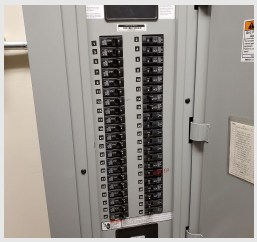
SUU SOUTHERN UTAH UNIVERSITY

DATE: 8/15/2022 **TOOLBOX TALK**

ELECTRICAL SAFETY

Never connect extension cords/power strips to each other.



Overloading a circuit can cause the breaker to trip or overheat.

GFCI should be installed in any location with a potential water hazard.

FACILITIES MANAGEMENT SAFETY & RISK

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In this toolbox talk we will discuss basic electrical safety geared towards non-electricians.

Extension cords/Power strips

- Extension cords should not be used as permanent wiring.
- Ensure that cords are in good working condition (the outer insulation should not be cracked/broken, the ground pin should be intact). Discard unsafe extension cords.
  - Only licensed electricians are authorized to replace plugs, or splice cords.
  - Extension cords need to be protected from motor vehicles, forklifts, pallet jacks, heavy pedestrian traffic, etc.
- Power strips should not be permanently mounted to a wall or any other structure, even if the power strip has specific mounting fittings.
- Power strips or extension cords should not be connected to each other. Doing this can overload the circuit creating a potential fire hazard.

Circuit Overload Protection Devices

These devices are designed to protect the wiring in a building and to prevent a potential fire.

- **Fuses** - Break the circuit when too much current is flowing through the circuit. A small conductor inside the fuse heats up and melts when it reaches a specific temperature.
- **Circuit Breakers** - As current increases in the circuit, an electromagnet inside the breaker generates increased magnetic force, eventually being great enough to pull the switch on the breaker to the off position.

Ground Fault Circuit Interrupters

- GFCIs are designed to protect people form an electric shock.
- A GFCI works by detecting a current drop from the hot to the neutral wiring in a circuit. The GCI detects energy that is escaping the circuit.
- GFCIs should be installed wherever a water hazard is present.
- You will commonly find GFCI plugs on hair dryers, wet vacs, etc.
- GFCIs can be at the breaker, the outlet, incorporated with the plug of the appliance, or part of a short extension cord.

Other Common Electrical Safety Issues

- Discard any piece of equipment that gives you even the slightest shock. If the resistance through your body is lowered i.e. standing in water or touching metal, even the slightest shock can be deadly.
- Never use electrical equipment in or around water.
- Junction boxes and electrical panels need to have proper covers in place to conceal all wiring.
- Hard wiring should not be exposed/accessible to non-electrician employees.

Other Tips from OSHA

- Assume that all overhead wires are energized at deadly voltages.
- Never assume that a wire is safe to touch even if it is down or appears to be insulated.
- Call the electric utility company to report fallen or damaged electrical lines.
- Always stay at least 10 feet away from overhead electrical lines.
- Regularly inspect all electrical equipment to ensure it is in good condition.
- **Always use caution when working near electricity.**