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 electrical tools.
2. Inspect cords for damage or wear prior to each use.
3. Unplug machinery, power tools and appliances before cleaning, inspecting, repairing or removing something from them.
4. When unplugging a cord from an outlet, 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 warm, don't use them and get a qualified electrician to check the wiring.
6. Plug power tools into grounded outlet. installed with Ground Fault Circuit Interrupters.
7. If it's necessary to affix cords to a wall 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 can cause short circuits and shocks. Instead, loop the cords or use a twist lock plug.
9. When working outdoors, watch for 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 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.

QUIZ

1. Power tools should be turned off before being cleaned.
   - True
   - False

2. Electricity is always trying to find its way to the _____.

3. The human body is a good _____ of electrical current.

4. How far away should you stay from an overhead power line?

   _____

5. 5. Power cords tied in a knot can cause short circuits and shocks.
   - True
   - False

WHAT WOULD YOU DO?

You're working in the warehouse when suddenly the lights go out. You grab a flashlight and head to the electrical room to check out the problem, where you discover a burned-out fuse. But you can't find a fuse of the same amperage. What do you do? Should you even be in the electrical room in the first place?

BEFORE THE TALK - TIPS

1. Take a tour of your work area and note electrical hazards. What electrical equipment is particularly susceptible to wear and tear?
2. Make sure that you can explain your company's procedures for reporting electrical hazards. Be ready to tell participants whom to talk to if they spot an electrical hazard.
3. Review your company's procedures for tagging and removing from service any defective equipment.
4. Remind your workers who in your company is trained and authorized to do electrical repairs. More important, remind them who is not.
5. Show-and-tell is a good approach to this safety meeting. Show your workers examples of circuit breakers, fuses if they are used, ground fault circuit interrupters, polarized plugs, three-pronged plugs and arc fault circuit interrupters.
6. Print out copies of your company's lockout/tagout procedures and prepare to discuss them with your crew.
7. During your safety meeting, remind your workers about potential electrical hazards at home, such as home wiring problems, the home workshop and kitchen electrical equipment.

AFTER THE TALK- *CHECKLIST*

PROVIDED FOLLOW-UP TO WORKERS THAT DID

POORLY ON THE QUIZ
NAME: _____
_____
DATE: _____

OBSERVED WORKERS
TASK(S): _____
_____
DATE: _____

REFRESHER TRAINING
TOPIC(S): _____
_____
DATE: _____

OTHER (DESCRIBE): _____
MEETING DATE: _____
LOCATION: _____

NOTES

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ANSWERS:

1. False
2. Ground
3. Conductor
4. At least 1o feet
5. true

ATTENDANCE

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_____	_____	_____

INSTRUCTOR: _____ **DATE:** _____

SAFETY TALK: _____