## SAFETY AWARENESS

Brief Topic Safety Refresher Training For Associates

## **Basic Electrical Safety**

Here's a simple, valuable piece of information you need to know to protect yourself from severe harm: Electricity can kill you.

Despite its extensive use throughout industry and in our homes, many people—perhaps most people—know very little about electricity. It's taken for granted because it does so many things for us easily and dependably. We flip a switch and the lights go on or a machine starts up. When a bulb burns out, we replace it and all's bright again.

In 2014, over 12,000 people went to hospital emergency rooms to be treated for electrical burns and shocks, and about 2,500 of them had injuries related specifically to extension cords. Fires, shocks, and electrocutions are potential perils that can accompany the misuse of extension cords—or the use of cords with faulty wiring and loose connections.

Increasingly, we are using extension cords, power strips, and surge protectors for electrical devices such as computers. Make sure that these products carry a certification label from an independent testing lab such as Underwriters Laboratories (UL). The tag should be permanently attached near the plug of cords and on the underside of the casing of power strips and surge protectors.

## Safe Extension Cord Use, follow these precautions:

- Do not use extension cords as a replacement for fixed wiring. Extension cords are intended for temporary use with equipment not routinely used at a specific location.
- Equipment being plugged into the extension cord should be grounded where applicable.
- Use products that have grounded three-pronged plugs or the new polarized plugs with one blade slightly wider than the other.
- Never bend prongs or force a three-pronged cord into a two-pronged outlet.
- Make sure that the plug has a good solid connection to the outlet.
- Choose heavy-duty extension cords for high-wattage machines and equipment.
- Use one long cord instead of several shorter cords. Never connect extension cords in a series. A longer cord should have a larger diameter (thicker = safer).
- Use cords appropriate to the task and rated high enough for the job.
- Use extension cords appropriate for the conditions. For example, indoor and outdoor cords are constructed differently. Various types of cords are specifically constructed to resist moisture, heat, or chemicals.
- If using a cord outdoors, plug it into ground fault circuit interrupter (GFCI).
- Don't overload cords. Multiplug devices should contain an integral circuit breaker.
- Never splice or tap an extension cord.
- Keep cords untangled when in use and in storage. Keep stored cords loosely coiled in a dry place.
- Never disconnect a plug by pulling on the wire. Instead, grip the plug itself to pull it out of the socket.
- Inspect cords frequently to be sure that they are in good condition and are not frayed, cracked, punctured, or hot to the touch.
- If a cord is defective, do not use it. Have it repaired by a professional or throw it away.

Electricity-related fatalities are not limited to incidents of contact with high voltage lines. Statistics indicate that many people are killed by 115-volt circuits. At 115 volts, a 5-watt lightbulb pulls 50 milliamperes of current. But contact with as few as 15 milliamps can kill. So the amount of current used by a 5-watt lightbulb is sufficient to kill three people. Imagine, therefore, the dangerous potential lurking in drills, saws, sanders, and so forth if they or their cords and plugs are in any way defective.

It's also vital to know that the condition of the electricity user's body has a great deal to do with the severity of any shock that occurs. A wet floor, damp shoes and socks, and sweaty hands all multiply the risk, since they enable the current to pass through the body more easily.

## **RESPECT ELECTRICITY**

So proven safe work practices have been developed for working with electrical tools or appliances, and we expect you to follow them. Here, for example, are five basic "rules for life":

- Use only grounded or UL-approved equipment.
- Make sure the ground pin is intact before plugging it into any receptacle.
- Check cords for fraying or other damage—and if you find any, do not use them.
- Use extreme caution when working with portable electric tools in wet or damp places. This includes tanks and boilers or areas near piping and other grounded objects that you might touch, thus allowing electricity to pass through your body to the ground.
- If you get a shock, no matter how minor, from any equipment you are using, stop at once. Report the incident to a Team Leader and have the equipment tagged for repair.

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