



You Shock Me!

Are the power tools you're using in perfect working condition? Are there secondary environmental atmospheres near your worksite? Are you and your co-workers consistently practicing safe work practices?

Under certain conditions, a small amount of electrical current can cause electrocution. Less than one-tenth of an ampere can kill. Hundreds of workers are injured or killed in electricity-related accidents each year. To handle electricity safely, you must understand how it acts, how it can be detected, what hazards it presents, and how these hazards can be controlled.

A severe shock can cause considerably more damage to the body than is visible. For example, a person may suffer internal hemorrhages and destruction of tissue, nerves, and muscles. And shock is often only the beginning of a chain of events. Electricity can cause falls, cuts, burns, and broken bones.

In addition to shock and burn hazards, electricity poses other dangers. For example, when a short circuit occurs, hazards are created from surrounding arcs. If high current is involved, these arcs can cause injuries and start fires. Extremely high-energy arcs can damage equipment, sending fragmented metal flying in all directions. Even low-energy arcs can cause violent explosions in atmospheres that contain flammable gases or vapors or combustible dusts.

Electrical accidents can be caused by a combination of three possible factors:

- Unsafe equipment and/or installation
- Workplaces made unsafe by the environment
- Unsafe work practices

Have you had any electrical safety training within the past year? Have you participated in a company-sponsored electrical safety toolbox talk lately?

The single best way to learn about electrical hazards is through onsite training. Having your site foreman illustrate the use of ground fault protection devices is much better than reading a manual describing the bits and pieces that make up a ground fault interceptor.

You also need heavy doses of company-sponsored training that discusses the hazards associated with power tools, extension cords, and defective plugs and receptacles and how to ground your power tools and cords.

Let's start at the ground floor and talk about how to become more aware of stray electricity hazards on your jobsites. Where do these hazards lurk, and how can we avoid the shock and injury that goes with defective power apparatuses?

What symptoms should you look for? You have to know where to look. Each jobsite has its

own unique hazards associated with energy. The key to safety is learning to recognize trouble before it strikes.

Look for the following warning signs of a strained or inadequate electrical system:

- Frequent power outages or blown fuses
- Lights that flicker or dim
- Loose plugs
- Discolored outlets
- Overheated power tools
- Cords that are warm to the touch
- Suspicious sizzles, sparks or buzzing sounds
- Lag time before a power tool becomes operational
- Flawed extension cords
- Third prong missing from plug
- Exposed wiring
- Extension cords lying in water
- Too many power tools plugged into a single outlet

Much of the training associated with electrical hazards is common sense. You must know that many power tools and electrical cords on construction sites may be damaged to varying degrees. If it looks questionable, Don't Touch It!