Safety Absolute Brief Facts

ELECTRICAL SAFE WORK PRACTICES

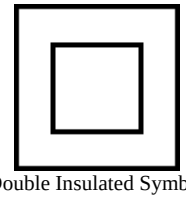
All workers need to understand electricity is a serious workplace hazard, capable of causing both employee injury (shocks, electrocution, fires, and explosions) as well as serious property damage. Using portable electrical tools, proper extension cords, GFCI, and lights safely and developing appropriate work practices when working on a conveyance's electrical systems, can help reduce the risk of such incidents at worksites.

Portable Electric Tools and Lights

1. Power tools, portable lights or cord sets shall be protected by ground fault circuit interrupters (GFCIs), even when using double insulated tools.

Ground Fault Circuit Interrupter (GFCI)

2. All cords and power tools should be inspected for damage before use. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item shall be removed from service, and no employee may use it until repairs and tests necessary to render the equipment safe have been made.
3. Attachment plugs and receptacles may not be connected or altered in a manner which would prevent proper continuity of the equipment grounding conductor at the point where plugs are attached to receptacles. When grounded outlets are not available, adapter plugs shall be used with the grounding wire secured to a positive ground. Use your meter or GFCI tester to test for positive ground.
4. Ensure Double-insulated tools, when used, are distinctively marked with the words "Double Insulated" or the symbol shown below:



Double Insulated Symbol

5. When using extension cords, make sure the cord is capable of carrying the expected load. Extension cords shall be approved by a nationally recognized testing laboratory, company

approved, and shall be durably marked on the surface at intervals not exceeding 610 mm (24 in.) with the type designation, size, and number of conductors (12-3 or 14-3 AWG). Never field modify extension cords.

Listed or labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling.

Listing label attached to an extension cord

6. Flexible cords may be used only in continuous lengths without splice or tap.
7. Flexible cords and cables, where temporarily run through holes in walls, ceilings, floors, doorways, windows, or similar openings, shall be protected from accidental damage, as might be caused, for example, by sharp corners, projections, and doorways or other pinch points.
8. Flexible cords and cables 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.
9. To prevent tripping hazards and cord damage, work areas, walkways, and similar locations shall be kept clear of all cords.
10. Do not lift or lower portable electric tools by the power cord. Never throw tools, equipment, or material from one work level to another.
11. Unplug power when adjusting or cleaning the tool, or when changing accessories such as a blades, discs, or bits.
12. Never use electrical tools for purposes other than intended.
13. Keep guards in place and properly adjusted.
14. Have a firm footing and be properly braced when using power tools.

Summary

The intent of this Standard Work Process and Procedure is to make sure that all mechanics and apprentices fully understand electrical safe work practices. Protect yourself from shock when using power tools and extension cords:

- Follow Ground Fault Protection Procedures noted above.
- Inspect all electrical cords and plugs for wear, damaged insulation or plug prongs.
- Never modify or remove ground / neutral prongs from plugs to adapt to ungrounded outlets.

- If a cord or plug is damaged, tag it as defective and remove it from service until it is repaired or replaced.

Through the Alliance between OSHA's 10 Regional Offices and the Elevator Contractors of America (ECA), Elevator Industry Work Preservation Fund (EIWPF), International Union of Elevator Constructors (IUEC), National Association of Elevator Contractors (NAEC), National Elevator Industry Educational Program (NEIEP), and National Elevator Industry Inc. (NEII), collectively known as The Elevator Industry Safety Partners, developed this Industry Specific Training for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor. March 2025

Under the Occupational Safety and Health Act, employers are responsible (http://www.osha.gov/as/opa/worker/employer-responsibility.html) for providing a safe and healthy workplace and workers have rights (https://www.osha.gov/workers). OSHA can help answer questions or concerns from employers and workers. OSHA's On-Site Consultation Program (https://www.osha.gov/consultation) offers free and confidential advice to small and medium-sized businesses, with priority given to high-hazard worksites. For more information, contact your regional or area OSHA office (https://www.osha.gov/contactus/bystate), call 1-800-321-OSHA (6742), or visit https://www.osha.gov/.