

A. Lesson Goal:

By the end of the training sessions, workers will:

- Know the different types and purposes of fire extinguishers
- Know how to use a fire extinguisher for small fires.

B. OSHA Regulation: 29 CFR 1910.157

C. Have Handy

- Class A, B, C, and D fire extinguishers
- Map showing locations of fire extinguishers
- If available, qualified fire-fighting personnel and materials for a practical demonstration.

D. Background for Instructor:

1. Introduction: Knowing How to Respond to a Fire

As a general rule, fighting fires is best left to professionals who have been extensively trained in fire fighting. A large fire raging out of control is no place for amateurs. If a major fire ever happens, the best thing for most employees to do is to make sure that emergency response personnel are notified and to evacuate the area.

But sometimes, we have no choice but to do the best we can with the equipment we have on hand. This is especially true of very small fires that can be put out using an appropriate fire extinguisher.

Note the word “appropriate,” because it’s very important: Not all fire extinguishers are designed to do the same job, and using the wrong type of fire extinguisher can make a bad situation worse. That’s why it’s important for every employee to know which types of fire extinguishers to use in different situations, as well as how to use them properly.

Generally speaking, OSHA requires companies to:

- Have the right types of fire extinguishers in the workplace
- Make sure they’re in proper working order through monthly inspections and annual maintenance
- Make sure employees know where they are and how to use them.

2. Types and Uses of Fire Extinguishers

There are five main types, or classes, of fire extinguishers:

- Class A—These are for ordinary combustibles like wood chips, paper, clothing, and trash that *don’t* contain flammable substances like gasoline, solvents, or some other chemicals. Class A extinguishers use water or water-based liquid, foam, or dry chemicals. Using a Class A extinguisher on fires involving flammable liquids or electricity can be anything from not very effective to positively dangerous, so be sure to use Class A extinguishers only on Class A type fires.

Class A extinguishers have numbers like 1-A, 2-A and so on. The numbers indicate how large a fire the extinguisher can handle. A 2-A extinguisher handles twice as large a fire as a 1-A, and a 3-A handles a fire three times the size of a 1-A.

- Class B—These are for fires involving flammable liquids like gasoline, oil, solvents, paint, and grease. They contain carbon dioxide, foam, or dry chemicals.

They work by cutting off the supply of oxygen and smothering the fire.

Class B extinguishers also have numbers to show how large a fire they can handle, but the numbering system is slightly different from that of Class A. In the Class B system, a 5-B can handle a five-square-foot fire, a 10-B can handle a 10-square foot fire, and so on.

- Class C—These are for fires involving or surrounding electrical equipment, and they work with carbon dioxide or dry chemicals to smother the fire. These extinguishers do not have a numbering system.
- Class D—These are special purpose extinguishers for combustible metals such as sodium, magnesium, zinc, and powdered aluminum. They are required to be available in operations that generate these types of metal powders, flakes, or shavings.
- Combination Classes—Such as “ABC” or “BC.” These extinguishers are designed to fight combinations of the first three types of fires discussed.

3. Using a Fire Extinguisher

Actually using a fire extinguisher is fairly simple:

- Pull the pin
- Stand about eight feet from the fire
- Aim at the base of the fire
- Squeeze the trigger.

But, there are some very important safety procedures to keep in mind when using a fire extinguisher:

- Know where fire extinguishers are located
- Make sure you’re using the right class and capacity of extinguisher for the fire you’re fighting
- Be sure of your aim, since most extinguishers only last for a few seconds
- In the case of typical Class A fires, such as wastebasket fires, be careful not to blow burning objects around
- Never use water to fight an electrical or flammable liquid fire. Water conducts electricity, and will act to spread the fire rather than put it out.

4. Conclusion

As an important reminder, remember that a training session in the proper use of fire extinguishers is not the same as being professionally trained as a firefighter. Fires are dangerous, and should be fought only by people who are positive that they know what they’re doing. If there’s a chance they might make a bad situation worse, employees are better off notifying and then getting out of the way of qualified emergency response personnel.

E. Examples and Practical Exercises

- Show different types of fire extinguishers
- Show the major parts of the fire extinguisher: pin, hose, trigger, label
- Operate a fire extinguisher (without a fire). **Note:** Demonstrating how to put out an actual fire is generally *not* recommended because of the potential hazard involved. However, such a demonstration might be very effective under controlled conditions and under the supervision of qualified fire-fighting personnel.