

Fire Prevention



Fire Safety In The Workplace

Fire in the workplace is a horrific event with potentially fatal consequences. It is everyone's responsibility to help prevent fires in the workplace.

Fire safety is an important workplace topic throughout the year. While death and injury are the most significant potential outcomes and

the ones that grab the biggest media headlines, fires also destroy jobs. In fact, many workplaces destroyed by fire are never rebuilt. Accordingly, here are some general tips for a fire-safe workplace to share with your employees.

13 Ways to Prevent Workplace Fires

Preventing fires is everyone's job. We all need to be alert to anything that

could cause a fire, and take responsibility to report any problem areas so they can be corrected. Here are some reminders about fire prevention:

- (1) Practice good workplace housekeeping; clutter contributes to fires by providing fuel and by preventing access to exits and emergency equipment
- (2) Place oily rags in a covered metal container; this waste must be properly disposed of on a regular basis
- (3) Maintain machinery to prevent overheating and friction sparks
- (4) Report electrical hazards. Many fires start in faulty wiring and malfunctioning electrical equipment
- (5) Never attempt electrical repairs unless you are qualified and authorized
- (6) Maintain free access to all electrical control panels; material or equipment stored in front of the panels would slow down the shutting down of power in an emergency situation
- (7) Use and store chemicals safely; read the labels and the Safety Data Sheets (SDSs) to determine



flammability and other fire hazards. Provide adequate ventilation when using and storing these substances

- (8) Use all precautions to prevent ignition in potentially explosive atmospheres such as those containing flammable liquid vapors or fine particles. Use non-sparking tools, and control static electricity as required
- (9) Help maintain building security to prevent arson fires. Lock up as instructed; report suspicious persons; and do not leave combustible rubbish where it can be set ablaze outside the building

- (10) Smoke only in designated areas, and extinguish smoking materials safely. **Never** smoke in storerooms or chemical storage areas
- (11) **Never** block sprinklers, firefighting equipment or emergency exits. Observe clearances when stacking materials
- (12) Post emergency telephone numbers as well as the company address by the telephone in your station for quick access if a fire were to start in your work area
- (13) Learn how to properly use a fire extinguisher

Fire Basics

Three elements are needed to create a fire: fuel, oxygen, and source of ignition. Fire is a violent chemical reaction when these three elements are combined. When one of the three is removed the fire cannot start, or is quickly put out if already in progress.

Fires are classified based on the type of fuel involved. There are five Classes of fires:

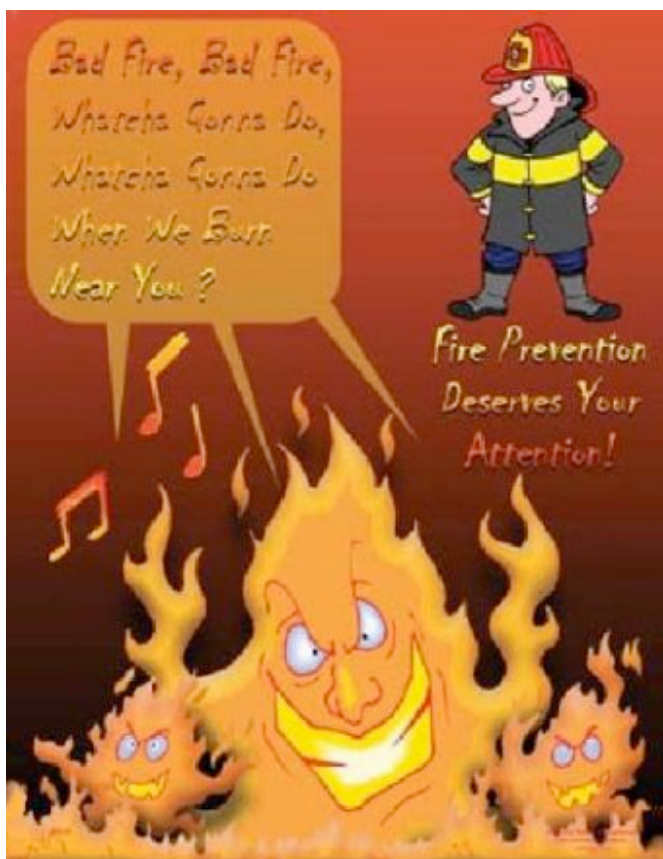
A, B, C, D, and K.

Class A: Wood, paper, and cloth—essentially any solid combustible that is non-metallic. One way to remember this is Class A fires usually leave ashes when they are done burning.

Class B: Flammable liquids such as gasoline, oil, or grease. Class B fires are any non-metal in a liquid state that are burning. This also includes flammable gases. One way to remember a Class B is that they usually bubble or boil when burning.

Class C: Electrical fires. Any fire caused electrically and connected to an electrical circuit. Remember Class C by current.

Class D: Combustible Metals: potassium, sodium, aluminum, and



magnesium. You are unlikely to encounter unless you are doing work in a chemistry lab.

Class K: Kitchen oil and grease Fires.

Fire Extinguisher Basics

Much like fires, fire extinguishers are also classified. These classifications match the type of fire the device was intended to extinguish. Be sure to only use a fire extinguisher designed to fight the type of fire you have or you may make matters worse.

Fire extinguishers should be checked monthly. Check to see if the pin is still in and the system is still pressurized.

Fight or Flight

One thing you must ask yourself when confronting a fire is whether you should try to fight it or flee the building. Consider the following when making your decision:

- ✓ Is the fire small enough to be controlled by a fire extinguisher?
- ✓ Do I have an escape route if it gets out of control?
- ✓ Is there a chance I could be overcome by smoke or gasses?

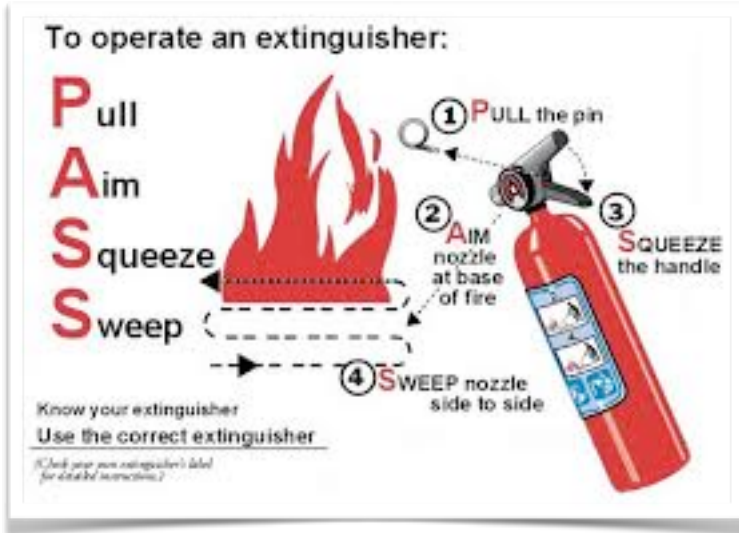
- ✓ Do I know what is burning and have the right fire extinguisher?
- ✓ What is the voice inside of my head saying?

If you do decide to fight, always position yourself in a way that you can escape if necessary. Never get within six to eight feet of the fire. Always call 911 and pull appropriate alarms prior to attempting to extinguish the fire.

If you decide the fire is beyond your control, or that it is a bad idea to attempt to fight it, exit the building via the nearest exit route. Be sure to let a supervisor know who you are and where you work, so that you are accounted for and not assumed to be still inside.

**EMERGENCY
EVACUATION
ROUTE**





Using a Fire Extinguisher

To use a fire extinguisher remember **PASS**:

1. **PULL** the pin
2. **AIM** the extinguisher at the base of the fire
3. **SQUEEZE** the nozzle
4. **SWEEP** side to side

Once the fire is out it is important to stand watch until the fire department arrives. Fires can sometimes reignite.

It is very important to **ALWAYS** call the Fire Department when a fire occurs in the workplace. The Fire Department *Professional* Fire Fighters will verify that the fire is completely extinguished.

It is also **required** that once you have discharged a fire extinguisher, to replace the discharged fire

extinguisher with a charged one. This is required so in the event of another fire, fire protection will be available.

Follow These Fire Safety Tips

- ✓ Do not allow trash and litter to accumulate unnecessarily
- ✓ Keep the office and work areas neat and clean
- ✓ Know where fire alarm boxes and extinguishers are located
- ✓ Make sure you know the different types of fire extinguishers and how to use them; check periodically to see if they are charged and well marked
- ✓ Store hazardous materials in designated areas
- ✓ Keep exits free of obstructions
- ✓ Do not overload circuits
- ✓ Turn off electrical appliances at the end of each day.
- ✓ Make sure there are good connections and effective grounds in the wiring
- ✓ Smoke only where permitted
- ✓ Keep equipment clean and use it properly

- ✓ Handle flammable liquids with caution
- ✓ Know the proper exits and procedures in case of an emergency

In The Event of a Fire

- ✓ Upon discovering a fire, call 911 immediately and do not hang up with the emergency responder until told to do so.
- ✓ Close doors when exiting to help limit the spread of smoke and fire throughout the building.
- ✓ **Never** use elevators during an evacuation.
- ✓ Follow the escape plan and meet at a predetermined place outside of your building and away from danger. Conduct a headcount to ensure all of your staff has evacuated.

It is also important that you have a clear idea what to do in case a fire does occur.

- (1) Know your company's emergency procedures and your role in them
- (2) Sound the alarm so the building occupants can escape

- (3) Proceed to the designated assembly area outside the building
- (4) If you are trained to do so, you might be able to fight a small fire with a portable extinguisher. Choose the right extinguisher for the type of fire, and keep a clear escape route
- (5) As you leave, shut down machinery or process equipment according to your company's emergency plan
- (6) Take fire drills seriously. They are organized to save lives and property in case of the real thing

Conclusion

A workplace fire is an experience you do not want to have. In addition to injury and loss of life, the outbreak of a fire can lead to job losses. Rebuilding a workplace after a fire is very expensive and many companies cannot afford to do it. Do not let a fire threaten you, your co-workers and your job. Work safely to prevent fires, and know what to do if one occurs.

Sources: Jeffery K. Dennis, MS, CSP, ASP, CET, CHMM, CIT, CSSM, WSO-CSE
<http://www.safetyxchange.org/health-safety/12-fire-prevention-tips-for-workers>
<http://www.alarm.org/BusinessSafety/OfficeFireSafety.aspx>

ATTENDANCE SHEET

Please **PRINT** and **SIGN** your name **CLEARLY** and **LEGIBLY** in the spaces provided below once you have participated in, have read, and have understood this week's Weekly Safety Topic - Fire Prevention.

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