



## TECHNOLOGY WATCH

By Christina Hansen

# 10 Easy Ways to Prevent On-the-Job Electrical Hazards

**W**hen you work in the cleaning and restoration field, there are two constants that you can always count on — first, you'll always need to go where the work is. And second, your tools are going to need electricity when you get there. Whether the available on-site power source is a hardwired electrical system or a portable generator, here are a few simple steps that you can take towards protecting employees, clients and workers from electrical malfunctions and injuries.

### **Have only licensed electricians install, repair and dismantle jobsite wiring.**

That way everything will be completed according to electrical safety codes, ensuring greater protection for the workers who will be using the electrical system to power tools and equipment. Bringing in a professional electrician also prevents injuries that result when less-qualified individuals attempt electrical jobs they aren't properly trained to do.

**Always plug into a GFCI.** Ground Fault Circuit Interrupter (GFCI) protection is required at every plug-in

point associated with a jobsite's temporary electrical supply — right down to the extension cords. Make sure that only GFCI receptacles are installed, and keep portable GFCIs on hand in case additional grounding needs arise.

**Use the right extension cord for the job.** Before plugging in, make sure that the wattage rating of the extension cord you're using is greater than the pull (or power requirement) of the equipment it's powering. Using an extension cord to supply more wattage than it's rated for can cause conductor strain, overheating, and possibly even fire.



**Check each extension cord before use.** Ensure that insulation is completely intact (free from cracks, tears or

abrasions) and that power extension cables haven't been knotted, which can cause conductor damage and increase the risk of fire.

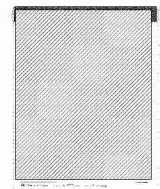


**Keep extension cords in a safe place where they won't be stepped on or driven over.** The force of a vehicle — or even repeated treading by pedestrians — can cause an extension cord's conductor to become misshapen or break, both of which are problems that can lead to electrical fires. Because it occurs in the

core of the cable, conductor damage isn't always obvious to the eye, so play it safe from the start by guarding jobsite extension cords with heavy-duty cord covers.

**Do a thorough check for electrical wiring before cutting through any wall, floor or ceiling.** Any time that a tool inadvertently makes contact with an unseen electrical line, the person holding that tool is likely to be shocked or electrocuted. Always size up the situation before starting to reduce the risk of injury.

**Never refuel a generator during operation.** Pouring combustible fuels



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into a generator that is either currently running or still hot from recent use is extremely risky business. Exhaust fumes and hot engine parts can easily ignite gasoline, so avoid fire hazards by first turning off your generator, and then allowing it to properly cool down before you attempt to refill its gas tank.

**Inspect power tools and machines on a regular basis.** Look over the tools' power cords and plugs for any sign of damage to the insulation, blades or grounding pin. If you find signs of excessive wear and tear, take tools out of commission until they've been properly repaired. Maintain awareness during use as well; if a machine starts to overheat, smoke, give off a burning smell or shock one upon contact, discontinue use immediately.

**Never modify electrical plugs.** Under no circumstances should a worker ever file down the blades, remove the ground pin, or otherwise modify an electrical plug so that it will fit into a socket — doing so only increases the likelihood of shock, electrocution and fire. Either have a certified electrician change the device's plug, or replace outdated two-prong receptacles with grounded outlets that can accommodate a ground pin.

**Ensure that all electrical components stay dry.** It's one of the cardinal rules of electrical safety: don't mix electricity and water. Store power tools and cables above water level when not in use, cover outdoor receptacles, and never use electrically powered tools in a wet environment, unless they were designed specifically for that purpose. ■

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