

FIRE SAFETY ANNUAL REFRESHER TRAINING

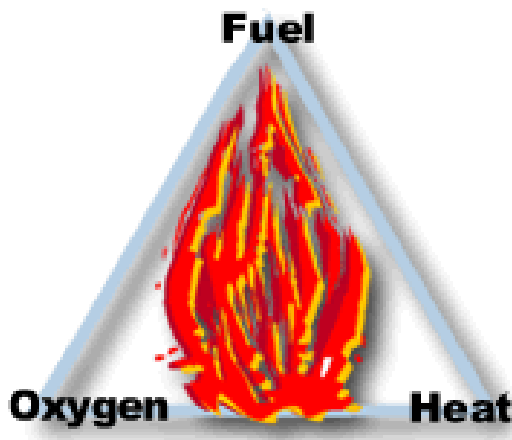
INTRODUCTION

It's part of everyone's job to help reduce the threat of fire by identifying and correcting all fire hazards in their workplace. You can reduce the number of casualties due to fire by attending this training and conducting the annual Emergency Evacuation Drill.

Given the right components, fire can happen anywhere.

The Fire Triangle

Fire is a chemical reaction involving either a rapid oxidation or burning of a fuel resulting in the production of heat and light. Similar to any other process in nature, specific elements must be present and joined for a fire to start. This is best illustrated using a graphic depiction of "The Fire Triangle."



Components of the Fire Triangle

- Oxygen:** The earth's atmosphere is approximately 21% oxygen. Fire however, only needs an atmosphere of about 16% to survive.
- Fuel:** Any combustible material in either a solid, liquid or gaseous state. Most solids and liquids will become a vapor or gas before they burn.
- Heat:** Increases the temperature of the fuel to a point where an adequate amount of vapors are generated for ignition to occur.

When these three components are present in the proper conditions and proportions, a chemical reaction ensues. If however, any one of these were to be taken away, the fire will either not be able to start, or will become extinguished if it has already started.

EXTINGUISHING SMALL FIRES

Only those employees who are trained to use “Fire Extinguishers” may attempt to extinguish small fires. Any employee who is expected to utilize a fire extinguisher in the event of a fire must be trained annually. Fire extinguishers are usually located in visible locations on each floor and corridor. All fires, even those that have been extinguished, must be reported to the Fire Department by calling “9-911.”

CLASSIFICATION OF FIRE AND EXTINGUISHING AGENTS

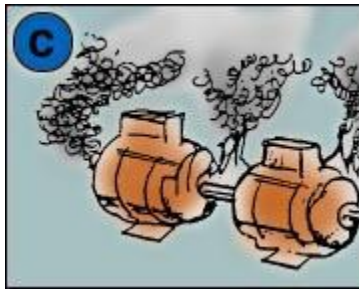
Not everything in this world is made up of exactly the same elements and materials. Therefore different objects are going to react differently to various environments and stimuli. Since Park and Recreation employees encounter combustible solids, flammable/combustible liquids and gases, electrical equipment, and even combustible metals, it is imperative that they are aware of the different classes of fire, and how to properly extinguish them. **If it is not properly identified, attempts at extinguishing a fire could actually intensify the blaze.**



Class **A** fires involve normal **combustible materials** such as wood, cloth, paper, etc. To put out a fire that involves such materials, a **cooling agent is required**; one that **takes away the heat** component of the fire triangle. A water or multi-purpose dry chemical extinguisher can be used to extinguish these fires.



Class **B** fires involve **flammable and combustible liquids and gases**, such as solvents, greases, gasoline, and lubricating oil. To put out a fire that involves such materials, oxygen must be removed from the fire triangle. Therefore, an extinguisher which **removes oxygen or cuts the chain reaction** is required. Foam, carbon dioxide, dry chemical, and halons are effective. **Water will not work on a Class B fire!**



Class **C** fires involve **energized electrical equipment**. A non-conducting extinguishing agent such as carbon dioxide or multi-purpose dry chemical must be used. If the fire is on de-energized (unplugged or electricity turned off) electrical equipment, then it is a Class A fire and those procedures should be followed instead.



Class **D** fires involve **combustible metals** such as magnesium, sodium, lithium, and titanium are involved and actually burning require special extinguishing agents designed for the particular material and situation. Sodium fires can be extinguished with sodium chloride or soda ash, lithium with lithium chloride, graphite, or zirconium silicate.

Class **K** fire extinguishers are “wet” chemicals and used to extinguish kitchen grease fires.

A more in-depth table depicting extinguishing agents related to the classification of fires is located at: www.osha.gov/Publications/Homebuilders/fire.gif

Again, it is important that employees are familiar with this so they know how to properly extinguish a small fire.

Note: Multipurpose (ABC-rated) chemical extinguishers leave a residue that can harm sensitive equipment, such as computers and other electronic devices. As a result, carbon dioxide or cleaner agent extinguishers are preferred in these instances because they leave very little residue.

In addition, ABC dry powder residue is mildly corrosive to many metals but is extremely effective against small fires. The ABC multipurpose fire extinguisher is the standard extinguisher for the Park and Recreation Department.

TIPS FOR PREVENTING FIRES IN THE WORKPLACE

Fire experts say a large portion of fires can be prevented. Now that the causes of the different fire classifications have been identified, it is possible to develop preventive measures to heighten the level of safety of all Park and Recreation Department employees.

Class A Prevention Tips

- Avoid trash pileups and littering throughout your workplace
- Store oily or greasy rags in a covered container
- Maintain a workspace free of combustible materials

Class B Prevention Tips

- Do not refuel gasoline-powered equipment while hot or in a confined space
- Use flammable liquids only in well-ventilated areas
- Isolate sources of ignition
- Handle flammable liquids with caution and store in a spill-proof container

Class C Prevention Tips

- Check wiring for worn insulation or broken electrical fittings
- Report potentially hazardous conditions to supervisor
- Use surge protection devices when using multiple plugs
- Prevent motors from overheating by keeping them clean and running well
- Sparks can ignite oil and dust
- Cover all utility lights with a wire guard

Class D Prevention Tips

An intense heat source is required to ignite a Class D fire, which are difficult to extinguish. This is because the burning reaction produces sufficient oxygen to support combustion, even under water. If you are specifically concerned about a Class D fire, contact the Safety Section in the Risk Management Department for information on obtaining the proper fire extinguisher.

General Fire Prevention Tips for All Classes of Fire

- Smoke cigarettes only where permitted
- Always know where fire alarm and extinguishers are located
- Ensure they are easily accessible and be mindful of fire exit locations
- No objects within 18 inches of sprinkler heads
- Leave fire doors closed at all times
- Store hazardous materials in safe/designated areas
- Regularly inspect fire extinguishers
- Know your evacuation plan

By following these tips, the chance of fire will greatly be reduced and will provide all Park and Recreation Department employees an even safer working environment.

PROPER USE OF A FIRE EXTINGUISHER

Cal/OSHA regulates the placement and usage of portable fire extinguishers in the workplace. It also mandates employees to be trained annually on extinguisher usage if they are expected to use them.

The first step is to check and make sure that the extinguisher has all necessary components. Below is an example of a Class ABC multi-purpose extinguisher. Although other extinguishers will look slightly different, these are the required parts of a properly functioning extinguisher. Also note that CO₂ extinguishers do not have a pressure gauge.



It is also important to know how to correctly read the label. Each extinguisher will have an extinguisher identifier, indicating the parameters of the type of fire it can put out. Below is a quick reference on how to tell what class and how intense of a fire a particular extinguisher can handle.

CLASS	INDICATED ON LABEL
Class A	wood, cloth, paper
Class B	liquids, greases, gases
Class C	energized electrical equipment
Class D	magnesium, titanium, zirconium, sodium, potassium

Should a situation arise when it is deemed safe to use a portable fire extinguisher, it is important to understand the necessary actions to take to use it correctly. Remembering the acronym “**PASS**” is a good idea when it comes to using a portable fire extinguisher.



Pull the pin



Aim at the **base** of the fire from about 8 feet away



Squeeze the handle



Sweep from side to side at the base of the fire until it is out

Always keep in mind that should:

- Your path of escape be threatened
- The extinguisher proves to be ineffective
- You are no longer able to fight the fire

IMMEDIATELY EVACUATE!

HOW AND WHEN TO FIGHT A FIRE

In case of fire, there are some steps that need to be followed **before** even considering whether or not to extinguish it:

1. Call 9-911 and report the fire
2. Sound alarms to evacuate building
3. Determine the size of the fire and if it is spreading
4. Confirm that you have a clear exit path that is not threatened by fire
5. Know how to use a fire extinguisher

If ANY of the below situations arise, NEVER fight the fire. Evacuate immediately following the procedures outlined in the facility's Emergency Evacuation Plan and Policy (EPPP).

- You don't know what is burning
- You don't know if the extinguisher is the right type
- You might inhale smoke
- Your instincts tell you not to
- The fire is large or is spreading
- The fire could block your escape route
- You are unsure of how to use the fire extinguisher
- You don't know if the extinguisher is big enough

Once it is determined that it is safe to fight the fire, use the "**RACE**" Model:

- Rescue** anyone in immediate danger (of course, this is a judgment call and subject to interpretation)
- Alarm** the proper authorities; activate fire alarms and call the Fire Department
- Confine** the fire by taking action to prevent it from spreading, such as remove potential sources of fuel and seal all doors
- Extinguish** the fire by using the correct portable fire extinguisher

The first two steps here are actions that should always be taken even if you will not be able to extinguish the fire yourself.

HOW TO EVACUATE A BURNING BUILDING

- The last one out of the room should close the door but leave it **unlocked**. Locking the door hinders the Fire Department's search and rescue efforts.
- Follow the exit routes as outlined in the EEP and proceed in a calm and orderly manner. If one exit or path is blocked by fire and smoke, use another exit.
- NEVER, NEVER use elevators under any circumstances; NEVER!
- Stay low to avoid smoke and toxic gases. The best air is close to the floor, so crawl, if necessary.
- If possible, cover your mouth and nose with a damp cloth to help you breathe.
- If you work in a building with multiple stories, a stairway will be your primary escape route. Remember, most enclosed stairwells in buildings over two stories are "fire resistant rated" enclosures and will provide you a safe means of exit.
- Don't panic. Descend stairs slowly and carefully.
- Once in the stairwell, proceed down to the first floor. Never go upstairs.
- Once outside the building, report to a predetermined "Staging Area", usually 50 feet away from the building, so that a head count can be taken.

WHAT TO DO IF TRAPPED IN A BURNING BUILDING

- Never open a closed door without feeling it first. Use the back of your hand to prevent burning your palm. If the door is hot, try another exit. If none exists, seal the cracks around the doors and vents with anything available.
- If in a room, use wet towels to seal the space under the door to prevent the entry of smoke. Cracks around the door can be sealed with masking tape, if available.
- If trapped, look for a nearby phone or use your cell phone and call the Fire Department, giving them your exact location.
- If breathing is difficult, try to ventilate the room, but don't wait for an emergency to discover a window can't be opened.
- Wave for attention at the window. Don't panic.

The constant theme through all these steps is to remain calm and remember your training regarding fire safety. By doing so, you will increase the overall safety for not only yourselves, but your co-workers as well.