

Electrical Safety

Electricity has long been recognized as a serious workplace hazard and working with electricity can be dangerous. OSHA's electrical standards are designed to protect employees exposed to dangers such as electric shock, electrocution, fires, and explosions. Construction workers, engineers, electricians, and other professionals work with electricity directly, including working on overhead lines, cable harnesses, and building wiring. Others, such as office workers and sales people, work with electricity indirectly and may also be exposed to electrical hazards.

Many workers are unaware of the potential electrical hazards present in their work environment, which makes them more vulnerable to the danger of electrocution. 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 Manner Prescribed, and Improper Use of Extension and Flexible Cords.

Contact with Power Lines- Overhead and buried power lines at your site are especially hazardous because they carry extremely high voltage. Fatal electrocution is the main risk, but burns and falls from elevations are also hazards. Using tools and equipment that can contact power lines increases the risk.

Lack of Ground-fault Protection- Due to the dynamic, rugged nature of construction work, normal use of electrical equipment at your site causes wear and tear that results in insulation breaks, short-circuits, and exposed wires, especially with Flexible Cords and Power Tools. If there is no ground-fault protection, these can cause a ground-fault that sends current through the worker's body, resulting in electrical burns, explosions, fire, or death.

Path to Ground Missing or Discontinuous - 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. Even when the power system is properly grounded, electrical equipment can instantly change from safe to hazardous because of extreme conditions and rough treatment.



Improper Use of Extension and Flexible Cords-

The normal wear and tear on extension and flexible cords at your site can loosen or expose wires, creating hazardous conditions. Cords that are not 3-wire type, not designed for hard-usage, or that have been modified, increase your risk of contacting electrical current.



Equipment Not Used in Manner Prescribed - If electrical equipment is used in ways for which it is not designed, you can no longer depend on safety features built in by the manufacturer. This may damage your equipment and cause employee injuries.



To learn more about the electrical standards that apply to construction, electrical hazard recognition and solutions, visit www.osha.gov/SLTC/electrical/construction



Holiday Electrical Safety

The winter holiday season is traditionally a festive and eventful time of year. Celebrations, family gatherings and visits from houseguests traditionally increase in number during the season. Statistics show that the incidents of home fires and electrical accidents also typically increase during the winter holiday season.

TWELVE HOLIDAY SAFETY TIPS

- 1** Keep decorations at least three feet away from heat sources – especially those with an open flame, like fireplaces and candles.
- 2** The best decorations are safe decorations, so when you're decorating, make sure not to run cords under rugs or furniture.
- 3** If you have a natural Christmas tree water it to keep it fresh and safe.
- 4** Always turn off your decorations when you leave your home and when you're sleeping.
- 5** If you're using extension cords or adapters that add receptacles, consider having a qualified electrician add more outlets to your home.
- 6** Only use electronics in dry areas. As tempting as it is, you just can't decorate your aquarium with icicle lights.
- 7** Remember that phones and tablets should stay on your nightstand.
- 8** Every home needs a working smoke alarm in each bedroom, outside sleeping areas and on every level, including the basement.
- 9** If you're using a space heater, switch it off before leaving the room.
- 10** Inspect your decorations and discard any that are damaged or worn out.
- 11** Keep batteries stored safely in their packaging and out of reach from small children and pets.
- 12** The best gift for your family is an Arc-Fault Circuit Interrupter breakers or outlets. Many electrical fires that occur every year could be prevented by AFCIs.

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