



## Occupational Safety and Health Administration

# Hazardous Waste Operations and Emergency Response (HAZWOPER)

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## Background

### What is HAZWOPER?

OSHA issued the [Hazardous Waste Operations and Emergency Response \(HAZWOPER\) standards](#), [29 CFR 1910.120](#) and [29 CFR 1926.65](#) (54 *Federal Register* 9294-9336, March 6, 1989), to protect workers and enable them to handle hazardous substances safely and effectively. 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 [29 CFR 1910.120](#) throughout the remainder of this web page.

The HAZWOPER standard covers employers performing the following general categories of work operations:

- Hazardous waste site cleanup operations [paragraphs (b) – (o)];
- Operations involving hazardous waste that are conducted at treatment, storage, and disposal (TSD) facilities [paragraph (p)]; and
- Emergency response operations involving hazardous substance releases [paragraph (q)].

The HAZWOPER standard provides employers, emergency response workers, and other workers potentially exposed to hazardous substances information and training criteria to improve workplace safety and health and reduce workplace injuries and illnesses that could occur from exposures to hazardous substances. It is critical that employers and their workers understand the scope and application of HAZWOPER, and can determine which sections apply to their specific work operations.

### EPA HAZWOPER versus OSHA HAZWOPER

Federal OSHA does not cover local and state public sector (e.g., local and state government) employees. However, twenty-eight [OSHA-approved State Plans](#) have state occupational safety and health programs that cover local and state public sector employees.

The U.S. Environmental Protection Agency (EPA) promulgated a HAZWOPER standard (40 CFR 311) identical to [29 CFR 1910.120](#). The EPA HAZWOPER standard is intended to protect local and state government employees who perform operations within its scope (e.g., hazardous waste operations and emergency response activities) in states that do **not** have an OSHA-approved State Plan ([Letter of Interpretation 12/18/91](#)). The EPA regulations cover both compensated and uncompensated ([volunteer](#)) state and local government workers engaged in operations falling under HAZWOPER.

### When does HAZWOPER apply?

The term "emergency response" often applies generally to any activity requiring immediate attention. Under HAZWOPER, this term applies specifically to response activities where there is an **uncontrolled release of a hazardous substance**, or where an *uncontrolled release* is likely. There are a multitude of scenarios and incidents that could result in releases of hazardous substances. Some examples include:

- Leaking of a hazardous substance from a storage tank or container,
- An overturned truck or railcar carrying hazardous materials,
- Chemical fires,

- Mechanical breakdown in a chemical process,
- Excavating/trenching buried contaminants or toxins,
- Site preparation uncovering buried hazardous waste, and
- Building earthen berms to contain hazardous waste runoff.

HAZWOPER does not apply to the **accidental or foreseeable release of a hazardous substance that is limited in quantity, and poses no emergency or significant threat to the safety and health of workers in the immediate vicinity**. Such incidents, referred to as "incidental releases" in the definition of "emergency response or responding to emergencies" at 29 CFR 1910.120(a)(3), are limited in quantity, exposure potential, or toxicity, and have no potential of becoming emergencies within a short time frame. See Figure 1 to determine if a release of a hazardous substance is an emergency response (uncontrolled release of a hazardous substance) or incidental release.

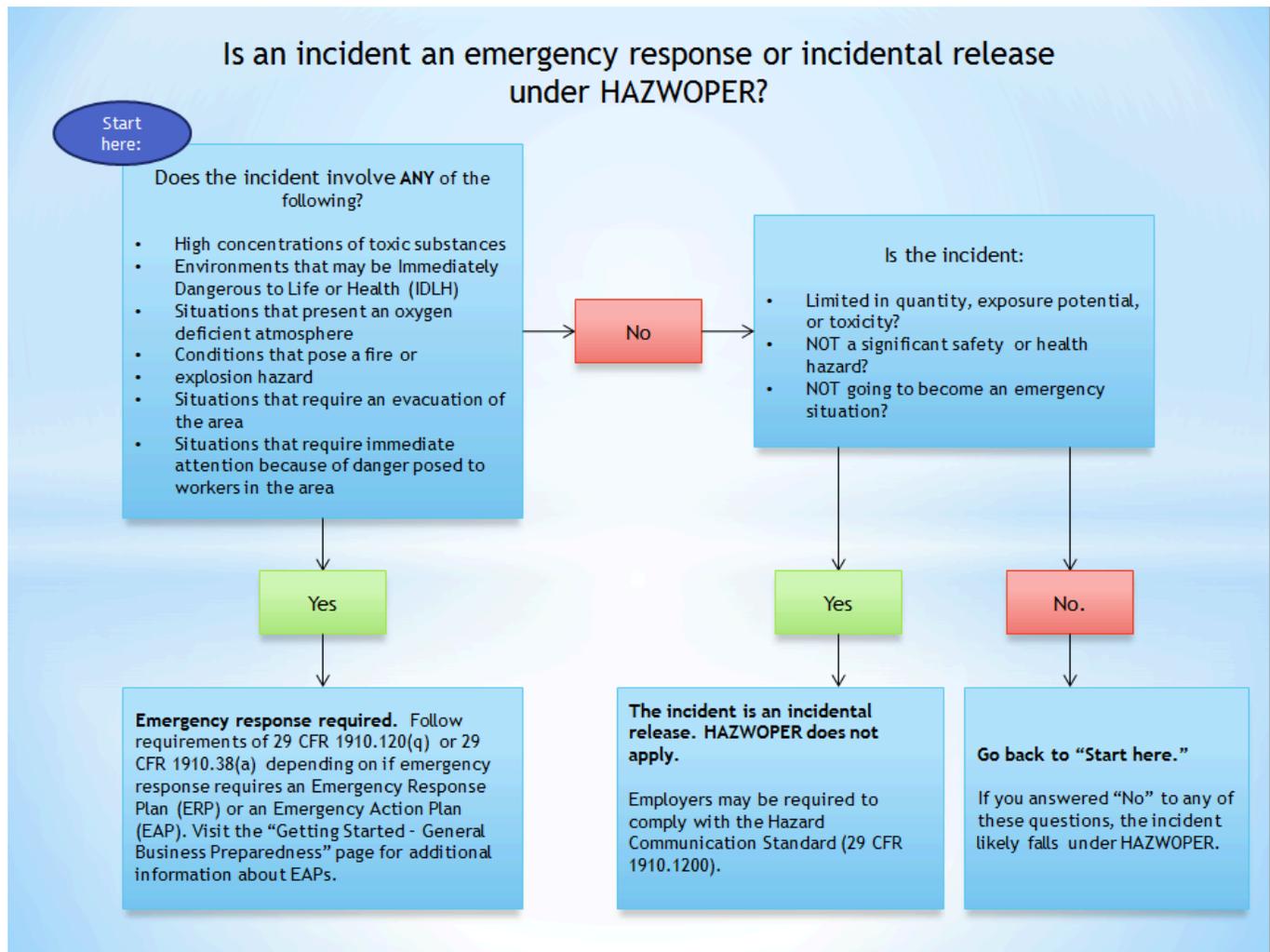


Figure 1. Is an incident an emergency response or incidental release under HAZWOPER?

## Operations covered by HAZWOPER

There are five distinct operations that fall within the scope of the HAZWOPER standard:

- **Cleanup** operations **required by a governmental body**, whether federal, state, local, or other, involving hazardous substances conducted at uncontrolled hazardous waste sites.
- **Corrective actions** involving **cleanup operations at sites covered by the Resource Conservation and Recovery Act (RCRA)**.
- **Operations** involving **hazardous waste conducted at treatment, storage, and disposal (TSD) facilities** regulated under RCRA.
- **Operations that generate hazardous waste but are not TSD facilities.**

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

The first two **cleanup operations** describe environmental remediation activities planned at locations such as Superfund sites, Brownfield sites, abandoned industrial sites, and other similar locations. These are sites recognized by one or more governmental agencies as having the potential for worker exposure to hazardous substances and must comply with [29 CFR 1910.120\(b\)-\(o\)](#).

The third operation covers **TSD facilities**, built and permitted to **receive, treat, store, and dispose of hazardous waste**. TSD employers with a RCRA permit or interim status must comply with [29 CFR 1910.120\(p\)](#). Other areas not covered by permit or interim status, which are inside these facilities and *which could have uncontrolled releases of hazardous substances*, must also comply with [29 CFR 1910.120\(q\)](#).

**Operations that generate hazardous waste but are not TSD facilities** are also covered by HAZWOPER. Manufacturing facilities that have the potential for an emergency to occur due to an uncontrolled release of hazardous substances are covered by [29 CFR 1910.120\(q\)](#). Conditionally-exempt small quantity generators and generators who store hazardous waste less than 90 days are covered by [section 1910.120\(p\)\(8\)](#) of HAZWOPER.

**Emergency response operations** can occur at public and private facilities, research laboratories, universities, chemical facilities, railroads, roads/highways, and any location with the potential for accidental releases of hazardous substances. Work to contain and control such hazardous substance releases on an emergency basis, when the exact nature and extent of the hazards are unknown, is regulated under the HAZWOPER standard. For such operations, employers must comply with [29 CFR 1910.120\(q\)](#).

See Table 1, below, for examples of the type of work activities covered under each work operation.

**Table 1. Scope and Application of HAZWOPER**

Work Operation	HAZWOPER Standard	Examples of Work Activities
<p><b>CLEANUP OPERATIONS</b></p> <ul style="list-style-type: none"> <li>• Cleanup operations required by a governmental body or other operations involving hazardous substances conducted at uncontrolled hazardous waste sites.</li> <li>• Voluntary cleanup operations at sites recognized by federal, state, local, or other governmental bodies as hazardous waste sites.</li> </ul> <p><b>Corrective Actions</b></p> <ul style="list-style-type: none"> <li>• Corrective actions involving cleanup operations at sites covered by RCRA.</li> </ul>	<p><a href="#">29 CFR 1910.120(b)-(o)</a>.</p>	<ul style="list-style-type: none"> <li>• Site characterization of hazardous waste site</li> <li>• Drum removal</li> <li>• Contaminated soil removal</li> <li>• Underground Storage Tank (UST) removal</li> </ul>
<p><b>OPERATIONS at TSD FACILITIES</b></p> <ul style="list-style-type: none"> <li>• Operations involving hazardous waste conducted at TSD facilities regulated by 40 CFR 264 and 265 pursuant to RCRA or by agencies under agreement with EPA to implement RCRA regulations.</li> </ul>	<p><a href="#">29 CFR 1910.120(p)</a>.</p>	<ul style="list-style-type: none"> <li>• Treating waste for disposal at RCRA landfill</li> <li>• Handling waste at RCRA landfill</li> </ul>
<p><b>OPERATIONS that GENERATE HAZARDOUS WASTE but are not TSD FACILITIES</b></p> <ul style="list-style-type: none"> <li>• Businesses generating hazardous waste as a by-product of their production operations, store it for a short time, and then send to a TSD facility.</li> </ul>	<p><a href="#">29 CFR 1910.120(p)(8)</a> and/or <a href="#">(q)</a>.</p>	<ul style="list-style-type: none"> <li>• Response by facility's workers to spill of hazardous substance in production area</li> <li>• Response by facility's workers to leaking hazardous waste in storage area</li> </ul>

Work Operation	HAZWOPER Standard	Examples of Work Activities
<p><b>EMERGENCY RESPONSE OPERATIONS</b></p> <ul style="list-style-type: none"> <li>Emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazards.</li> </ul>	<p><b><u>29 CFR 1910.120(q)</u></b></p>	<ul style="list-style-type: none"> <li>Response to a leaking storage tank</li> <li>Response to an overturned truck carrying hazardous materials</li> <li>Response to a chemical fire</li> <li>Response to ruptured railroad tank car loaded with hazardous substance(s)</li> </ul>

Employers whose workers conduct any of the operations described in Table 1, above, at their workplaces must train their workers to understand and comply with all applicable HAZWOPER policies, practices, and procedures specific to the facility's operations. If HAZWOPER conflicts or overlaps with any other OSHA standard, employers must follow the standard most protective of worker safety and health (e.g., [Hazard Communication, 29 CFR 1910.1200](#) and [1926.59; Bloodborne Pathogens, 29 CFR 1910.1030; Permit-Required Confined Spaces, 29 CFR 1910.146](#), or Confined Spaces in Construction, [29 CFR 1926 Subpart AA](#); and other OSHA expanded health standards under [Subpart Z](#)). In addition to the requirements specific for their work operations, employers must comply with [Section 5\(a\)\(1\)](#) of the Occupational Safety and Health Act, known as the "General Duty clause," which requires employers to provide workplaces that "are free from recognized hazards that [cause] or are likely to cause death or serious physical harm" to their employees. Further, employers must comply with all other applicable OSHA standards, including requirements for the use of personal protective equipment ([29 CFR 1910 Subparts I and J](#)) and general environmental controls (e.g. [29 CFR 1926 Subparts D and E](#)), and relevant recording and reporting provisions ([29 CFR 1904](#)).

OSHA may consider a cleanup operation at a worksite that falls under the scope of the HAZWOPER standard to be a distinct **hazardous waste site cleanup operation**, as shown in Figure 2, or it may be an **emergency response operation** or a **post-emergency response cleanup operation**, as shown in Figure 3. See the [Preparedness](#) tab for the specific employer requirements mandated to protect workers.

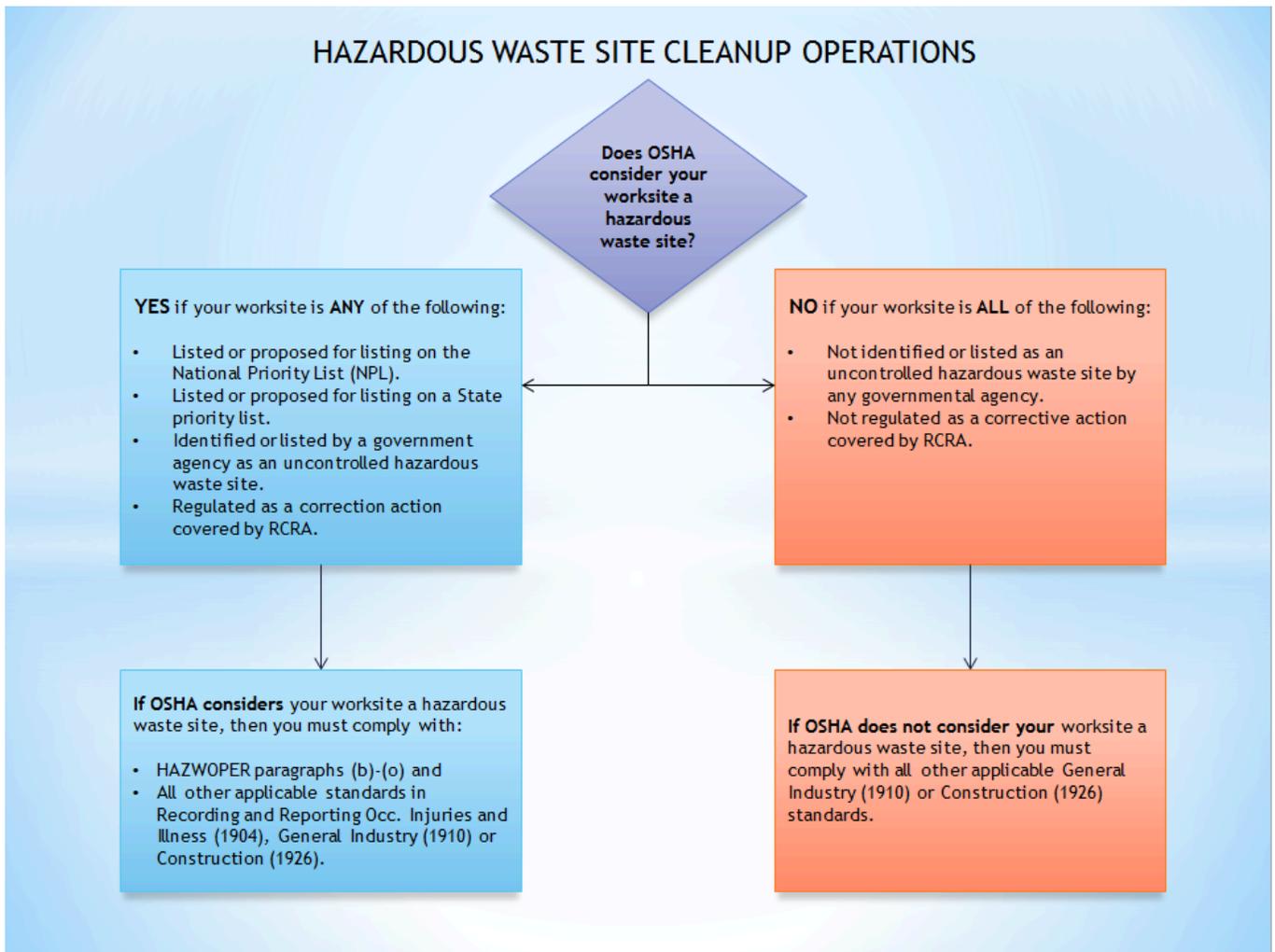


Figure 2. Hazardous Waste Site Cleanup Operations

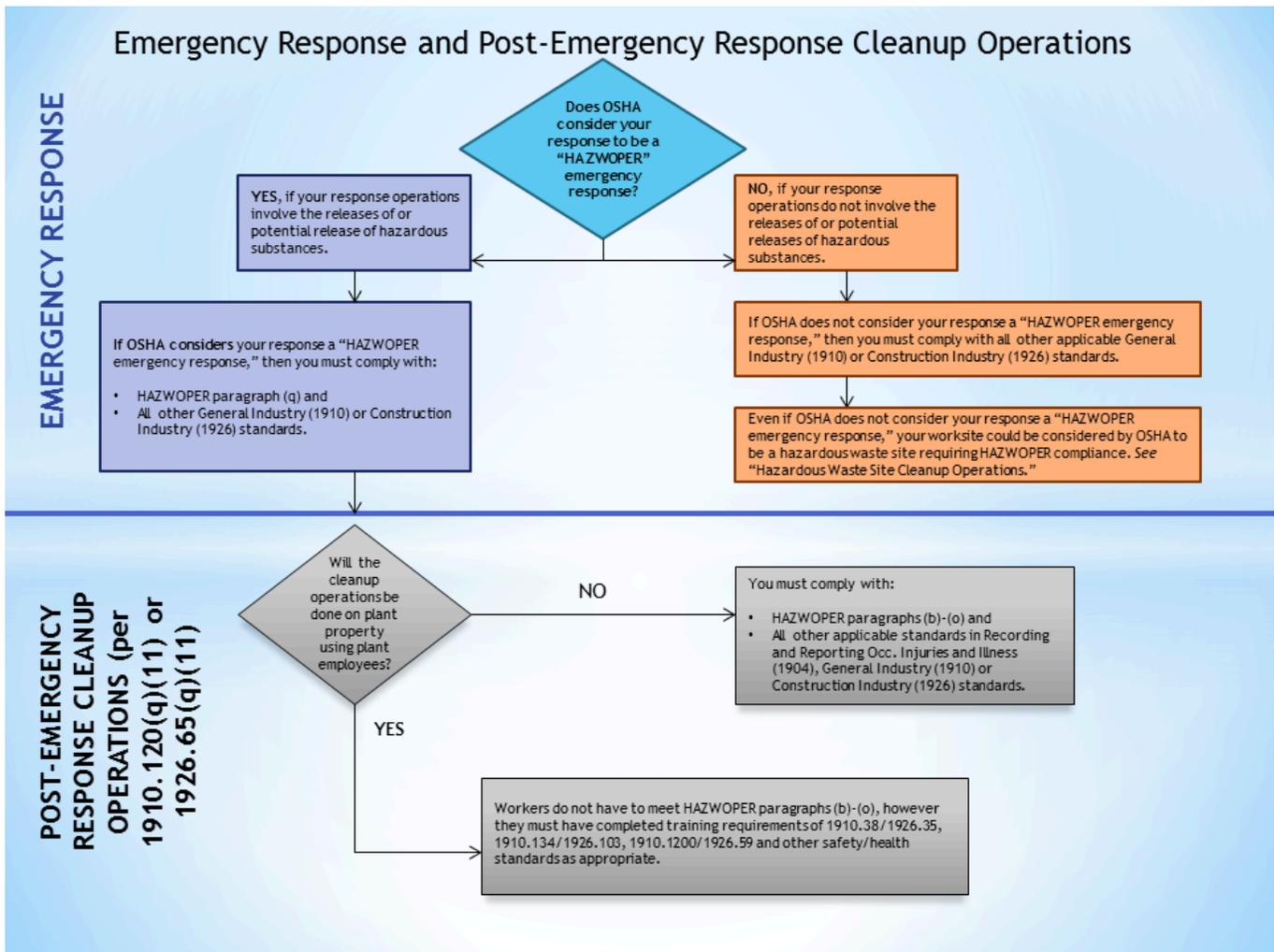


Figure 3. Emergency Response and Post-Emergency Response Cleanup Operations

For more information on determining whether an operation or response falls under HAZWOPER, see OSHA's webpage, [The Application of HAZWOPER to Worksite Response and Cleanup Activities](#).

## Frequently Asked Questions

OSHA maintains a list of [Frequently Asked Questions](#) (FAQs) highlighting HAZWOPER topics. These FAQs do not include all HAZWOPER requirements, and do not relieve employers from complying with all applicable OSHA regulations. All FAQs link to existing OSHA documents. Visit the "[Standard Interpretations](#)" collection for additional information not addressed by the FAQs.

- [Who is covered by OSHA's HAZWOPER Standard?](#)
- [Is computer-based training acceptable for refresher training?](#)
- [For emergency response in an unknown or potentially IDLH atmosphere, what is the minimum number of people required?](#)
- [Can refresher training be given in segments?](#)
- [What if refresher training isn't received in 12 months?](#)
- [What are the training or certification requirements for HAZWOPER trainers?](#)
- [What are the HAZWOPER training requirements for hospital staff?](#)
- [What is the difference between an incidental and an emergency spill?](#)
- [What are the HAZWOPER training requirements for on-site workers who are not directly involved in cleanup activities?](#)
- [What is the applicability of HAZWOPER to small quantity generators?](#)
- [What is the application of HAZWOPER to TSD facilities that store hazardous materials for 90 days or less?](#)

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