the incident scene beyond the first responder awareness level, **shall receive at**

least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify:

1910.120(q)(6)(v)(A)

Know and be able to implement the employer's incident command system.

1910.120(q)(6)(v)(B)

Know how to implement the employer's emergency response plan.

1910.120(q)(6)(v)(C)

Know and understand the hazards and risks associated with employees working in chemical protective clothing.

1910.120(q)(6)(v)(D)

Know how to implement the local emergency response plan.

1910.120(q)(6)(v)(E)

Know of the state emergency response plan and of the Federal Regional Response Team.

1910.120(q)(6)(v)(F)

Know and understand the importance of decontamination procedures.

1910.120(q)(7)

Trainers. Trainers who teach any of the above training subjects shall have satisfactorily completed a training course for teaching the subjects they are expected to teach, such as the courses offered by the U.S. National Fire Academy, or they shall have the training and/or academic credentials and instructional experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the courses they are to teach.

1910.120(q)(8)

Refresher training.

1910.120(q)(8)(i)

Those employees who are trained in accordance with paragraph (q)(6) of this section shall receive annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly.

1910.120(q)(8)(ii)

A statement shall be made of the training or competency, and if a statement of competency is made, the employer shall keep a record of the methodology used to demonstrate competency.

1910.120(q)(9)

Medical surveillance and consultation.

1910.120(q)(9)(i)

Members of an organized and designated HAZMAT team and hazardous materials specialist shall receive a baseline physical examination and be provided with medical surveillance as required in paragraph (f) of this section.

1910.120(q)(9)(ii)

Any emergency response employees who exhibit signs or symptoms which may have resulted from exposure to hazardous substances during the course of an emergency incident either immediately or subsequently, shall be provided with medical consultation as required in paragraph (f)(3)(ii) of this section.

1910.120(q)(10)

Chemical protective clothing. Chemical protective clothing and equipment to be used by organized and designated HAZMAT team members, or to be used by hazardous materials specialists, shall meet the requirements of paragraphs (g)(3) through (5) of this section.

1910.120(q)(11)

Post-emergency response operations. Upon completion of the emergency response, if it is determined that it is necessary to remove hazardous substances, health hazards and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the site of the incident, the employer conducting the clean-up shall comply with one of the following:

1910.120(q)(11)(i)

Meet all the requirements of paragraphs (b) through (o) of this section; or

1910.120(q)(11)(ii)

Where the clean-up is done on plant property using plant or workplace employees, such employees shall have completed the training requirements of the following: 29 CFR 1910.38, 1910.134, 1910.1200, and other appropriate safety and health training made necessary by the tasks they are expected to perform such as personal protective equipment and decontamination procedures.

APPENDICES TO §1910.120 - HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE

NOTE: The following appendices serve as non-mandatory guidelines to assist employees and employers in complying with the appropriate requirements of this section. However paragraph 1910.120(g) makes mandatory in certain circumstances the use of Level A and Level B PPE protection.

[61 FR 9227, March 7, 1996; 67 FR 67964, Nov. 7, 2002; 71 FR 16672, April 3, 2006; 76 FR 80738, Dec. 27, 2011; 77 FR 17776, March 26, 2012; 78 FR 9313, Feb. 8, 2013]