

Do You Know the 4 Workplace Fire Extinguishers Options?

Workplace fires and explosions kill hundreds and injure thousands of workers each year. One way to limit the amount of damage from such fires is to make portable fire extinguishers an important part of your fire prevention program. But does your workplace comply with OSHA's fire extinguisher rules?

OSHA says employers must choose one of four options regarding workplace fire extinguishers:

Option 1: Total evacuation of employees from the workplace. All employees must evacuate immediately when the fire alarm sounds. No one is authorized to use portable fire extinguishers. This option requires employers to establish an emergency action plan and a fire prevention plan, and to train employees accordingly. The employer does need to provide portable fire extinguishers if extinguishers are not required in the workplace by any of the standards contained in 29 CFR 1910.

Option 2: Designated employees are authorized to use portable fire extinguishers. All other employees must evacuate the workplace immediately when the alarm sounds. This option requires employers to establish an emergency action plan and train employees accordingly. Employers must meet all general fire extinguisher requirements plus annually train designated employees to use fire extinguishers. Fire extinguishers in the workplace must be inspected, tested, and maintained.

Option 3: All employees are authorized to use portable fire extinguishers. If any employees will be evacuating, employers must establish an emergency action plan and train employees accordingly.

Employers must meet all general fire extinguisher requirements plus annually train all employees to use fire extinguishers. Fire extinguishers in the workplace must be inspected, tested, and maintained.

Option 4: Extinguishers are provided but not intended for employee use. This option requires employers to establish an emergency action plan and fire prevention plan, and to train employees accordingly.

The fire extinguishers in the workplace must be inspected, tested, and maintained. Employees should be instructed that the extinguishers not intended for employee use.

The Two Roles of Fire Extinguishers

Portable fire extinguishers have two functions: to control or extinguish small or incipient stage fires and to protect evacuation routes that a fire may block directly or indirectly with smoke or burning/smoldering materials.

To extinguish a fire with a portable extinguisher, a person must have immediate access to the extinguisher, be familiar with its use, and know how to apply the extinguishing agent effectively. Attempting to extinguish even a small fire carries some risk. Fires can increase in size and intensity in seconds, blocking the exit path of the firefighter and creating a hazardous atmosphere. Portable fire extinguishers contain a limited amount of extinguishing agent and can be discharged in a matter of seconds, so workers should attempt to fight only very small or incipient stage fires.

Risk Assessment

Before your employees attempt to fight a fire with a portable fire extinguisher they should first perform a risk assessment that evaluates the fire size, the fire fighters' evacuation path, and the atmosphere in the vicinity of the fire.

They need to make a nearly instantaneous evaluation of the following issues:

--Is the fire too big? If the fire involves flammable solvents, has spread over more than 60 square feet, is partially hidden behind a wall or ceiling, or can not be reached from a standing position, it should not be fought with portable fire extinguishers.

--Is the air safe to breathe? If, due to smoke or other products of combustion, the fire can not be fought without respiratory protection, it should not be fought with portable fire extinguishers.

--Is the environment too hot or smoky? Portable fire extinguishers should not be used if:

--The radiated heat is easily felt on exposed skin making it difficult to approach within 10-15 feet of the fire (or the effective range of the extinguisher).

--One must crawl on the floor due to heat or smoke.

--Smoke is quickly filling the room and decreasing visibility.

--Is there a safe evacuation path? Portable fire extinguishers should not be used if the fire is not contained, and fire, heat, or smoke may block the evacuation path.

If employees in your workplace are authorized to use portable fire extinguishers, OSHA requires that they be trained annually in their proper use. Tomorrow we'll look at some of the elements of that training, and at a resource that makes meeting those training requirements a snap.