OSHA CONSTRUCTION eTOOL

Electrical
Falls
Struck-By
Trenching
Scope
SH Program

Electrical Incidents:

Path to Ground Missing or Discontinuous

Am I In Danger?

If the power supply to the electrical equipment at your site is not grounded or the path has been broken, fault current may travel through a worker's body, causing electrical burns or death [*for additional information see,* Flexible Cords *and* Power Tools]. Even when the power system is properly grounded, electrical equipment can instantly change from safe to hazardous because of extreme conditions and rough treatment.

Removing the ground pin from a plug to fit an ungrounded outlet not only means your work area is unsafe, but makes the cord unfit for future work where there is grounding.

How Do I Avoid Hazards?

- Ground all power supply systems, electrical circuits, and electrical equipment.
- Frequently inspect electrical systems to insure that the path to ground is continuous.
- Visually inspect all electrical equipment before use. Take any defective equipment out of service.
- Do not remove ground prongs from cord- and plug-connected equipment or extension cords.
- Use double-insulated tools.
- Ground all exposed metal parts of equipment.
- Ground metal parts of the following non-electrical equipment, as specified by the OSHA standard [29 CFR 1926.404(f)(7)(v)]:
  - Frames and tracks of electrically operated cranes.
  - Frames of non-electrically driven elevator cars to which electric conductors are attached.
  - Hand-operated metal shifting ropes or cables of electric elevators.
  - Metal partitions, grill work, and similar metal enclosures around equipment of over 1kV between conductors.

Missing or Discontinuous Path to Ground

Additional Information:

- 29 CFR 1926 Subpart K, Electrical. OSHA Standard.
  - 1926.404, Wiring design and protection
    - 1926.404(b)(1)(i), General
- Electrical Contractors Industry. OSHA Safety and Health Topics Page. Provides information about the hazards that electrical workers may experience as a part of their jobs.
- Electrical Safety: Safety and Health for Electrical Trades Student Manual. US Department of Health and Human Services (DHHS), National Institute for Occupational Safety and Health (NIOSH) Publication No. 2002-123, (2002, January).

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