



Focus on Safety

General Electrical Awareness

Electricity has long been recognized as a serious workplace hazard which could expose employees to such dangers as electrical shock, electrocutions, burns, and fires. The Occupational Safety and Health Administration (OSHA) electrical standard attempts to minimize the potential hazards associated with the design and use of electrical equipment and systems. OSHA's standards cover all employees who may be exposed to electrical hazards.

Hazards:

Electrical cord abuse is the most common single cause for electric shock to workers in the field. Excessive scraping, kinking, stretching, and exposure to grease and oils can damage electrical cords and cause premature failure and possible electrical shock or burns. Electrical installations and equipment present the potential for shock or electrocution from contact with energized systems. Fire can be caused by short circuits, over-heated equipment, or failure of limit switches and other devices. Explosions may occur when flammable liquids, gases, or combustible dust are exposed to ignition sources generated by electrical equipment.

Depending on the assigned task involving electricity, the use of specialized tools and arc rated clothing with a certain calorie rating may be necessary as well as insulated rubber gloves, arc rated face shield, and other non-conductive clothing. Refer to the Hazard Assessment and Personal Protective Equipment (PPE) selection for the appropriate PPE and arc rated clothing.

Circuit Breakers/Disconnects:

- **Shall** clearly indicate whether they are in the ON/OFF position and labeled as to what they control.
- **Shall** be readily accessible and have access clearance of 36 inches.
- Workers **shall not** substitute larger fuses/breakers or use bypass wires.
- Circuit breakers **shall not** be secured with tape, nails, wire, etc., in the "on" position. Breakers that frequently trip are indicators of possible electrical problems and **shall** be promptly reported and corrected.

Guarding Live Parts:

Cover plates for electrical outlets, switches, junction boxes, etc., shall be securely installed. Cover plates shall be free of cracks or other defects that could cause them to be ineffective. All unused openings (knock out plugs) in switch housings, junction boxes, circuit breaker panels, etc., shall be securely covered. Rigid conduit shall be securely attached to the box and flexible conduits shall be firmly secured by a clamping device where the conduit enters the box.



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All electrical cables, wires, or other equipment must be used only in an environment for which the manufacturer has designed it. Electrical receptacles, including portable receptacle boards, used outdoors shall have secured weatherproof covers installed on them for protection from driving rains and/or water runoff.

Ground Fault Circuit Interrupters (GFCI) shall be used in outdoor, damp, or wet locations.

Repairs:

ALL LOTP procedures shall be followed, before starting any electrical work which requires hazardous energy to be controlled.

General Information:

Inspect all electrical cables, cords, tools, and equipment before using. Electrical equipment shall be turned off prior to plugging in or unplugging the electrical cord to/from the energy source. When not in use, extension cords shall be unplugged from the energy source.

Do not route electrical cables or cords where they can become damaged, can become tripping hazards, or can block ladders, doorways or emergency equipment. The use of trees and crossovers can prevent tripping hazards and protect cables and cords from being damaged. In areas with rolling equipment and vehicles the use of adequate roll-over protection shall be used to prevent damage to cables and cords especially shore power cables.

Do not route/place extension cords or power cables in water or areas that are very wet. Extension cords shall be water proof and rated for the work that is going to be performed.

All extension cords shall have a ground pin; if the ground pin is missing, the extension cord must not be used. The extension cord must either be removed from service to be repaired by a competent /qualified electrician or cut up and placed in the trash.

Flexible cables and cords shall be connected to devices and fittings so that strain relief is provided that will prevent pull from being directly transmitted to joints or terminal screws.

Some examples of flexible electrical cords that have strain relief are extension cord plugs, power tool cords, portable fan cords, light stringers, and electrical blower cords. Equipment, tools and machines that have damaged strain relief shall not be used. The equipment, tool or machine shall be tagged "out of service" and repaired before being placed back into service.



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DEPARTMENT/LOCATION: _____ MEETING DATE: _____
 Meeting Lead By: _____ Time Started: _____
 Title: _____ Time Finished: _____

1. **Open Meeting & Present** Safety Topic: _____
2. **Read** minutes from previous meeting.
3. **Persons present (Print & Sign)**

4. **Updates** – Status of previously presented safety concerns. Discuss any pending items.

5. **Incidents** – Concentrate on accident causes to make everyone more aware. Discuss incidents or near misses that have occurred since the last meeting. Summarize incidents and any injury trends. Review corrective actions that have been taken or are needed.

6. **Inspection/Audits** – Discuss findings and corrective actions of safety inspections made since last meeting.

7. **New Information** – Ask for employee suggestions. Discuss new procedures, safety policy changes, etc.

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