

## 2023 Overview Series: Office Fire Prevention and Response FACT SHEET

**LENGTH: 15 MINUTES**

**PRODUCTION YEAR: 2023**

### **PROGRAM SYNOPSIS:**

Office buildings and other corporate facilities are often multi-story and contain many offices, cubicles, storage areas, and meeting rooms. The number of people in these types of facilities, combined with an abundance of combustible materials and potential sources of ignition, creates the potential for a hazardous office fire to occur. To help prevent fires, office workers must understand and follow good fire prevention practices, such as office housekeeping, which keeps combustible items from accumulating and removes them from proximity to heat sources. This program discusses ways to prevent fires in the office, how to respond to an emergency, participating in fire drills, and the use of fire extinguishers.

### **PROGRAM OBJECTIVES:**

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

- The fire triangle;
- How to prevent fires in the office;
- How to respond to an office fire;
- The classes of fires and fire extinguishers in the office;
- How to use an ABC fire extinguisher.

### **INSTRUCTIONAL CONTENT:**

#### **OFFICE FIRE PREVENTION AND RESPONSE: OVERVIEW**

- Office buildings and other corporate facilities are often multi-story and contain many offices, cubicles, storage areas, and meeting rooms. The number of people in these types of facilities, combined with an abundance of combustible materials and potential sources of ignition, creates the potential for a hazardous office fire to occur.
- To help prevent fires, office workers must understand and follow good fire prevention practices, such as office housekeeping, which keeps combustible items from accumulating and removes them from proximity to heat sources.
- Office workers must also be careful not to overload electric circuits and must ensure that heaters, coffee pots and other heat-generating appliances are used in a safe manner, according to their organization's policies.
- If an office fire does break out, a proper response is the number one factor in escaping the building safely.
- When a fire is first discovered or suspected, the fire alarm must immediately be activated. This allows an evacuation to begin and alerts the fire department to respond.
- The most important action to take during an office fire is to safely evacuate. Fighting the fire with an extinguisher should not be attempted unless you have specifically been trained and authorized by your organization to do so.
- Participating in regular fire drills is an important part of fire response training and provides office workers with the practice and confidence needed to respond appropriately should an office fire occur. All workers should know at least two evacuation routes from their work area and be familiar with the location of their assigned assembly area away from the building.
- Should a fire break out or an alarm sound, office workers must quickly and orderly move to the nearest safe exit point and gather at their assigned assembly area.

- Once gathered at the assembly area, a supervisor or other designated person will take roll and account for all employees and visitors. It's critical for all personnel to remain at the assembly area until officially dismissed or given an "all clear" that it is safe to reenter the building.

## **THE FIRE TRIANGLE**

- A fire needs three elements to burn: fuel, oxygen, and a heat source. A fire must have all three elements to continue burning. If any one element is removed, the fire will be extinguished. These three elements are often represented graphically by a triangle that is referred to as the "fire triangle."
- Common sources of fuel for an office fire include combustible items like paper, cardboard, or wood. Other fuel sources include furnishings such as carpet, desks, chairs, or drapes, as well as the plastic and polymer exterior housings of office equipment and computers.
- Common heat sources, also called ignition sources, for office fires include overloaded electric circuits, open flames, cigarettes, and heat-generating appliances such as space heaters, coffee makers, toasters, and similar items.
- To prevent office fires, all combustible items must be kept a safe distance from these types of ignition sources.
- After a fire has been ignited, additional heat will be produced as the available fuel is burned. An office fire like this will continue to grow larger and larger if sufficient heat, fuel, and oxygen are present.
- For an office fire to be extinguished, one of these three elements must be removed. For example, when the fire department applies large amounts of water to a fire, the water reduces the temperature of the heat source, and the fire is extinguished.
- When certain types of fire extinguishers are used, the extinguishing agent displaces enough oxygen from the immediate area to extinguish the fire.
- If a fire is not extinguished by either of these methods, it will continue to burn until all available fuel is consumed, and the fire burns itself out.

## **PREVENTING FIRES IN THE OFFICE**

- The key to preventing office fires is to keep combustible materials from contacting any type of heat or ignition source. The most effective way to do this in an office environment is to follow good housekeeping practices.
- Office workers, as well as other personnel, should keep their work area neat and organized.
- Don't allow excess paper to stack up on desks or counters and ensure that waste and other debris does not fall behind your desk or accumulate on the floor.
- If your work requires the use of chemicals, glues, solvents, or similar materials that may be flammable, only keep on hand the amount of material needed to perform the task and promptly return the container to its proper storage location.
- Electricity is a common ignition source for office fires, and all combustible items must be kept a safe distance from electrical cords and equipment.
- Be aware that using an excessive amount of power cords in the same outlet can overload the circuit or cause excessive heating, leading to a fire.
- Also, extension cords are not meant to be used as permanent wiring and should be removed as soon as possible.
- Inspect all power cords and electrical equipment periodically and stay alert for any electrical problems or the presence of any "burning" smells. Report any suspected electrical issues right away and unplug the affected item if it is safe to do so.
- Do not introduce any additional heat sources into your work area unnecessarily or without permission. Toaster ovens, hot plates, coffee makers, and similar appliances should be restricted to the facility's kitchen, break room, or other approved area. These items should not be plugged into cubicle furniture.
- Check your work area for fire hazards before leaving each day.

- Before leaving, properly store or dispose of all combustibles and turn off or unplug any heat sources that are not designed for continuous use.

## **RESPONDING TO AN OFFICE FIRE**

- Your organization has developed an Emergency Action Plan or “E-A-P” which outlines the actions employees should take in the event of a fire or other emergency.
- As part of this plan, all employees should learn the location of the fire alarms in their work area, how to activate them, and what the fire alarm sounds like.
- Employees should know at least two evacuation routes from their work area. This ensures that if one evacuation route is blocked by fire, employees will know another path to safety.
- When a fire is first discovered or suspected, the fire alarm must immediately be activated. This allows an evacuation to begin and alerts the fire department to respond.
- When you hear a fire alarm, you should immediately proceed to the nearest evacuation route that is not affected by the fire.
- Many organizations have a designated person to serve as a “floor warden” or “emergency response coordinator” who provides guidance and instructions during an emergency. If this is the case, be sure to follow their instructions during the evacuation.
- During the evacuation, if your primary evacuation route leads towards fire, intense heat, or smoke, find another route to safely exit the building.
- Do not use elevators during an evacuation, because you could become trapped. Always use the stairs to evacuate from upper levels.
- While evacuating, before opening a closed door, use the back of your hand to feel it for heat at multiple levels. If the door is hot, do not open it. Fire may be on the other side. Turn around and find another way out.
- If no one is evacuating behind you, close doors as you pass through to slow the spread of the fire.
- If you must travel through a smoky area, get as low as possible to the floor and move towards the exit.
- An important part of any Emergency Action Plan is for employees to know where to meet after evacuating from a building. Often called “assembly areas” or “rally points”, these designated areas provide a safe location for roll to be taken to ensure that all employees and visitors are accounted for during an emergency.
- During a fire evacuation, it’s important to proceed directly to your assigned assembly area and remain there until officially dismissed. Leaving the area without permission may result in emergency responders entering the building to search for you, needlessly placing their lives at risk. Do not leave the assembly area or re-enter the building until given the “all clear” command that it is safe to do so.

## **CLASSES OF FIRES AND FIRE EXTINGUISHERS IN THE OFFICE**

- Almost all office buildings and facilities are equipped with fire extinguishers. However, this does not mean that you should attempt to use an extinguisher in the event of a fire.
- Only those employees who have been specifically trained and authorized to use a fire extinguisher should do so.
- In addition, before using a fire extinguisher, you must have a clear path to a safe exit, and you must understand the “class” of fire that is burning in order to select an appropriate fire extinguisher. In an office setting, these are the three most common classes of fire.
- Class A fires are those fueled by paper, wood, cardboard, and similar combustible items.
- Class B fires are those fueled by flammable liquids such as gasoline, acetone, or similar flammable liquids.
- And Class C fires are those involving energized electrical components.
- Not all extinguishers are appropriate for all classes of fire. Employees authorized to use fire extinguishers must be able to identify the appropriate fire extinguisher for use on the class of fire most likely to occur in their work area. For example, do not use a water-based extinguisher on a class C electrical fire or a class B flammable liquid fire. Doing so may cause the fire to spread or create an electric shock hazard.

- For this reason, a common type of fire extinguisher found in office buildings is the “ABC” type extinguisher. An “ABC” type extinguisher can safely extinguish Class A, B, or C fires.
- However, this type of extinguisher may be harmful to electronic equipment, and some areas utilize a special-purpose extinguisher with an agent designed to be less harmful to computers.
- Again, do not attempt to use a fire extinguisher unless you are properly trained and authorized to do so. Follow your organization’s fire evacuation plan and leave the firefighting to the professionals.

### **USING AN ABC FIRE EXTINGUISHER**

- If you are trained and authorized to use a fire extinguisher, here is a quick review of how to safely do so.
- First, make sure an alarm has been sounded and the fire department has been called. Next, make sure you have an unblocked escape path from the fire should it grow larger.
- Select an extinguisher rated for the class of fire that is burning and position yourself about eight feet from the fire.
- Before you can discharge the fire extinguisher, you must first pull the pin with enough force to break the plastic securing device.
- Then, aim the nozzle at the base of the fire and firmly squeeze the trigger to release the extinguishing agent. Be sure to aim at the base of the fire; this is where the burning fuel source will be located.
- While the extinguishing agent is discharging, gently sweep the nozzle from side to side and evenly spread the extinguishing agent onto the base of the fire. When done correctly, and the fire is still small or “incipient”, the extinguishing agent will displace the oxygen away from the burning heat source and extinguish the fire.
- It’s good practice to fully deplete the extinguisher into the fire.
- If the extinguisher runs out before the fire is extinguished, lay the empty extinguisher down on its side, and evacuate the building. Do not seek another extinguisher.
- Even if you think the fire is out, stand by and maintain a fire watch until the fire department arrives and confirms the fire is fully extinguished.

### **SUMMARY AND REVIEW**

- To help prevent fires, office workers must understand and follow good fire prevention practices, such as office housekeeping, which keeps combustible items from accumulating and removes them from proximity to heat sources.
- In addition, office workers must not overload electric circuits and should not install heat-generating appliances at their workstation without prior approval.
- When a fire is first discovered or suspected, the fire alarm must immediately be activated. This allows an evacuation to begin and alerts the fire department to respond.
- Employees should know at least two evacuation routes from their work area. This ensures that if one evacuation route is blocked by fire, employees will know another path to safety.
- During a fire evacuation, it’s important to proceed directly to your assigned assembly area and remain there until officially dismissed.
- If you are trained and authorized to use a fire extinguisher, and decide to fight the fire, make sure you have an unblocked escape path from the fire should it grow larger.
- It’s important for office workers to participate in periodic fire evacuation drills to help ensure an orderly and proper response to a real fire should one occur.

## **OFFICE FIRE PREVENTION AND RESPONSE**

### **ANSWERS TO THE REVIEW QUIZ**

1. a
2. c
3. b
4. a
5. a
6. c
7. b
8. a
9. a
10. b

**OFFICE FIRE PREVENTION AND RESPONSE**  
**REVIEW QUIZ**

Name \_\_\_\_\_ Date \_\_\_\_\_

*The following questions are provided to determine how well you understand the information presented in this program.*

1. To help prevent fires, office workers must understand and follow good fire prevention practices, such as office housekeeping.
  - a. True
  - b. False
  
2. All workers should know at least \_\_\_\_\_ evacuation routes from their work area and be familiar with the location of their assigned assembly area away from the building.
  - a. 10
  - b. 3
  - c. 2
  
3. Should a fire break out or an alarm sound, office workers should wait in their work area until the fire department arrives and tells them to exit.
  - a. True
  - b. False
  
4. The three elements of a fire (fuel, oxygen, and a heat source) are often represented graphically by a triangle that is referred to as the "fire triangle".
  - a. True
  - b. False
  
5. The electrical system of most office cubicles is not designed for high-load appliances, such as toaster ovens, hot plates, and coffee makers.
  - a. True
  - b. False
  
6. Your organization has developed an \_\_\_\_\_ or "E-A-P" which outlines the actions employees should take in the event of a fire or other emergency.
  - a. Escape Activity Plan
  - b. Evacuation Assessment Program
  - c. Emergency Action Plan
  
7. During a fire evacuation, it's important to proceed directly to your assigned assembly area and remain there for five minutes before returning to work.
  - a. True
  - b. False
  
8. Only those employees who have been specifically trained and authorized to use a fire extinguisher should do so.
  - a. True
  - b. False
  
9. An "ABC" type extinguisher is a common type of fire extinguisher found in office buildings and can safely extinguish Class A, B, or C fires.
  - a. True
  - b. False
  
10. If the extinguisher runs out before the fire is extinguished, find another extinguisher and continue fighting the fire.
  - a. True
  - b. False