

Fire Prevention Training

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Fire Prevention



UPON COMPLETION OF THIS TRAINING, YOU WILL BE ABLE TO:

- EXPLAIN THE NATURE OF A FIRE.
- IDENTIFY THE HAZARDS WHICH COULD CAUSE A FIRE.
- LIST THE CLASSES OF FIRE.
- IDENTIFY THE EXTINGUISHER SUITABLE FOR USE ON A GIVEN CLASS OF FIRE.
- KNOW THE PROPER PROCEDURE FOR USING AN EXTINGUISHER.
- FIRE EXITS



Why Fire Prevention Training?

OSHA reports that there are more than 200 workplace fires per day, with more than 5000 people injured by workplace fires annually!

There were **16,500 office and store fires** in the United States in 2020 that caused **\$932 million** in direct property damage.

Electrical fires account for 22% of workplace fires.



Nature of Fire

Fire is often represented by a three-dimensional pyramid called the "Fire Tetrahedron"

- Each of the four sides represents an element that is necessary in order for combustion to occur
- Fire fighting techniques focus on removal of one or more of the elements
- By removing one element, you extinguish the fire



The four elements of the fire tetrahedron are:

- Heat For a fire to start, there must be a heat or ignition source
- Oxygen Acts as a catalyst and can come from the air, or from the fuel itself
- Fuel For a fire to start, there must be something to burn
- Chemical Chain Reaction Reaction that occurs when the elements above come together under the right conditions



3 Phases of Fire



Incipient stage

on.

- The incipient stage is the earliest phase of the fire.
- The fire is limited to the original materials of ignition. Example: fire in a wastebasket.
- This is the only phase of fire that an employee should attempt to use a portable fire extinguisher



Steady-state burning phase

 At this stage there is sufficient oxygen and fuel for the fire to grow and involve other materials.



Hot smoldering phase

 At this stage, flames may not be present (because of insufficient oxygen) if the area of confinement is airtight; however, if oxygen is reintroduced, the fire will reignite.



Causes of Fire

The best defense against fire is to keep it from starting.



Fire is defined as: the rapid oxidation of a combustible material which releases energy in the form of heat and light.

Fire Prevention Tips



Good Housekeeping: Keep your workspace & equipment clean, dry & well ventilated

Many fires can be prevented just from Good Housekeeping:

- Always store flammable liquids in approved containers or cabinets.
- Clean up any spills immediately.
- Do not leave paint cans, thinners or solvents around your work area when not in use.
- Dispose of soiled shop rags in a metal waste can with a lid.
- Dispose of paper, cardboard, wood etc. in a designated safe area.
- Check for damaged or overloaded electrical outlets, cords and cables.
- Keep anything that can burn away from electrical equipment.
- Never leave portable heating devices unattended.
- Check your equipment make sure it is in good working order.
 - Check for overheating.
 - Check cords for signs of wear; never try to repair cords.





OVERLOADED OUTLETS ARE THE MOST COMMON CAUSE OF FIRE!



Types of Extinguishers

FIRE EXTINGUISHER SYMBOLS, CLASSIFICATIONS & AGENTS



CLASS A fires involve common combustibles such as wood, paper, cloth, rubber, trash and plastics.



ABC Dry Chemical (Multipurpose) Halotron Water Foam



CLASS B fires involve flammable liquids, solvents, oil, gasoline, paints, lacquers and other oil-based products.



ABC Dry Chemical (Multipurpose) **BC Dry Chemical (Regular)** Purple K **Carbon Dioxide** Halotron Foam

ABC Dry Chemical (Multipurpose)

BC Dry Chemical (Regular)





CLASS C fires involve energized electrical equipment such as wiring, controls, motors, machinery or appliances.



CLASS D fires involve combustible metals such as magnesium, lithium and titanium.



CLASS K fires involve combustible cooking media such as oils and grease commonly found in commercial kitchens.



Carbon Dioxide

Purple K

Halotron

Wet Chemical



Procedure for Using a Fire

Extinguisher

If it is necessary to use a portable extinguisher, there are important rules to consider:

- Personal and personnel safety is always the primary concern.
- If you are uncertain that you can operate the extinguisher, do NOT use it – just evacuate, raise the alarm and call 911.
- Be familiar with where the extinguishers are located in your work area.
 - Make sure they are accessible at all times.
 - Never block extinguishers with equipment, materials, etc.



Key Points to Remember

- Extinguishers have a very limited operation time, approximately 8-10 secondsso be prepared to act quickly.
- Gases from many materials can be very harmful in even small amounts – if toxic smoke is present, do NOT attempt to fight the fire – leave the area immediately and sound the alarm.

Attempt to fight a fire only after considering the following:

- Call for help
 - Manual pull station, red phone, call security.
- Fire is small, contained, and not spreading beyond where it started.
- There is no immanent danger, and you can fight the fire with your back to an exit.
- The proper extinguisher is available and in good condition.
- If the fire involves an electrical device, turn off/unplug the equipment before fighting the fire.



Procedure for using a Fire Extinguisher

Before using an extinguisher, make sure that it is rated for the class of fire on which it will be used.

The acronym 'PASS' is used to help remember the steps for proper use of an extinguisher:

Pull the pin (or Push the plunger)

Aim at the base of the fire

Squeeze the handle

Sweep from side to side

Fire Clasess

Different types of fires require different types of extinguishers.







ELECTRICAL

HOW TO USE A FIRE EXTINGUISHER • PULL PIN • AIM AT BASE OF FIRE • SQUEEZE HANDLE • SWEEP SIDE TO SIDE

COOKING



Considerations after the fire

Once the fire is out, remember the following:

Do not leave the area unattended – the fire could reignite.

Place the used extinguisher on its side in a safe location.

•-If stood on its bottom, the contents may shift, causing the extinguisher to tip over and creating a potential projectile hazard.

Do not put the extinguisher back in service.

•It must be inspected and recharged prior to being placed back in service.

Even if the fire has been put out, have the area checked by the fire department.



Evacuation & Fire Escapes Routes

Know your workplace Emergency Plan and Muster Points. Follow instructions & STAY CALM!

- > All Fire Exits should be easily identified.
- Exit signs should be illuminated and there should be an audible alarm.
- Exits should be free from clutter, easily accessible and NEVER locked!
- Always listen for instructions over speaker systems.
- > Evacuate in an orderly fashion, do not run!
- > Always use stairwell, do not use Elevators

➢ If you see a fire the most important thing to do is raise the alarm.

➢Only attempt to put out a fire if it is in its incipient stage (small enough and safe enough to do so).

➢ If you are not comfortable fighting a fire, do not try. – EVACUATE!





Review



Always call for help before attempting to use a portable extinguisher.

Only attempt to fight a fire in the incipient stage.

If you use a fire extinguisher, use the PASS method.

If you are not comfortable fighting a fire, do not try.



Training Roster

Once you have reviewed the presentation, please complete the Training Roster by either clicking the link below or scanning the QR code on your cellphone.

https://forms.office.com/Pages/ResponsePage.aspx?id=-8h9YWiPvEqU-HwlfqicfaZYoT3noVOrngpiHPPQkFUN115WEkzN1dRWE1OWUIURIkwRIIWVk5 UUi4u





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