

Fire Extinguishers and Safety: What You Need to Know

For businesses, the risk of a fire is a considerable one that can have serious ramifications. According to the U.S. Fire Administration (USFA), there were more than 85,000 non-residential fires in 2011 totaling \$2.4 billion in U.S. property damage. That's an average of over \$28,000 in property damage per fire—and that doesn't even include indirect losses, like business interruption. Many businesses that suffer a major fire either do not reopen or fail within three years of the fire.

While it is important to have proper fire insurance coverage, prevention and preparation are keys to minimizing your risk. Fire extinguishers play an important role in your preparation efforts, and in the event of a fire, they could mean the difference between minor damage and a complete disaster. Follow the standards below to ensure that you are prepared to protect your business and employees through the proper use of fire extinguishers.

Types of Fires

There are five different classifications of fires. Some fire extinguishers should be used specifically for only one type of fire, while others are effective for multiple types. However, some extinguishers are quite dangerous when used on the wrong type of fire. Fire extinguishers should have labels specifying which type(s) of fire they are meant to combat.

- Class A: Ordinary combustibles, such as trash, wood, paper and cloth
- Class B: Flammable liquids, such as gasoline, petroleum oil and paint. Also includes flammable gases, such as propane and butane, but does not include fires from cooking oil and grease.
- Class C: Fires from energized electrical equipment, such as motors, transformers and appliances.
- Class D: Combustible metals, such as potassium, sodium, aluminum and magnesium.
- Class K: Cooking oils and greases.

Fire extinguishers are an essential safety tool in your workplace. Follow compliance standards to ensure your company and employees are protected in the event of a fire.

OSHA Requirements

OSHA has standards regarding portable fire extinguishers that employers provide for employees. Following these standards is not only important from a compliance standpoint, but also to help keep your employees and company safe and minimize the risk involved with a fire.

General Requirements

Employers must provide approved portable fire

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extinguishers where employees may easily locate, identify and access when necessary. The extinguishers should be fully charged and operable at all times and kept in their designated spot when not in use.

Selection and Distribution

Fire extinguishers should be selected based on the class of anticipated or possible workplace fires. Your workplace may be vulnerable to multiple types of fires, in which case you would need the appropriate extinguisher for each type. Fire extinguishers should be placed within a specified distance from any person potentially needing access to them, based on class:

- Class A: 75 feet
- Class B: 50 feet
- Class C: 50-75 feet
- Class D: 75 feet

Inspection, Maintenance and Testing

The employer must conduct, or have an expert conduct, an annual inspection for each fire extinguisher. Note that stored-pressure extinguishers do not require an internal inspection. OSHA requires that the date of the check must be recorded and retained for a year.

Stored pressure, dry-chemical extinguishers that require a 12-year hydrostatic test should undergo applicable maintenance every six years.

Hydrostatic Testing

Portable extinguishers should undergo hydrostatic testing according to the appropriate interval depending on the type of extinguisher—see OSHA 1910.157(f). Also, employers should follow all other maintenance requirements under that section.

Training and Education

The employer also must provide education for employees to familiarize them with the general principles

of fire extinguisher use. Training should include:

- Which classes of extinguishers are found in the workplace and the type of fire for which each should be used
- Where they are each located
- How to properly use each extinguisher

This training should occur upon initial employment and at least annually thereafter. For a full list of OSHA regulations regarding fire extinguishers, visit www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9811.

National Fire Prevention Association

The NFPA is a nonprofit organization that strives to prevent fires and minimize their effects. It publishes a set of codes and standards regarding fire, electrical and building safety. Though these codes are not legally binding themselves, many local, state and federal lawmakers have adopted certain NFPA codes in their own law. The codes are useful to know and follow for the protection of your business and employees.

Many, though not all, of the codes overlap with OSHA guidelines. Here is a summary of some of the prominent codes:

- Like OSHA regulations, NFPA codes specify that fire extinguishers must be placed within 75 feet of any person needing access to them. The code clarifies that a flight of stairs cannot be included in the 75 feet. In other words, there must be an extinguisher on every floor.
- While OSHA states only that extinguishers be mounted so they are readily accessible, NFPA gives more specific instructions. If the unit weighs less than 40 pounds, the top of the unit should not be more than 5 feet above the floor when mounted; when weighing more than 40 pounds, the top of the unit should not be more than 3.5 feet above the

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floor.

- NFPA codes require annual maintenance of fire extinguishers by a trained professional, even for those extinguishers that require only external maintenance.
- NFPA also requires records of all maintenance work to be either displayed on a tag on the extinguisher, kept in a file or maintained electronically.

For a full list of NFPA codes and standards, you must be a NFPA member. Visit www.nfpa.org for more details.