



## ***ABOUT THE PROPER USE OF A FIRE EXTINGUISHER***

**LENGTH: 11 MINUTES**

### **PROGRAM SYNOPSIS:**

Our workplace is full of hazards, hazards that can hurt us or kill us. Controlling these hazards and preventing injuries is the point of our safety and health program. One such hazard is the risk of work materials, equipment and other objects catching on fire. Using a fire extinguisher properly to put out a fire can prevent injuries and save lives. That is the point of our facility's plan for employee use of fire extinguishers and that is the point of this program.

Topics include how a fire burns, classes of fires, types of extinguishers, the Class ABC extinguisher, deciding whether to use an extinguisher, proper use of an extinguisher and inspection and maintenance of extinguishers.

### **PROGRAM OBJECTIVES:**

After watching the program, the participant will be able to explain the following:

- Classes of fires and the appropriate extinguishers used to extinguish them;
- The conditions that must be considered when deciding to fight a fire;
- The proper use of the "PASS" system to extinguish the fire;
- The issues to look for during extinguisher inspection and maintenance.

### **EMPLOYEE TRAINING**

- Our organization has developed a plan for fire extinguisher placement and use in accordance with the Occupational Safety and Health Administration, OSHA, in their standard 1910.157, titled, "Portable Fire Extinguishers."
- This is an integral part of our facility's emergency action plan. For our plan to be effective, employees must know how and when to use a fire extinguisher.
- The first thing to know about fire extinguishers is that you must be trained and authorized to use one in an emergency. The point is that most people have never used one and it takes some training and practice to use one properly. If you are not trained and authorized to use a fire extinguisher, then you should not attempt to do so and must evacuate in the event of a fire.
- Hands-on training may be conducted by the local fire department, a fire extinguisher distributor or a designated person within your company, but no matter who administers the training, it is important that you pay close attention.
- During your training, you will learn that the pressurized force of the extinguishing agent being expelled can be strong, so you must be prepared and have a firm grip on the extinguisher.
- You will also learn that you need to be ready for the extinguisher being quite loud during use.

### **HOW A FIRE BURNS**

- Before learning how to use a fire extinguisher to extinguish a fire, you need to understand how a fire burns as well as the five different classes of fire.
- A fire needs three elements to burn: fuel, oxygen and a heat source. The fire must have all three elements to continue burning. If any one element is removed, the fire will be extinguished.
- That's the purpose of a fire extinguisher. It removes or neutralizes one or more of these three elements.

### **CLASSES OF FIRES & TYPES OF EXTINGUISHERS**

- There are multiple classes of fire and some classes require a special type of fire extinguisher be used in order to put out the fire. Using the wrong type of extinguisher on a fire can have disastrous consequences and cause the fire to spread.
- Fire extinguishers are categorized by the class of fire they are designed to extinguish.
- Class A fires are fueled by common combustible materials such as paper or wood. These fires can be put out with a Class A air-pressurized water extinguisher.
- Class B fires involve flammable liquids, including gasoline, kerosene and alcohol. Water should never be used to extinguish Class B fires because water can make this type of fire spread.
- A BC rated extinguisher that uses carbon dioxide or an ABC-rated extinguisher that uses a dry chemical powder are common types of extinguishers which can be used on Class B fires.
- Class C fires are those occurring in electrical equipment connected to a live electrical source. They also may be extinguished with a BC or ABC extinguisher. Never spray water on an electrical fire due to the risk of electric shock.

- Class K fires are fueled by cooking oils or fats which are commonly found in cooking appliances. Class K extinguishers use potassium acetate expelled as a fine mist to avoid spreading hot grease and to help cool the cooking appliance after the fire is out.

### **THE CLASS ABC EXTINGUISHER**

- As you have seen, selecting the correct extinguisher for the class of fire is critical. This is why the Class ABC extinguisher is so popular. An ABC extinguisher is effective in putting out Class A, B and C fires and is the type of extinguisher you are most likely to use should a fire break out in your workplace.
- The Class ABC extinguisher uses a powder such as monoammonium phosphate to remove the oxygen from around the fire, starving the fire of one of its needed elements.
- After using an ABC extinguisher properly, you will be left with a big mess to be cleaned up, but the fire will be out.
- As we mentioned earlier, no matter what type of extinguisher you use, it must be the type intended for the class of fire that is burning. All extinguishers are labeled with this important information.
- Make it a point to be aware of which class of fire is most likely to occur at your facility and the nearest location of the proper type of fire extinguisher.

### **DECIDING WHETHER TO USE AN EXTINGUISHER**

- Besides having the right type of extinguisher, there are other conditions that you must consider before using a fire extinguisher. Never risk your life to try and put out a fire if it is unsafe to do so.
- When you initially notice any type of fire, the first action you must take is to alert others and sound the fire alarm. Only after the alarm is sounded should you consider using a fire extinguisher.
- In order to extinguish a fire, the fire must be in its incipient stage, meaning that it has just begun and is small enough that you can put it out easily with an extinguisher. Fire extinguishers aren't designed to put out large fires.
- If there is an abundance of smoke present, do not fight the fire. Smoke from fire can quickly overwhelm and incapacitate you. Smoke kills more people each year than the actual fire. When smoke is heavy evacuate the premises.
- Before attempting to extinguish a fire, you must have a viable escape route in sight and are confident that you won't be trapped if the fire gets out of control.
- If for any reason you are unsure if you can extinguish a fire safely, don't take any chances by using an extinguisher. Evacuate the premises immediately and close any doors behind you to help prevent the fire from spreading.

### **PROPER USE OF A FIRE EXTINGUISHER**

- After sounding the alarm, remove the extinguisher from its mount.
- Approach the fire and use the "PASS" method to discharge the extinguisher and put out the fire. The "PASS" method uses the word "PASS" as a memory tool to remind you of the following four steps to be followed to properly operate a fire extinguisher.
- Step 1. Pull the pin; Step 2. Aim the nozzle at the base of the fire; Step 3. Squeeze the trigger to discharge the extinguishing agent; Step 4. Sweep the nozzle from side to side.
- To ensure the fire has been completely extinguished, you should continue discharging the extinguisher at the base of the fire until the extinguisher is empty. Many fires appear to be out only to flare up again.
- Maintain a fire watch over the area until the fire department arrives and makes sure the fire has been fully extinguished.
- If the extinguisher runs out before the fire is out, don't waste precious time by trying to find another one. Place the empty extinguisher on its side and evacuate according to your organization's emergency plan.

### **FIRE EXTINGUISHER INSPECTION & MAINTENANCE**

- To ensure that fire extinguishers are always ready to effectively fight a fire, they must be inspected and maintained on a regular basis.
- Extinguishers should be inspected at least once a month to ensure they are in good shape. Weekly inspections are required for those extinguishers that are located outdoors.
- Extinguishers should be mounted on wall hangers or in marked fire extinguisher cabinets so they can easily be seen. Access to extinguishers must not be blocked.
- Make sure the pressure gauge indicates that it's fully charged. Also, the locking pin and tamper seal should also be in place and intact.
- The hose and horn should be in good shape and unobstructed. Also, all metal parts should be corrosion-free.
- Any time an extinguisher is used, despite the duration, it must be serviced and recharged.
- Extinguishers must be periodically serviced by an extinguisher servicing company. When this occurs, a tag will be attached to it that contains an expiration date. During monthly inspections, make sure the service expiration date on the tag has not passed. If it has, the extinguisher must be removed and sent to be re-serviced.