

Company Name: _____ Dept: _____ Location: _____ Date: _____

#052

ELECTRICAL GROUNDING

The number of serious violations reported by OSHA in this category is alarmingly high considering the inherent danger of working around high voltage electricity. Branch circuits, ground fault protection/assured equipment grounding conductor problems, heads the list, followed by a lack of a grounding path, either permanent or continuous, the lack of ground fault circuit interrupters (GFCI's), inadequate guarding of live parts and equipment not used properly or in accordance with instructions.

A large majority of electrocutions are caused by voltages of less than 600V. At voltages as low as 115 volts, heart fibrillation can start in 3 or 4 seconds of current flow. The effects of AC current at 60 cycles per second on the body can soon be fatal. At more than 10 mA there is muscle contraction and "no-let-go" danger. More than 30 mA can result in lung paralysis, usually temporary, over 50 mA causes usually fatal heart dysfunction and from 100 mA to 4A ventricular fibrillation is certain and most often fatal. The commonly encountered electrical problems on a building site include:

- Frayed extension cords, usually the result of companies not using cords rated hard or extra hard for construction use.
- Ungrounded equipment which is very dangerous when a tool or equipment shorts or has a fault and the current will seek any path to earth, often through the employee!
- Most receptacles have wiring secured to the box by terminal screws, having them unsecured provides the opportunity for them to become loose and shocking an employee.
- Uncovered panel boxes can lead an employee to believing that the power is not energized and make accidental contact.

Be especially careful in wet conditions, caused either by bad weather or building processes and also remember to take care around portable and vehicle mounted electrical generators. Regular testing and visual inspections of all electrical equipment is required by a designated competent person.

Meeting Conducted By:

Print Name

Signature

Meeting Attended By:

Document Filing Reference

Notes & Suggestions

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