2023 Michigan Electrical Code Includes the First 13 TIA's Tentative Interim Amendments	
NEC Second Printing Date October 2023	
TIA 23-1	250.114
TIA 23-2	100 Fibers
TIA 23-3	210.8(F)
TIA 23-4	215.15
TIA 23-5	555.30
TIA 23-6	555.35
TIA 23-7	392.22
TIA 23-8	300.26
TIA 23-9	680.26
TIA 23-10	314.29(A)
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Tentative Interim Amendment

NFPA® 70®

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Reference: 250.114(3)e and 250.114(4)e
TIA 23-1
(SC 21-12-13 / TIA Log #1608)

Note: Text of the TIA was issued and approved for incorporation into the document prior to printing.

1. Revise 250.114(3)e and (4)e to read as follows:

250.114 Equipment Connected by Cord and Plug. Exposed, normally non-current-carrying metal parts of cord-and-plug-connected equipment shall be connected to the equipment grounding conductor under any of the following conditions:
…
(3) In residential occupancies:
…
e. Portable handlamps ~~and portable luminaires~~
(4) In other than residential occupancies:
…
e. Portable handlamps ~~and portable luminaires~~
…

Issue Date: December 8, 2021

Effective Date: December 28, 2021

(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo**)**

Tentative Interim Amendment

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Reference: Article 100 (Ignitible Fibers/Flyings), 506.5, and 506.9(B)
TIA 23-2
(SC 22-4-8 / TIA Log #1617)

Note: Text of the TIA was issued and approved for incorporation into the document prior to printing.

1. Revise Article 100 Ignitible Fibers/Flyings to read as follows:

Ignitible Fibers/Flyings. Fibers/flyings where any dimension is greater than 500 µm in nominal size, which are not likely to be in suspension in quantities to produce an explosible mixture, but could produce an ignitible layer fire hazard. [**499:**3.3.4.2]

Informational Note No.1: This definition and Informational Note No. 2 have been extracted from NFPA 499-2021, *Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas.* The NFPA 499 reference is in brackets. Only editorial changes were made to the extracted text to make it consistent with this *Code.*

Informational Note No. 2: Section 500.5 of this *Code* prescribes a Class III location as one where ignitible fibers/flyings are present, but not likely to be in suspension in the air in quantities sufficient to produce ignitible mixtures. This description addresses fibers/flyings that do not present a flash-fire hazard or explosion hazard by test. This could be because those fibers/flyings are too large or too agglomerated to be suspended in air in sufficient concentration, or at all, under typical test conditions. Alternatively, this could be because they burn so slowly that, when suspended in air, they do not propagate combustion at any concentration. In this document the zone classification system includes ignitible fibers/flyings as a fire hazard in a layer, which is not addressed in the IEC zone system (see IEC 60079-10-2, *Explosive atmospheres — Part 10-2: Classification of areas — Explosive dust atmospheres*). Where these are present, the user could also consider installation in accordance with Article 503 of this *Code.* [**499:**A.3.3.4.2]

2. Revise Section 506.5 to read as follows:

506.5 Classification of Locations.

(A) Classifications of Locations. …

(B) Zone 20, Zone 21, and Zone 22 Locations. …

(1) Zone 20. A Zone 20 location is a location where one of the following apply:

(1) Ignitible concentrations of combustible dust, ~~or~~ combustible fibers/flyings, or ignitible fibers/flyings are present continuously or for long periods of time.

…

(2) Zone 21. …

(3) Zone 22. A Zone 22 location is a location where one of the following apply:

(1) …

(2) Combustible dust, combustible fibers/flyings, or ignitible fibers/flyings are handled, processed, or used…

(3) …

3. Revise Section 506.9(B) to read as follows:

506.9 Equipment Requirements.

…

(B) Listing. Equipment that is listed for Zone 20 shall be permitted in a Zone 21 or Zone 22 location of the same combustible dust, combustible fiber/flying, or ignitible fiber/flying. Equipment that is listed for Zone 21 ~~can be used~~ shall be permitted in a Zone 22 location of the same combustible dust, combustible fiber/flying, or ignitible fiber/flying.

Issue Date: April 12, 2022

Effective Date: May 2, 2022

(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo**)**

Tentative Interim Amendment

NFPA® 70®

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Reference: 210.8(F) and Exception No. 2(new)
TIA 23-3
(SC 22-8-17 / TIA Log #1654)

Note: Text of the TIA was issued and approved for incorporation into the document prior to printing.

1. Revise paragraph 210.8(F) to read as follows:

210.8(F) Outdoor Outlets.

For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection:

(1) Garages that have floors located at or below grade level
(2) Accessory buildings
(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).
Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

Issue Date: August 12, 2022

Effective Date: September 1, 2022

Tentative Interim Amendment

NFPA® 70®

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2023 Edition

Reference: 215.15
TIA 23-4
(SC 22-8-18 / TIA Log #1655)

Note: Text of the TIA was issued and approved for incorporation into the document prior to printing.

1. Revise paragraph 215.15 to read as follows:

215.15 Barriers. Barriers shall be placed such that no energized, uninsulated, ungrounded busbar or terminal is exposed to inadvertent contact by persons or maintenance equipment while servicing load terminations in panelboards, switchboards, switchgear, or motor control centers supplied by feeder taps in 240.21(B) or transformer secondary conductors in 240.21(C) when the disconnecting device, to which the tap conductors are terminated, is in the open position.

Issue Date: August 12, 2022

Effective Date: September 1, 2022

(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo**)**

Tentative Interim Amendment

NFPA® 70®

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2023 Edition

Reference: 555.30
TIA 23-5
(SC 22-8-22 / TIA Log #1659)

Note: Text of the TIA was issued and approved for incorporation into the document prior to printing.

1. Revise paragraph 555.30 to read as follows:

555.30 Electrical Equipment and Connections.

(A) General. All electrical components within electrical equipment (excluding wiring methods) and connections not intended for operation while submerged shall be located at least 305 mm (12 in.) above the deck of a fixed or floating structure, but not below the electrical datum plane. Conductor splices, within junction boxes identified for wet locations, utilizing sealed wire connector systems listed and identified for submersion shall be required for floating structures where located above the waterline but below the electrical datum plane.

(B) Replacements. …

Issue Date: August 12, 2022

Effective Date: September 1, 2022

Tentative Interim Amendment

NFPA® 70®

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2023 Edition

Reference: 555.35
TIA 23-6
(SC 22-8-23 / TIA Log #1660)

Note: Text of the TIA was issued and approved for incorporation into the document prior to printing.

1. Revise paragraph 555.35 to read as follows:

555.35 Ground-Fault Protection of Equipment (GFPE) and Ground-Fault Circuit Interrupter. For other than floating buildings, ground-fault protection for docking facilities shall be provided in accordance with 555.35(A) through (~~E~~D).

~~(A) Sources Directly Supplying Docking Facilities or Wharfs.~~ ~~Listed GFPE, rated not more than 100 milliamperes, shall be provided for sources directly supplying all docking facilities or wharfs. Coordination with downstream GFPE shall be permitted.~~

(~~B~~A) Feeder. …

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.

(~~C~~B) Branch-Circuits.

(1) Receptacles Providing Shore Power. …

(2) Outlets for Other than Shore Power. Outlets supplied by branch circuits not exceeding 150 volts to ground and 60 amperes, single phase, and 150 volts or less to ground, 100 amperes or less, three phase, shall be provided with GFCI protection for personnel.

Exception to (~~C~~B): Low-voltage circuits not requiring grounding, not exceeding the low-voltage contact limit and supplied by listed transformers or power supplies that comply with 680.23(A)(2) shall be permitted to be installed without ground-fault protection.

(~~D~~C) Boat Hoists. …

(~~E~~D) Leakage Current Measurement Device. …

Informational Note No. 1: …

Informational Note No. 2: …

Exception: Where the shore power equipment includes a leakage indicator and leakage alarm, a separate leakage test device shall not be required.

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Effective Date: September 1, 2022

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: Table C.18, Table C.19 and Table C.20
TIA 23-7
(SC 22-12-7 / TIA Log #1678)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code®*, 2023 edition. The TIA was processed by the NEC Code-Making Panel 8, and the NEC Correlating Committee, and was issued by the Standards Council on December 8, 2022, with an effective date of December 28, 2022.

*1. Revise Table Headers **only** for Table C.18, Table, C.19 and Table C.20 to read as follows:*

Table C.18 Number of Single Conductor Cables Permitted in Cable Tray
(Based on fill in accordance with 392.22, Table 392.22~~(A)~~(B)(1), column 1, ampacity in accordance with 392.80)

Table C.19 Number of Single Conductor Cables Permitted in Cable Tray
(Based on fill in accordance with 392.22, Table 392.22~~(A)~~(B)(1), column 1, ampacity in accordance with 392.80)

Table C.20 Number of Single Conductor Cables Permitted in Cable Tray
(Based on fill in accordance with 392.22, Table 392.22~~(A)~~(B)(1), column 1, ampacity in accordance with 392.80)

Issue Date: December 8, 2022

Effective Date: December 28, 2022

(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo**)**

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: 300.26
TIA 23-8
(SC 23-3-9 / TIA Log #1688)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code®*, 2023 edition. The TIA was processed by the NEC Code-Making Panel 3 and the NEC Correlating Committee, and was issued by the Standards Council on March 21, 2023, with an effective date of April 10, 2023.

1. Revise paragraph 300.26 to read as follows:

300.26 Remote-Control and Signaling Circuits Classification.

Remote-control and signaling circuits shall be classified as either power-limited or non-power-limited and comply with ~~the following~~300.26(A) through (C).

(~~1~~A) **Class 1 Power-Limited Remote-Control and Signaling Circuits**. Class 1 power-limited remote-control and signaling circuits shall comply with 724.3.

(~~2~~B) **Class 2 and Class 3 Power-Limited Remote-Control and Signaling Circuits**. Class 2 and Class 3 power-limited remote-control and signaling circuits shall comply with 725.3.

(~~3~~C) **Non-Power-Limited Remote-Control and Signaling Circuits**. Non-power-limited remote-control and signaling circuits shall be installed in accordance with 300.2 through 300.25 and comply with 300.26(C)(1) through (C)(3).

(1) Sizes and Use.

(a) Conductors that are 18 AWG and 16 AWG copper shall be permitted to be used if they supply loads that do not exceed the ampacities specified in 402.5 and are installed in a raceway, an approved enclosure, or a listed cable.

(b) Conductors that are 14 AWG copper-clad aluminum shall be permitted to be used in Type MC cable and Type TC cable. The continuous load shall not exceed 8 amperes.

(c) Conductors larger than 16 AWG copper or 14 AWG copper-clad aluminum shall not supply loads greater than the ampacities specified in 310.14.

(d) Flexible cords shall comply with the applicable general requirements, applications, and construction specifications for flexible cords and flexible cables in accordance with Article 400 Parts I and II.

(2) Insulation.

(a) Insulation on conductors shall be rated for the system voltage and not less than 600 volts.

(b) Conductors larger than 16 AWG copper or 14 AWG copper-clad aluminum shall comply with the applicable general requirements for conductors rated up to and including 2000 volt for type designations, insulations, markings, ampacity ratings, and uses in accordance with 310.3, 310.4, 310.6, 310.8, 310.10, and 310.14.

(c) Conductors that are 18 AWG copper, 16 AWG copper, or 14 AWG copper-clad aluminum shall be Type FFH-2, Type KF-2, Type KFF-2, Type PAF, Type PAFF, Type PF, Type PFF, Type PGF, Type PGFF, Type PTF, Type PTFF, Type RFH-2, Type RFHH-2, Type RFHH-3, Type SF-2, SFF-2, Type TF, Type TFF, Type TFFN, Type TFN, Type ZF, or Type ZFF.

(d) Conductors with other types and thicknesses of insulation shall be permitted if listed for Class 1 circuit use.

(3) Overcurrent Protection.

(a) Overcurrent protection for conductors 14 AWG copper and larger shall be provided in accordance with the conductor ampacity, without applying the ampacity adjustment and correction factors specified in 310.15 to the ampacity calculation.

(b) Overcurrent protection shall not exceed 7 amperes for 18 AWG copper conductors and 10 amperes for 16 AWG copper and 14 AWG copper-clad aluminum.

Exception: The overcurrent protection specified in 300.26(C)(3)(1) and 300.26(C)(3)(2) shall not be required where this Code requires or permits other overcurrent protection ratings.

Issue Date: March 21, 2023

Effective Date: April 10, 2023

(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo**)**

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: Definition of Pool, and 680.26
TIA 23-9
(SC 23-3-8 / TIA Log #1687)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code®*, 2023 edition. The TIA was processed by the NEC Code-Making Panel 17 and the NEC Correlating Committee, and was issued by the Standards Council on March 21, 2023, with an effective date of April 10, 2023.

1. Revise the definition of "Pool" to read as follows:

Pool. Manufactured or field-constructed equipment designed to contain water on a permanent or semipermanent basis and used by persons for swimming, wading, immersion, or therapeutic purposes, but not including bodies of water incorporated as part of an industrial process or lakes, lagoons, surf parks, or other natural and man-made bodies of water that may incorporate swimming and swimming areas. (680) (CMP-17)

Informational Note: Natural and man-made bodies of water, which includes lakes, lagoons, surf parks, or other similar bodies of water, are addressed in Article 682.

2. Revise section paragraph 680.26 to read as follows:

680.26 Equipotential Bonding.

(A) Performance. The equipotential bonding required by 680.26(B) and (C) to reduce voltage gradients in the pool area shall be installed for pools with or without associated electrical equipment related to the pool.

Informational Note No. 1: Some causes of voltage gradients originate outside the premises wiring system and are not within the scope of the *NEC*. Measures identified in Rule 097D2 of ANSI C2, *National Electrical Safety Code,* can also serve to address voltage gradients originating on the utility side of the service point.

Informational Note No. 2: By its nature, equipotential bonding of swimming pools and perimeter surfaces involves contact between various metallic materials and the earth. This can, in some cases, expose various specific metals to a corrosive environment, depending on factors such as the type and chemical content of the soil and the specific metal. Corrosive environments are also addressed in 680.14.

(B) Bonded Parts. …

(1) Conductive Pool Shells. …

(2) Perimeter Surfaces. The perimeter surface to be bonded shall be considered to extend for ~~1 m~~ 900 mm (3 ft) horizontally beyond the inside walls of the pool ~~and~~ while also at a height between 900 mm (3 ft) above and 600 mm (2 ft) below the maximum water level. The perimeter surface shall include unpaved surfaces, concrete, and other types of paving. Perimeter surfaces separated from the pool by a permanent wall or building 1.5 m (5 ft) in height or more shall

require equipotential bonding only on the pool side of the permanent wall or building. Bonding to perimeter surfaces shall be provided as specified in 680.26(B)(2)(a), (B)(2)(b), ~~or~~ (B)(2)(c), and (B)(2)(d). ~~and~~ For conductive pool shells where bonding to perimeter surfaces is required, it shall be attached to the pool reinforcing steel or copper conductor grid at a minimum of four points uniformly spaced around the perimeter of the pool, or if the bonded perimeter surface does not surround the entire pool, it shall be attached to the pool reinforcing steel or copper conductor grid at a minimum of four uniformly spaced points along the bonded perimeter surface. For nonconductive pool shells where bonding to the perimeter surfaces is required, bonding at four points shall not be required, and the perimeter bonding shall be attached to the 8 AWG copper equipotential bonding conductor and, if present, to any conductive support structure for the pool.

Informational Note: Because the perimeter surface can incorporate various types of materials at various locations and elevations above and below maximum water level, the perimeter surface required to be bonded might not surround the entire pool. The 8 AWG copper equipotential bonding conductor can encircle the entire pool to facilitate connection of bonded parts.

(a) ~~*Structural Reinforcing Steel.* Structural reinforcing steel shall be bonded in accordance with 680.26(B)(1)(a).~~ *Conductive Paved Portions of Perimeter Surfaces.* Conductive paved portions of perimeter surfaces, including masonry pavers, if used, shall be bonded with unencapsulated structural reinforcing steel in accordance with 680.26(B)(1)(a), or with unencapsulated steel structural welded wire reinforcement (welded wire mesh, welded wire fabric), bonded together by steel tie wires or the equivalent. Steel welded wire reinforcement shall be fully embedded within the pavement unless the pavement will not allow for embedding. If the reinforcing steel is absent, or is encapsulated in a nonconductive compound, or embedding is not possible, unencapsulated welded wire steel reinforcement or a copper conductor grid shall be provided and shall be secured directly under the paving, and not more than 150 mm (6 in.) below finished grade.

Unencapsulated steel welded wire reinforcement that is not fully embedded in concrete, and copper grid regardless of location, where used for equipotential bonding, shall be listed for corrosion resistance and mechanical performance. This listing requirement shall become effective January 1, 2025. The copper grid or unencapsulated steel welded wire reinforcement shall also meet the following:

(1) Copper grid is constructed of 8 AWG solid bare copper and arranged in accordance with 680.26(B)(1)(b)(3).
(2) Steel welded wire reinforcement is minimum ASTM 6x6-W2.0 x W2.0 or minimum No. 3 rebar constructed in a 300 mm (12 in.) grid.
(3) Copper grid and steel welded wire reinforcement follow the contour of the perimeter surface extending not less than 900 mm (3 ft) horizontally beyond the inside walls of the pool.
(4) Only listed splicing devices or exothermic welding are used.

Informational Note No. 1: Performance of the equipotential bonding system at the perimeter surface is improved as the distance between the bonding means and finished grade is minimized, either by embedding within, or by direct contact with the underside of, the finished pavement.

Informational Note No. 2: See ASTM A615/A615M, *Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement;* A1064/A1064M, *Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete;* A1022/A1022M, *Standard Specification for Deformed and Plain Stainless Steel Wire and Welded Wire for Concrete Reinforcement;* A1060A/A1060M, *Standard Specification for Zinc-Coated (Galvanized) Steel Welded Wire Reinforcement, Plain and Deformed, for Concrete;* and ACI Standard ACI 318, *Building Code Requirements for Structural Concrete,* for examples of standards currently used in the listing of reinforcing steel bars and steel welded wire reinforcement.

(b) *Unpaved Portions of Perimeter Surfaces.* Unpaved portions of perimeter surfaces shall be bonded with any of the following methods:
(1) ~~*Copper Ring.* Where structural reinforcing steel is not available or is encapsulated in a nonconductive compound, a c~~Copper conductor(s) shall ~~be utilized where the following requirements are met~~ meet the following:
~~(1)~~a. At least one minimum 8 AWG bare solid copper conductor, including the 8 AWG copper equipotential bonding conductor if available ~~shall be provided~~.
~~(2)~~b. The conductors ~~shall~~ follow the contour of the perimeter surface.
~~(3)~~c. Only listed splicing devices or exothermic welding are used. ~~shall be permitted.~~
~~(4)~~d. The ~~required~~ conductor(s) is ~~shall be~~ 450 mm to 600 mm (18 in. to 24 in.) from the inside walls of the pool.
~~(5)~~e. The ~~required~~ conductor(s) ~~shall be secured within or~~ is under the unpaved portion of the perimeter surface 100 mm to 150 mm (4 in. to 6 in.) below ~~the subgrade~~finished grade.
f. Be installed only in perimeter surfaces not intended to have direct access to swimmers in the pool.

(~~e~~2) ~~*Copper Grid*. Where structural reinforcing steel is not available or is encapsulated in a nonconductive compound,~~ ~~e~~Copper grid or unencapsulated steel welded wire reinforcement used for equipotential bonding of unpaved portions of perimeter surfaces shall ~~be utilized where the following requirements are met~~ meet the following:
~~(1)~~a. ~~The copper grid shall be constructed of 8 AG solid bare copper and be arranged~~ Be installed in accordance with 680.26~~(B)(1)(b)(3)~~(B)(2)(a).
~~(2) The copper grid shall follow the contour of the perimeter surface extending 1 m (3 ft) horizontally beyond the inside walls of the pool.~~
~~(3) Only listed splicing devices or exothermic welding shall be permitted.~~
~~(4)~~b. ~~The copper grid shall be secured~~ Be located within ~~or under~~ the ~~deck or~~ unpaved surface(s) between 100 mm to 150 mm (4 in. to 6 in.) below ~~the subgrade~~finished grade.

(c*) Nonconductive Perimeter Surfaces.* Equipotential bonding shall not be required for nonconductive portions of perimeter surfaces that are separated from earth or raised on nonconducting supports, and it shall not be required for any perimeter surface that is electrically separated from the pool structure and raised on nonconductive supports above an equipotentially bonded surface.

Informational Note: Nonconductive materials include, but are not limited to, wood, plastic, wood-plastic composites, fiberglass, and fiberglass composites.

(d*) Interconnection of Bonded Portions of Perimeter Surfaces.* All surfaces where equipotential bonding is required shall be interconnected using listed splicing devices or exothermic welding. Where copper wire is used for this purpose, it shall be solid copper, not smaller than 8 AWG. The conductor shall be permitted to encircle the pool to facilitate bonding connections to portions of the perimeter covered in 680.26(B)(2)(a) and (B)(2)(b) that are not contiguous.

Issue Date: March 21, 2023

Effective Date: April 10, 2023

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: 314.29(A)
TIA 23-10
(SC 23-3-10 / TIA Log #1690)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code®*, 2023 edition. The TIA was processed by the NEC Code-Making Panel 9 and the NEC Correlating Committee, and was issued by the Standards Council on March 21, 2023, with an effective date of April 10, 2023.

1. Revise paragraph 314.29(A) to read as follows:

314.29 Boxes, Conduit Bodies, and Handhole Enclosures to Be Accessible. Boxes, conduit bodies, and handhole enclosures shall be installed so that wiring and devices contained in the boxes, conduit bodies, or handhole enclosures can be rendered accessible in accordance with 314.29(A) and (B).

(A) In Buildings and Other Structures. Boxes and conduit bodies shall be installed so the contained wiring and devices are accessible. Boxes and conduit bodies that are recessed into or behind finished surfaces of buildings shall have access to their internal contents maintained by openings in their covers and in the building finish that comply with 314.29(A)(1), (A)(2), or (A)(3) as applicable. Removable finished covers and faceplates that maintain this access shall be permitted.

(1) Boxes 1650 cm^3 (100 in.^{3}) or Less in Size. The openings in the building surfaces, if reduced from the outer walls of the box, shall be centered not more than 25 mm (1 in.) from the centerline of the box, and shall not extend beyond the walls of the box. If rectangular, the opening shall be not less than 73 mm (2 7/8 in.) by 45 mm (1 3/4 in.) in size. If circular, the opening shall not be less than 90 mm (3½ in.) in diameter.

Exception: Smaller openings in building surfaces that accommodate one or more individual devices shall be permitted if all of the following conditions are met:

(1) The outlet box that supplies the device(s) is nonmetallic.

(2) The branch circuit wiring that supplies each device consists of a separate nonmetallic cable assembly originating outside the box, or individual sets of conductors in a single nonmetallic raceway, all of which originate outside the box. Other than the connections to a single device, these conductors are not spliced in the box or continued to another device, and no other wiring or raceways enter the box.

(3) Each device is capable of removal from the building surface opening without being damaged. If a special tool is required for this purpose, the applicable circuit directory for the device records the location of the tool, together with a product code/QR code for acquiring a replacement if necessary.

(4) All connections for each device to the branch circuit wiring are made with listed clamping-type wire connectors, which are supplied with the devices. The branch-circuit conductors are arranged to permit the connector(s) to be exposed after the device has been fully removed.

(5) The device assemblies are listed for this application.

(2) Boxes Larger Than 1650 cm^3 (100 in.^{3}) in Size. The openings shall not be smaller than the outer walls of the box.

(3) Conduit Bodies. The openings shall not be smaller than outer walls of the conduit body.

(B) Underground. Underground boxes and handhole enclosures shall be installed …

Issue Date: March 21, 2023

Effective Date: April 10, 2023

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: 700.32(C), 701.32(C), and 708.54(C)
TIA 23-11
(SC 23-8-54 / TIA Log #1692)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2023 edition. The TIA was processed by Code-Making Panel 13 and the Correlating Committee on National Electrical Code, and was issued by the Standards Council on August 25, 2023, with an effective date of September 14, 2023.

1. Revise 700.32(C) Informational Note and title of Figure for the Informational Note to read as follows:

700.32 Selective Coordination.

700.32(A) General. Emergency system(s) overcurrent protective devices (OCPDs) shall be selectively coordinated with all supply-side and load-side OCPDs.

Selective coordination shall be selected by a licensed professional engineer or other qualified persons engaged primarily in the design, installation, or maintenance of electrical systems. The selection shall be documented and made available to those authorized to design, install, inspect, maintain, and operate the system.

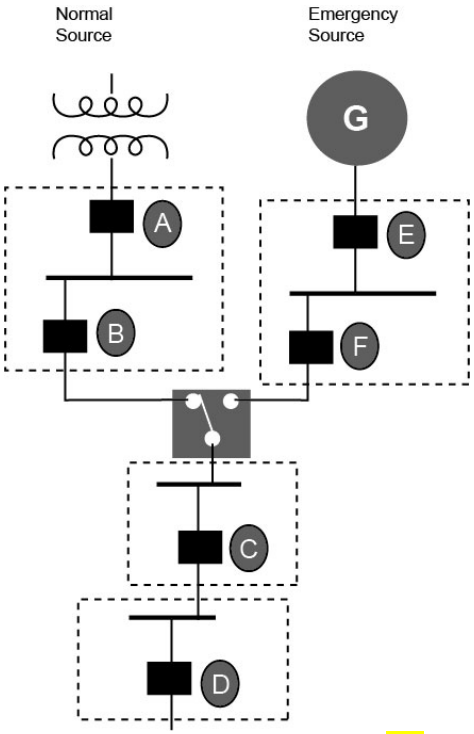
700.32(B) Replacements. Where emergency system(s) OCPDs are replaced, they shall be reevaluated to ensure selective coordination is maintained with all supply-side and load-side OCPDs.

700.32(C) Modifications. If modifications, additions, or deletions to the emergency system(s) occur, selective coordination of the emergency system(s) OCPDs with all supply-side and load-side OCPDs shall be reevaluated.

Exception: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.

Informational Note: See Informational Note Figure 700.32~~(C)~~ for an example of how emergency system OCPDs selectively coordinate with all supply-side OCPDs.

~~OCPD D selectively coordinates with OCPDs C, F, E, B, and A.~~
~~OCPD C selectively coordinates with OCPDs F, E, B, and A.~~
~~OCPD F selectively coordinates with OCPD E.~~
~~OCPD B is not required to selectively coordinate with OCPD A because OCPD B is not an emergency system OCPD.~~



Informational Note Figure 700.32~~(C)~~ Emergency System Selective Coordination.
OCPD D selectively coordinates with OCPDs C, F, E, B, and A.
OCPD C selectively coordinates with OCPDs F, E, B, and A.
OCPD F selectively coordinates with OCPD E.
OCPD B is not required to selectively coordinate with OCPD A because OCPD B is not an emergency system OCPD.

2. Revise 701.32(C) Informational Note and title of Figure for the Informational Note to read as follows:

701.32 Selective Coordination.

701.32(A) General. Legally required standby system(s) overcurrent protective devices (OCPDs shall be selectively coordinated with all supply-side and load-side OCPDs.

Selective coordination shall be selected by a licensed professional engineer or other qualified persons engaged primarily in the design, installation, or maintenance of electrical systems. The selection shall be documented and made available to those authorized to design, install, inspect, maintain, and operate the system.

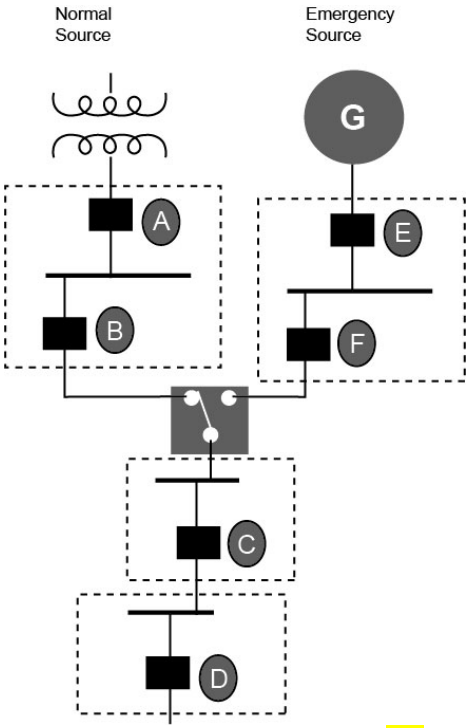
701.32(B) Replacements. Where legally required standby OCPDs are replaced, they shall be reevaluated to ensure selective coordination is maintained with all supply-side and load-side OCPDs.

701.32(C) Modifications. If modifications, additions, or deletions to the legally required standby system(s) occur, selective coordination of the legally required system(s) OCPDs with all supply-side and load-side OCPDs shall be reevaluated.

Exception: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.

Informational Note: See Informational Note Figure 701.32~~(C)~~ for an example of how legally required standby system OCPDs selectively coordinate with all supply-side OCPDs.

~~OCPD D selectively coordinates with OCPDs C, F, E, B, and A.~~
~~OCPD C selectively coordinates with OCPDs F, E, B, and A.~~
~~OCPD F selectively coordinates with OCPD E.~~
~~OCPD B is not required to selectively coordinate with OCPD A because OCPD B is not a legally required standby system OCPD.~~



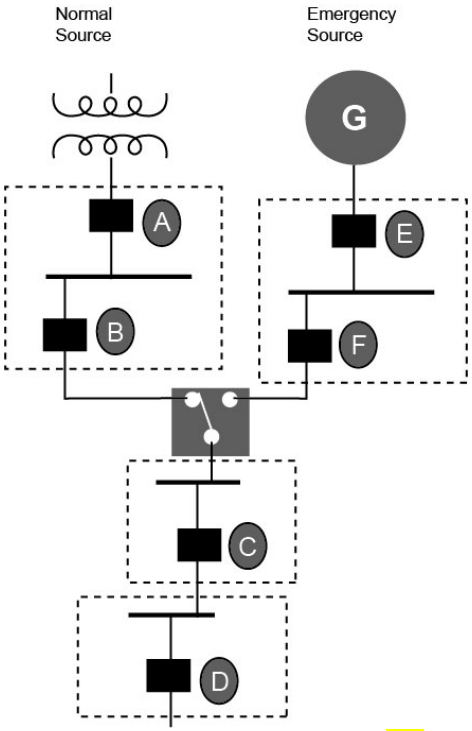
Informational Note Figure 701.32~~(C)~~ Legally Required Standby System Selective Coordination.
OCPD D selectively coordinates with OCPDs C, F, E, B, and A.
OCPD C selectively coordinates with OCPDs F, E, B, and A.
OCPD F selectively coordinates with OCPD E.
OCPD B is not required to selectively coordinate with OCPD A because OCPD B is not a legally required standby system OCPD.

3. Revise 708.54(C) Informational Note and title of Figure for the Informational Note to read as follows:

708.54(A) General. Critical operations power system(s) overcurrent protective devices (OCPDs) shall be selectively coordinated with all supply-side and load-side OCPDs.
Selective coordination shall be selected by a licensed professional engineer or other qualified persons engaged primarily in the design, installation, or maintenance of electrical systems. The selection shall be documented and made available to those authorized to design, install, inspect, maintain, and operate the system.
708.54(B) Replacements. Where critical operations power system(s) OCPDs are replaced, they shall be reevaluated to ensure selective coordination is maintained with all supply-side and load-side OCPDs.
708.54(C) Modifications. If modifications, additions, or deletions to the critical operations power system(s) occur, selective coordination of the critical operations power system(s) OCPDs with all supply-side and load-side OCPDs shall be reevaluated.
Exception: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.

Informational Note: See Informational Note Figure 708.54~~(C)~~ for an example of how critical operations power system OCPDs selectively coordinate with all supply-side OCPDs.

~~OCPD D selectively coordinates with OCPDs C, F, E, B, and A.~~
~~OCPD C selectively coordinates with OCPDs F, E, B, and A.~~
~~OCPD F selectively coordinates with OCPD E.~~
~~OCPD B is not required to selectively coordinate with OCPD A because OCPD B is not a critical operations power system OCPD.~~



Informational Note Figure 708.54~~(C)~~ Critical Operations Power System Selective Coordination.
OCPD D selectively coordinates with OCPDs C, F, E, B, and A.
OCPD C selectively coordinates with OCPDs F, E, B, and A.
OCPD F selectively coordinates with OCPD E.
OCPD B is not required to selectively coordinate with OCPD A because OCPD B is not a critical operations power system OCPD.

Issue Date: August 25, 2023

Effective Date: September 14, 2023

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: 408.6
TIA 23-12
(SC 23-8-56 / TIA Log #1699)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2023 edition. The TIA was processed by Code-Making Panel 9 and the Correlating Committee on National Electrical Code, and was issued by the Standards Council on August 25, 2023, with an effective date of September 14, 2023.

1. Revise 408.6 to read as follows:

408.6 Short-Circuit Current Rating. Switchboards, switchgear, and panelboards shall have a short-circuit current rating not less than the available fault current. In other than one- and two-family dwelling units, the available fault current and the date the calculation was performed shall be field marked on the enclosure at the point of supply. The marking shall be of sufficient durability to withstand the environment involved. ~~comply with 110.21(B)(3).~~

Issue Date: August 25, 2023

Effective Date: September 14, 2023

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2023 Edition

Reference: 400.47
TIA 23-13
(SC 23-8-57 / TIA Log #1731)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2023 edition. The TIA was processed by Code-Making Panel 6 and the Correlating Committee on National Electrical Code, and was issued by the Standards Council on August 25, 2023, with an effective date of September 14, 2023.

1. Revise section 400.47 to read as follows:

400.47. ~~Minimum~~ Conductor Bending ~~Radii~~ Radius. ~~The minimum bending radii for~~ P~~p~~ortable power feeder cables rated from 2000 volts to 5000 volts shall not ~~exceed~~ be bent to a radius less than six times the overall cable outer diameter. ~~The minimum bending radii for~~ P~~p~~ortable power feeder cables rated from 5001 volts to 25,000 volts shall not ~~exceed~~ be bent to a radius less than eight-times the overall cable outer diameter.

Issue Date: August 25, 2023

Effective Date: September 14, 2023

(Note: For further information on NFPA Codes and Standards, please see www.nfpa.org/docinfo**)**