Toolbox Safety Topic

Portable Power Tool Safety

One of the most convenient types tools for craftsmen are power tools. Electric drills and saws, to name a few, are powered with electricity, something that cannot be seen. It easy to become complacent when using these tools, that's why you must always be aware of the electrical hazards involved with their use.

Does anyone know how GFCI's protect people? (They monitor the current flowing from the GFCI, to the tool, and back to the GFCI. If the amount of current coming back varies more than 5 milliamps than the current going out, the GFCI trips, cutting off the power supply to the tool. You should check the tool and the extension cord for damage before you reset the GFCI. Note: Long extension cords can trip a GFCI due to increased resistance due to the length. If this happens, you should use a shorter extension cord or move to a power source closer to the work location.)

(Discuss the procedure you want your employees to follow when damaged or defective tools and equipment are discovered.)

Here are some safe work procedures you should follow when using portable power tools.

1. Use tools and extension cords with a 3-wire plug for grounding. If the tool only has 2-prongs, make sure the label on the tool specifies "double insulated". If the tool has neither, don't use it.
2. Check the tool and cord before each use to ensure safe conditions. Should you find a defect, such as missing parts or guards, cracked frame, damaged cord insulation or plug, you should turn the defective tool in to your supervisor for repair by a qualified electrician or replacement. If the tool will be left in the work place for a period of time, attach a "Do Not Use" tag to the cord.
3. When making adjustments (such as changing blades or bits) or repairs to power tools, ALWAYS disconnect the power first.
4. When using power tools in a wet or damp area, use a ground fault circuit interrupter (GFCI) and elevate the cords out of the water. GFCI's should be placed on the end of the extension cord at the outlet, so that the extension cord as well as you are monitored and protected. Also, be aware of standing in puddles of water when using the equipment.
5. When elevating extension cords to avoid wet conditions, do not use wire that will cut into the insulation or lay across sharp edges. Rope, twine, or padding is less abrasive.
6. Do not run extension cords through windows or doors which could accidentally be closed on the cord, pinching the insulation and resulting in damage or shock. Do not place cords in walkways or traffic areas where they can cause tripping hazards and possibly be damaged.
7. When unplugging tools and cords, remove by pulling the plug, not by pulling the cord, which can cause damage to the cord, plug, and outlet.
8. When using temporary lights, make sure the guard or reflector is in place to prevent accidental contact with the bulb. Do not suspend by the cord unless it is designed and approved for such use.

Suppose you notice an unconscious coworker lying on the floor in a puddle of water, with a power tool attached to an extension cord laying next to him/her. What should you do?
(Give employees an opportunity to respond, then discuss the procedure below.)

Do not touch him/her. Disconnect the power at the source. Call 911. Use a non-conductive stick (ex. wood or fiberglass) to help move the victim away from the shock source. Check to see if the victim is breathing and if there is a pulse. Administer artificial respirations and/or CPR if you know how (if not, see if anyone around you knows how). Keep the victim lying down and cover lightly until professional help arrives.

Any questions?

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Date: _____

Meeting Conducted By: _____ Title:_____

Attendees

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