# **Electrical Safety**

Don't be shocked; be well grounded in Electrical Safety.





<u>No one</u>, other than maintenance personnel and outside contractors, is permitted to do electrical work on campus. If you have electrical work, that includes simple splicing and attaching plugs, please submit a work order. This policy has been adopted to protect your life and that of others.

### STATIC GROUNDING

The following information is for your safety when transferring liquids from plastic containers.

Ignition of materials by static electricity requires five factors:

- 1. A flammable mixture
- 2. Charge generation
- 3. Charge accumulation
- 4. Electrostatic discharge of sufficient energy
- 5. An oxidizer

The development and release of electrical energy, and the potential for ignition are difficult to predict under field conditions. The amount of solvent vapor present has a large influence on the ease of ignition.

#### ELECTRICAL EQUIPMENT

Wet environments can make workplaces dangerous. Please observe the following guidelines:

- Always visually inspect all electrical wiring for breaks and frayed areas.
- Do not use if the wiring appears unsafe.
- Never do your own electrical work; only qualified electricians in the maintenance department are permitted to do electrical work.
- Keep the floors as dry as possible and do not stand in water puddles when working with electrical plug, cords, or equipment.
- Wear shoes/boots that insulate against electrical shock

## ELECTRICAL SAFETY INSPECTION CHECKLIST

Take a few minutes and check your area for electrical hazards.

- 1. All the circuit breakers in the panel(s) are clearly labeled.
- 2. The circuit breaker panel(s) must have a 3 foot clearance not be obstructed.
- 3. Ground fault interrupters are used for receptacles where water may be present.
- 4. All appliances in the lab should have three-wire, grounded cords unless they are double insulated..
- 5. Test equipment for voltage leaks with an AC-Sensor or other field detecting device.
- 6. Extension cords should not used for permanent installations.
- 7. Ensure that extension cords are not a tripping hazard.
- 8. Make sure electric cords are not worn or frayed.
- 9. If the grounding terminal is broken on the plug do not use that equipment.

## GROUND FAULT INTERRUPTER (GFI) ELECTRICAL RECEPTACLES

All electrical receptacles within 5 feet of a water source (i.e. spigots, water fountains, eyewash stations, etc.) must have a GFI (Ground Fault Interrupter) either at the outlet or at the breaker.

For more information and/or suggestions contact the Environmental Safety Compliance Officer (ESCO) at Email <u>mailto:umces-safety@umces.edu</u>