



5-minute safety talk

Preventing Electrical Shock When Using Power Tools

When working with power tools, electrical shock is a very real and deadly hazard. Electrical shock occurs when a worker's body becomes part of the electrical circuit; the current enters the body at one point and leaves at another. Major injuries such as heart failure, burns and falls from ladders or elevated work surfaces can result.

Never take a situation involving electricity for granted. Constantly check your environment for hazards. Some common sources of electric shock are defective or misused tools, wiring, and extension cords.

Consider the following tips to help protect yourself and your co-workers, and reduce the risk of electrical shock:

- Whenever possible, use Ground Fault Circuit Interrupters (GFCI). (If implementing an Assured Equipment Grounding Conductor Program, do so in compliance with regulatory standards).
- Make sure power tools have three-pronged plugs (containing two current-carrying conductors and a grounding conductor) and are placed into a grounded receptacle. If an adapter must be used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. Never remove the third prong from a plug.
- Use double-insulated power tools (only two prongs) which contain an internal layer of protective insulation that isolates the external housing of the tool.
- Inspect all electrical equipment prior to use. Look for frayed cords, missing ground prongs, cracked tool casings, worn insulation, loose wire terminals, corroded wires, other defective parts, etc. Remove the defective tool from service immediately and have it repaired. Never use equipment that is damaged.
- Do not operate electrical power tools in damp or wet environments (unless they have been specifically approved for that purpose).
- Operate power tools within their design limitations, according to manufacturer instructions.
- Use extension cords with caution. Before operating, make sure the cords are in good condition and are the proper type for the task. Never overload extension cords, connect multiple cords (one extension cord to another cord), or place cords in high traffic areas unless they are bridged to prevent damage. Always remove cords from receptacles by pulling on the plugs, not the cords.
- Never use power strips as extension cords on construction projects.
- Disconnect all power sources before performing maintenance on electrical equipment or tools.
- Use the appropriate personal protective equipment when using portable power tools.

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