Module K Extension cords and GFCI’stcfh1-31-14rev1.0

Read this module and complete the corresponding test and email it to [billy.earnst@angeltrax.com](mailto:billy.earnst@angeltrax.com). A 100% score earns 1 credit hour in the Safety and Loss prevention program.

EXTENSION CORDS

[**Wiring methods, components, and equipment for general use. - 1926.405**](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&amp;p_id=10706)[**General requirements. - 1926.416**](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&amp;p_id=10717)

Extension cords shall not replace permanent wiring and the following safety precautions will be adhered to:

1. Inspect the cord for cracks and cuts.
2. Cord must have a three prong plug for grounding.
3. Use the shortest continuous length of cord possible. Cords may not be spliced together.
4. Make certain the cord does not lay in water.
5. Ensure cord is properly rated for the job.
6. Secure and route cords out of the traffic flow to prevent tripping.
7. Defective cords will be tagged and removed from service.
8. Most importantly, an extension cord used on a job site MUST be used with a ground fault circuit interrupter (GFCI).

GROUND FAULT CIRCUIT INTERRUPTERS

[**Wiring design and protection. - 1926.404**](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&amp;p_id=10705)

Our company uses ground fault circuit interrupters.

A ground fault circuit interrupter (GFCI) provides protection for all 120-volt, 15-, 20-, and 30-ampere receptacle outlets that are not a part of the permanent wiring by detecting lost current resulting from a short, overheating, and/or ground fault. It should be noted that an extension cord into which electrical devices are plugged are not part of the permanent wiring; therefore, GFCI's are required.

A GFCI will "trip" when the amount of current amperes going to an electrical device in the hot conductor and the amount of current returning from an electrical device differs by approximately 5 milliamps. The GFCI can interrupt the current within as little as 1/40th of a second.

The current that is missing is being lost through a ground fault, whether it is in the actual grounding, a short in the equipment or electricity going through the employee to the ground.

A GFCI will not protect an employee who comes in contact with two hot wires or a hot wire and a neutral wire. A GFCI will provide protection against fires, overheating, damage to insulation, and, the most common form of electrical shock hazard -- the ground fault. GFCI’s must be tested before use.

In the event that we are performing work in a chemical plant or some other type of facility where a grounding conductor program is required we will use the program on the following pages.

Assured Equipment Grounding Conductor Program

[**29 CFR 1926.404**](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&amp;p_id=10705)

Per paragraph (b)(1)(i), 29 CFR 1926.404, *Wiring Design and Protection*, ground fault protection for our employees will be provided by the use of ground fault circuit interrupters or an Assured Equipment Grounding Conductor Program.