

## **FIRE EXTINGUISHER USE AND MAINTENANCE (ALL OFFICES)**

### **OBJECTIVES**

- Staff will learn the different types of fire extinguishers
- Staff will learn how to proper use a portable fire extinguisher
- Staff will learn when to attempt to extinguish a fire

Fire in the workplace is one of the most significant hazards to employee's lives and health. It is a hazard which can potentially strike any workplace. The effects of workplace fires are devastating to employees and to employers. Historically, workplace fires have been one of the leading causes of work deaths and injury, exacting a toll of emotional trauma and financial hardship on families. Fires also destroy productive buildings and equipment, disrupt operations, and damage an organization's image.

Even in facilities where the basics of fire prevention are understood and followed, an unexpected fire may occur. When that happens many people may panic because they don't know proper firefighting procedures or equipment. For this reason employees need to know the different types of fires and the appropriate type of portable fire extinguisher necessary.

### **FIRE CLASSIFICATIONS**

Generally, there are four fire classifications:

- Class A – Ordinary combustibles
  - Wood
  - Paper
  - Cloth
  - Plastics
- Class B – Flammable liquids
  - Gasoline
  - Oil
  - Grease
  - Acetone
- Class C – Electrical
  - Energized electrical equipment (as long as it is plugged in).

- Class D – Special Metals (not normally in company operations)
  - Potassium
  - Magnesium
  - Aluminum

## COMMON TYPES OF FIRE EXTINGUISHERS

Different fire extinguishers are designed to fight different classes of fire. Most extinguishers have a photograph label showing which type(s) of fire the extinguisher is designed to extinguish. The three most common types of fire extinguishers are:

- ABC Dry Chemical
  - Extinguishers are red and can be used to extinguish Class A, B, & C fires.
  - Extinguishers are filled with a fine powder which generally discharges for about 8-12 seconds.
  - Dry chemical extinguishers put out fires by coating the fuel with a thin layer of powder, which eliminates oxygen from the fire triangle.
- Air Pressurized Water (APW)
  - Large silver fire extinguishers and are designed to extinguish Class A (ordinary combustible) fires.
  - APW extinguish fire by eliminating the ignition source of the fire triangle.
  - APW should not be used on liquid or electrical fires, as the water will spread the fire or cause electrocution.
- Carbon Dioxide (CO<sub>2</sub>)
  - CO<sub>2</sub> fire extinguishers are red.
  - Carbon dioxide is a non-flammable gas that eliminates oxygen from the fire triangle.
  - CO<sub>2</sub>'s are designed to extinguish Class B and C (flammable liquids and electrical sources) fires.

## FIRE EXTINGUISHER USE

Remembering how to use a fire extinguisher is easy if you remember the acronym “**PASS**” (**P**ull, **A**im, **S**queeze, **S**weep). *Demonstration: Use a portable fire extinguisher and point-out the nomenclature (PIN, HOSE or NOZZLE, & LEVER), and demonstrate the technique without actually discharging the device.*

*(Using a fire extinguisher from an office, demonstrate the proper use technique without discharging the extinguisher.)*

- **PULL** the pin.
  - This will allow you to discharge the extinguisher.
- **AIM** at the base of the fire.
  - Point the extinguisher nozzle or hose at the base of the fire. If you aim at the flames, the extinguishing agent will pass through the flames with no affect.

- **SQUEEZE** the top handle or lever.
  - This discharges the extinguishing agent. Releasing the lever will stop the discharge.
- **SWEEP** from side to side until the fire is completely out.
  - Start using the extinguisher from a safe distance and slowly move forward while sweeping side to side at the base.
  - Once the fire is completely out, watch the area for re-ignition.

## **RULES FOR FIGHTING FIRES**

Fires can be very dangerous and you must always be certain that you will not endanger yourself or others when attempting to put out a fire. When a fire is discovered you should immediately:

- Assist any person in immediate danger to safety, if it can be accomplished without risk to you.
- Have someone call 911 and/or activate the building fire system (no matter how small or minor the fire may seem).
- If a fire is small you may attempt to use an extinguisher to put the fire out.
- If the fire is spreading rapidly, it is best to simply evacuate the building.
- Always position yourself with an exit or means of escape at your back before attempting to use an extinguisher.

## **FIRE EXTINGUISHER INSPECTIONS**

Fire extinguishers should be visually inspected every month. Documentation of these inspections should be made on the inspection card attached to the extinguisher.

*(Using a fire extinguisher from an office, demonstrate the proper inspection technique without discharging the extinguisher.)*

- When visually inspection an extinguisher:
  - Check the pin, ensure it is in place.
  - Check gauge, if not completely filled, recharge.
  - Check the nozzle or hose for obstructions
  - For ABC extinguishers, slowly turn the extinguisher upside down. You should feel the powder slide or move. If the powder doesn't move, it may have crusted and should be recharged.
  - Document the visual inspection on the Inspection Card attached to the extinguisher.
- Fire extinguishers should be inspected annually by a licensed vender.

## **POLICIES**

- *Discuss all policies and procedures relating to fire extinguisher use and maintenance.*

## **CLOSING**

- *Remind employees that using the wrong type of extinguisher or using it improperly may not extinguish the fire.*
- *Upon completion, staff will conduct a visual inspection of the extinguishers in their area.*