10 Electrical Safety Tips for Every Worker

WHAT'S AT STAKE

Workers in almost every work environment are exposed to electrical currents powerful enough to cause death by electrocution. Yet many workers are unaware of the potential hazards, which makes them even more vulnerable to the dangers.

WHAT'S THE DANGER

There are four main types of injuries that can result from electrical currents. These are:

1. Electrocution, which is fatal;
2. Electric shock;
3. Burns; and
4. Falls, which may occur when a worker contacts electrical energy.

EXAMPLE

A Department of Public Works employee was attempting to read a water meter that was located behind a boiler. As the man tried to position himself between the water pipes and the boiler, he was electrocuted when his chest contacted exposed 120-volt terminals. He was pronounced dead at the scene.

HOW TO PROTECT YOURSELF

Electricity is always trying to find its way to the ground. When electricity flows, it takes the path of least resistance. Materials with a low resistance to electricity are known as conductors. Moisture is a good conductor of electrical current. Unfortunately, so is the human body.

When you touch a live electrical component, you can provide the electricity with an easy route to the ground. This is especially true if your hands are moist, or if you're touching something metal which is touching the ground, such as a metal ladder, another wire or plumbing.

When the electricity passes through your body, you receive an electrical shock. If you're extremely lucky it could be a mild shock. But sometimes even a small flow of electrical current can cause heart failure, brain damage or severe internal burns leading to death.

Here are ten general safety tips for working with or near electricity.

1. Don't stand in wet areas when using 1. electrical tools.
2. Inspect cords for damage or wear prior to 2. each use.
3. Unplug machinery, power tools and 3. appliances before cleaning, inspecting, repairing or removing something from them.
4. When unplugging a cord from an outlet, 4. pull on the plug, not the cord. Pulling on the cord causes wear and may lead to a shock.
5. If outlets or switches feel unusually 5. warm, don't use them and get a qualified electrician to check the wiring.
6. Plug power tools into grounded outlets 6. installed with Ground Fault Circuit Interrupters.
7. If it's necessary to affix cords to a wall 7. or floor, use tape. Nails and staples can damage cords and cause fire and shock hazards.
8. Don't tie power cords in a knot, as knots 8. can cause short circuits and shocks. Instead, loop the cords or use a twist lock plug.
9. When working outdoors, watch for 9. overhead power lines and buried power line indicators. Always assume overhead power lines are energized and stay at least 10 feet (3 meters) away from them.
10. Use "C" rated extinguishers for electrical 10. fires. Never use water.

FINAL WORD

Electrical currents are a widespread occupational hazard to which almost everyone is exposed. No matter what your job, electrical safety work practices are essential.