

Worksite: _____ Instructor: _____ Date/Time: _____

TOPIC C853: FOCUS FOUR ELECTROCUTION

Introduction: The Occupational Safety and Health Administration (OSHA) developed the Construction Focus Four Module to help workers understand common hazards. This is part of the training required in 10 and 30 hour OSHA Construction Outreach Training Program classes.

Electrocution occurs when a person comes into contact with a power source and is exposed to a near lethal or lethal amount of electrical energy. Always be energy aware and use caution when there's a live electrical current. The degree of severity can range from burns and muscle shocks to fatality. Common hazards that pose the threat of electrical injury are overhead power lines, energized sources and improper use of electrical cords.

- **Overhead Power Lines:** Power lines carry high voltage. While electrocution is the primary risk connected with coming into contact with a power line, other consequences include burns and falls triggered by the shock. It's important to note that the covering on overhead power lines is designed to protect it from weather only. This means that touching a power line, may result in a fatal electrocution. Keep equipment and your activity a safe distance from overhead power lines. Stay 10 feet away from voltages over 50 kV, up to and including 345 kV.
- Make sure your tools and materials are non-conductive if in the vicinity of power lines. Contact and communicate with the utility company to confirm voltage and prepare energy grounding or insulated line covers. Mark the work site with signs indicating the safe distances and vehicle clearances. See C348 "Power Lines and Equipment" for more detail on this.

Energized Sources: These injuries are caused by electricity passing from its source, through your body, and out an exit. Essentially, you're becoming part of the electric circuit, and bodily damage from such an injury can be devastating. Energized sources that haven't been disconnected from power or properly grounded are hazardous and should be respected.

When working with or around energized sources, use a ground-fault circuit interrupter (GFCI). GFCIs are designed to detect ground faults and intercept or interrupt electrical currents. You should of course use caution, follow safe practices and wear the correct protective equipment because a GFCI doesn't eliminate the hazard, it limits the severity and duration of an electrical shock, reducing the chance of death.

Improper Use of Electrical Cords: Power and extension cords are common in most work places. Their frequent use exposes them to accelerated deterioration and general wear and tear. Being exposed and unsecured makes them exceptionally susceptible to damage. As the deterioration of quality progress to the point where the cord's inner wires are exposed, they become a safety hazard. This may result in you coming into contact with the exposed wire, or the exposed wire contacting other conductive or flammable materials.

Inspect power and extension cords prior to use. Look at the integrity of the insulation coating to ensure that no wire is exposed. Be sure to regularly inspect the insulation inside of portable tools, damaged insulation could.

Employee Attendance:(Names or signatures of personnel who are attending this meeting)

These guidelines do not supersede local, state or federal regulations, and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.