



TOOLBOX TALK – FIRE SAFETY

Topic

Fire Safety

Objective

To create awareness about fire hazards, prevent workplace fires, and ensure all persons know how to respond safely in the event of a fire emergency.

What is Fire Safety?

Fire safety involves identifying fire hazards, preventing fires from occurring, and ensuring people know how to respond quickly and safely if a fire starts.

Even a small fire can spread rapidly, causing serious injuries, fatalities, property damage, and production loss.

Why is Fire Safety Important?

A workplace fire can result in:

- Serious burns
- Smoke inhalation
- Fatalities
- Explosions
- Property damage
- Equipment loss
- Environmental damage
- Business interruption

Most workplace fires are preventable through good housekeeping and safe work practices.

Common Causes of Fire

- Electrical short circuits
- Overloaded electrical outlets
- Hot work (welding, cutting, grinding)
- Flammable liquids and gases
- Smoking in prohibited areas
- Gas leaks
- Poor housekeeping



TOOLBOX TALK – FIRE SAFETY

- Oil and grease accumulation
- Faulty electrical equipment
- Improper storage of combustible materials

The Fire Triangle

A fire requires three elements to start:

 **Heat** – Ignition source such as sparks, flames, or hot surfaces.

 **Fuel** – Wood, paper, oil, chemicals, gas, plastics, etc.

 **Oxygen** – Air that supports combustion.

Removing any one of these three elements will extinguish the fire.

Classes of Fire

Class A

Ordinary Combustible Materials

Examples:

- Wood
- Paper
- Cloth
- Rubber
- Plastics

Suitable extinguishers:

- Water
- Foam
- ABC Dry Powder

Class B

Flammable Liquids

Examples:

- Petrol
- Diesel



TOOLBOX TALK – FIRE SAFETY

- Paint
- Solvents
- Oil

Suitable extinguishers:

- Foam
- CO₂
- Dry Chemical Powder (DCP)

Never use water on flammable liquid fires.

Class C

Flammable Gases

Examples:

- LPG
- Acetylene
- Hydrogen
- Methane

Suitable extinguishers:

- Dry Chemical Powder (DCP)

First isolate the gas supply if it is safe to do so.

Class D

Combustible Metals

Examples:

- Magnesium
- Sodium
- Potassium
- Aluminum powder

Suitable extinguishers:

- Special Class D Dry Powder

Class E (Electrical Fires)



TOOLBOX TALK – FIRE SAFETY

Examples:

- Electrical panels
- Motors
- Switchboards
- Live electrical equipment

Suitable extinguishers:

- CO₂
- Dry Chemical Powder (DCP)

Never use water on energized electrical equipment.

Class F (Cooking Oils & Fats)

Examples:

- Deep fat fryers
- Cooking oil

Suitable extinguishers:

- Wet Chemical Extinguisher

Fire Prevention Measures

Always:

- ✓ Maintain good housekeeping.
- ✓ Store flammable materials properly.
- ✓ Keep ignition sources away from combustible materials.
- ✓ Follow Hot Work Permit procedures.
- ✓ Inspect electrical equipment regularly.
- ✓ Report damaged electrical wiring immediately.
- ✓ Keep emergency exits clear.
- ✓ Ensure fire extinguishers remain accessible.

Safe Storage of Flammable Materials

- Store in approved containers.



TOOLBOX TALK – FIRE SAFETY

- Keep away from heat sources.
- Ensure proper ventilation.
- Clearly label containers.
- Keep lids closed.
- Store only minimum required quantities.

Portable Fire Extinguisher (PASS Technique)

Remember **PASS**:

P – Pull the safety pin.

A – Aim at the base of the fire.

S – Squeeze the handle.

S – Sweep from side to side.

Use a fire extinguisher only if:

- The fire is small.
- You have been trained.
- You have a safe escape route.
- The correct extinguisher is available.

If You Discover a Fire

- Raise the alarm immediately.
- Inform nearby persons.
- Call the emergency response team.
- Use a fire extinguisher only if it is safe.
- Evacuate using the nearest emergency exit.
- Assemble at the designated Assembly Point.
- Never use elevators during a fire.
- Do not re-enter the building until authorized.

Emergency Evacuation

During evacuation:

- Stay calm.
- Walk—do not run.



TOOLBOX TALK – FIRE SAFETY

- Follow emergency exit signs.
- Assist injured persons if safe.
- Close doors behind you if possible.
- Report to the Assembly Point.
- Wait for further instructions.

Fire Extinguisher Inspection

- Check regularly for:
- Correct pressure gauge reading
- Safety pin in place
- No physical damage
- Inspection tag updated
- Clear access
- Proper mounting

Do's

- ✓ Keep fire exits unobstructed.
- ✓ Know the location of fire extinguishers.
- ✓ Participate in fire drills.
- ✓ Report fire hazards immediately.
- ✓ Follow Hot Work Permit procedures.
- ✓ Store flammable materials safely.

Don'ts

- ✗ Do not block emergency exits.
- ✗ Do not overload electrical sockets.
- ✗ Do not smoke in prohibited areas.
- ✗ Do not use damaged electrical equipment.
- ✗ Do not store combustible materials near heat sources.
- ✗ Do not panic during an emergency.



TOOLBOX TALK – FIRE SAFETY

✗ Do not use the wrong type of fire extinguisher.

Emergency Response

If a person's clothing catches fire:

STOP – DROP – ROLL

- Stop moving.
- Drop to the ground.
- Roll to extinguish the flames.

Cool burns with clean running water and seek medical attention immediately.

Key Safety Message

Fire prevention is everyone's responsibility. Good housekeeping, safe work practices, and quick emergency response can prevent fires and save lives.



TOOLBOX TALK – FIRE SAFETY

Quick Safety Quiz

Q1. What are the three elements required for a fire to start?

- A. Water, Heat, Smoke
- B. Heat, Fuel, and Oxygen** 
- C. Fuel, Electricity, Steam

Q2. What does PASS stand for when using a fire extinguisher?

- A. Pull, Aim, Squeeze, Sweep** 
- B. Push, Aim, Spray, Stop
- C. Pull, Apply, Spray, Sweep

Q3. What should you do first if you discover a fire?

- A. Hide
- B. Raise the alarm and inform others** 
- C. Continue working