Arcing:

What You Should Know

Arcs—small, sparklike leaps of electricity that result from a short circuit or other interruption of current flow—can be as dangerous as electrical shock.

Hazards

An arc occurs when faulty wiring, a break in cord insulation or a short circuit causes electric current to leap out in a spark. If the current is great enough, an arc can cause shock or burns or start a fire. In environments that contain explosive gases, vapors or combustible dusts, even low-energy arcs can cause violent explosions. Extremely high-energy arcs can damage equipment and send fragments flying.

PREVENTING ARCS

- Insulation—the material that covers electrical wires and encloses live elements on some equipment—must be appropriate for the voltage and must remain undamaged, clean and dry.
- Inspect cord and equipment insulation before each use.
- If a cord is frayed or a connection is loose, replace it.
- Never use a cord that has the ground prong missing.
- Keep power cords far from cutting edges.
- Don't step on or run over power cords with equipment or vehicles.
- Grasp the plug, not the cord, when unplugging equipment.
- Stay within cord voltage requirements for tools and equipment.
- If you must use electrical equipment in wet areas, use double-insulated tools and a ground fault circuit interrupter (GFCI).
- Make sure your power cord isn't lying in water or on a damp surface.
- Keep your hands and body dry.
- Avoid standing in or near water.
- Inspect your equipment before use and report any loose or broken wiring or connections.
- Always use grounded tools and equipment and plug them into grounded outlets.