

Fire extinguishers

By Andrew M. Pawuk



Fire extinguishers come in many sizes and configurations. Review the type(s) available at your location and be familiar with their operation. It is helpful to have an extinguisher during your presentation to demonstrate its use.

Ask what purpose do fire extinguishers have in the workplace. Fire extinguishers are required to provide a second line of defense if a fire were to occur. Always call for help first. Fire extinguishers can control a small fire and prevent a fire from spreading when it is used properly and during the early stages of the fire.

Explain which extinguisher is best to use on a fire. There are many types of fire extinguishers available for use in the workplace and in your home. They are required in industrial and commercial locations. The type of hazard present and the size of the area protected can determine their location. Fire extinguishers are classified according to the types of fires that they are designed to protect against.

- Class A — Normal combustibles, such as wood, paper, cloth, rubber and many plastics.
- Class B — Flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols and flammable gases.
- Class C — Fires that involved energized electrical equipment.

- Class D — Fire in combustible metals.
- Class K — Fires in cooking appliances that involve combustible cooking media, such as vegetable or animal oils and fats.

Ask where the fire extinguishers are located in your work area. Fire extinguishers are to be in designated, easily identifiable locations. Know the locations of the fire extinguishers in your work area before they are needed.

Ask how a person knows what fire extinguisher to use. Fire extinguishers are located based on the types of hazard present and area of coverage. Each extinguisher is marked on the front of its shell with the fire classification. It may be a picture symbol or a letter-shaped marking.

Share with the group who may use a fire extinguisher. Any person who is trained in its operation can use a fire extinguisher. It is important that the unit is used quickly and correctly, so it is imperative that the user be familiar with how the unit works. Instructions for use are on the label.

Explain how you activate a fire extinguisher. There are many methods to activate various fire extinguishers. Most common are a lock pin or a ring pin that needs to be withdrawn. Other commonly used devices are clips, cams, levers or hose or nozzle restrainers. Tamper seals are commonly used to secure these devices. These tamper seals normally will break when the restraining device is removed.

- If the fire extinguisher is large, place the unit on the floor or other suitable surface.
- Place one hand on top of the cylinder.
- Grasp the locking device (lock pin or ring pin).
- Twist the pin to break the tamper seal.
- Pull the pin out.

Share with the group how to use a fire extinguisher now ready to discharge. Pick up the fire extinguisher (if it is a hand-held unit) and hold onto the nozzle. If a carbon dioxide fire extinguisher is used, hold the nozzle by the handle or raise the nozzle and aim. It is suggested that a quick test of the extinguisher be done at this point to ensure proper operation.

Advance toward the fire and apply the extinguishing agent at the base of the flames from a distance. The effective range of a hand-held fire extinguisher will vary by type of extinguisher. Many hand-held units have an effective range between 3 feet and 10 feet. Some liquid extinguishers have a 20- to 30-foot range.

Use a sweeping motion from side to side when attacking the fire.

To stop the flow of the agent, release the handle.

Ask what to do if you cannot put out the fire. The fire may be too advanced for you to put out. If so:

- Remove yourself and others if possible from the area;
- Activate the fire alarm system, or dial your emergency number.

Conclude by saying be familiar with fire extinguishers in your work area. Know how they operate and where they are located. During an emergency situation your knowledge of fire extinguisher operation may save your job, your home or your life.

Do you have a fire extinguisher in your home?

References

Publications

- NFPA 10: Standard for Portable Fire Extinguishers, National Fire Protection Association.

Web sites

- National Fire Protection Association: www.nfpa.org
- Online Safety Library: Fire Extinguishers (Oklahoma State University): www.ehs.okstate.edu/links/exting.htm
- Fire Safety (Occupational Safety and Health Administration): www.osha.gov/SLTC/firesafety/index.html
- How Fire Extinguishers Work (HowStuffWorks): home.howstuffworks.com/home-improvement/household-safety/fire/fire-extinguisher.htm

Videos

BWC's Division of Safety & Hygiene's video library has a number of videos on fire extinguishers and fire prevention. These are available for loan to Ohio employers. Order a catalog by calling 1-800-OHIOWC (ask for the video library), or visit our Web site, ohiobwc.com.

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We always strive to improve the *Safety Leader's Discussion Guide*. Your feedback can help. Please e-mail your comments to Safety@ohiobwc.com.