

5 - Fire Prevention: Safety Training

EH&S – MGA

Goals: This safety session should teach you to:

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

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

1. Fire Results from Combining Fuel, Oxygen, and Heat

- A. Fuel: Paper, wood, flammable substances such as gasoline
- B. Oxygen: A gas present in the air
- C. Heat or Ignition Source: Flame, electricity, friction, spark, chemical reaction
- D. To prevent fires, keep fuel, oxygen, and heat from coming together.
- E. OSHA requires employers to have a fire prevention plan that covers workplace fire hazards and contains procedures and responsibilities for preventing fires.

2. Practice Good Housekeeping to Keep Fuels Away from Heat

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

3. Identify and Take Precautions With Flammable Substances

- A. Flammable vapors can spread and catch fire quickly.
 - 1. Check labels and Safety Data Sheets (SDSs) to identify flammable substances.
 - a. Follow handling and storage precautions to prevent spills and vapor releases.
 - 2. Clean up flammable spills and leaks immediately.
 - 3. Remove clothing that has absorbed flammable liquids immediately.
 - 4. Substitute nonflammable materials for tasks when possible.
 - 5. Keep flammable liquids in approved airtight metal containers that are closed when not in use.
 - 6. Ground containers during liquid transfer so you don't create static electricity.
 - 7. Use flammable liquids only in well-ventilated areas, away from heat, fire, etc.
 - 8. 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

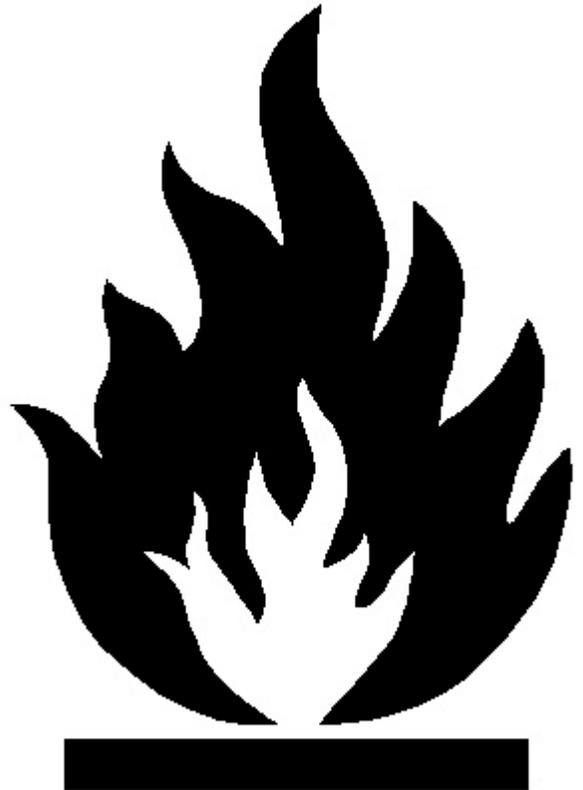
- A. Don't handle with oily hands or gloves or store near combustible materials.

5. Use and Maintain Electrical Equipment Properly

- A. Electrical equipment causes the largest number of workplace fires.
 - 1. Replace cords and wires that are frayed or have worn insulation.
 - 2. Don't overload circuits, motors, fuses, or outlets.
 - 3. Make sure you have good ground connections.
 - 4. Don't run heating equipment or machinery overnight, if unattended.
 - 5. Keep bearings lubricated so they don't run too hot.
 - 6. Keep machines and motors clear of dust and grease.

6. Avoid Exposing Fuels to Heat Sources

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



7. Prevent Fires That Result from Chemical Reactions

- A. 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

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

Summation: 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.