HAZWOPER 8-HOUR REFRESHER COURSE

Welcome to the Hard Hat Training Series. Today, we will be conducting the HAZWOPER 8-hour refresher course. This training will provide you with the information needed to keep you up-to-date on the HAZWOPER training standards. Additionally, it will help you maintain your knowledge and understanding of how to safely manage hazardous materials.

The History Behind HAZWOPER

We have been using hazardous materials for manufacturing, cleaning, and a wide variety of other purposes for a very long time; and for nearly an equally long time, the hazardous waste left over from these processes was dumped or let sitting around wherever people found it convenient.

Starting in the 1940s with the advent of the nuclear bomb and changes in manufacturing, the amount of hazardous waste being produced began to increase drastically. By the early 1970s, industries in the U.S. were already producing around 57 million metric tons of hazardous waste per year, much of which was unregulated.

In 1976, the government decided something had to be done to reduce the amount of hazardous waste being poured haphazardly into the environment. It was at this time that the first hazardous materials monitoring plan was written and passed by Congress.

RCRA

The plan was known as the Recourse Conservation and Recovery Act, or RCRA, for short. As hazardous waste continued to be generated at an ever-increasing rate, the RCRA was passed to help regulate individual industries' management of their hazardous waste from the time it was generated to the time it was disposed of either on or offsite.

RCRA was effective at controlling and monitoring new waste, but it didn't do much to deal with other serious hazardous waste issues, namely what had been generated before 1976.

CERCLA

In 1980, the Comprehensive Environmental Response, Compensation, and Liability Act was passed and became known as CERCLA. This helped to remedy past hazardous waste issues.

In short, CERCLA regulates and enforces the cleanup of hazardous waste sites that were either abandoned or created prior to RCRA. This was vitally important to both human and environmental health, as hundreds of tons of hazardous waste had been improperly disposed of in years past.

SARA

Though RCRA and CERCLA greatly aided in properly managing hazardous wastes, there were other issues that had still not been fully addressed. In 1986, SARA, or the Superfund Amendment and Reauthorization Act, was passed. SARA amended CERCLA and made it far more inclusive.

SARA stressed the importance of permanent remedies, increased state involvement, and augmented the size of the trust fund to $8.5 billion. SARA also introduced regulations meant to protect hazardous materials workers.

HAZWOPER

Though SARA provided some guidelines for protecting hazardous materials workers, it wasn't until HAZWOPER (Hazardous Waste Operations and Emergency Response) became law in 1990 that we had specific standards in place focused almost entirely on the safety of the worker.

The creation of HAZWOPER involved a joint effort between OSHA, the U.S. Coastguard, EPA, and NIOSH. These organizations worked together to standardize the requirements for dealing with hazardous waste cleanup and emergency response situations. This created continuity between the administrations, making it easier to address hazardous situations, reducing response times, and making cleanup efforts more efficient and safer for those involved.

HAZWOPER's major purpose is to protect workers by providing safety standards and training requirements. This means that it is meant to aid you, as the worker, and help protect your safety and health. It can be easy to look at regulations and view them only as annoying and restrictive, but realistically, HAZWOPER standards can and do save lives and protect our environment.

STANDARDS

29 CFR 1910.120 – HAZWOPER standards general industry

29 CFR 1926.65 – HAZWOPER standards for construction (identical to 1910.120)

1910.120(e)(3)(i) – 40 hour training, general

1910.120(e)(4) - 40 Hour training for managers and supervisors

1910.120(e)(3)-(4) – 24 Hour training, general

1910.120(p)(7)(i) – Training for new employees

1910.120(e)(8) – Refresher training

The codes above address the training requirements for hazardous materials workers outlined in the HAZWOPER standards. The training you are taking today will address the HAZWOPER standards in their entirety and meet the requirements outlined in CFR 29 1910.120 and 1926.65.

HAZWOPER Training

HAZWOPER is more than just a set of regulations; it is a training requirement. All workers who fall under the HAZWOPER standards are required to receive certain levels of training. This training comes in the form of a 40-hour course, a 24-hour course, and an 8-hour refresher course, which is what you are taking now.

The HAZWOPER 40-Hour course is designed mainly for managers, those who will be working with hazardous materials on a regular basis, or individuals who are expected to be exposed to hazardous substances that exceed the limits outlined in OSHA 29 CFR 1910.1000, known as the Z Table. This course also requires three days of supervised, hands-on field experience on top of the 40-hour classroom portion.

The 24-hour course is intended more for the individuals who will only occasionally come in contact with hazardous substances. It is also for those who will be working at contaminated sites, but whose work tasks do not expose them to hazardous substances at or above the permissible exposure limits in the Z Table. This course also requires at least one full day of supervised field experience.

The 8-hour refresher course must be taken annually by those who have completed a HAZWOPER-24 or -40 course. This training will cover much of the same material, but in a condensed form, with little to no hands-on training required.

As mentioned, a refresher course must be taken every year. So, what happens if you do not complete the refresher course within 12 months of your previous training? Do you lose your certification and have to redo the 24- or 40-hour course?

If your employer deems your knowledge to be sufficient and there is a legitimate reason you were late on your refresher, you will likely be okay, as long as you keep a record stating why you missed the deadline. However, you may be required to retake the 24- or 40-hour course if you have gone far beyond the refresher date or if you are not able to meet the criteria mentioned.

OSHA Says:

"If the date for refresher training has lapsed, the need to repeat initial training must be determined based on the employee's familiarity with safety and health procedures used onsite. The employee should take the next available refresher training course. There should be a record in the employee's file indicating why the training has been delayed and when the training will be completed."

Additional Training

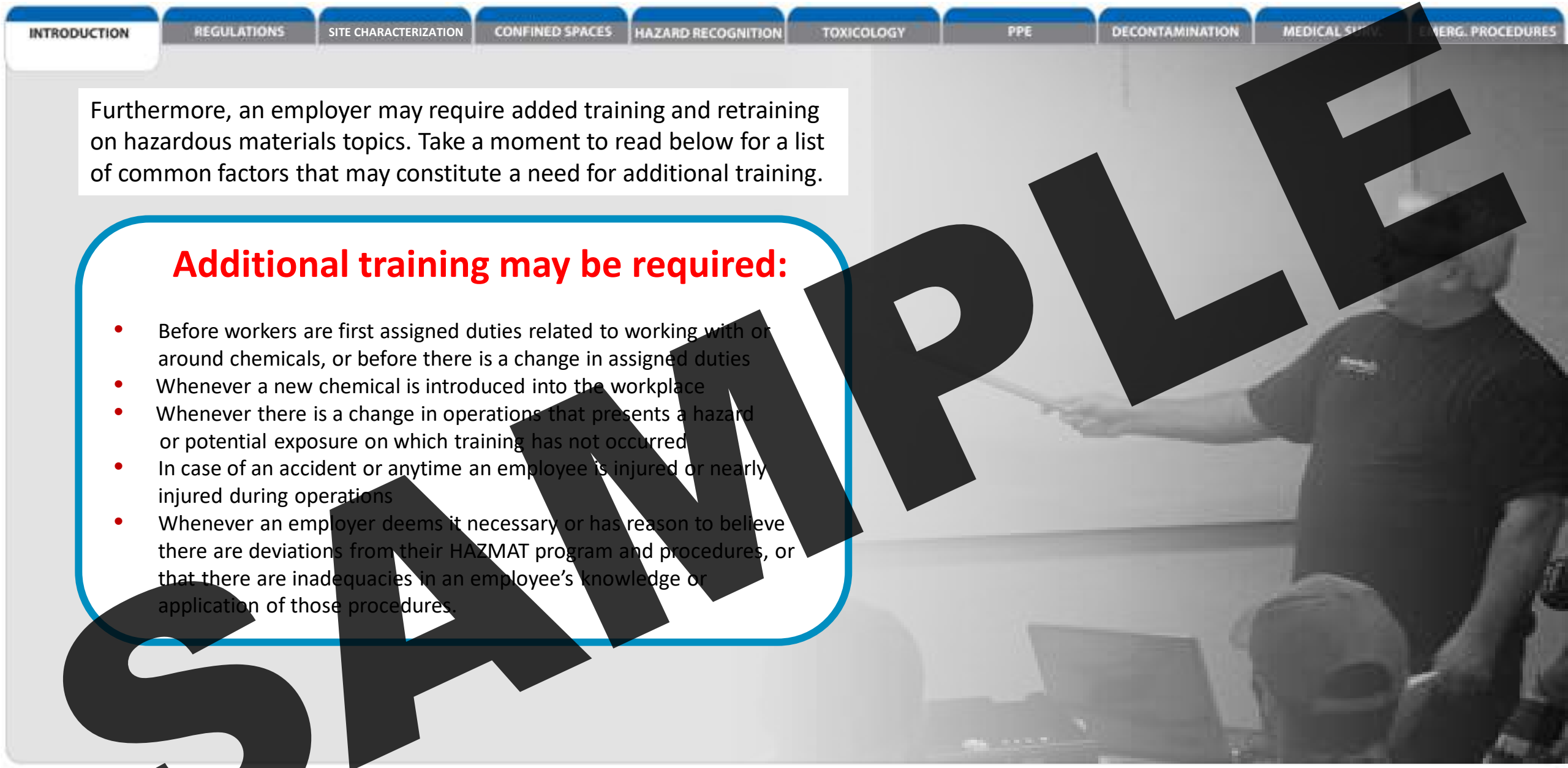
Though HAZWOPER is extensive and must be readdressed on a yearly basis, it is not the be-all end-all for hazardous materials training. There will likely be additional training you will need in order to be fully compliant.

It is required by law that all individuals who work with chemicals or other hazardous materials receive training on safety plans, hazard communication, and hazardous materials specific to their site and position.

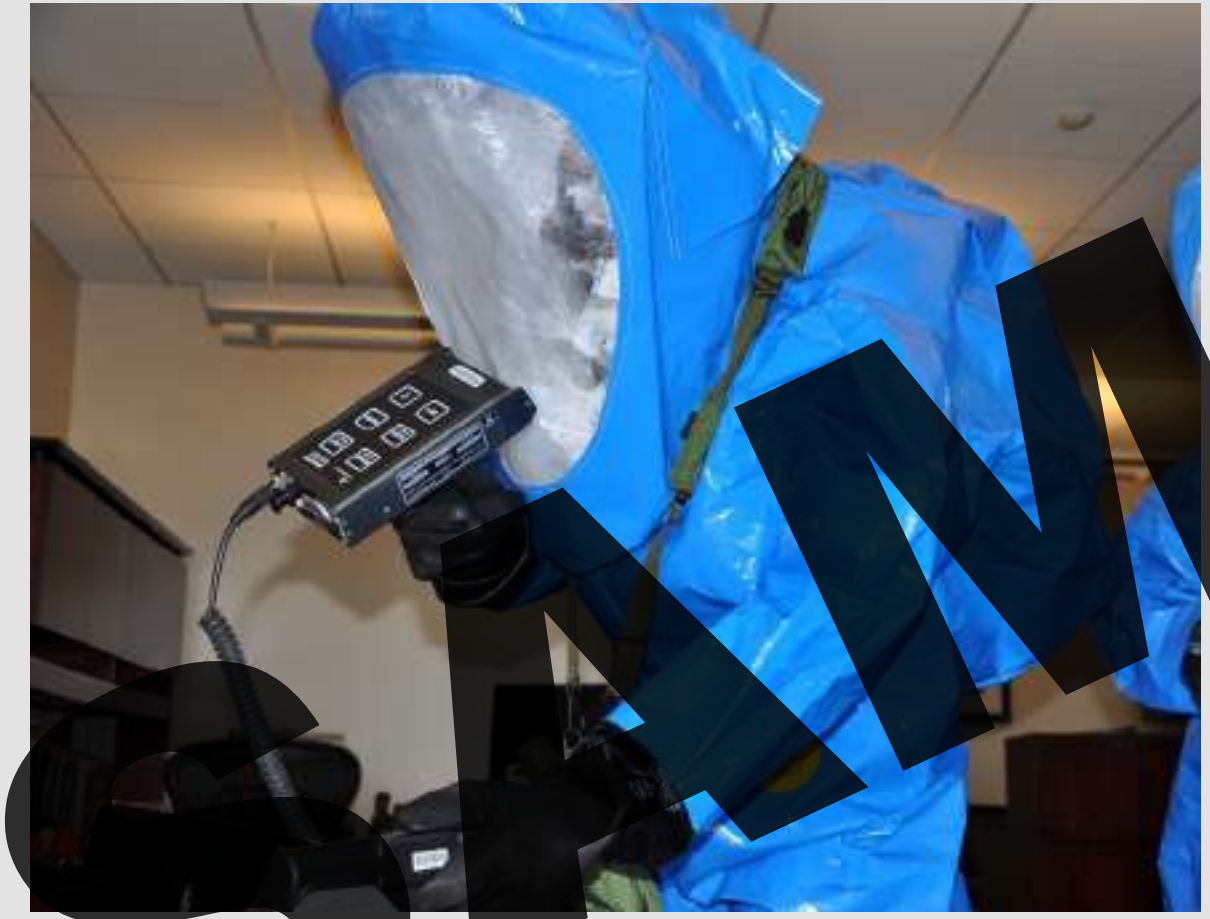
Furthermore, an employer may require added training and retraining on hazardous materials topics. Take a moment to read below for a list of common factors that may constitute a need for additional training.

Additional training may be required:

- Before workers are first assigned duties related to working with or around chemicals, or before there is a change in assigned duties
- Whenever a new chemical is introduced into the workplace
- Whenever there is a change in operations that presents a hazard or potential exposure on which training has not occurred
- In case of an accident or anytime an employee is injured or nearly injured during operations
- Whenever an employer deems it necessary or has reason to believe there are deviations from their HAZMAT program and procedures, or that there are inadequacies in an employee's knowledge or application of those procedures.



The extent of any additional training beyond HAZWOPER requirements is to be determined by the employer. At the very least, it should include classroom instruction followed by a written and practical examination that proves continued competency.



Who is HAZWOPER for?

At its most basic, HAZWOPER is intended for those whose jobs will expose or potentially expose the worker to hazardous substances or health hazards. This includes, but is not limited to:

- High concentrations of toxic substances
- Immediately Dangerous to Life and Health (IDLH) environments
- Situations that present an oxygen-deficient atmosphere
- Conditions that pose a fire or explosion hazard
- Situations with high potential for an evacuation of the area
- Situations that require immediate attention because of the danger posed to employees in the area

Did you know?

The first semblance of a HAZ suit was developed in the mid-1300s during the outbreak of the bubonic plague in Europe. The suits were intended to protect doctors from the plague-stricken patients they were trying to treat.

Though it never hurts to train above and beyond the minimum, not everyone is required to take HAZWOPER, even if you work with or around chemicals or other hazardous materials. The following slides will present a few common instances where HAZWOPER is not required.

Incidental Release

You do not need HAZWOPER if you will only be dealing with incidental releases that are limited in quantity and pose no safety or health threat to employees working in the immediate vicinity of the spill. This is only if the incidental release does not have the potential to become an emergency within a short time.

An **incidental release** of hazardous substances can be absorbed, neutralized, or otherwise controlled by employees onsite or by maintenance personnel.

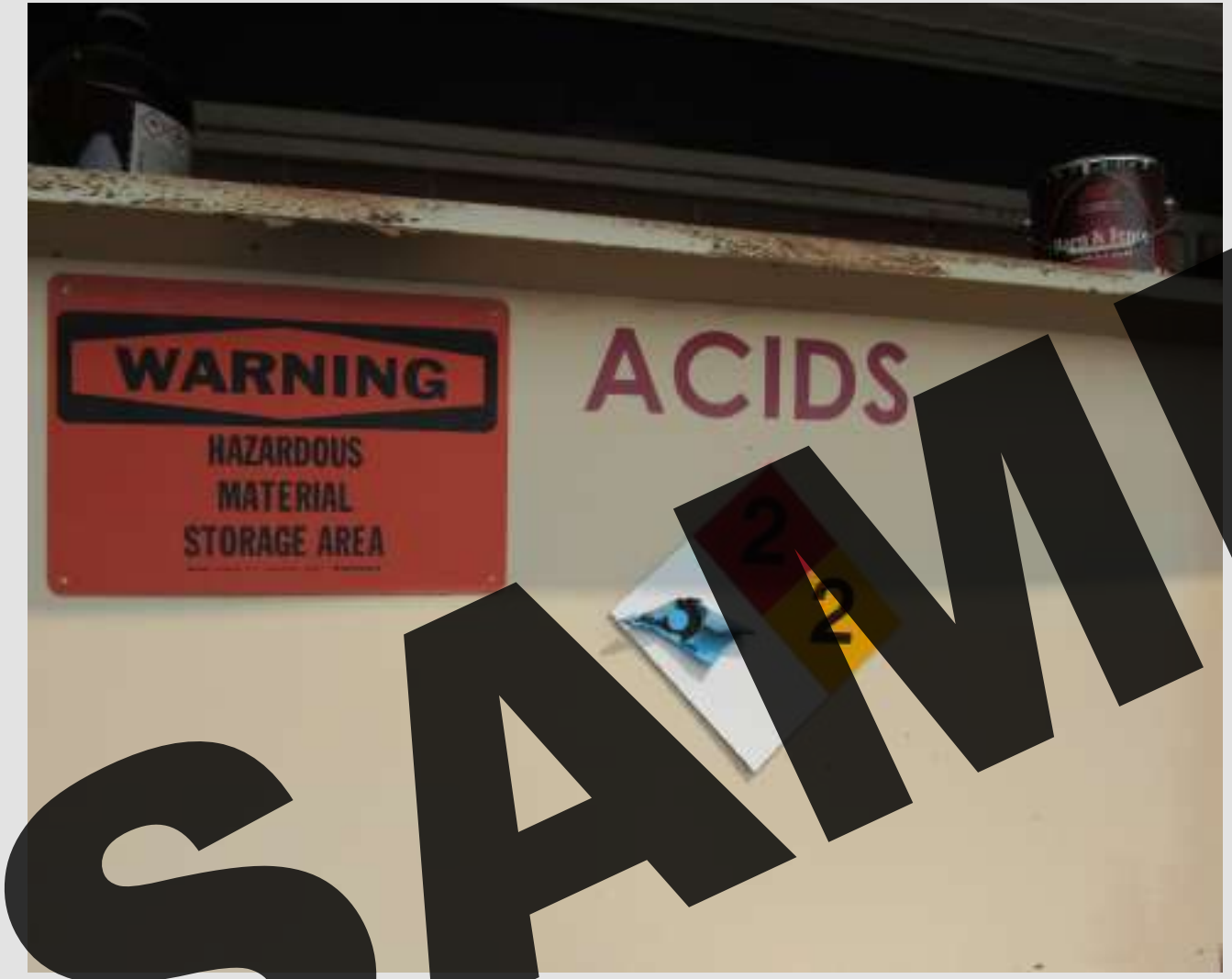
Medical Personnel

A lot of confusion surrounds the medical field as it pertains to HAZWOPER. Medical personnel are required to have some form of training in HAZMAT, though HAZWOPER is not required for all staff. Those responsible for dealing with large quantities of hazardous materials or emergency response procedures must receive HAZWOPER trainings.

LQGs

You may also be exempt from HAZWOPER training if you work for a large quantity generator (LQG) that has a spill response plan which mandates that all employees evacuate the premises in case of an accidental spill or emergency. This only applies if the fire department or a spill response company will deal with the spill's containment and remediation.

If you change jobs or positions and are unsure if HAZWOPER training is necessary at your new station, you should consult your site safety professional. You can also easily contact OSHA to get answers, or can consult the HAZWOPER standards for more information. Remember, it is always better to err on the side of caution when it comes to deciding whether HAZWOPER training will be necessary.



Training Outline

Now that we have some background on where HAZWOPER came from, what it does, and who it is for, let's briefly address the topics we will be covering throughout the rest of today's presentation.

Regulations & Overview

We will begin by discussing regulations and go through a brief overview of the history of OSHA and NIOSH and the industries they oversee. We will discuss employer responsibilities, worker rights and responsibilities, and some HAZWOPER standards and what they cover.

Site Characterization

In this section, we will discuss what site characterization is and why it is important. We will address preplanning for site-specific hazards and how you can recognize and mitigate these hazards before they become a problem.

Confined Spaces

In the section on confined spaces, we will address what a confined space is and how to test for hazardous atmospheres within one. We will also talk about safe operations within a confined space, including rescue procedures.

Hazard Recognition

Next, we will discuss the various hazards that the worker needs to look out for: chemical, physical, biological, and environmental. We will also touch on Safety Data Sheets (SDSs), labeling, and general hazard communication.

Toxicology

In this section, we will learn about toxicants by route of exposure, effects on the body, type of toxicity, OSHA exposure standards, and methods of protection. Signs and symptoms of some toxicants will also be discussed to help hasten identification and first aid of those who have been exposed.

Personal Protective Equipment

We will discuss PPE programs, the types of PPE available, the different levels of protection, and what those levels include. We will discuss how to inspect, store, and maintain your PPE, as well as how to fit test it. Lastly, we will go over various hazards related to PPE, including permeation, degradation, and health-related issues.

Decontamination

This section will cover the process of removing or neutralizing hazardous materials that accumulate on workers and equipment. We will discuss proper decontamination, evaluation, standard operating procedures, and how to implement them into safe work practices.

Medical Surveillance

This section will cover assessing individuals for adverse health effects and determining the effectiveness of exposure prevention strategies. We will also discuss site-specific medical programs, pre-employment screening, medical treatment, recordkeeping, and frequency of medical checkups.

Emergency Procedures

Lastly, we will discuss pre-planning for an emergency, including creating an emergency response plan, designating response personnel roles, and mapping the worksite. We will also briefly cover procedures that minimize harm to people, property, and the surrounding environment. These include evacuation, emergency decontamination, emergency first aid, emergency medical treatment, spill response, and fire suppression.

Hazard Definitions

Before we go on, let's address some of the definitions for "hazards" that will be used at times throughout today's training. Hazardous waste, hazardous substances, hazardous chemicals, and hazardous materials may sound similar, but they are defined somewhat differently. Understanding these differences now will help you to better understand all sections of this presentation.

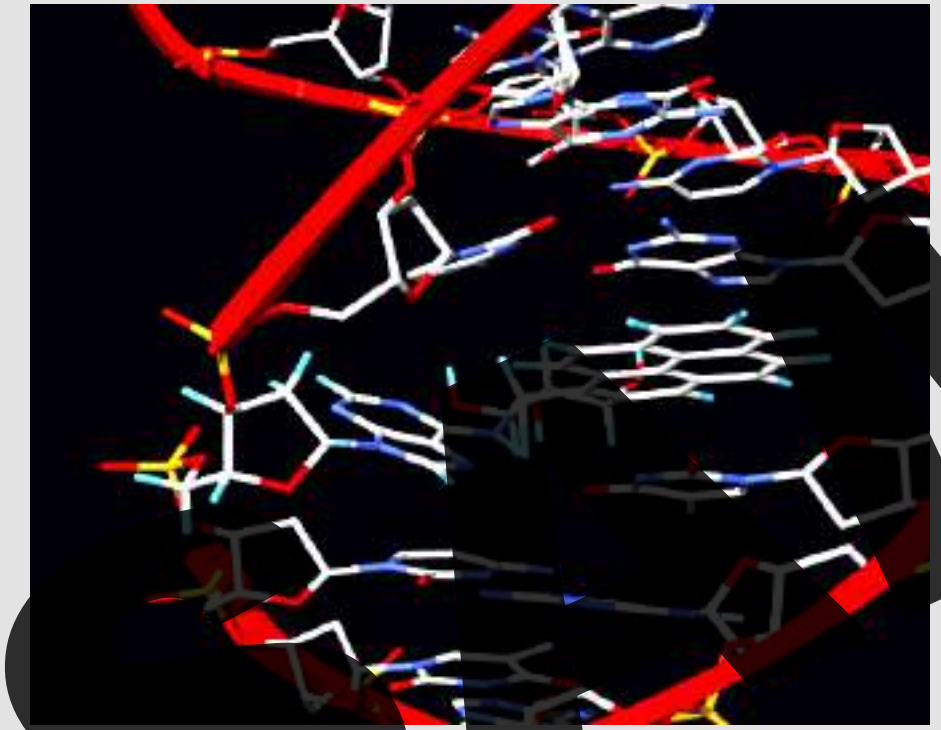
Hazardous wastes are defined as substances that have no commercial value, are ignitable, corrosive, reactive, or toxic, and are capable of causing substantial threats to human health and the environment.

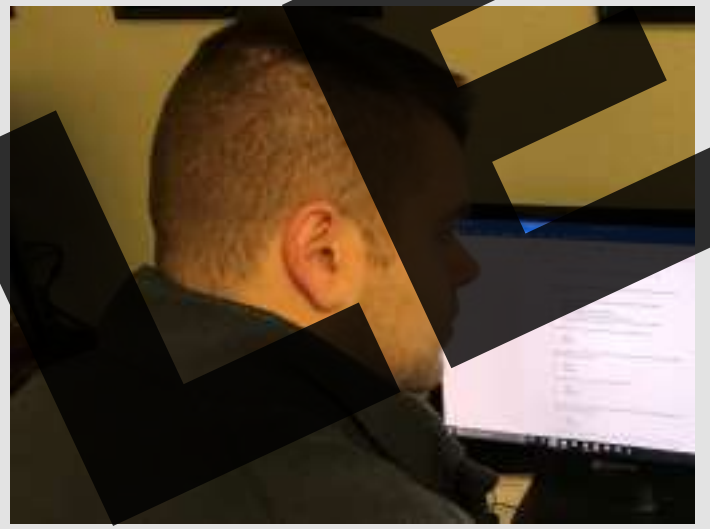
Hazardous substances are those determined by the Environmental Protection Agency (EPA) to present a danger to the environment.

Hazardous chemicals are those that are dangerous to people in the workplace or the community if released, as determined by OSHA.

Hazardous materials are those which can present a danger during shipment by truck, rail, air, or water, as determined by the Secretary of Transportation.

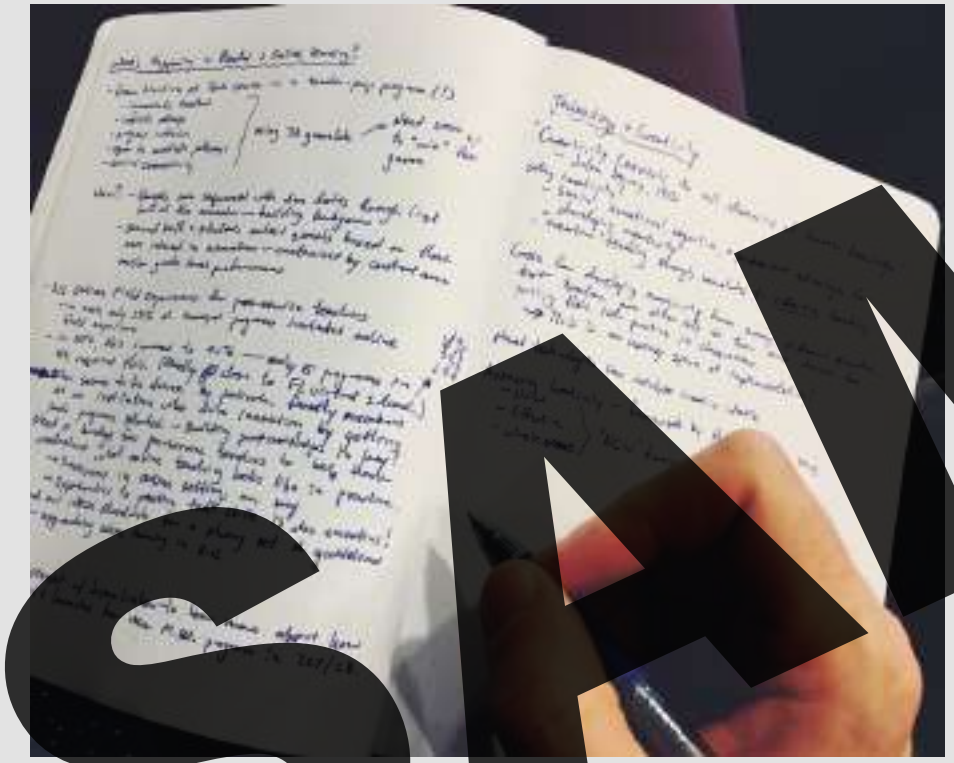
Other more specific definitions will be addressed in their corresponding sections throughout this presentation. For instance, the term **mutagen**, which is a toxicological term, will be defined in the section on toxicology.





Going Forward

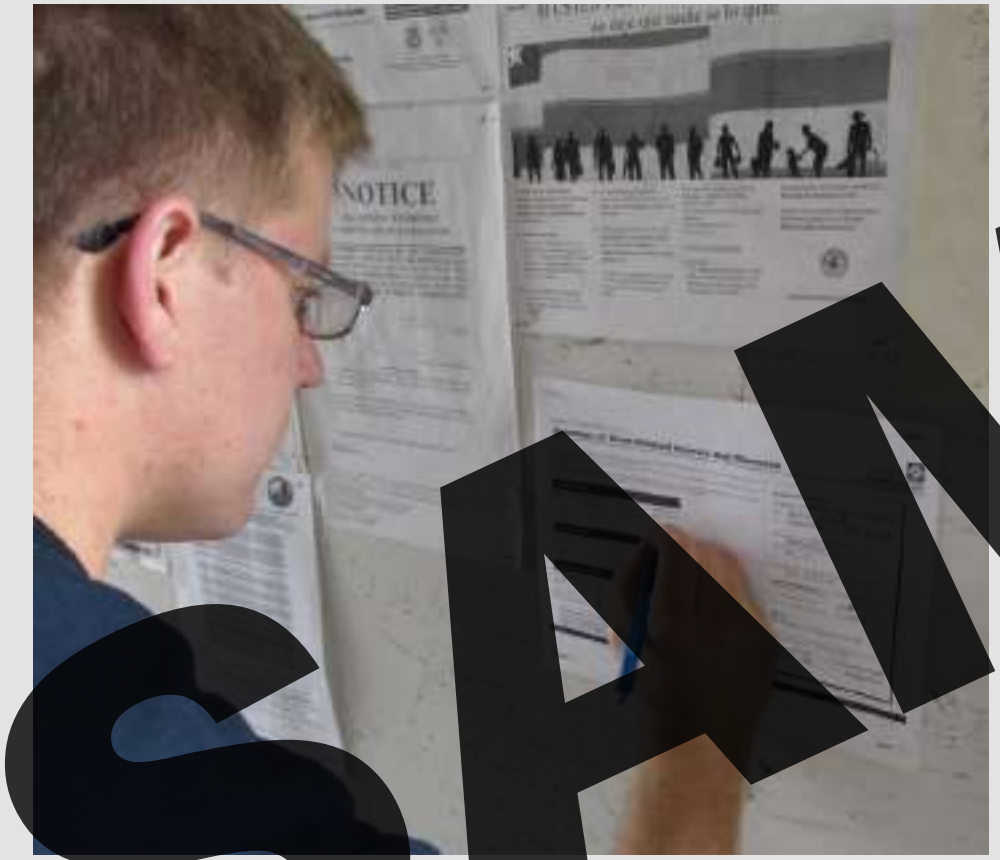
As we go explore the rest of today's training, remember that HAZWOPER is meant to protect you, the worker. The more effort you put into understanding HAZWOPER principals, the safer you will be when on a worksite. Please feel free to take notes, and take the time needed to fully understand the materials we will discuss. Good luck, and stay safe!



Regulations & Overview

In this section of the training, we will go over the importance of government regulations and entities, such as The Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH). We will discuss why they exist, which industries they regulate, and the standards they put in place.

We will discuss what rights workers have under the OSH Act, as well as their responsibilities. We will also cover employer duties for keeping workers safe.



OSHA & NIOSH