

Power Tools

WHAT'S AT STAKE

Even though power tools are common in most workplaces, they can still be very dangerous. Everyone knows that when mishandled a circular saw can lop off fingers, but many power tools are also powered by electricity and so pose the risk of shock or electrocution.

WHAT'S THE DANGER

Using power tools in wet or rainy weather or equipment that is damaged can, and often does, lead to injuries. Most electrical equipment manufacturers specify that their equipment shouldn't be used in damp or wet conditions. Cord connected portable equipment and supply cords must be maintained and should be checked before use. Class A type ground fault circuit interrupters (GFCIs) must be used for portable electrical equipment when working outside or in wet or damp conditions.

EXAMPLE

A man was using an electric power drill on a piece of wood. It was an old drill he had recently inherited when his battery power drill was stolen. He failed to properly inspect the cord leading to the power supply for cuts and so did not notice the exposed wires. When moving around his work space he accidentally ran his cord through a small puddle of water and electrocuted himself.

HOW TO PROTECT YOURSELF

- Inspect tools, power cords and electrical fittings for damage prior to each use. Repair or replace damaged equipment.
- Switch tools off before connecting to a power supply.
- Disconnect the power supply before making adjustments.
- Make sure tools are either properly grounded or double-insulated. Grounded tools must have a three-wire cord with a three-prong plug. This plug must be plugged into a properly grounded three pole outlet.
- Don't break off the third (ground) prong on a plug.
- Test electrical tools and cords for effective grounding with a continuity tester before use.
- Replace open-front plugs with dead-front plugs. Dead-front plugs are sealed and pose less danger of electric shock or short circuit.
- Don't bypass the tool's ON/OFF switch by connecting and disconnecting the power cord.
- Suspend power cords over walkways or working areas wherever possible to eliminate tripping hazards.
- Don't use extension cords as permanent wiring. They must only be used to temporarily supply power to an area that doesn't have a power outlet.
- Don't allow vehicles or equipment to pass over unprotected power cords. Cords should be put into electrical conduits or protected by placing them between two pieces of lumber of suitable strength.
- Keep power cords away from heat, water and oil.
- Don't use light-duty power cords for heavy load applications.
- Don't carry electrical tools by their power cords.
- Don't disconnect the power supply by pulling or jerking the cord from the outlet. Pulling the cord rather than the plug may result in electric shock and can damage the wiring inside the cord.
- Don't tie knots in power cords. Knots can cause short circuits and electric shocks. Loop the cords or use a twist lock plug.
- Don't overload the circuit by plugging several power cords into one outlet.

FINAL WORD

It is critical that workers understand the electrical hazards involved in working with power tools and safeguard themselves from injuries by taking proper precautions.

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Job Name: _____ Date: _____

Questions:

1. Carrying electrical tools by the power cord is not “best practice” but it is not hazardous..

True False

2. You must switch off a tool before unplugging it.

True False

3. What would you do to prevent an electrical cord from being damaged by a vehicle driving over it?

4. If a power cord has been exposed to adverse conditions, what should you do with it?

5. How would you tackle an “openfront” plug?

Meeting Attended By:

Please print name here.

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Please print name here.	Initial here.

Supervisor Signature: _____ Date: _____