

(B) Other Receptacle Outlets. For temporary wiring installations, receptacles, other than those covered by 590.6(A)(1) through (A)(3) used to supply temporary power to equipment used by personnel during construction, remodeling, maintenance, repair, or demolition of buildings, structures, or equipment, or similar activities, shall have protection in accordance with 590.6(B)(1) or the assured equipment grounding conductor program in accordance with 590.6(B)(2).

(1) GFCI Protection. Ground-fault circuit-interrupter protection for personnel.

(2) Assured Equipment Grounding Conductor Program. A written assured equipment grounding conductor program continuously enforced at the site by one or more designated persons to ensure that equipment grounding conductors for all cord sets, receptacles that are not a part of the permanent wiring of the building or structure, and equipment connected by cord and plug are installed and maintained in accordance with the applicable requirements of 250.114, 250.138, 406.4(C), and 590.4(D).

(a) The following tests shall be performed on all cord sets, receptacles that are not part of the permanent wiring of the building or structure, and cord-and-plug-connected equipment required to be connected to an equipment grounding conductor:

- (1) All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
- (2) Each receptacle and attachment plug shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor shall be connected to its proper terminal.
- (3) All required tests shall be performed as follows:
 - a. Before first use on site
 - b. When there is evidence of damage
 - c. Before equipment is returned to service following any repairs
 - d. At intervals not exceeding 3 months

(b) The tests required in 590.6(B)(2)(a) shall be recorded and made available to the authority having jurisdiction.

The assured equipment grounding conductor program shall be documented and made available to the authority having jurisdiction.

Informational Note: See OSHA 29 CFR 1910 and 1926 for requirements for assured equipment grounding conductor programs. See NFPA 70E-2018, *Standard for Electrical Safety in the Workplace*, for additional information.

The environmental conditions encountered during construction or demolition could subject personnel to an increased exposure to electrical shock hazards. Receptacle configurations other than 125 volts, single phase, 15, 20, and 30 amperes supplying temporary power must also be GFCI protected or be installed and maintained in accordance with the documented assured EGC program specified in 590.6(B)(2).

The Occupational Safety and Health Administration (OSHA) test requirements are very similar to the NEC requirements for an assured grounding program. According to OSHA 29 CFR 1926.404(b)(1)(iii), those test requirements are as follows:

The employer shall establish and implement an assured equipment grounding conductor program on construction sites covering all cord sets, receptacles which are not a part of the building or structure, and equipment connected by cord and plug which are available for use or used by employees. This program shall comply with the following minimum requirements:

(A) A written description of the program, including the specific procedures adopted by the employer, shall be available at the jobsite for inspection and copying by the Assistant Secretary and any affected employee.

(B) The employer shall designate one or more competent persons to implement the program.

590.7 Guarding. For wiring over 600 volts, nominal, suitable fencing, barriers, or other effective means shall be provided to limit access only to authorized and qualified personnel.

590.8 Overcurrent Protective Devices.

(A) Where Reused. Overcurrent protective devices that have been previously used and are installed in a temporary installation shall be examined to ensure they have been properly installed and properly maintained, and there is no evidence of impending failure.

Informational Note: See the following standards for further information for properly maintained equipment:

- (1) NEMA AB 4, *Guidelines for Inspection and Preventive Maintenance of Molded-Case Circuit Breakers Used in Commercial and Industrial Applications*
- (2) NFPA 70B, *Recommended Practice for Electrical Equipment Maintenance*
- (3) NEMA GD 1, *Evaluating Water-Damaged Electrical Equipment*
- (4) IEEE 1458, *IEEE Recommended Practice for the Selection, Field Testing, and Life Expectancy of Molded-Case Circuit Breakers for Industrial Applications*

(B) Service Overcurrent Protective Devices. Overcurrent protective devices for solidly grounded wye electrical services of more than 150 volts to ground but not exceeding 1000 volts phase-to-phase, available fault current greater than 10,000 amperes, shall be current limiting.

It is not uncommon for temporary electrical equipment to be used more than once. Temporary equipment is often subjected to conditions that permanently installed equipment is not. Weather, transportation, storage, and use can play a role in creating an unsafe condition within the temporary equipment. For that reason, equipment must be examined before being put back in use.