

## ELECTRICAL SAFETY - THE SHOCKING TRUTH!

Hundreds of people die and thousands more are injured each year in accidents involving electrical fires or shocks. Most of these incidents can be prevented by following some simple electrical safety rules.

### GFCI

GFCI stands for ground fault circuit interrupter, an electronic device that constantly monitors the amount of current flowing through a circuit and cuts off the electricity at the first sign of an imbalance. Because GFCI's respond faster than fuses or circuit breakers, they protect you from prolonged electrical shocks by quickly interrupting the current flow. GFCI's can be hard-wired into a building's electrical distribution system or installed at the outlets. They are generally installed outdoors, in damp areas such as basements, and near water-hazard locations such as sinks. Contact the Electric Shop (X5409) if there are any questions about the presence or need for GFCI-protected circuits in your work area.

### Fuses and Circuit Breakers

- \* If a fuse blows or a circuit breaker is tripped, don't just replace or reset it. Find out what caused the circuit to overload and correct the problem.
- \* Avoid using several high-amperage pieces of equipment, such as heat-producing appliances, on the same circuit.

### Electrical Outlets & Plugs

- \* Plugs must match the outlets. Three-pronged plugs require three-wire receptacles.
- \* Polarized plugs with one prong wider than the other are now standard and require polarized receptacles. Never alter the wide prong of a polarized plug to make it fit into an outdated outlet.
- \* Never cut off or bend the ground pin of a three-pronged plug. Proper grounding is essential to minimize fire and shock hazards.
- \* Have a professional electrician replace old or damaged outlets with three-wire, polarized receptacles. Contact the Trouble Desk at X1068 for assistance.

## Equipment & Appliances

- \* All equipment and appliances should be labeled by an independent testing laboratory, such as Underwriters Laboratory (UL) or Factory Mutual (FM), indicating that they meet basic safety standards.
- \* Keep heat-producing appliances, such as electric space heaters, at least three feet from furniture, curtains, paper and other combustible materials.
- \* Allow plenty of air space around computer equipment to prevent overheating.

## Electrical Cords

- \* Keep electrical cords away from the hot areas of heat-producing appliances.
- \* Keep electrical cords out of travel paths. Do not run cords under carpets or across doorways.
- \* Replace any cord that is cracked, frayed, or otherwise damaged.
- \* Never pinch an electrical cord against walls or furniture.
- \* Extension cords are used for temporary service only and are not a substitute for fixed wiring. New receptacles must be installed for permanent equipment.

## Outdoor Power

- \* Use only weatherproof fixtures and GFCI outlets for outdoor installations and appliance use.
- \* Never run outdoor extension cords across driveways or traffic areas.
- \* Never use electrical appliances outdoors in wet weather, or when the ground or grass is wet, unless the appliance is specifically designed and labeled by an independent testing laboratory for such use.

## Lighting

- \* Place lamps on level, uncluttered surfaces and be sure that lampshades are secure to protect the bulb from breaking if the lamp is knocked over.
- \* Light bulbs should not exceed the wattage recommended for a lamp or fixture.

## Power Lines

- \* Report downed power lines and warn others in the area.
- \* Never go near or touch a downed power line. Doing so can result in a fatal shock or severe injury.
- \* Keep ladders, especially metal ones, away from power lines. This includes overhead electrical services to buildings.

## Warning Signs

You can spot many electrical problems before they cause a fire or shock. Be alert to the following danger signs;

- \* Recurring problems with blowing fuses or tripping circuit breakers.
- \* Feeling a tingle when you touch an electrical appliance.
- \* Discoloration of wall outlets or switches.
- \* Sizzling sound at wall outlets or switches.
- \* A burning smell or unusual odor coming from equipment or wiring.
- \* Flickering lights.

When you spot a warning sign, don't wait for an accident or fire - take action at once! Unplug a malfunctioning appliance if you can do safely and call the Trouble Desk (X1068) to have an electrician investigate the problem.

If you have any questions about electrical safety, contact the Environment, Health, and Safety Program at X1451.