SAFETY UNLIMITED, Inc.

Weekly Safety Meeting

Your Safety Is Our Business®

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Electrical Safety For Construction

It doesn't take a lot of electricity to kill you. The amount of current needed to light an ordinary 60-watt light bulb is five times what can kill a person. Thus, all electrical equipment on construction sites is potentially deadly.

Electrical hazards are doubly hazardous in that there is not only the chance of electrocution, but there is also the probability that any electric shock will cause a loss of consciousness that may well result in a fall of some sort. Today we will discuss methods of receiving an electric shock and ways to avoid electrical hazards.

Electrical extension cords are common on construction sites and become damaged because of the rough conditions in which they are used. The U.S. Consumer Product Safety Commission (CPSC) estimates that each year, about 4,000 injuries associated with electric extension cords are treated in hospital emergency rooms. About half of the injuries involve fractures, lacerations, contusions, or sprains from people tripping over extension cords. CPSC also estimates that about 3,300 residential fires originate in extension cords each year, killing 50 people and injuring about 270 others.

The most frequent causes of such fires are short circuits, overloading, and damage and/or misuse of extension cords.

Methods of Receiving an Electric Shock:

- From a defective power tool;
- From defective extension cords;
- From overloading a switch or over-riding a by-pass;
- By not grounding electrical equipment;
- By coming in close contact with live electric lines; or
- By coming too close to high power lines with the power arching over and making contact.

Inspect to ensure:

- All extension cords are three-wire cords;
- The ground pin is on a male plug;
- There is no unbroken insulation on the cord;
- End appliances (plug and receptacle) are gripped to insulation;
- All wires are continuous and unbroken;
- All cords are protected from damage likely to occur when passing through a door or window;
- Metal boxes with knockouts are not used on extension cords;
- Plugs are dead-front (molded or screwed in place);
- Romex (non-metallic sheathed cable) is not used as flexible cord;

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- Cords are not stapled or hung from nails; and
- Bushing is passing through holes in covers or outlet boxes.

Ways to Avoid Electric Hazards:

- Always inspect tools and equipment for frayed cords and defective plugs before using them;
- Never use a power tool that has had the ground plug removed--inspect the plug;
- Never stand in water and operate a power tool without proper (i.e., insulated) footwear;
- Keep extension cords out of water when in use;
- Consider all power lines “live” and avoid contact with them;
- Disconnect all electrical tools and cords when not in use;
- Be sure all temporary lighting is equipped with bulb covers;
- Make sure all power supplies, circuit boxes, and breaker boxes are **properly marked** to indicate their purpose; and
- **Use Ground Fault Interrupters (GFIs) on all jobsites**.

Practice electrical safety so you don’t get shocked!!

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Safety Meeting Sign-In Sheet

Supervisor:	*Subject:*
Location:	*Date:*
Conducted By:	*Trainer Signature:*

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests

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