

Workplace Safety Essentials

Preventive strategies for workplace safety



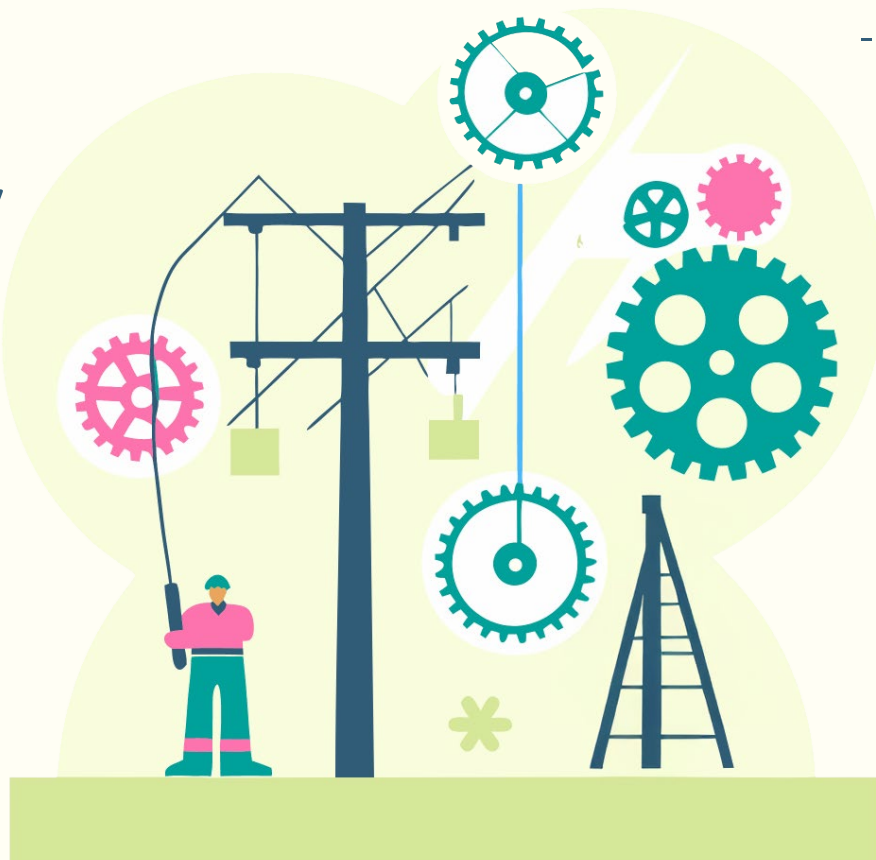
Workplace Safety

Audience: New and existing employees working in production, maintenance, logistics, or facility operations.

Delivery Mode: Self-paced eLearning + optional in-person safety walkthrough

Duration: ~30–45 minutes

Goal: Learning preventive strategies for workplace safety.



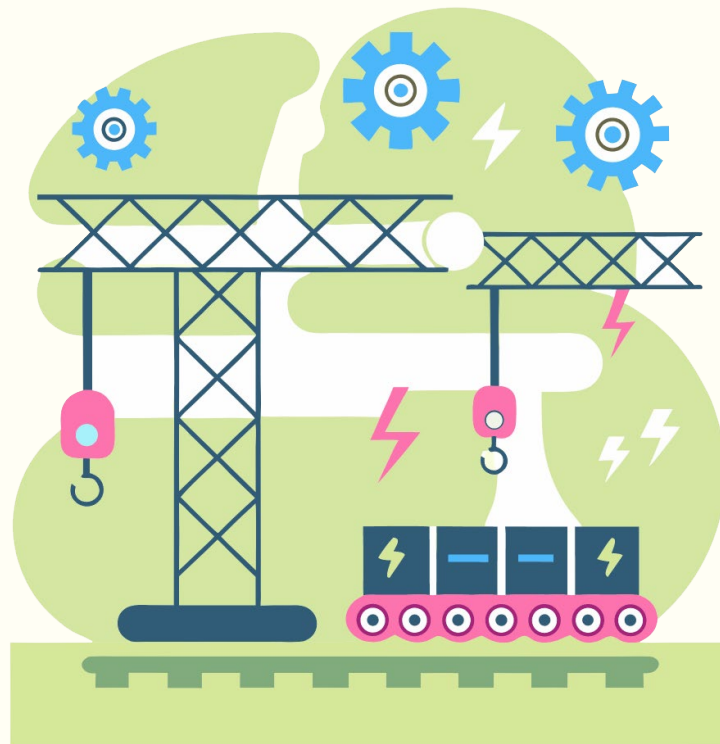
Why Safety Matters?

Thousands of workers step into industrial plants worldwide to keep operations running. And every day, someone gets injured because of a preventable safety issue.

In environments like ours - with heavy machinery, high voltage, and moving parts - safety isn't just a guideline. It's a shared responsibility.

This course will walk you through key safety practices to protect yourself and those around you -

staying alert means staying safe.





01

Hazards

Chemical Hazards

Chemicals used in industrial plants - such as solvents, cleaners, or process materials - can be hazardous if not handled correctly. Risks include skin irritation, respiratory issues, fires, or chemical burns.



Chemical Hazards

Key Safety Tips:

- Always read Safety Data Sheets (SDS) before handling any chemical.
- Wear appropriate PPE (e.g., gloves, goggles, respirators) based on chemical risk.
- Never mix chemicals unless explicitly instructed and trained.
- Know the location of emergency showers, eyewash stations, and spill kits.



Mechanical hazards

Mechanical hazards come from moving parts of machinery such as belts, gears, blades, and conveyor systems. These can cause crushing, cutting, entanglement, or pinching injuries.



Mechanical hazards

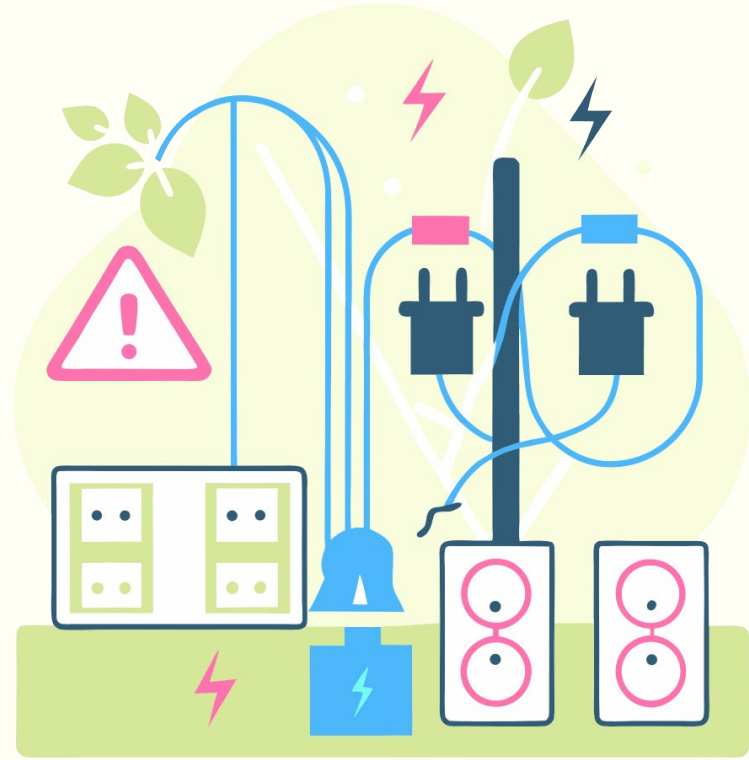
Key Safety Tips:

- Never bypass machine guards or safety interlocks.
- Keep hands, hair, and clothing away from moving parts.
- Use lockout/tagout procedures during maintenance.
- Report unusual machine noise or movement immediately.



Electrical hazards

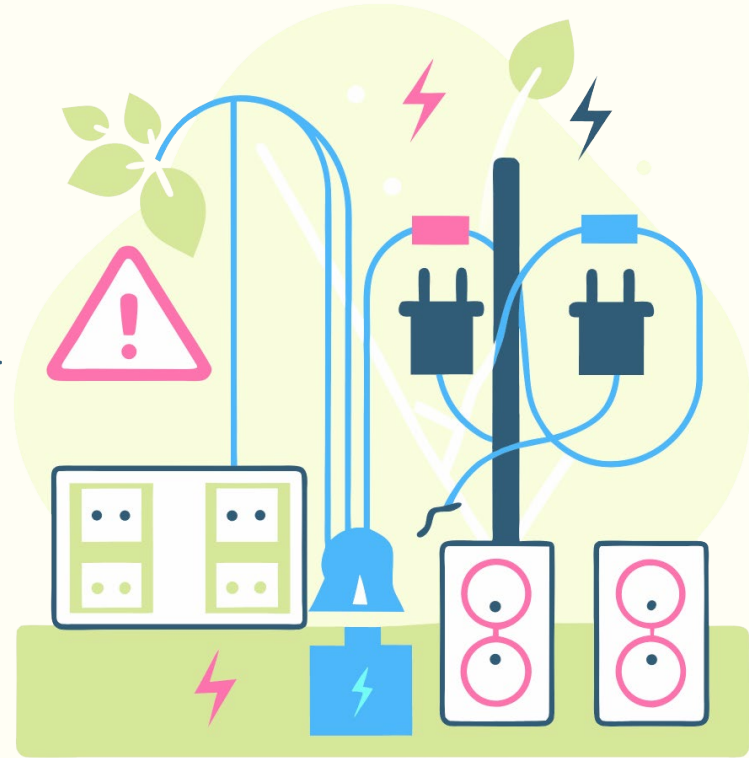
Electrical systems in industrial environments carry high voltage and can cause shocks, burns, or fires when improperly handled or maintained.



Electrical hazards

Key Safety Tips:

- Only trained personnel should access or work on electrical panels.
- Always check for damaged cords, exposed wires, or faulty equipment.
- Follow lockout/tagout protocols before electrical repair or inspection.
- Never use water around live electrical equipment.





02

Prevention

Personal protective equipment (PPE)

PPE creates a physical barrier between you and workplace hazards. It's your last line of defense when engineering or administrative controls can't fully eliminate the risk.

- Hard hats for head protection
- Safety goggles and face shields for eye and face protection
- Gloves for chemical, thermal, or mechanical risks
- Hearing protection in high-noise areas
- Steel-toed boots and flame-resistant clothing when required



Safety training programs

Training empowers employees with the knowledge to recognize, avoid, and respond to potential hazards. It also ensures that everyone follows consistent procedures.

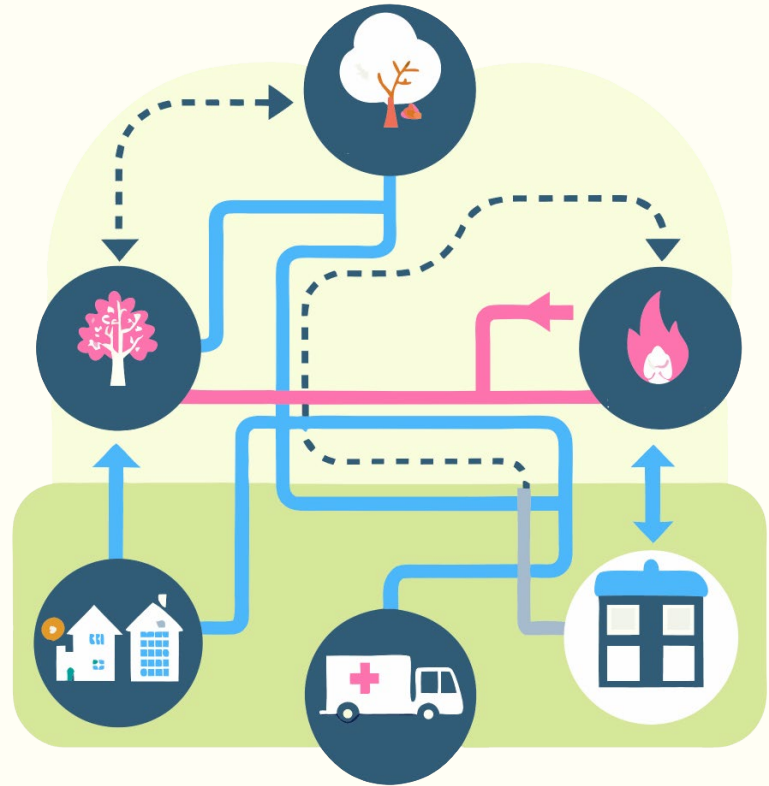
- Hazard identification
- Equipment operation guidelines
- Lockout/tagout procedures
- Chemical handling protocols
- Routine safety drills



Emergency response plans

Preparedness can save lives. Emergency response plans outline exactly what to do in case of a fire, chemical spill, injury, or evacuation. Hard hats for head protection

- Clear evacuation routes and muster points
- Emergency contact numbers posted visibly
- Access to first aid kits and spill response materials
- Designated team members trained in first response and first aid



Quiz Question 1: PPE

Which of the following is the correct approach when your safety goggles are scratched and hard to see through?

Options:

- Use them anyway - they still offer protection
- Wipe them with your shirt and continue working
- Report them and request a replacement
- Wear them under your hard hat to reduce glare

Check your answer



Quiz Question 2: Safety Training

Why is it important to participate actively in safety training programs?

Options:

- To avoid getting in trouble with supervisors
- Because the training helps identify and respond to workplace hazards
- For you can finish quickly and get back to work
- Because it's only required once during orientation

Check your answer



Quiz Question 3: Emergency Response

What should you do first if you hear a fire alarm in your facility?

Options:

- Wait to see if it's a drill
- Call your manager for instructions
- Immediately follow the posted evacuation route to your muster point
- Try to put out the fire yourself

Check your answer

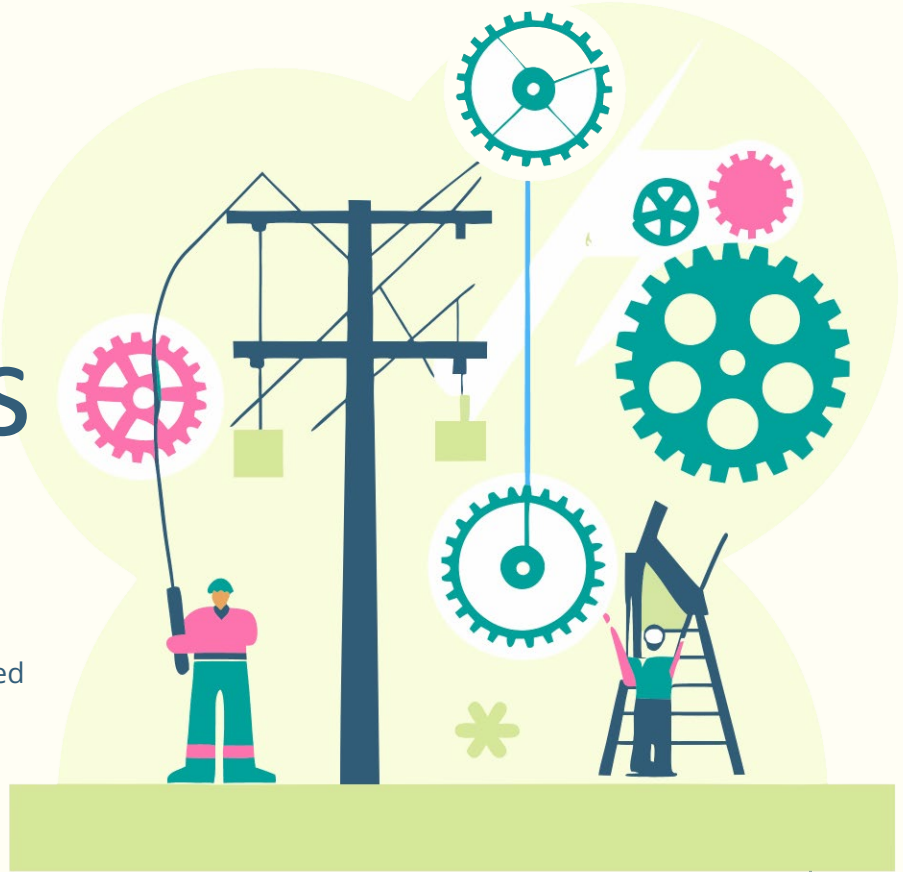


Conclusions

Maintaining a safe work environment in an industrial plant isn't just about following rules — it's about protecting yourself, your teammates, and the quality of our operations.

By understanding the hazards, using personal protective equipment correctly, participating in training, and being prepared for emergencies, you contribute to a strong safety culture.

Remember: safety starts with awareness, and continues with action. Stay alert, speak up, and always put safety first.





Thank you!



Do you have any questions?

