

term *ground-fault circuit interrupter* in Article 100 for details on the operational current levels of GFCIs.

Outlets for other than shore power and outlets rated 240 volts or less for boat hoists are required to be provided with GFCI protection, as defined in Article 100. Ground-fault protection equipment (GFPE) is not a permitted protection method for these outlets per 555.35(C) and (D).

555.54 Grounding. Grounding at floating buildings shall comply with 555.54(A) through (D).

(A) Grounding of Electrical and Nonelectrical Parts. Grounding of both electrical and nonelectrical parts in a floating building shall be through connection to a grounding bus in the building panelboard.

(B) Installation and Connection of Equipment Grounding Conductor. The equipment grounding conductor shall be installed with the feeder conductors and connected to a grounding terminal in the service equipment.

(C) Identification of Equipment Grounding Conductor. The equipment grounding conductor shall be an insulated copper conductor with a continuous outer finish that is either green or green with one or more yellow stripes. For conductors larger than 6 AWG, or where multiconductor cables are used, re-identification of conductors allowed in 250.119(B)(2)b. and (B)(2)c. shall be permitted.

(D) Grounding Electrode Conductor Connection. The grounding terminal in the service equipment shall be grounded by connection through an insulated grounding electrode conductor to a grounding electrode on shore.

555.55 Insulated Neutral. The grounded circuit conductor (neutral) shall be an insulated conductor identified in compliance with 200.6. The neutral conductor shall be connected to the equipment grounding terminal in the service equipment, and, except for that connection, it shall be insulated from the equipment grounding conductors, equipment enclosures, and all other grounded parts. The neutral conductor terminals in the panelboard and in ranges, clothes dryers, counter-mounted cooking units, and the like shall be insulated from the enclosures.

555.56 Equipment Grounding.

(A) Electrical Systems. All enclosures and exposed metal parts of electrical systems shall be connected to the grounding bus.

(B) Cord-Connected Appliances. Where required to be grounded, cord-connected appliances shall be grounded by means of an equipment grounding conductor in the cord and a grounding-type attachment plug.

ARTICLE

590 Temporary Installations

590.1 Scope. The provisions of this article apply to temporary electric power and lighting installations.

Temporary installations are temporary as approved by the AHJ. Article 590 applies to any temporary installation whether it is at a transient or a permanent location. The installation could be at a construction site, a store parking lot, or a local craft fair in a field.

590.2 All Wiring Installations.

(A) Other Articles. Except as specifically modified in this article, all other requirements of this *Code* for permanent wiring shall apply to temporary wiring installations.

Temporary installations of electrical equipment must be installed in accordance with all applicable permanent installation requirements except as modified by the rules in this article. For example, the requirements of 300.15 specify that a box or other enclosure must be used where splices are made. This rule is amended by 590.4(G), which, for construction sites, permits splices to be made in multiconductor cords and cables without the use of a box.

Dismissing the need to comply with the requirements of the *NEC*® because the installation “is only temporary” reduces the level of safety for users of the temporary installation. For instance, contrary to what is believed by some to be acceptable, there is no permission in Article 590 allowing temporary services to be grounded any differently than a permanently installed service. Where used, rod-type electrodes must comply with all of the requirements of 250.53, including the need to install a supplemental electrode, unless the 25-ohm earth resistance condition can be met. Only under that condition can one ground rod be used.

Electrical accidents do not discriminate and can occur in any installation, permanent or temporary, if the requirements of the *NEC* are not followed. Due to the nature of work occurring at construction sites and the higher probability of wiring systems being damaged and compromised, following the requirements of Article 590 is essential to electrical safety. Bypassing GFCI protection because the device is “nuisance tripping” is another compromise of the safety system that occurs on construction sites. In the vast majority of these cases, the GFCI is doing what it is designed and intended to do — prevent electrical injuries and deaths.

(B) Approval. Temporary wiring methods shall be acceptable only if approved based on the conditions of use and any special requirements of the temporary installation.

Temporary wiring methods are approved based on criteria such as length of time in service, severity of physical abuse, exposure to weather, and other special requirements. Special requirements can range from tunnel construction projects to tent cities constructed after a natural disaster to flammable hazardous material reclamation projects.