

## **HAZWOPER 101**

**Prepared by  
Michael L. Donahue, IAAI-CFI**

The *Occupational Safety and Health Act* [Public Law 91-596, December 29, 1970 as amended by Public Law 101-552, November 5, 1990], sets forth duties and responsibilities for all workers, including fire and explosion investigators and grants the Occupational Safety and Health Administration (OSHA) enforcement authority for violations of provisions of the Act. Generally, the Act requires that all personnel and their employers be reasonably diligent regarding safety and health requirements. For example, *Section 5* of the Act requires employers to protect employees from recognized hazards likely to cause serious harm or death and to comply with all applicable mandatory safety and health standards.

The *Safety and Health Act of 1970* encourages states to develop and operate their own job safety and health programs. OSHA approves and monitors State plans and provides up to 50 percent of an approved plan's operating costs. There are currently 26 States and jurisdictions operating complete State plans (covering both the private sector and State and local government employees) and 4 states - Connecticut, New Jersey, New York and the Virgin Islands - which cover public employees only. *Section 18* of the *Occupational Safety and Health Act*, requires states operating their own OSHA programs to adopt standards and enforce requirements that are at least as stringent as those outlined in the federal requirements. OSHA-plan states must adopt standards comparable to federal OSHA requirements within six (6) months of the promulgation of federal standards.

The *Hazardous Waste Operations and Emergency Response Rule* (HAZWOPER) was published by OSHA on March 6, 1989, and went into effect on March 6, 1990. The EPA regulations were originally published on June 23, 1989, and incorporated the OSHA standards by reference. The EPA regulations were officially issued on March 6, 1990 (*the same effective date as the OSHA standards*), and are codified at 40 CFR Part 311, *Worker Protection Standards for Hazardous Waste Operations and Emergency Response*.

HAZWOPER specifies performance-based requirements for emergency planning, safety and health programs, site safety practices, training, medical surveillance, personal protective clothing and equipment, decontamination procedures and implementation of an incident command system. HAZWOPER also requires that all personnel, including fire and explosion investigators, engaged in response operations or hazardous waste site activities where hazardous substances are present, must be properly trained and certified prior to engaging in such activities. These requirements must be followed for all operations conducted at sites where an uncontrolled release of a hazardous substance has occurred, or is likely to occur, that could pose a potential safety and/or health hazard to personnel working at the scene.

Federal OSHA regulations generally do not apply to state and local governments. When these regulations were originally developed, Congress intended for all workers to be covered, including firefighters, law enforcement personnel and emergency medical services personnel. In states *without* an OSHA-approved plan, Federal OSHA standards protect all private sector and Federal employees engaged in hazardous waste operations and emergency response activities. The EPA's authority extends to state and local government employees conducting hazardous waste operations and emergency response activities in states that *do not* have in effect an OSHA-approved state plan.

The EPA regulations cover both compensated and uncompensated state and local government employees engaged in hazardous waste operations and emergency response activities. Therefore, the EPA regulations protect volunteers, such as volunteer firefighters who respond to hazardous substance emergencies, and the EPA worker protection standards protect *all* state and local government employees, except as noted above) including volunteer workers. In states *with* an OSHA-approved plan, the state programs cover all private sector employees, as well as state and local government employees (except as noted above), and Federal OSHA covers Federal employees.

HAZWOPER establishes minimum guidelines for the protection of personnel and requires that they be protected during preliminary site evaluations and initial site entry to final closure of the site. The applicable training requirements for investigators depend on which of the above listed operations personnel are involved in. The purpose of the HAZWOPER training requirements is to provide employees with the requisite knowledge and skills to participate in an emergency response operation with minimal risk to their own health and safety, as well as the safety and health of other personnel who may be working at the scene. Personnel that respond to incidents may become exposed to hazardous substances, with the risk of exposure varying with each incident. As a result, the amount and type of training required under the standard for investigators engaged in on-scene operations is linked directly to an individual's potential for exposure to hazardous substances and to other health hazards while conducting an investigation.

HAZWOPER does not normally cover incidents involving routine structure fires and burning of houses, wood, etc., since other OSHA standards apply to these activities. Operations which involve a potential for employee exposure to hazardous substances, including hazardous wastes are covered by HAZWOPER. According to OSHA, "*a response to a fire is considered an emergency response to the release of a hazardous substance if the material on fire can be classified as a hazardous substance before it ignited.*"

Therefore, in these situations, the provisions of HAZWOPER would apply and employers would need to provide, among other things, proper emergency response planning, training, and medical surveillance for investigators engaged in incident operations.

Most incidents that investigators respond to do not generally involve hazardous materials or hazardous wastes, however, there are many situations that may pose safety and health hazards, or the potential for exposure to hazardous substances. In these instances, the scenes may qualify as *hazardous materials incidents* or *hazardous waste sites* as defined by Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response* or HAZWOPER).

According to OSHA, a hazardous substance incident is essentially "*any incident without regard to location, where there is a release or potential release of a hazardous substance.*" ***This distinction is important because OSHA regulations with respect to hazardous materials training requirements (i.e., HAZWOPER) do not apply to personnel working at sites where there is no potential safety or health hazard and no risk of exposure to hazardous substances.***

However, based on OSHA's definition, virtually any fire or explosion scene could be considered a potential hazardous materials or hazardous waste site incident within the scope of 29 CFR 1910.120, requiring investigators to take appropriate precautions to safely conduct fire or explosion scene investigations.

According to OSHA, an *emergency response* may include **any** of 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 (*it 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 the employee in the work area can handle the severity of the hazard with the PPE and other equipment that has been provided and the exposure limit could easily be exceeded; or
8. The situation is unclear or data is lacking about important factors.

***HAZWOPER does not apply to those employees involved in operations that do not involve employee exposure or the reasonable possibility of employee exposure to safety or health hazards.*** In determining whether employees are exposed to safety or health hazards, an employer must not only consider the presence of a hazardous substance, but must also evaluate the potential for, as well as the level and duration of, exposure to the hazardous substance(s) that may be present.

For example, personnel who work at the perimeter of a hazardous materials incident or a hazardous waste site, who do not enter contaminated areas where hazardous materials are present and hazardous atmospheres exist, and who are not exposed to safety or health hazards, are not covered.

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. Once the emergency response team has declared the response activity over or finished and has left the site, any remaining cleanup would be considered a *post-emergency operation*.

The HAZWOPER requirements for personnel engaged in *hazardous waste operations and emergency response activities at uncontrolled hazardous waste sites* are specified in 29 CFR 1910.120, paragraphs (a) through (o). The standard defines post-emergency response as...*that portion of an emergency response performed after the immediate threat of a release has been stabilized or eliminated and clean-up of the site has begun*. The requirements of paragraphs (a) through (o) apply to all personnel, including fire and explosion investigators that perform activities at uncontrolled hazardous waste sites, and could potentially be exposed to hazardous substances. These provisions apply to any activities performed during preliminary planning and assessment and site investigations. *In other words, all stages of an operation performed at a site where there is a potential for exposure to hazardous substances must be conducted in accordance with the worker protection standards specified in 29 CFR 1910.120, paragraphs (a) through (o).*

The *emergency response requirements* in 29 CFR 1910.120(q) are specifically designed to protect personnel who respond to a variety of emergencies at different locations with various extenuating circumstances. Examples of emergency response operations that occur without respect to location could include a fire at a gasoline service station, a fire at a warehouse containing fertilizers and pesticides, a fire involving clandestine drug laboratories and a fire or explosion at an industrial facility causing the release of hazardous substances.

The assessment of the potential hazards at the scene of a fire or an explosion is a case-by-case or substance-by-substance evaluation when determining whether a site potentially contains hazardous conditions or substances.

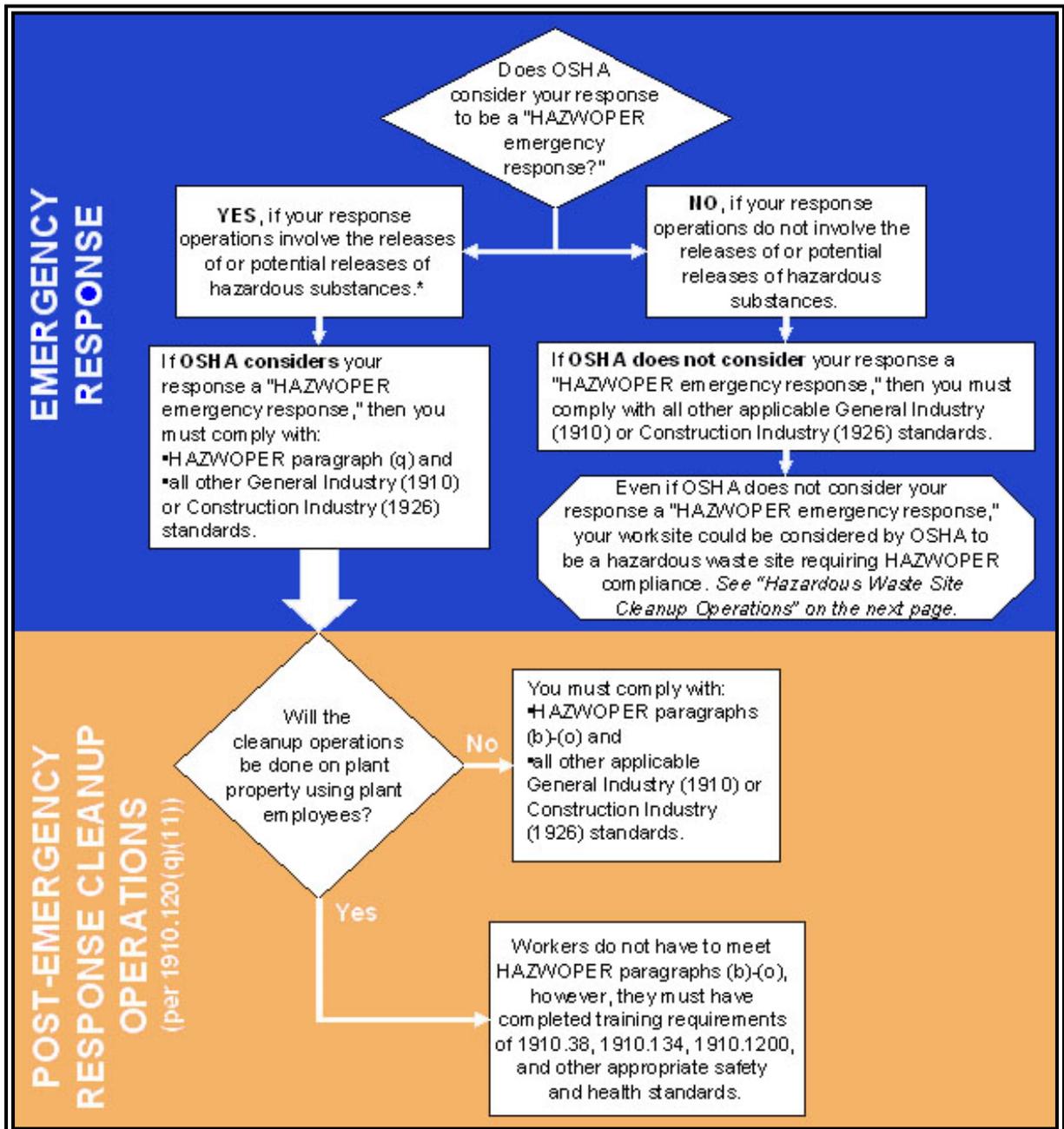
Fire investigators must answer the following key questions to determine whether their activities might fall within the scope of the federal hazardous materials training regulations, and to identify the applicable requirements that will govern their operations:

1. Does the fire or explosion scene present hazards that may pose a potential threat to the safety and health of investigators, including:
  - Does the scene pose conditions that are potentially immediately dangerous to life and health (IDLH)?
  - Does the scene pose a serious threat of fire or explosion?
  - Does the scene have the potential for a release of hazardous substances that may cause high levels of exposure to toxic substances?
2. Have federal, state or government officials declared the incident a hazardous materials incident or a hazardous waste site incident?

3. Is the *emergency* phase of the incident still in progress, or has the individual-in-charge of the site terminated the emergency and *post-emergency response* operations are being performed?

Keep in mind that a fundamental premise of HAZWOPER is that employees must be properly trained and equipped to recognize safety and/or health hazards and understand the appropriate work practices and engineering controls to minimize those hazards and their potential impact. The level of training provided must be consistent with the worker's job function and responsibilities.

A copy of a HAZWOPER flowchart is included on the following pages that provides an overview of the applicability of the HAZWOPER regulations to emergency and post-emergency response situations.



# HAZARDOUS WASTE SITE CLEANUP OPERATIONS

Does OSHA  
consider your worksite a  
hazardous waste  
site?

**YES** if your worksite is **ANY** of the following:

- Listed or proposed for listing on the National Priority List (NPL).
- Listed or proposed for listing on a State priority list.
- Identified or listed by a government agency as an uncontrolled hazardous waste site.
- Regulated as a correction action covered by RCRA.

**NO** if your worksite is **ALL** of the following:

- Not identified or listed as an uncontrolled hazardous waste site by any governmental agency.
- Not regulated as a corrective action covered by RCRA.

If **OSHA considers** your worksite a hazardous waste site, then you must comply with:

- HAZWOPER paragraphs (b)-(0) and
- All other applicable General Industry (1910) or Construction Industry (1926) standards.

If **OSHA does not consider** your worksite a hazardous waste site, then you must comply with all other applicable General Industry (1910) or Construction Industry (1926) standards.