



GOALS

This safety session should teach employees to:

- Understand what components cause fire.
- Know what steps to take to prevent fires.

Applicable Regulations: 29 CFR 1910 Subparts E, H, L, M, N, Q, R, S, Z



1. Fire results from combining fuel, oxygen, and heat (ignition source).

- To prevent fires, keep fuel, oxygen, and heat from coming together:
 - Fuel such as paper, wood, flammable substances such as gasoline
 - Oxygen
 - Heat or ignition source is a flame, electricity, friction, spark, chemical reaction
- The Occupational Safety and Health Association (OSHA) requires employers to have a fire prevention plan that covers workplace fire hazards and that contains procedures and responsibilities for preventing fires.

2. Practice good housekeeping to keep fuels away from heat.

- Dispose of waste promptly and properly.
- Keep work areas free of dust and lint.
- Keep combustible materials away from lights and machinery.

3. Identify and take precautions with flammable substances.

- Flammable vapors can spread and catch fire quickly.
- Check labels and safety data sheets (SDSs) to identify flammable substances.
 - Follow handling and storage precautions to prevent spills and vapor releases.
- Clean up flammable spills and leaks immediately.
- Remove clothing that has absorbed flammable liquids immediately.
- Substitute nonflammable materials during tasks when possible.
- Keep flammable liquids in approved airtight metal containers that are closed when not in use.
- Ground containers during liquid transfer so you don't create static electricity.
- Use flammable liquids only in well-ventilated areas away from heat, fire, etc.
- Do not place near heat or cut a container that previously contained a flammable liquid unless it's been tested and approved for such use.

4. Handle oxygen cylinders carefully.

Don't handle with oily hands or gloves or store near combustible materials.

5. Use and maintain electrical equipment properly.

- Electrical equipment causes the largest number of workplace fires.
- Replace cords and wires that are frayed or have worn insulation.
- Don't overload circuits, motors, fuses, or outlets.



- Make sure you have good ground connections.
- Don't run heating equipment or machinery overnight if unattended.
- Keep bearings lubricated so they don't run too hot.
- Keep machines and motors clear of dust and grease.

6. Avoid exposing fuels to heat sources.

- Smoke only in permitted areas. Put out cigarettes and matches carefully.
- Use space heaters only when necessary and in well-ventilated areas.
 - Refill space heaters only when they're turned off and cool.
 - Place space heaters so they can't fall over.
- Perform welding and cutting operations only in separate fire-resistant areas.

7. Prevent fires that result from chemical reactions.

Read labels and SDSs so you don't use or store incompatible substances together.

8. In case of fire, keep routes clear for firefighting and fire evacuation.

Don't block exits, fire alarms, aisles, or sprinklers.



DISCUSSION POINTS:

Ask for examples of potential fire hazards in work areas and what employees could do to eliminate or minimize the risks.



CONCLUSION:

- Make fire prevention part of everyone's job.
- Workplaces present many opportunities for fuel, oxygen, and heat and ignition sources to come together and cause fire. Your hazard awareness and the proper precautions can prevent it.



TEST YOUR KNOWLEDGE:

Have your employees take the Basic Fire Prevention Steps quiz. By testing their knowledge, you can judge their ability to understand how to prevent fires and whether they need to re-view this important topic again soon.



BASIC FIRE PREVENTION STEPS QUIZ

- 1. Fire results from combining fuel, oxygen, and heat or an ignition source.**
 - a. True
 - b. False
- 2. Examples of fuel are:**
 - a. Paper, wood, flammable liquids
 - b. Electricity
 - c. Chemical reaction
- 3. To find out if a substance is flammable, you check:**
 - a. Where it's stored
 - b. What it's used for
 - c. Its label and safety data sheet (SDS)
- 4. Flammable liquids should be stored in:**
 - a. Approved closed plastic containers
 - b. Approved airtight closed metal containers
 - c. Containers with spouts
- 5. An empty container is safe to use, no matter what it once held.**
 - a. True
 - b. False
- 6. The most common source of workplace fires is:**
 - a. Flammable liquids
 - b. Chemicals
 - c. Electricity
- 7. If a cord or wire has frayed or worn insulation, you should:**
 - a. Replace it.
 - b. Not notice it.
 - c. Ignore it.
- 8. One way to prevent machine bearings from running too hot is to keep them lubricated.**
 - a. True.
 - b. False
- 9. Smoking only in permitted areas is a fire prevention precaution.**
 - a. True
 - b. False
- 10. Space heaters should be used:**
 - a. Whenever work area temperatures fall below 68 degrees
 - b. Only when necessary and in well-ventilated areas
 - c. Only in areas that don't contain chemicals

When you have completed this quiz, turn it in to your supervisor.

Name: _____

Date: _____



ANSWERS TO BASIC FIRE PREVENTION STEPS QUIZ

1. a. True.
2. a. Paper, wood, flammable liquids.
3. c. its label and SDS.
4. b. Approved airtight, closed metal containers, such as safety cans.
5. b. False. If it contained a flammable liquid, treat it as if it still contains that liquid unless it's been tested and approved for use.
6. c. Electricity.
7. a. Replace it.
8. a. True.
9. a. True.
10. b. Only when necessary and in well-ventilated areas.