

### List electrical hazards on site

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### Explain dangers

Using electricity on site can be hazardous, in three areas especially:

- tools
- cords
- panels/generators.

### Identify controls

The basic rule is simple: Consider all electrical wires and equipment live until they are tested and proven otherwise.

#### Tools

- Use only tools that are polarized or double-insulated.
- Make sure the casings of double-insulated tools are not cracked or broken.
- Always use a Type A ground fault circuit interrupter (GFCI) with portable electric tools operated outdoors or in damp or wet locations. GFCIs detect current leaking to ground from a tool or cord and shut off power before damage or injury can occur.
- Any shock or tingle, no matter how small, means that the tool or equipment needs to be checked and repaired.

- Take defective tools out of service.
- Before drilling, nailing, cutting, or sawing into walls, ceilings, and floors, check for electrical wires or equipment.

#### Cords

- Make sure that tool cords, extension cords, and plugs are in good condition.
- Use only 3-pronged extension cords.
- Make sure that extension cords are the right gauge for the job to prevent overheating, voltage drops, and tool burnout. 12 gauge is ideal.
- Use cords fitted with dead-front plugs. These present less risk of shock and shortcircuit than open-front plugs.
- Do not use cords that are defective or have been improperly repaired.
- Protect cords from traffic.

#### Panels

- Temporary panel boards must be securely mounted in a lockable enclosure protected from weather and water. The boards must be accessible to workers and kept clear of obstructions.
- Receptacles must be GFCI-protected.
- Use only generators with neutral bonded to frame.

### Demonstrate

With your crew,

- inspect sample tools and cords used on the job
- point out labels indicating double insulation
- show how a circuit-tester and GFCI can be used to test cords, tools, and outlets.