7 MINUTE Safety Trainer

Basic Fire Prevention Steps

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.

Basic Fire Prevention Steps

- 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 review this important topic again soon.

7 MINUTE Safety Trainer

Basic Fire Prevention Steps

Housekeeping

- Keep work areas free of dust and lint; put waste in proper containers.
- Keep combustible materials (e.g., paper) away from heat and machines.

Flammable Liquids

- Follow label and safety data sheet (SDS) handling and storage precautions.
- Clean up spills and leaks immediately.
- Use nonflammable substitutes whenever possible for cleaning and other tasks.
- Use approved, airtight metal containers that are kept closed when not in use.
- Ground containers during transfers.
- Use only in well-ventilated areas, away from heat sources.
- Treat empty, used containers as you would full ones, unless purged.
- Remove saturated clothing immediately.

Oxygen

- Keep oxygen cylinders from contact with anything combustible.

Electricity

- Replace cords and wires that are frayed or that have worn insulation.
- Don't overload circuits, motors, fuses, or outlets.
- Make sure you have good ground connections.
- Don't let heating equipment or machinery run overnight if unattended.
- Keep machines and motors clear of dust and grease. Keep bearings lubricated.

Fuel and Ignition Sources

- Smoke only where permitted.
- Use space heaters only in well-ventilated areas where they can't fall over.
- Perform welding and cutting in protected areas.
- Use chemical label and SDS information to keep incompatible substances away from each other.

And, in case of fire—
Keep fire alarms, exits, aisles, and sprinklers clear!