

555.35 Ground-Fault Protection of Equipment (GFPE) and Ground-Fault Circuit-Interrupter (GFCI) Protection

(A) Ground-Fault Protection

For other than floating buildings, ground-fault protection for docking facilities shall be provided in accordance with 555.35(A)(1) through (A)(3).

(1) Receptacles Providing Shore Power

Receptacles installed in accordance with 555.33(A) shall have individual GFPE set to open at currents not exceeding 30 milliamperes.

(2) GFCI Protection for Personnel

All 125-volt, single-phase, 15- and 20-ampere receptacles for other than shore power shall be protected in accordance with 555.33(B)(1) and (B)(2).

(3) Feeder and Branch-Circuit Conductors With GFPE

Feeder and branch-circuit conductors that are installed on docking facilities shall be provided with GFPE set to open at currents not exceeding 100 milliamperes. Coordination with downstream GFPE shall be permitted at the feeder overcurrent protective device.

Exception Exception to (3): Transformer secondary conductors of a separately derived system that do not exceed 3 m (10 ft) and are installed in a raceway shall be permitted to be installed without ground-fault protection. This exception shall also apply to the supply terminals of the equipment supplied by the transformer secondary conductors.

(B) Leakage Current Measurement Device

Where more than three receptacles supply shore power to boats, a leakage current measurement device shall be available and be used to determine leakage current from each boat that will utilize shore power.

Informational Note No. 1: Leakage current measurement will provide the capability to determine when an individual boat has defective wiring or other problems contributing to hazardous voltage and current. The use of a test device will allow the facility operator to identify a boat that is creating problems. In some cases a single boat may cause an upstream GFPE device protecting a feeder to operate even though multiple boats are supplied from the same feeder. The use of a test device will help the facility operator prevent a particular boat from contributing to hazardous voltage and current in the marina area.

Informational Note No. 2: An annual test of each boat with the leakage current measurement device is a prudent step toward determining if a boat has defective wiring that may be contributing hazardous voltage and current. Where the leakage current measurement device reveals that a boat is contributing hazardous voltage and current, repairs should be made to the boat before it is permitted to utilize shore power.