

1. Insert a new CMR 12 revision as follows:

220.12. Revise the second exception to read as follows:

Exception No. 2: Where a building is designed and constructed to comply with an energy code adopted by the local authority and specifying an overall lighting density of less than 13.5 volt-amperes/m² (1.2 volt-amperes/ft²), the unit lighting loads in Table 220.12 for office and bank areas within the building shall be permitted to be reduced by 11 volt-amperes/m² (1 volt-amperes/ft²).

2. In the existing CMR 12 revision to 336.10(9), revise to read as follows:

336.10(9). Revise to read as follows (exception unchanged):

(9) In one- and two-family dwelling units, Type TC-ER cable containing both power and control conductors that is identified for pulling through structural members shall be permitted. Type TC-ER cable used as interior wiring shall be installed in accordance with the requirements of Part II of Article 334 and Article 725, and where installed as exterior wiring, shall be installed in accordance with the requirements of Part II of Article 340.

3. Insert a new CMR 12 revision as follows:

406.4(D)(4). In Exception No. 2, correct the reference to read “210.12(D).”

4. Insert a new CMR 12 revision to as follows:

450.23(A). Revise to read as follows:

(A) Indoor Installations. Indoor installations shall be permitted in accordance with one of the following:

- (1) In Type I or Type II buildings, in areas where all of the following requirements are met:
 - a. The transformer is rated 35,000 volts or less.
 - b. No combustible materials are stored.
 - c. A liquid confinement area is provided.
 - d. The installation complies with all the restrictions provided for in the listing of the liquid.

Informational Note: Such restrictions may include, but are not limited to: maximum pressure of the tank, use of a pressure relief valve, appropriate fuse types and proper sizing of overcurrent protection.

- (2) With an automatic fire extinguishing system and a liquid confinement area, provided the transformer is rated 35,000 volts or less
- (3) In accordance with 450.26

5. Insert a new CMR 12 revision as follows:

505.9(E)(2). Revise the second paragraph to read as follows:

Metric threaded fittings installed into explosionproof or flameproof equipment entries shall have a class of fit of at least 6g/6H and be made up with at least five threads fully engaged.

6. Insert a new CMR 12 revision as follows:

555.2 Insert two new definitions as follows:

Docking Facility. A covered or open, fixed or floating structure that provides access to the water and to which boats are secured.

Marina. A facility, generally on the waterfront, that stores and services boats in berths, on moorings, and in dry storage or stack storage.

7. Insert a new CMR 12 revision as follows:

555.3 Revise this section to read as follows:

555.3 Ground-Fault Protection. For other than floating buildings covered by 553.4, ground-fault protection for docking facilities shall be provided in accordance with (A) and (B).

(A) Feeder and Branch Circuit Conductors. Feeder and branch circuit conductors that are installed on docking facilities shall be provided with ground-fault protection set to open at currents not exceeding 30 mA. Coordination with downstream ground-fault protection shall be permitted at the feeder overcurrent protective device.

Exception: 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) Receptacles Providing Shore Power. In lieu of the requirement of 210.8, receptacles installed in accordance with 555.19(A) shall be permitted to have ground-fault protection set to open at currents not exceeding 30 mA.

8. Insert a new CMR 12 revision as follows:

590.4(G). Revise to read as follows:

590.4(G) Splices. A box, conduit body, or other enclosure, with a cover installed, shall be required for all splices.

Exception: On construction sites, a box, conduit body, or other enclosure shall not be required for either of the following conditions:

- (1) The circuit conductors being spliced are all from nonmetallic multiconductor cord or cable assemblies, provided further that the equipment grounding continuity is maintained with or without the box.
- (2) The circuit conductors being spliced are all from metal sheathed cable assemblies terminated in listed fittings that mechanically secure the cable sheath to maintain effective electrical continuity.

9. Insert a new CMR 12 revision as follows:

625.17(B). Revise to read as follows:

(B) Output Cable to the Electric Vehicle. The output cable to the electric vehicle shall be one of the following:

- (1) Listed Type EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cable as specified in Table 400.4
- (2) An integral part of listed electric vehicle supply equipment

Informational Note: For information and listing requirements for electric vehicle supply equipment, see UL Standards 2594-2016, Standard for Electric Vehicle Supply Equipment, and UL 2202-2009, Standard for Electric Vehicle (EV) Charging System Equipment.

10. Insert a new CMR 12 revision as follows:

625.44(A). Revise to read as follows:

625.44(A) Portable Equipment. Portable equipment shall be connected to the premises wiring systems by one or more of the following methods:

- (1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125-volts, single-phase, 15- or 20-amperes
- (2) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 250-volts, single-phase, 15- or 20-amperes
- (3) A nonlocking, 2-pole, 3-wire or 3-pole, 4 wire grounding-type receptacle outlet rated at 250-volts, single-phase, 30- or 50-amperes
- (4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60-volts dc maximum, 15- or 20-amperes

The length of the power supply cord, if provided, between the receptacle outlet and the equipment shall be in accordance with 625.17(A) (3).

11. Insert a new CMR 12 revision as follows:

625.54. Insert a new section as follows:

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel. All single-phase receptacles installed for the connection of electric vehicle charging that are rated 150 volts to ground or less, and 50 amperes or less shall have ground-fault circuit-interrupter protection for personnel.

12. Insert a new CMR 12 revision as follows:

625.56. Insert a new section as follows:

625.56 Receptacle Enclosures. All receptacles installed in a wet location for electric vehicle charging shall have an enclosure that is weatherproof with the attachment plug cap inserted or removed.

13. Insert a new CMR 12 revision as follows:

680.74(A). Delete numbered paragraphs (3), (4), and (5). Delete Exception No. 1 and designate Exception No. 2 as Exception No. 1.

14. Insert a new CMR 12 revision as follows:

682.2 Insert a new definition as follows:

Pier. A structure extending over the water and supported on a fixed foundation, or on flotation, that provides access to the water.

15. Insert a new CMR 12 revision as follows:

682.15 Revise to read as follows:

682.15 Ground-Fault Protection. Ground-fault protection shall be provided in accordance with (A) and (B).

(A) Receptacles. Fifteen- and 20-ampere single-phase, 125-volt through 250-volt receptacles installed outdoors and in or on floating buildings or structures within the electrical datum plane area shall be provided with GFCI protection for personnel. The GFCI protection device shall be located not less than 300 mm (12 in.) above the established electrical datum plane.

(B) Feeder and Branch Circuit Conductors. Feeder and branch circuit conductors that are installed on piers shall be provided with ground-fault protection set to open at currents exceeding 30 mA. Coordination with downstream ground-fault protection shall be permitted at the feeder overcurrent protective device.

Exception: 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.

16. In the existing CMR 12 revision to 700.10, revise to read as follows:

700.10. Make the following three revisions:”

I. Revise (D) to read as follows: “Emergency systems shall meet the additional requirements in (D)(1) through (D)(3).”

II. Revise (D)(1) by deleting (1) and renumbering the remaining numbered items accordingly.

III. Revise the resulting (D)(1)(2) to read as follows: “The cable or raceway is a listed fire-resistive cable system with a minimum 2-hour fire rating.”

17. Insert a new CMR 12 revision as follows:

725.2. Insert a new definition and informational note as follows:

Nominal Current. The designated current per conductor as specified by equipment design.

Informational Note: One example of nominal current is 4-pair Power over Ethernet (PoE) applications based on IEEE 802.3-2015, *IEEE Standard for Ethernet*, that supplies current over 2 or 4 twisted pairs. The nominal current for 60-watt PoE power-sourcing equipment is 0.3 amperes per conductor, where the current in one conductor can be 0.36 amperes and another conductor can be 0.24 amperes.

18. Insert a new CMR 12 revision as follows:

725.121(C) Revise to read as follows:

725.121(C) Marking. The power sources for limited power circuits in 725.121(A)(3) and limited power circuits for listed audio/video, information, and communications technology (equipment), and listed industrial equipment in 725.121(A)(4) shall have a label indicating the maximum voltage and maximum current or maximum voltage and nominal current output for each connection point. Where multiple connection points have the same rating, a single label shall be permitted to be used. The effective date shall be January 1, 2018.

Exception: Marking shall not be required for power sources providing 0.3 amperes nominal current or less per conductor.

19. Insert a new CMR 12 revision as follows:

725.144(A) Revise to read as follows:

725.144(A) Use of Class 2 or Class 3 Cables to Transmit Power and Data. Where Types CL3P, CL2P, CL3R, CL2R, CL3, or CL2 transmit power and data, the ampacity ratings in Table 725.144 shall apply to the nominal current at an ambient temperature of 30°C (86°F). For ambient temperatures above 30°C (86°F), the correction factors of 310.15(B)(2) shall apply.

Exception: Compliance with Table 725.144 shall not be required for installations where the nominal current does not exceed 0.3 amperes in any conductor.

20. Insert a new CMR 12 revision as follows:

725.144(B) Revise the first paragraph to read as follows:

725.144(B) Use of Class 2-LP or Class 3-LP Cables to Transmit Power and Data. Types CL3P-LP, CL2P-LP, CL3R-LP, CL2R-LP, CL3-LP, or CL2-LP shall be permitted to supply power to equipment at a current level up to the marked ampere limit located immediately following the suffix LP and shall be permitted to transmit data to the equipment. For ambient temperatures above 30°C (86°F), the correction factors of 310.15(B)(2) shall apply. The Class 2-LP and Class 3-LP cables shall comply with the following, as applicable:

21. Insert a new CMR 12 revision as follows:

770.110(A)(2) Revise to read as follows:

770.110(A)(2) Communications Raceways. Optical fiber cables shall be permitted to be installed in plenum communications raceways, riser communications raceways, and general-purpose communications raceways selected in accordance with Table 800.154(b), listed in accordance with 800.182, and installed in accordance with 800.113 and 362.24 through 362.56, where the requirements applicable to electrical nonmetallic tubing (ENT) apply.

22. Insert a new CMR 12 revision as follows:

840.2. Insert a new definition and informational note as follows:

Nominal Current. The designated current per conductor as specified by equipment design.

Informational Note: One example of nominal current is 4-pair Power over Ethernet (PoE) applications based on IEEE 802.3-2015, *IEEE Standard for Ethernet*, that supplies current over 2 or 4 twisted pairs. The nominal current for 60-watt PoE power-sourcing equipment is 0.3 amperes per conductor, where the current in one conductor can be 0.36 amperes and another conductor can be 0.24 amperes.

23. Insert a new CMR 12 revision as follows:

840.160. Revise to read as follows:

840.160 Powering Circuits. Communications cables, in addition to carrying the communications circuit, shall also be permitted to carry circuits for powering communications equipment. Installations of listed communications cables shall comply with 725.144 where listed communications cables are used in place of Class 2 and Class 3 cables.

Exception: Compliance with 725.144 shall not be required for installations of listed 4-pair communications cables where the nominal current does not exceed 0.3 amperes in any conductor.