

**U.S. Chemical Safety and  
Hazard Investigation Board**

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Chairperson

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Board Member

**Catherine J.K. Sandoval**  
Board Member



July 12, 2024

OSHA Technical Data Center  
U.S. Department of Labor  
200 Constitution Avenue NW, Room N3508  
Washington, DC 20210  
(Via Federal eRulemaking Portal://www.regulations.gov/)

Docket Number: OSHA-2007-0073

Dear Sir or Madam:

Enclosed are comments by the U.S. Chemical Safety and Hazard Investigation Board (CSB) in response to OSHA's proposed rule titled *Emergency Response*, published in the Federal Register on February 5, 2024 (89 CFR 7774). While the CSB supports the proposed rule overall as an important and much-needed step toward improving emergency response safety for workers, communities, and the environment, the CSB has identified four areas that should be revised to strengthen the proposed rule, which are addressed in the enclosure.

We thank you for this opportunity to provide comments. If you have any questions or need further information regarding these comments, please contact Mr. Charles B. Barbee, Director of Recommendations at: (202) 380-7122, or via email: [CSBRecommendations@csb.gov](mailto:CSBRecommendations@csb.gov).

Sincerely,

Steve Owens  
Chairperson

Sylvia E. Johnson, Ph.D.  
Board Member

Catherine J.K. Sandoval  
Board Member

Enclosure

cc: Stephen J. Klejst, Executive Director - Investigations & Recommendations, CSB

**Introduction:**

The U.S. Chemical Safety and Hazard Investigation Board (CSB) is an independent federal agency charged with investigating, determining, and reporting to the public in writing the facts, conditions, circumstances and cause or probable cause of any accidental chemical release resulting in a fatality, serious injury, or substantial property damage. The CSB issues safety recommendations based on data and analyses from investigations and safety studies and advocates for these changes to prevent the likelihood of recurrence. CSB safety recommendations also aim to minimize the consequences of accidental chemical releases.

The CSB submits the following comments in response to the Occupational Safety and Health Administration's (OSHA) proposed rule titled *Emergency Response* published in the Federal Register on February 5, 2024 (NPRM) (89 CFR 7774). While the CSB supports the proposed rule overall as an important and much-needed step toward improving emergency response safety for workers, communities, and the environment, the CSB has identified four areas that should be revised to strengthen the proposed rule, which are listed below and discussed in the following pages:

- PSM covered employers/facilities should not be excluded from coverage under the proposed rule.
- Proposed paragraph 29 CFR 1910.156(c) & (d) requirements for vulnerability assessments do not provide sufficiently specific instructions about the need for the awareness and the evaluation of safeguards, such as fire barriers, automatic sprinklers, and/or remotely operated emergency isolation valves (ROEIV), etc., especially for locations with unusual hazards<sup>1</sup>.
- The 'awareness level' of HAZWOPER training required under proposed paragraph 29 CFR 1910.156(h) is not sufficiently protective according to OSHA's own existing standards and policies.
- In proposed paragraphs 29 CFR 1910.156(i)(1)(iii) and (j)(1)(iv), the exclusive reliance upon manufacturer's instructions and 29 CFR 1910 Subpart L – *Fire Protection* to establish installation, testing, and maintenance requirements for fire detection, suppression, and alarm systems is insufficient to protect against unusual hazards.

**Background:**

OSHA is proposing to issue a new safety and health standard, titled *Emergency Response*, to replace the existing Fire Brigades Standard. The proposed rule expands the scope of OSHA's standard to include a broader range of hazards faced by responders during emergencies, modernizes the standard to align with current industry consensus standards, and brings the

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<sup>1</sup> The NPRM describes "unusual hazards" as "those hazards that are particularly dangerous to the health and safety of team members when carrying out their activities." Examples of unusual hazards given in the NPRM relevant to this comment letter include the storage and use of flammable liquids and gasses, explosives, toxic agents, and water-reactive-substances.

standard in line with the Federal Emergency Management Agency's (FEMA) National Response Framework.

OSHA estimates conservatively that an average of 84 emergency responders die annually. Most of these deaths occur while responding to emergencies or fighting fires. The most common safety and health hazards encountered by emergency responders include falls due to structural or building collapses; being struck by, caught in between, or crushed by vehicles; falling objects or debris; burns; and entrapments. OSHA's review of all 273 fatalities in the OSHA Information System (OIS) database revealed the following causes: asphyxia (28), burns/scald (39), explosion (9), fall (28), striking/crushing/collision (34) and "struck by" incidents (38), among others<sup>2</sup>.

CSB investigations have identified deficiencies in emergency planning or response at a number of chemical facilities. Common themes in these deficiencies are the lack of pre-incident planning and coordination, and a lack of emergency response related training, including drills, for emergency responders. Additionally, "Emergency Preparedness" is one of the items identified on the CSB's list of "Drivers of Critical Safety Change" (CDL) because of the nature of risk and extent of exposure to workers, communities, and the environment, as well as previous losses and the potential for future losses, related to inadequate or poor emergency planning or response to chemical incidents. This CDL item includes a focus on emergency response plans, remote isolation, and extreme weather. Emergency preparedness must be improved at chemical facilities to drive chemical safety excellence; protect communities, workers, and the environment; and ensure a nation free from chemical disasters. As such, the CSB has identified four issues in the proposed rule that should be revised.

**Issues:**

**Issue 1. PSM covered employers/facilities should not be excluded from coverage under the proposed rule.**

Proposed paragraph 29 CFR 1910.156(a) establishes the scope of general industry employers that would be covered by the proposed rule. Proposed paragraph (a)(2)(ii) specifically excludes activities covered by 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response (HAZWOPER)) and 29 CFR 1910.146 (Permit-Required Confined Spaces in General Industry). In the NPRM, OSHA notes that there are other standards imposing requirements on employers concerning "emergency-type or related services." They list 29 CFR 1910.119 (Process Safety Management of Highly Hazardous Chemicals (PSM)) as an example of such a standard.

In Question (a)-6, OSHA asks whether the agency should consider excluding other activities in addition to those listed in proposed paragraph (a)(2)(ii). However, instead of exempting activities covered by the HAZWOPER standard, the CSB believes that the HAZWOPER standard should be a subset within the proposed Emergency Response standard. Further, the CSB does not support exempting PSM covered employers from the proposed standard. PSM covered employers operate facilities which by their very nature present the highest potential for

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<sup>2</sup> The date range for OSHA's review was 2007 through 2021.

catastrophic releases of toxic, reactive, flammable, or explosive chemicals. These releases expose emergency responders to toxic, fire, and/or explosion hazards.

The PSM standard's requirements for emergency planning and response are not sufficiently protective of emergency response personnel. The only PSM requirements for emergency planning and response are compliance with 29 CFR 1910.38 (Emergency Action Plans) and development of procedures to handle small releases. There is a note in the PSM standard that employers may also be subject to 29 CFR 1910.120 (HAZWOPER), but this is not a PSM requirement.

PSM-covered employers must not be excluded from coverage under the proposed Emergency Response rule. The CSB urges that, at an absolute minimum, language be added to 29 CFR 1910.119(n) stating that the new Emergency Response rule may apply to PSM-covered employers, similar to the existing language on HAZWOPER in the PSM standard.

**Issue 2. Proposed paragraph 29 CFR 1910.156(c) & (d) requirements for vulnerability assessments do not provide sufficiently specific instructions about the need for the awareness and the evaluation of safeguards, such as fire barriers, automatic sprinklers, and/or remotely operated emergency isolation valves (ROEIV), etc., especially for locations with unusual hazards.**

Proposed paragraphs 29 CFR 1910.156(c) & (d) establish the core responsibilities of Workplace Emergency Response Employers (WEREs) and Emergency Service Organizations (ESOs). Under these paragraphs WEREs and ESOs are required to develop and implement Emergency Response Programs (ERP) intended to provide for the safety and health of team members and responders. ERPs establish the existence of WERTs and ESOs including their basic organizational structure, purpose, and duties. They serve as a road map as to how employers comply with the proposed rule.

Proposed paragraphs 29 CFR 1910.156(c) & (d) also require a vulnerability assessment. For WEREs, the facility is the subject of the assessment. For ESOs, the community making up ESO's response area, or the specific facilities for which the ESO is responsible, is the subject of the assessment. The proposed rule requires ESOs to conduct vulnerability assessments at facilities subject to the Environmental Protection Agency's (EPA) reporting requirements under 40 CFR Part 355 pursuant to the Emergency Planning and Community Right-to-Know Act (EPCRA).

The purpose of the assessments is to determine the emergency response capabilities of WERTs and ESOs and their ability to match vulnerabilities with available resources. Through this assessment resources needed for mitigation, such as specialized extinguishing agents, are to be identified and a determination made about whether those resources are available in sufficient quantities. The assessment also is intended to identify the resources needed for responders to mitigate emergency incidents, including personal protective equipment.

However, the proposed provisions do not require that an assessment be made of existing safeguards designed to prevent emergency incidents or of safeguards intended to mitigate the severity of emergency incidents.

To assess vulnerabilities more effectively, WEREs and ESOs must first be aware of existing safeguards and then be required to assess those existing safeguards, including, but not limited to: fire barriers, automatic sprinklers, remotely operated emergency operated isolation valves, (ROEIV), fire detection and alarm systems, smoke control and evacuations systems, and others as appropriate. The CSB urges OSHA to add this requirement to paragraphs (c) and (d) of the proposed rule. Additionally, the CSB urges OSHA to require that this assessment be repeated at regular intervals as well as when there are changes that impact the purpose, availability, or effectiveness of the safeguards.

**Issue 3. The ‘awareness level’ of HAZWOPER training required under proposed paragraph 29 CFR 1910.156 (h) is not sufficiently protective according to OSHA’s own existing OSHA standards and policies.**

The NPRM recognizes training as the backbone of Workplace Emergency Response Team (WERTs) and ESOs. Effective training is necessary for team members and responders to operate effectively during emergency incidents. Proposed 29 CFR 1910.156(h) would require initial training, follow-up training, and periodic skill checks to ensure proficiency based on the duties of individual team members or responders.

Each team member or responder will be required to receive training to the First Responder Awareness Level under the HAZWOPER standard (29 CFR 1910.120(q)(6)(i)). The NPRM recognizes that this training is important for team members or responders who are not part of hazardous materials (hazmat) teams because they are usually the first to arrive at emergency incidents. The training at this level focuses on responding effectively to hazmat incidents and taking actions such as maintaining a safe distance, evacuating other people, cordoning off the area, and summoning appropriate resources according to the NPRM.

However, the NPRM is not in alignment with previous and long-standing OSHA HAZWOPER interpretations. The First Responder Awareness Level under HAZWOPER is insufficient for team members or responders who will respond to fires in facilities with unusual hazards such as storage and/or use of flammable liquids and gases, explosives, toxic and biological agents, among others. OSHA previously has interpreted 29 CFR 1910.120<sup>3</sup> to require that such responders are at the Operations Level:

*Generally, police officers are the first-responder awareness level (Level 1 of Table 2 referenced in your letter) since they are likely to witness or discover a hazardous substance release. **General firefighters are usually considered to be first responders at the operations level** (Level 2 of Table 2 referenced in your letter), since they are individuals who respond to releases -potential releases of hazardous substances as part of the initial-response to the site*

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<sup>3</sup> Available at <https://www.osha.gov/laws-regs/standardinterpretations/1990-02-21> (Accessed May 29, 2024)

*for the purpose of protecting nearby persons, property, or the environment from the effects of the release.*

OSHA also has stated:<sup>4</sup>

***Question 1:*** *If the fire department dispatcher receives an emergency call reporting a suspected release of a hazardous material, could an Awareness Level fire fighter respond to the scene to confirm the existence of a hazardous material release and then notify another agency with a Hazardous Materials Response Team?*

***Response: No.*** *If a fire department receives an emergency call reporting a suspected release of a hazardous substance, this would be considered sufficient information to warrant an emergency response. The fire department should not knowingly dispatch an "Awareness Level" fire fighter to respond to a hazardous substance emergency response. As the scenario you presented in your letter to us explains, a police officer reports the discovery of three 55-gallon drums on the side of a road and the officer believes the drums may be the result of an illegal methamphetamine laboratory "meth lab" operation in the area. These facts provide enough information to classify the situation as a potential emergency release of a hazardous substance and thus require it to be treated as an emergency response.*

*29 CFR 1910.120(q)(6)(ii) states, "First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of an initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release." Training requirements for all classifications of emergency responders are based on the "duties and functions to be performed by each responder" and are found at 29 CFR 1910.120(q)(6)(i)-(v). **Fire fighters who respond to emergency releases or potential emergency releases of hazardous substances must be trained to at least the first responder operations level.***

***Question 2:*** *How close could the Awareness Level fire fighter get to the scene and what level of PPE is appropriate?*

***Response:*** *Fire fighters trained at the first responder awareness level are trained to identify the release of a hazardous substance and to notify the proper authorities of the release without approaching the point of release. To further explain this role, OSHA has provided a possible emergency response scenario in the Summary and Explanation of the Preamble to the Hazardous Waste Operations and Emergency Response Standard. In this scenario, a state trooper assumes the role of first responder at the awareness level:*

*"A state trooper is on routine patrol along a highway passing through a residential and light industrial area of a large metropolitan city. Ahead in his path of travel, the trooper notices a multi-vehicle accident involving a large, overturned tank truck. Immediately the trooper uses his radio to contact his dispatcher to report the accident. After letting the dispatcher know the location and type of accident, the trooper places his vehicle across*

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<sup>4</sup> Available at <https://www.osha.gov/laws-regs/standardinterpretations/2003-08-01> (Accessed May 29, 2024)

*the travel lanes of the highway approaching the accident site to stop traffic. While he is doing this, the dispatcher is alerting the fire and rescue companies in the immediate area and dispatching an established number of fire and rescue vehicles. The trooper then surveys the accident scene from his vehicle trying to identify the type of cargo on the overturned truck. Seeing three different U.S. DOT placards on the vehicle the trooper makes note of the four-digit numbers and checks his DOT Emergency Response Guide for a summary of actions to be taken for the chemicals identified on the placards. After determining his next on-site responsibility, he recontacts his dispatcher with the additional information and secures the scene. He stays away from the immediate accident site and does not become involved in rescue or site mitigation.*

***As described above, personnel trained to the first responder awareness level can make an effort to identify hazardous substances, but must do so from a distance. Since they are not permitted to approach the point of release to either contain or stop the release, they are not trained to select and use appropriate PPE. They are also not trained to establish perimeters or boundaries designating safe and unsafe areas. These actions are to be deferred to more highly trained personnel, such as those trained to the operations or technician/specialist level.***

OSHA reiterated these points in a letter of interpretation dated March 14, 2007<sup>5</sup>.

Any fire at a facility with unusual hazards (as described in the NPRM) presents the potential for a release of a hazardous substance. Dispatching team members or responders trained to the awareness level to these emergency incidents, instead of at least the operations level, would violate long-standing OSHA interpretation of 29 CFR 1910.120(q)(6). Additionally, the NPRM clearly indicates OSHA's intention that these team members or responders maintain a safe distance and cordon off areas where releases may be taking place. As stated above, personnel trained to the first responder awareness level are not trained to establish perimeters or boundaries designating safe and unsafe areas. These actions must be done by more highly trained personnel. In fact, personnel trained to the first responder awareness level are not even trained to select and use appropriate PPE. As such, the CSB urges OSHA to require that team members or responders receive training to the First Responder Operations Level under HAZWOPER (29 CFR 1910.120(q)(6)(ii) at a minimum.

**Issue 4. In proposed paragraphs 29 CFR 1910.156(i)(1)(iii) and (j)(1)(iv), the exclusive reliance upon manufacturer's instructions and 29 CFR 1910 Subpart L – *Fire Protection* to establish installation, testing, and maintenance requirements for fire detection, suppression, and alarm systems is insufficient to protect against unusual hazards.**

Proposed paragraph 29 CFR 1910.156(i)(1)(iii) would require the WERE to ensure that fire detection, suppression, and alarm systems are installed, tested, and maintained in accordance with manufacturer's instructions and 29 CFR 1910, Subpart L – Fire Protection. There is a similar requirement in paragraph (j)(1)(iv) applicable to ESOs.

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<sup>5</sup> Available at <https://www.osha.gov/laws-regs/standardinterpretations/2007-03-14> (Accessed May 29, 2024)

The problem with reliance upon manufacturer's instructions to establish requirements for installation, testing, and maintenance requirements for fire detection, suppression, and alarm systems is that many of these systems are engineered systems comprised of components from several different manufacturers, none of which typically provide adequate information for complicated, multi-component, multi-function systems in total. Although OSHA's proposed approach arguably would suffice for a single function system in a low hazard occupancy, it is insufficient not for a complex employee notification system typical of a high hazard occupancy, such as facilities with unusual hazards as described in the NPRM.

Relying on 29 CFR 1910 Subpart L – Fire Protection to establish these requirements also is insufficient because the standards contained in the Subpart only apply to equipment installed in workplaces to meet a requirement of some other OSHA standard. This standard does not apply to other equipment likely to be present in a facility with unusual hazards. For example, standpipe and hose systems, fire detection systems, and employee alarm systems are generally installed to meet local building and fire codes, not OSHA standards. As such, there would be no requirements for their installation, maintenance, and testing in the proposed rule under this approach. Moreover, most of 29 CFR 1910 Subpart L – Fire Protection was promulgated in the early 1980s based on consensus standards that existed at the time. These consensus standards have been updated significantly since that time, but the standards of the Subpart have not.

A more effective approach would be one based on recognized and generally accepted good engineering practices, such as required in 29 CFR 1910.119(d)(3)(ii) and (j)(4). As an example, instead of relying on the manufacturer's instructions or 29 CFR 1910 Subpart L for the installation of an automatic sprinkler system, employers could use NFPA 13 Standard for the Installation of Sprinkler Systems, or similar. Alternatively, instead of relying on manufacturer's instructions or 29 CFR 1910 Subpart L for maintenance and testing of the sprinkler system an employer could use NFPA 25 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, or a similar standard. These standards are more widely applicable, updated at least every five years, and were developed using a transparent consensus process. Other standards exist to cover other safeguards, fire protection systems, fire detection systems, and employee alarm systems and could be employed under the new approach described.

The CSB urges OSHA to revise proposed paragraphs 29 CFR 1910.156(i)(1)(iii) and (j)(1)(iv) to rely on recognized and generally accepted good engineering practices, such as standards set by the NFPA, to establish installation, testing, and maintenance requirements for fire detection, suppression, and alarm systems, instead of relying exclusively on manufacturer's instructions and 29 CFR 1910 Subpart L – Fire Protection.

**Conclusion:**

The CSB supports the proposed rule overall as an important and much-needed step toward improving emergency response safety for workers, communities, and the environment. Addressing the four issues detailed above will strengthen the proposed rule, help save lives, and prevent injuries to team members and responders, fulfilling the purpose of the proposed rule, as well as OSHA's mission *to assure safe and healthy working conditions for workers* and the CSB's mission *to protect communities, workers, and the environment*.