

Electrical Safety



Electrical hazards can be fatal. It is important to follow the same systematic approach used for other health and safety issues when dealing with electrical safety. It is imperative to know how to work safely with or within the vicinity of electricity because electrical current in regular businesses and homes have enough power that, if exposed to, can be fatal.

Electrical hazard safety means:

- Taking precautions to identify and control electrical hazards

The following hazards are the most frequent causes of electrical injuries:

- Contact with power lines
- Lack of Ground fault protection
- Path to ground missing or discontinuous
- Equipment not used in the manner prescribed
- Improper use of extension /flexible cords

Basic Safety Rules Every Employee Should Follow:

- Never use faulty equipment
- Clearly label equipment that should not be used due to a suspected fault
- Disconnect power supply and remove from service until repairs have been done
- Switch off equipment and power sockets before removing the plug from the power source
- Switch off equipment before adjusting or cleaning it

- Any equipment that can be switched off when not in use, should be switched off
- Repairs and alterations should only be attempted by a qualified person, following proper energy isolation procedures
- Never use equipment outdoors that is labeled for use only in dry, indoor locations.
- Do not use ungrounded, two-prong adapter plugs to three-prong cords and tools.

Be safe when working with electricity: Use correctly rated cords and equipment, correct size fuses and know where breakers are located in case of an emergency.

Make it a habit to inspect tools, power cords and electrical fittings for damage or wear and tear prior to use. Any damaged or faulty equipment should be immediately replaced. When necessary, you should always tape the cord to the wall or the floor. Check for nails and staples as these can damage cords, causing fire and shock related hazards.

Cords that are used must be rated for the amperage or wattage that you are using. If you notice that the outlet is unusually hot, this is a sign that the wiring conditions are unsafe. Unplug any devices connected to these outlets and refrain from using them until they have been checked by a qualified person.

When working with or close to electricity be sure to wear the required PPE and use wooden ladders or ones made from non-conductive materials.

Be aware of where the breakers and fuse boxes are located, in case of emergency.

Power Line safety:

When working near overhead or buried power lines always assume they are energized. Never assume a wire is safe to touch.

- De-energize and ground lines when working near them. Other protective measures include guarding or insulating the lines.
- Use non-conductive wood or fiberglass ladders when working near power lines.
- Look for overhead power lines and buried power line indicators. (Post warning signs).
- Always call a utility company if you come across damaged or fallen power lines.
- Contact utilities for buried power line locations.
- Stay at least 10 feet away from overhead power lines.

What is Lockout/Tagout:

Lock-out is the isolation of energy from the system (machine or equipment) which physically locks the system in a safe mode when a machine is under servicing or maintenance. This prevents unexpected start-up or release of stored energy.

Tag-out is a labelling process that is always used when lock-out is required. The process involves attaching or using an indicator that includes items such as:

- 1) Why lock-out was required
- 2) Time of application of tag-out
- 3) Name of authorized person who attached the tag and lock on system.

Note: Only the person who placed the lock and tag is permitted to remove them. Lock-out/Tag-out can only be applied by a "Qualified Person".

Qualified person: A person permitted to work on or near exposed energized parts and who has been trained in the following techniques:

- Able to distinguish exposed live parts from other parts of electric equipment.
- Able to determine the nominal voltage of exposed live parts, and the clearance distances required.

Remember: working with electricity is extremely hazardous. Ensure you take the appropriate steps to stay safe.