

WORKING DRAFT OF NEC CODE-MAKING PANEL 8 MEETING OUTPUT

CONTENT NOT FINAL – SUBJECT TO REVISION PRIOR TO LETTER BALLOT AND PUBLICATION OF SECOND DRAFT REPORT

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Panel Activity: Comment Stage

This is a working draft, prepared by NFPA staff, to record the output generated at the Code-Making Panel 8 Second Draft Meeting. It includes draft copies of the Second Revisions and any Global Revisions.

It is being made available to Panel members for the purpose of facilitating early review, particularly for those Panel members who may be seeking input from their respective organizations in preparation for the Second Draft Ballot.



[See attached Word document for revisions that delete "to be installed" from Chapter 3.]

Supplemental Information

File Name Description Approved

70_SR8081_Global.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 02:28:04 EDT 2024

Committee Statement

Committee Deleted "to be installed" as redundant language in alignment with CC

Statement: recommendations. Also see PC-649 of CMP-1.

Response SR-8081-NFPA 70-2024

Message:

312.4(A) Weatherproof Enclosures.

In damp or wet locations, surface-type enclosures within the scope of this article shall be placed or equipped such that moisture or water is prevented from entering and accumulating within cabinets or cutout boxes, and be mounted so there is at least 6 mm (1/4 in.) of airspace between enclosures and walls or other supporting surface. Enclosures installed in wet locations shall be weatherproof.

Exception: Nonmetallic enclosures shall be permitted to be installed without the airspace on a concrete, masonry, tile, or similar surface.

314.5 Nonmetallic Boxes.

Nonmetallic boxes shall be permitted only with open wiring on insulators, concealed knob-and-tube wiring, cabled wiring methods with entirely nonmetallic sheaths, flexible cords, and nonmetallic raceways.

Exception: Nonmetallic boxes shall be permitted to be installed with metal conduit or metal armored cable in accordance with 250.109(B).

314.15(C) Drainage.

(1) Approved Openings.

Approved drainage openings not smaller than 3 mm ($_{1/8}$ in.) and not larger than 6 mm ($_{1/4}$ in.) in diameter shall be permitted to be installed in the field in boxes or conduit bodies listed for use in damp or wet locations.

(2) Listed Fittings.

For installation of listed drain fittings, larger openings shall be permitted to be installed in the field in accordance with the manufacturer's instructions.

Informational Note No. 1: See 314.27(C) for boxes in floors.

Informational Note No. 2: See 300.8 for protection against corrosion.

314.24(B)(5) Conductors 14 AWG and Smaller.

Boxes that enclose devices or utilization equipment supplied by 14 AWG or smaller conductors shall have a depth that is not less than 23.8 mm (15/16 in.).

Exception: Under any of the conditions specified in 314.24(B)(1) through 314.24(B)(5), devices or utilization equipment that is listed to be installed with specified boxes shall be permitted.

314.27(E) Weight-Supporting Ceiling Receptacles (WSCRs) and Weight-Supporting Attachment Fittings (WSAFs).

Outlet boxes required in 314.27 shall be permitted to support listed weight-supporting ceiling receptacles (WSCRs). A WSCR shall be used in combination with compatible weight-supporting attachment fittings (WSAFs)that are identified for the support of equipment within the weight and mounting orientation limits of the listing. Where the WSCR is installed, it shall be included in the box fill calculation covered in 314.16(B)(4).

Listed WSCRs used in combination with compatible WSAFs shall be permitted to be installed in outlet boxes for the sole support of ceiling-suspended (paddle) fans in accordance with 314.27(B).

Informational Note: See ANSI/NEMA WD-6, *American National Standard for Wiring Devices — Dimensional Specifications*, for standard configurations of weight-supporting ceiling receptacles and WSCRs and WSAFs.

342.10(B) Corrosion Environments.

IMC, elbows, couplings, and fittings shall be permitted to be installed in concrete, in direct contact with the earth, in direct burial applications, or in areas subject to severe corrosive influences where protected by corrosion protection approved for the condition.

Informational Note: Galvanized steel and PVC-coated steel IMC are examples of corrosion protection.

342.10(C) Cinder Fill.

IMC subject to permanent moisture shall be permitted to be installed in or under cinder fill where protected on all sides by a layer of noncinder concrete not less than 50 mm (2 in.) thick, where the conduit is not less than 450 mm (18 in.) under the fill, or where protected by corrosion protection approved for the condition.

342.10(E) Severe Physical Damage.

IMC shall be permitted to be installed where subject to severe physical damage.

342.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

344.10(A)(2) Aluminum RMC.

Aluminum RMC shall be permitted to be installed where approved for the environment.

344.10(B)(1) Galvanized Steel, PVC-Coated Steel, Stainless Steel, and Red Brass RMC, Elbows, Couplings, and Fittings.

Galvanized steel, PVC-Coated Steel, stainless steel, and red brass RMC, elbows, couplings, and fittings shall be permitted to be installed in concrete, in direct contact with the earth, in direct burial applications, or in areas subject to severe corrosive influences where protected by corrosion protection approved for the condition.

344.10(C) Cinder Fill.

Galvanized steel, stainless steel, and red brass RMC subject to permanent moisture shall be permitted to be installed in or under cinder fill where protected on all sides by a layer of noncinder concrete not less than 50 mm (2 in.) thick, where the conduit is not less than 450 mm (18 in.) under the fill, or where protected by corrosion protection approved for the condition.

344.10(E) Severe Physical Damage.

RMC shall be permitted to be installed where subject to severe physical damage.

344.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

348.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1, or as permitted in Table 348.22, or for metric designator 12 (trade size 3/8).

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

350.10 Uses Permitted.

LFMC shall be permitted to be used in exposed or concealed locations as follows:

- (1) Where conditions of installation, operation, or maintenance require flexibility or protection from machine oils, liquids, vapors, or solids.
- (2) In hazardous (classified) locations where specifically permitted by Chapter 5.
- (3) For direct burial where listed and marked for the purpose.
- (4) Conductors or cables rated at a temperature higher than the listed temperature rating of LFMC shall be permitted to be installed in LFMC, provided the conductors or cables are not operated at a temperature higher than the listed temperature rating of the LFMC.
- (5) For encasement in concrete where listed and marked for direct burial and installed in compliance with 350.42.

350.22(A) Metric Designators 16 through 103 (Trade Sizes 1/2 through 4).

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

352.10(J) Insulation Temperature Limitations.

Conductors or cables rated at a temperature higher than the listed temperature rating of PVC conduit shall be permitted to be installed in PVC conduit, provided the conductors or cables are not operated at a temperature higher than the listed temperature rating of the PVC conduit.

352.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

352.30(A) Securely Fastened.

PVC conduit shall be securely fastened within 900 mm (3 ft) of each outlet box, junction box, device box, conduit body, or other conduit termination. Conduit listed for securing at other than 900 mm (3 ft) shall be permitted to be installed in accordance with the listing.

352.30(B) Supports.

PVC conduit shall be supported as required in Table 352.30(B). Conduit listed for support at spacings other than as shown in Table 352.30(B) shall be permitted to be installed in accordance with the listing. Horizontal runs of PVC conduit supported by openings through framing members at intervals not exceeding those in Table 352.30(B) and securely fastened within 900 mm (3 ft) of termination points shall be permitted.

353.10(6) Conductors or cables rated at a temperature higher than the listed temperature rating of HDPE conduit shall be permitted to be installed in HDPE conduit, provided the conductors or cables are not operated at a temperature higher than temperature rating of the HDPE conduit.

353.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

355.10(I) Insulation Temperature Limitations.

Conductors or cables rated at a temperature higher than the listed temperature rating of RTRC conduit shall be permitted to be installed in RTRC conduit, if the conductors or cables are not operated at a temperature higher than the listed temperature rating of the RTRC conduit.

355.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1. Cables shall be permitted to be installed—where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

355.30(A) Securely Fastened.

RTRC shall be securely fastened within 900 mm (3 ft) of each outlet box, junction box, device box, conduit body, or other conduit termination. Conduit listed for securing at other than 900 mm (3 ft) shall be permitted to be installed in accordance with the listing.

355.30(B) Supports.

RTRC shall be supported as required in Table 355.30(B). Conduit listed for support at spacing other than as shown in Table 355.30(B) shall be permitted to be installed in accordance with the listing. Horizontal runs of RTRC supported by openings through framing members at intervals not exceeding those in Table 355.30(B) and securely fastened within 900 mm (3 ft) of termination points shall be permitted.

356.10(9) Conductors or cables rated at a temperature higher than the listed temperature rating of LFNC shall be permitted to be installed in LFNC, provided the conductors or cables are not operated at a temperature higher than the listed temperature rating of the LFNC.

356.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

358.10(B)(1) Galvanized Steel and Stainless Steel EMT, Elbows, and Fittings.

Galvanized steel and stainless steel EMT, elbows, and fittings shall be permitted to be installed in concrete, in direct contact with the earth, or in areas subject to severe corrosive influences where protected by corrosion protection and approved as suitable for the condition.

358.10(C) Cinder Fill.

Galvanized steel and stainless steel EMT shall be permitted to be installed in cinder concrete or cinder fill where subject to permanent moisture when protected on all sides by a layer of noncinder concrete at least 50 mm (2 in.) thick or when the tubing is installed at least 450 mm (18 in.) under the fill.

358.10(E) Physical Damage.

Steel and stainless steel EMT shall be permitted to be installed where subject to physical damage.

358.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9. Table 1.

360.20(A) Minimum.

FMT smaller than metric designator 16 (trade size 1/2) shall not be used.

Exception No. 1: FMT of metric designator 12 (trade size 3/8) shall be permitted to be installed in accordance with 300.25(B) and 300.25(C).

Exception No. 2: FMT of metric designator 12 (trade size 3/8) shall be permitted in lengths not in excess of 1.8 m (6 ft) as part of a listed assembly or for luminaires. See 410.117(C).

360.22(A) FMT — Metric Designators 16 and 21 (Trade Sizes 1/2 and 3/4).

The number of conductors in metric designators 16 (trade size 1/2) and 21 (trade size 3/4) shall not exceed that permitted by the percentage fill specified in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

362.22 Number of Conductors.

The number of conductors shall not exceed that permitted by the percentage fill in Chapter 9, Table 1.

Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles. The number of cables shall not exceed the allowable percentage fill specified in Chapter 9, Table 1.

366.10(B)(1) Outdoors.

Nonmetallic auxiliary gutters shall be permitted to be installed outdoors where listed and marked as suitable for the purpose.

366.10(B)(2) Indoors.

Nonmetallic auxiliary gutters shall be permitted to be installed indoors.

368.10 Uses Permitted.

Busways shall be permitted to be installed where they are located in accordance with 368.10(A) through 368.10(C).

Informational Note: See 300.23 for information concerning the spread of fire or products of combustion.

368.10(B) Behind Access Panels.

Busways shall be permitted to be installed behind access panels, provided the busways are totally enclosed, of nonventilating-type construction, and installed so that the joints between sections and at fittings are accessible for maintenance purposes. Where installed behind access panels, means of access shall be provided, and either of the following conditions shall be met:

- (1) The space behind the access panels shall not be used for air-handling purposes.
- (2) Where the space behind the access panels is used for environmental air, other than ducts and plenums, there shall be no provisions for plug-in connections, and the conductors shall be insulated.

368.10(C) Through Walls and Floors.

Busways shall be permitted to be installed through walls or floors in accordance with 368.10(C)(1) and 368.10(C)(2).

370.10 Uses Permitted.

Cablebus shall be permitted as follows:

- At any voltage or current for which spaced conductors are rated and where installed only for exposed work, except as permitted in 370.18
- (2) For branch circuits, feeders, and services

(3) To be installed indoors Indoors, outdoors, or in corrosive, wet, or damp locations where identified for the use

370.12 Uses Not Permitted.

Cablebus shall not be permitted to be installed in the following:

- (1) Hoistways
- (2) Hazardous (classified) locations, unless specifically permitted in Chapter 5

370.120(A) Nameplates.

Each cablebus system shall include a nameplate at each terminating end of the system with the manufacturer's name or trade designation and the maximum diameter, number, voltage rating, and ampacity of the conductors—to be installed. Nameplates shall be visible after installation.

371.12 Uses Not Permitted.

Flexible bus systems shall not be permitted to be installed in the following:

- (1) Hoistways
- (2) Where exposed to severe physical damage
- (3) Hazardous (classified) locations, unless specifically permitted in Chapter 5
- (4) Air-handling spaces

371.30(C) Support Tray.

Flexible bus systems shall be permitted to be installed in support trays supplied as associated fittings for the listed flexible bus system. Support trays shall not be required to be continuous.

392.10(A) Wiring Methods.

The following wiring methods shall be permitted to be installed in cable tray systems under the conditions described in their respective articles and sections.

- (1) Armored cables (Type AC)
- (2) CATV cables
- (3) Class 2 and Class 3 cables
- (4) Class 4 cables
- (5) Communications cables
- (6) Communications raceways
- (7) Electrical metallic tubing (EMT)
- (8) Electrical nonmetallic tubing (ENT)
- (9) Fire alarm cables
- (10) Flexible metal conduit (FMC)
- (11) Flexible metallic tubing (FMT)
- (12) Instrumentation tray cable (Type ITC)
- (13) Intermediate metal conduit (IMC)
- (14) Liquidtight flexible metal conduit (LFMC)
- (15) Liquidtight flexible nonmetallic conduit (LFNC)
- (16) Metal-clad cables (Type MC)
- (17) Mineral-insulated, metal-sheathed cables (Type MI)

- (18) Network-powered broadband communications cables
- (19) Nonmetallic-sheathed cables (Type NM, Type NMC, and Type NMS)
- (20) Non-power-limited fire alarm cables
- (21) Optical fiber cables
- (22) Other factory-assembled, multiconductor control, signal, or power cables that are specifically approved for installation in cable trays
- (23) Power and control tray cables (Type TC)
- (24) Power-limited fire alarm cables
- (25) Power-limited tray cables
- (26) Rigid metal conduit (RMC)
- (27) Rigid polyvinyl chloride conduit (PVC)
- (28) Reinforced thermosetting resin conduit (RTRC)
- (29) Service-entrance cables (Type SE and Type USE)
- (30) Underground feeder and branch-circuit cables (Type UF)

392.10(B) In Industrial Establishments.

The wiring methods in Table 392.10(A) shall be permitted to be used in any industrial establishment under the conditions described in their respective articles. In industrial establishments only, where conditions of maintenance and supervision ensure that only qualified persons service the installed cable tray system, any of the cables in 392.10(B)(1) and 392.10(B)(2) shall be permitted to be installed in ladder, ventilated trough, solid bottom, or ventilated channel cable trays.

392.10(B)(1) Single-Conductor Cables and Single Insulated Conductors.

Single-conductor cables and single insulated conductors shall be permitted to be installed in accordance with 392.10(B)(1)(a) through 392.10(B)(1)(c).

392.10(E) Airfield Lighting Cable Tray.

In airports where maintenance and supervision conditions ensure that only qualified persons can access, install, or service the cable, airfield lighting cable used in series circuits that are rated up to 5000 volts and are powered by constant current regulators shall be permitted to be installed in cable trays.

Informational Note: Federal Aviation Administration (FAA) Advisory Circulars (ACs) provide additional practices and methods for airport lighting.

392.20(A) Multiconductor Cables Operating at 1000 Volts ac, 1500 Volts dc, Nominal, or Less.

Multiconductor cables operating at 1000 volts ac, 1500 volts dc, nominal, or less shall be permitted to be installed in the same tray.

392.20(D) Single Conductors.

Where any of the single conductors installed in ladder or ventilated trough cable trays are 1/0 through 4/0 AWG, all single conductors shall be installed in a single layer. Conductors that are bound together to comprise each circuit group shall be permitted to be installed in other than a single layer.

392.22(B)(1)(a) Where all of the cables are 1000 kcmil or larger, the sum of the diameters of all single-conductor cables shall not exceed the cable tray width, and the cables shall be installed in a single layer. Conductors that are bound together to comprise each circuit group shall be permitted to be installed in other than a single layer.

394.10 Uses Permitted.

Concealed knob-and-tube wiring shall be permitted to be installed in the hollow spaces of walls and ceilings, or in unfinished attics and roof spaces as provided by 394.23, only as follows:

- (1) For extensions of existing installations
- (2) Elsewhere by special permission

Informational Note: See 210.12(E) for further information on branch-circuit wiring extensions, modifications, or replacements.

394.23(B) Not Accessible by Stairway or Permanent Ladder.

Conductors shall be installed along the sides of or through bored holes in floor joists, studs, or rafters.

Exception: In buildings completed before the wiring is installed, attic and roof spaces that are not accessible by stairway or permanent ladder and have headroom at all points less than 900 mm (3 ft), the wiring shall be permitted to be installed on the edges of rafters or joists facing the attic or roof space.



[Changes to 314.2 excluding subsections.]

314.2 Listing Requirements.

The equipment specified in 314.2(A) through 314.2(H) shall be listed and installed in accordance with the applicable requirements in this article.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 12:33:28 EDT 2024

Committee Statement

Committee Statement: Removed superfluous language as it did not add clarity to 314.2.

Response Message: SR-7894-NFPA 70-2024

Public Comment No. 30-NFPA 70-2024 [Section No. 314.2 [Excluding any Sub-Sections]]



Renumber 344.30 to be 344.28:

344.3028 Reaming and Threading.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 16:50:00 EDT 2024

Committee Statement

Committee Statement: Updated the section number to be sequential.

Response Message: SR-8039-NFPA 70-2024

Public Comment No. 1596-NFPA 70-2024 [Section No. 344.30]



312.11 Switch and Overcurrent Protective Device Enclosures.

The wiring space within enclosures for switches and overcurrent devices OCPDs shall be permitted for other wiring and equipment subject to limitations for specific equipment as provided in 312.11(A) and 312.11(B).

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 18:19:25 EDT 2024

Committee Statement

Committee Statement:This second revision improves clarity by standarizing the phrases "overcurrent", "overcurrent protective devices", "OCPD" and "overcurrent protection" for alignment

and consistency throughout the Code without changes to the technical provisions.

Response SR-8058-NFPA 70-2024

Message:

Public Comment No. 1648-NFPA 70-2024 [Global Input]



344.3<u>0</u>1 Securing and Supporting.

RMC shall be installed as a complete system in accordance with 300.20 and shall be securely fastened in place and supported in accordance with 344.304(A) and 344.304(B).

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 11:32:31 EDT 2024

Committee Statement

Committee Statement: Updated the section number to be sequential.

Response Message: SR-8083-NFPA 70-2024

Public Comment No. 1597-NFPA 70-2024 [Section No. 344.31]



Second Revision No. 8053-NFPA 70-2024 [Section No. 312.3]

312.3 Reconditioned Equipment.

Reconditioned cabinets, cutout boxes, and meter socket enclosures shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) Cabinets
- (2) Cabinet cutout boxes
- (3) Cabinet meter socket enclosures

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8053_312.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 17:43:31 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8053-NFPA 70-2024

Public Comment No. 139-NFPA 70-2024 [Section No. 312.3]

312.3 Reconditioned Equipment.

Reconditioned cabinets, cutout boxes, and meter socket enclosures shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) Cabinets
- (2) Cabinet cutout boxes
- (3) Cabinet meter socket enclosures



Second Revision No. 8055-NFPA 70-2024 [Section No. 312.8(A)]

(A) Openings to Be Closed.

Openings through which conductors, cables, or raceways enter shall be effectively closed using listed means, or methods applicable to the specific installation.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 17:47:28 EDT 2024

Committee Statement

Committee The term "effectively" has been deleted since it was unenforceable. The added

Statement: language clarifies that either a listed means or the method meets the requirements of

the environment where the component is installed.

Response SR-8055-NFPA 70-2024

Message:

Public Comment No. 591-NFPA 70-2024 [Section No. 312.8(A)]



Second Revision No. 8057-NFPA 70-2024 [Section No. 312.8(C)]

(C) Cables.

Where a cable wiring method is used, each cable shall be secured to the cabinet, cutout box, or meter socket enclosure.

Exception No. 1: Cables with entirely nonmetallic sheaths shall be permitted to enter the top of a surface-mounted enclosure through one or more nonflexible raceways not less than 450 mm (18 in.) and not more than 3.0 m (10 ft) in length, if all of the following conditions are met:

- (1) Each cable is fastened within 300 mm (12 in.), measured along the sheath, of the outer end of the raceway.
- (2) The raceway extends directly above the enclosure and does not penetrate a structural ceiling.
- (3) A fitting is provided on each end of the raceway to protect the cable(s) from abrasion and the fittings remain accessible after installation.
- (4) The raceway is sealed or plugged at the outer end using approved means so as to prevent access to the enclosure through the raceway.
- (5) The cable sheath is continuous through the raceway and extends into the enclosure beyond the fitting not less than 6 mm (1/4 in.).
- (6) The raceway is fastened at its outer end and at other points in accordance with the applicable article.
- (7) Where installed as conduit or tubing, the cable fill does not exceed the amount that would be permitted for complete conduit or tubing systems by Chapter 9, Table 1 and all applicable notes thereto. Note 2 of the Chapter 9 tables does not apply to this condition.

Informational Note: See Chapter 9, Table 1, including Note 9, for allowable cable fill in circular raceways. See 310.15(C)(1) for required ampacity reductions for multiple cables installed in a common raceway.

Exception No. 2: Single conductors and multiconductor cables shall be permitted to enter enclosures in accordance with 392.46(A) or 392.46(B).

Exception No. 3: Cables installed in a complete raceway system in accordance with 300.14 shall not be required to be secured to enclosures.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 17:57:24 EDT 2024

Committee Statement

Committee Statement:

This second revision adds a new Exception No. 3 to clarify that cables installed in a complete raceway system are not required to be secured to enclosures. "Wiring method" is the focus of the article and its deletion would not add clarity, but instead remove an important part of the requirements.

Response Message:

SR-8057-NFPA 70-2024

Public Comment No. 732-NFPA 70-2024 [Section No. 312.8(C)]



Second Revision No. 8061-NFPA 70-2024 [Section No. 312.11(A)]

[See attached Word document for revisions on 312.11 (A) .]

(A) Splices, Taps, and Feed-Through Conductors.

The wiring space of enclosures for switches or overcurrent devices. OCPDs shall be permitted for conductors feeding through, spliced, or tapping off to other enclosures, switches, or overcurrent devices OCPDs where all of the following conditions are met:

- (1) The total of all conductors installed at any cross section of the wiring space does not exceed 40 percent of the cross-sectional area of that space.
- (2) The total area of all conductors, splices, and taps installed at any cross section of the wiring space does not exceed 75 percent of the cross-sectional area of that space.
- (3) The bending space for conductors 4 AWG and larger complies with 314.28(A)(2).
- (4) A warning label complying with 110.21(B) is applied to the enclosure that identifies the closest disconnecting means for any feed-through conductors.
- (5) The service conductors are not located within the service conductors.

The wiring space of enclosures for meter sockets shall not contain conductors feeding through or tapping off to other enclosures, switches, or overcurrent devices. This requirement shall not preclude conductors terminating to the meter socket.

(1) equipment.

Supplemental Information

Description File Name **Approved**

312.11_A_SR_8061.docx

Submitter Information Verification

NEC-P08 Committee:

Submittal Date: Fri Oct 18 18:30:24 EDT 2024

Committee Statement

Committee This second revision rephrases the new condition (5) to clarify the five conditions Statement: necessary to permit the wiring space of enclosures for switches or overcurrent devices to be used for conductors feeding through, spliced, or tapping off to other equipment, such as line side photovoltaic taps. The resulting language achieves the goal that was intended during the first draft, which was to "clarify that service conductors are not permitted to run through other enclosures located prior to the service entrance enclosure". With this change, the two sentences that were added during the first draft are not necessary. Additionally, these two sentences are out of scope for 312.11(A), which addresses enclosures for switches or overcurrent devices, not meter sockets.

> This second revision also improves clarity by standardizing the phrases "overcurrent", "overcurrent protective devices", "OCPD" and "overcurrent protection" for alignment and consistency throughout the Code without changes to the technical provisions, see PC-1648.

Response SR-8061-NFPA 70-2024

Message:

Public Comment No. 593-NFPA 70-2024 [Section No. 312.11(A)]

Public Comment No. 1824-NFPA 70-2024 [Section No. 312.11(A)]

Public Comment No. 89-NFPA 70-2024 [Section No. 312.11(A)]

(A) Splices, Taps, and Feed-Through Conductors.

The wiring space of enclosures for switches or overcurrent devices OCPDs shall be permitted for conductors feeding through, spliced, or tapping off to other enclosures, switches, or overcurrent devices OCPDs where all of the following conditions are met:

- 1. The total of all conductors installed at any cross section of the wiring space does not exceed 40 percent of the cross-sectional area of that space.
- 2. The total area of all conductors, splices, and taps installed at any cross section of the wiring space does not exceed 75 percent of the cross-sectional area of that space.
- 3. The bending space for conductors 4 AWG and larger complies with 314.28(A)(2).
- 4. A warning label complying with 110.21(B) is applied to the enclosure that identifies the closest disconnecting means for any feed-through conductors.
- 5. The conductors are not service conductors are located within the service equipment.

The wiring space of enclosures for meter sockets shall not contain conductors feeding through or tapping off to other enclosures, switches, or overcurrent devices. This requirement shall not preclude conductors terminating to the meter socket.



Second Revision No. 8062-NFPA 70-2024 [Section No. 312.11(B)]

(B) Power Monitoring or Energy Management Equipment.

The wiring space of enclosures for switches or overcurrent devices—OCPDs shall be permitted to contain power monitoring or energy management equipment in accordance with 312.11(B)(1) through 312.11(B)(3).

(1) Identification.

Power monitoring or energy management equipment shall either be identified as a field installable accessory as part of the listed equipment or be a listed kit evaluated for field installation in switch or overcurrent device—OCPD enclosures.

(2) Area.

The total area of all conductors, splices, taps, and equipment at any cross section of the wiring space shall not exceed 75 percent of the cross-sectional area of that space.

(3) Conductors.

Conductors used exclusively for control or instrumentation circuits shall comply with either 312.11(B)(3)(a) or 312.11(B)(3)(b).

- (a) Conductors shall comply with 724.49.
- (b) Conductors smaller than 18 AWG, but not smaller than 22 AWG for a single conductor and 26 AWG for a multiconductor cable, shall be permitted to be used where the conductors and cable assemblies meet all of the following conditions:
- (3) Are enclosed within raceways or routed along one or more walls of the enclosure and secured at intervals that do not exceed 250 mm (10 in.)
- (4) Are secured within 250 mm (10 in.) of terminations
- (5) Are secured to prevent contact with current carrying components within the enclosure
- (6) Are rated for the system voltage and not less than 600 volts
- (7) Have a minimum insulation temperature rating of 90°C

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 18:36:49 EDT 2024

Committee Statement

Committee Statement:

This second revision improves clarity by standardizing the phrases "overcurrent", "overcurrent protective devices", "OCPD" and "overcurrent protection" for alignment and consistency throughout the Code without changes to the technical provisions, see

PC-1648.

Response Message:

SR-8062-NFPA 70-2024



Second Revision No. 7885-NFPA 70-2024 [Section No. 314.2(C)]

- (C) Floor Boxes.
- (1) General.

Floor boxes and floor box assemblies shall covers shall be listed.

(2) Show Windows.

Where located in the floor of show windows and other display applications and judged by the authority having jurisdiction to be free from likely exposure to physical damage, moisture, or dirt, boxes shall be permitted to be other than those listed for floor applications. Receptacles and covers shall be listed as an assembly for

installation in show windows

such applications.

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-7885_314.2_C_.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 12:09:12 EDT 2024

Committee Statement

Committee The listing limitations are intended to only apply to floor exposures in show windows. **Statement:** The wording also avoids the adjective "similar" as applied to qualify other applications,

which does not comply with the word avoidance list in Table 3.2.1 of the Style Manual.

Which does not comply with the word avoidance list in Table 3.2.1 of the Style Manual. Updated to positive code language and incorporated the 314.27 (c) exception into the

314.2 requirements.

Response SR-7885-NFPA 70-2024

Message:

Public Comment No. 1175-NFPA 70-2024 [Section No. 314.2(C)]

- (C) Floor Boxes.
- (1) General.

Floor boxes and floor box assemblies covers shall be listed.

(2) Show Windows.

Where located in the floor of show windows and other display applications and judged by the authority having jurisdiction to be free from likely exposure to physical damage, moisture, or dirt, boxes shall be permitted to be other than those listed for floor applications. Receptacles and covers shall be listed as an assembly for installation in show windows such applications.



Second Revision No. 7888-NFPA 70-2024 [Section No. 314.2(D)]

(D) - Outlet _ Boxes for at Ceiling-Suspended (Paddle) Fans Fan Outlets .

Outlet boxes for used to provide the mechanical support of ceiling-suspended (paddle) fans shall be listed for fan support as required in 314 .27(B).

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 12:19:45 EDT 2024

Committee Statement

CommitteeRevised text to clarify the listing requirement applies where the box provides mechanical support for ceiling-suspended paddle fans. Title was updated to align

with 314.27.

Response SR-7888-NFPA 70-2024

Message:

Public Comment No. 2009-NFPA 70-2024 [Section No. 314.2(D)]



Second Revision No. 7891-NFPA 70-2024 [Section No. 314.2(G)]

(G) Reduced Wall Thickness Boxes and Conduit Bodies.

Boxes Listed boxes and conduit bodies having reduced wall thickness from code requirements shall be listed equivalent strength and characteristics shall be permitted to be made of thinner or other materials.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 12:24:54 EDT 2024

Committee Statement

Committee Public comment 2015 addresses the restatement in 314.2(G) of the listing requirement in Statement: 314.100(B) Ex. No. 2 which uses the word "equivalent". This word appears in the Style Manual Table 3.2.1, and as such is required to "be reviewed in context, and if the resulting requirement is unenforceable or vague, the term shall not be used."

> This use is neither vague nor unenforceable, precisely because it is directly connected to a listing requirement. The term sets crucial parameters for a testing laboratory to apply in making such an evaluation. The evaluation will not be conducted by an electrician or an inspection authority. In general, boxes do not require listings, however common they may occur. This requirement is striking in its essential difference to the remainder of Article 314. This rule, exactly as worded, has prevented unsafe products from appearing on the market, and done so precisely because their construction failed the equivalence test in this rule. Testing laboratories have a long and successful history of making evaluations of this sort, and what is not broken should not be fixed. The only alternative would be to recapitulate in Art. 314 the content of product standards, and that would be both impractical and incompatible with the three-legged stool principle (installation code, product standards, and qualified, disinterested third party inspection) underlying the North American electrical safety system.

Response SR-7891-NFPA 70-2024

Message:

Public Comment No. 2015-NFPA 70-2024 [Section No. 314.2(G)]



Second Revision No. 8085-NFPA 70-2024 [Section No. 314.3]

314.3 Reconditioned Equipment.

Reconditioned outlet, device, pull, and junction boxes; conduit bodies; fittings; and handhole

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted

- (1) Outlet boxes
- (2) Device boxes
- (3) Pull boxes
- (4) Junction boxes
- (5) Conduit bodies
- (6) Dittings
- (7) Handhole enclosures

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 11:48:42 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8085-NFPA 70-2024

Public Comment No. 596-NFPA 70-2024 [Section No. 314.2]



Second Revision No. 8088-NFPA 70-2024 [Sections 314.16(C)(2), 314.16(C)(3)

Sections 314.16(C)(2), 314.16(C)(3)

(2) With Splices, Taps, or Wiring Devices.

Only those conduit bodies that are durably and legibly marked by the manufacturer with their volume shall be permitted to contain splices, taps, or <u>wiring</u> devices. The maximum number of conductors shall be calculated in accordance with 314.16(B). Conduit bodies shall be supported in a rigid and secure manner.

(3) Short Radius Conduit Bodies.

Conduit bodies such as capped elbows and service-entrance elbows that enclose conductors 6 AWG or smaller, and are only intended to enable the installation of the raceway and the contained conductors, shall not contain splices, taps, or <u>wiring</u> devices and shall be of an approved size to provide free space for all conductors enclosed in the conduit body.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 12:46:14 EDT 2024

Committee Statement

Committee This revision adds "wiring" before devices to align with the updated definition for

Statement: "wiring device" and aligns with PC-504.

Response SR-8088-NFPA 70-2024

Message:



Second Revision No. 7912-NFPA 70-2024 [Section No. 314.17(A)]

(A) Openings to Be Closed.

Openings through which conductors, cables, or raceways enter shall be effectively closed using listed means, or methods applicable to the specific installation.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 14:18:35 EDT 2024

Committee Statement

Committee The term "effectively" has been deleted since it was unenforceable. The added

Statement: language clarifies that either a listed means or the method meets the requirements of

the environment where the component is installed.

Response SR-7912-NFPA 70-2024

Message:

Public Comment No. 592-NFPA 70-2024 [Section No. 314.17(A)]



Second Revision No. 7914-NFPA 70-2024 [Section No. 314.20(A)]

(A) Noncombustible Materials.

Installations within or behind surfaces of concrete, tile, gypsum, plaster, or other noncombustible material, including boxes employing flush-type covers or faceplates, shall be made so that the front edge of the boxes, plaster rings, extension rings, or listed extenders will not be set back on from the finished surfaces more than 6 mm (½ in.).

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 14:22:02 EDT 2024

Committee Statement

Committee Statement: Updated the text to correct a grammatical error for finished surfaces.

Response Message: SR-7914-NFPA 70-2024

Public Comment No. 1629-NFPA 70-2024 [Section No. 314.20(A)]



Second Revision No. 7916-NFPA 70-2024 [Section No. 314.22]

314.22 Surface Extensions.

Surface extensions shall be made by mounting and mechanically securing an one or more extension ring(s) over the box. Equipment grounding shall be in accordance with Article 250, Part VI.

Exception: A surface extension shall be permitted to be made from the cover of a box where the cover is designed so it is unlikely to fall off or be removed if its securing means becomes loose. The wiring method shall be flexible for an approved length that permits removal of the cover and provides access to the box interior and be arranged so that any grounding continuity is independent of the connection between the box and cover.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 14:24:58 EDT 2024

Committee Statement

Committee This revision clarified that more than one extension ring may be necessary in certain

Statement: applications.

Although multiple extension rings may not appear aesthetically pleasing, as long as they are installed in accordance with applicable requirements, installation of multiple

extension rings does not present a safety hazard.

Response

SR-7916-NFPA 70-2024

Message:

Public Comment No. 1821-NFPA 70-2024 [Section No. 314.22]



Second Revision No. 7918-NFPA 70-2024 [Section No. 314.23(E)]

Sections 314.23(E), 314.23(F)

(E) Raceway-Supported Enclosures, Without Devices, Luminaires, or Lampholders.

Enclosures that do not contain devices, other than splicing devices, or support luminaires, lampholders, or other equipment and are supported by entering raceways shall not exceed 1650 cm³ (100 in.³) in size. Enclosures shall have threaded entries or identified hubsand hubs and be supported by two or more conduits threaded wrenchtight into the enclosure or hubs. Each conduit shall be secured within 900 mm (3 ft) of the enclosure, or within 450 mm (18 in.) of the enclosure if all conduit entries are on the same side.

Exception: A conduit body of trade size not larger than the largest trade size of the conduit or tubing, an FS or FD single gang device box, or an explosion proof conduit outlet explosion proof outlet box of any size, with one or more entries, shall be permitted to be supported by a single raceway of the following wiring methods:

- (1) Intermediate metal conduit(IMC)
- (2) Rigid metal conduit(RMC)
- (3) Rigid polyvinyl chloride conduit(PVC)
- (4) Reinforced thermosetting resin conduit(RTRC)
- (5) Electrical metallic tubing(EMT)

(F) Raceway-Supported Enclosures, with Devices, Luminaires, or Lampholders.

Enclosures that contain devices, other than splicing devices, or support luminaires, lampholders, or other equipment and are supported by entering raceways shall not exceed 1650 cm³ (100 in.³) in size. Enclosures shall have threaded entries or identified hubsand hubs and be supported by two or more conduits threaded wrenchtight into the enclosure or hubs. Each conduit shall be secured within 450 mm (18 in.) of the enclosure.

Exception No. 1: A single rigid metal or intermediate metal conduit shall be permitted to support a box or conduit body with one or more entries as follows:

- (1) Conduit body of trade size not larger than the largest trade size of the conduit
- (2) FS or FD single gang device box
- (3) Single gang explosionproof conduit outlet box of any size

Exception No. 2: An unbroken length(s) of rigid or intermediate metal conduit shall be permitted to support a box used for luminaire or lampholder support, or to support a wiring enclosure that is an integral part of a luminaire and used in lieu of a box in accordance with 300.17(B), where all of the following conditions are met:

- (1) The conduit is securely fastened at a point so that the length of conduit beyond the last point of conduit support does not exceed 900 mm (3 ft).
- The unbroken conduit length before the last point of conduit support is 300 mm (12 in.) or greater, and that portion of the conduit is securely fastened at some point not less than 300 mm (12 in.) from its last point of support.
- (3) Where accessible to unqualified persons, the luminaire or lampholder, measured to its lowest point, is at least 2.5 m (8 ft) above grade or standing area and at least 900 mm (3 ft) measured horizontally to the 2.5 m (8 ft) elevation from windows, doors, porches, fire escapes, or similar locations.
- (4) A luminaire supported by a single conduit does not exceed 300 mm (12 in.) in any direction from the point of conduit entry.
- (5) The weight supported by any single conduit does not exceed 9 kg (20 lb).
- (6) At the luminaire or lampholder end, the conduit(s) is threaded wrenchtight into the box, conduit body, integral wiring enclosure, or identified hubs. Where a box or conduit body is used for support, the luminaire shall be secured directly to the box or conduit body, or through a threaded conduit nipple not over 75 mm (3 in.) long.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 14:29:42 EDT 2024

Committee Statement

The terms "FS" and "FD" are not defined but commonly understood terms and Committee Statement: clarified the correct term for explosion proof outlet box. Editorial change was made to

correct "hubsand" to "hubs and".

Response

Message:

SR-7918-NFPA 70-2024

Public Comment No. 735-NFPA 70-2024 [Sections 314.23(E), 314.23(F)]



Second Revision No. 7988-NFPA 70-2024 [Section No. 314.27(A)(1)]

[See attached Word document for revisions to 314.27 (1).]

(1) Vertical Surface Outlets.

Boxes used at luminaire or lampholder outlets in or on a vertical surface shall be identified and marked on the interior of the box to indicate the maximum weight of the luminaire that is permitted to be supported by the box if other than 23 kg (50 lb).

Exception: A vertically mounted luminaire or lampholder weighing not more than 3 kg (6 lb) shall be permitted to be supported on other boxes or plaster rings that are secured to other boxes if the luminaire or its supporting yoke, or the lampholder, is secured to the box with no fewer than two No. 6 or larger screws.

Supplemental Information

<u>File Name</u> <u>Description</u> <u>Approved</u>

314.27_A_1_SR7919.docx

NEC_CMP-8_SR-7988_314.27_A_1_.docx For prod use

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 11:06:29 EDT 2024

Committee Statement

Committee Revised text to employ positive code language and incorporated the exception into

Statement: the requirements, Reordered the requirements to have better usability.

Response SR-7988-NFPA 70-2024

Message:

Public Comment No. 1859-NFPA 70-2024 [Section No. 314.27(A)(1)]

(1) Vertical Surface Outlets.

Boxes used at luminaire or lampholder outlets in or on a vertical surface shall be installed in accordance with 314.27(A)(1)(a) and 314.27(A)(1)(b):

(a) Luminaires 3 kg (6 lb) or less. Luminaires or lampholders weighing not more than 3 kg (6 lb) shall be permitted to be supported on other boxes or plaster rings that are secured to other boxes if the luminaire or its supporting voke, or the lampholder, is secured to the box with no fewer than two No. 6 or larger screws.

its supporting yoke, or the lampholder, is secured to the box with no fewer than two No. 6 or larger screws.

(a)(b) Luminaires over 3 kg (6 lb). Outlet boxes for luminaires over 3kg (6 lb) shall utilize boxes

identified and identified and marked on the interior of the box to indicate the maximum weight

of the luminaire that is permitted to be supported by the box if other than 23 kg (50 lb).

Exception: A vertically mounted luminaire or lampholder weighing not more than 3 kg (6 lb) shall be permitted to be supported on other boxes or plaster rings that are secured to other boxes if the luminaire or its supporting yoke, or the lampholder, is secured to the box with no fewer than two No. 6 or larger screws.

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Second Revision No. 7928-NFPA 70-2024 [Section No. 314.27(B)]

[See attached Word document for revisions to 314.27 (B) .]

(B) Boxes at Ceiling-Suspended (Paddle) Fan Outlets.

Outlet boxes or outlet box systems used as the sole support of a ceiling-suspended (paddle) fan shall be listed, shall be marked by their manufacturer on the interior of the box as suitable for this purpose, and shall not support ceiling-suspended (paddle) fans that weigh more than 32 kg (70 lb). For outlet boxes or outlet box systems designed to support ceiling-suspended (paddle) fans that weigh more than 16 kg (35 lb), the required marking shall include the maximum weight to be supported.

Ceiling outlet boxes mounted in a location identified by the installer, designer, or building owner for the installation of a ceiling-suspended (paddle) fan or mounted in the ceilings of living and sleeping areas in dwelling units in a location typical for the installation of a ceiling-suspended (paddle) fan shall comply with one of the following:

- (1) Listed for the sole support of ceiling-suspended (paddle) fans
- (2) Installed so as to allow direct access through the box to structural framing capable of supporting a ceiling-suspended (paddle) fan without removing the box

Informational Note: A typical location for a ceiling-suspended (paddle) fan is in the center of a room or space or centered over a sitting area.

Supplemental Information

File Name Description Approved

314.27_B_SR_7928.docx

NEC_CMP-8_SR-7928_314.27_B_.docx For prod use

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 16:44:29 EDT 2024

Committee Statement

Committee This revision employs positive code language and incorporates the informational note **Statement:** into the requirements. This also clarifies that ceiling outlet boxes mounted in locations

into the requirements. This also clarifies that ceiling outlet boxes mounted in locations are codependent. Establishing location requirements for both the installer, designer, or building owner and those mounted centrally in the ceilings of living and sleeping areas in dwelling units. Additionally, the requirements have been reordered to improve usability.

Response SR-7928-NFPA 70-2024

Message:

Public Comment No. 1002-NFPA 70-2024 [Section No. 314.27(B)]

Public Comment No. 801-NFPA 70-2024 [Section No. 314.27(B)]

Public Comment No. 1311-NFPA 70-2024 [Section No. 314.27(B)]

Public Comment No. 1860-NFPA 70-2024 [Section No. 314.27(B)]

Public Comment No. 736-NFPA 70-2024 [Section No. 314.27(B)]

(B) Boxes at Ceiling-Suspended (Paddle) Fan Outlets.

(1) General.

Outlet boxes or outlet box systems used as the sole support of a ceiling-suspended (paddle) fan shall be listed, shallbe listed and comply with all of the following:

- 1) Shall be marked by their manufacturer on the interior of the box as suitable for this purpose.
- Shall be marked with the maximum weight to be supported if supporting more than 16 kg (35 lb).
 , and shallShall -not support ceiling suspended (paddle) fans that weigh more than 32 kg (70 lb).
 Ffor outlet boxes or outlet box systems designed to support ceiling-suspended (paddle) fans that weigh more than 16 kg (35 lb), the required marking shall include the maximum weight to be supported.

(2) Required Locations.

Ceiling outlet boxes mounted incentrally in the ceilings of living and sleeping areas within dwelling units in a locations, that are typical for the installation of a ceiling-suspended (paddle) fan, and in locations that are indicated identified by the installer, designer, or building owner for the installation of a ceiling-suspended (paddle) fan er mounted in the ceilings of living and sleeping areas in dwelling units in a location typical for the installation of a ceiling-suspended (paddle) fan shall comply with one of the following:

- (1) Listed for the sole support of ceiling-suspended (paddle) fans
- (2) Installed so as-to allow direct access through the box to structural framing capable of supporting a ceilingsuspended (paddle) fan without removing the box

Informational Note: A typical location for a ceiling-suspended (paddle) fan is in the center of a room or space or centered over a sitting area.

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Second Revision No. 8598-NFPA 70-2024 [Section No. 314.27(C)]

(C) Floor Boxes.

Boxes listed specifically for this application shall be used for receptacles located in the floor.

Exception: Where the authority having jurisdiction judges them free from likely exposure to physical damage, moisture, and dirt, boxes located in elevated floors of show windows and similar locations shall be permitted to be other than those listed for floor applications. Receptacles and covers shall be listed as an assembly for this type of location.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Mon Oct 28 10:47:42 EDT 2024

Committee Statement

Committee The exception has been incorporated into 314.2 listing requirements and has

Statement: been deleted here.

Response SR-8598-NFPA 70-2024

Message:



Second Revision No. 7932-NFPA 70-2024 [Section No. 314.28(A)(3)]

(3) Smaller Dimensions.

Listed boxes or listed conduit bodies of dimensions less than those required in 314.28(A)(1) and 314.28(A)(2) shall be permitted for installations of combinations of conductors that are less than the maximum conduit or tubing fill (of conduits or tubing being used) permitted by Chapter 9, Table 1

Listed conduit bodies of dimensions less than those required in 314.28(A)(2), and having a radius of the curve to the centerline not less than that indicated in <u>Chapter</u> 9, Table 2, for one-shot and full-shoe benders, shall be permitted for installations of combinations of conductors permitted by Chapter 9, Table 1. These conduit bodies shall be marked to show they have been specifically evaluated in accordance with this provision.

Where the permitted combinations of conductors for which the box or conduit body has been listed are less than the maximum conduit or tubing fill permitted by Chapter 9, Table 1, the box or conduit body shall be permanently marked with the maximum number and maximum size of conductors permitted. For other conductor sizes and combinations, the total cross-sectional area of the fill shall not exceed the cross-sectional area of the conductors specified in the marking, based on the type of conductor identified as part of the product listing.

Informational Note: Unless otherwise specified, the applicable product standards evaluate the fill markings covered here based on conductors with Type XHHW insulation.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 16:59:45 EDT 2024

Committee Statement

Committee The term 'Chapter' was added as an editorial correction to align with the Style

Statement: Manual.

Response Message: SR-7932-NFPA 70-2024

Public Comment No. 1184-NFPA 70-2024 [Section No. 314.28(A)(3)]



Second Revision No. 7933-NFPA 70-2024 [Section No. 314.29(A)]

(A) Buildings and Other Structures.

Boxes and conduit bodies shall be installed at the interiors and exteriors of buildings and other structures 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 and structures 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), 314.29(A)(2), or 314.29(A)(3) as applicable. Removable finished covers and faceplates that maintain this access shall be permitted.

(1) Boxes $1650 \text{ cm}^3 (100 \text{ in.}^3)$ or Less in Size.

Openings in the building surfaces, if reduced from the outer walls of boxes, shall comply with the following:

- (1) They shall be centered not more than 25 mm (1 in.) from the centerline of boxes.
- (2) They shall not extend beyond the walls of boxes.
- (3) If rectangular, they shall not be less than 73 mm ($2\frac{7}{8}$ in.) by 45 mm ($1\frac{3}{4}$ in.) in size.
- (4) If circular, they 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 the following conditions are met:

- (1) The branch-circuit wiring that supplies each device consists of a separate cable assembly originating outside the box, or individual sets of conductors in a single raceway, all of which originate outside the box. Other than the connections to a single device, the branch-circuit conductors are not spliced in the box, or continued to another device, and no other wiring or raceways enter the box.
- (2) 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.
- (3) 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.
- (4) The device assemblies are listed for this application.
- (2) Boxes Larger Than 1650 cm³ (100 in.³) in Size.

Openings shall not be smaller than the outer walls of boxes.

(3) Conduit Bodies.

Openings shall not be smaller than the outer walls of conduit bodies.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 17:01:09 EDT 2024

Committee Statement

Committee Statement: The phrase "shall be installed" was relocated to clarify intent.

Response Message: SR-7933-NFPA 70-2024

Public Comment No. 737-NFPA 70-2024 [Section No. 314.29(A)]



Second Revision No. 7935-NFPA 70-2024 [Section No. 314.70]

314.70 General.

(A) Pull and Junction Boxes.

Where pull and junction boxes are used on systems over 1000 volts ac, 1500 volts dc, nominal, installations shall comply with Article 314, Part IV Part III, and with the following general requirements:

- (1) Part I: 314.4, 314.5, 314.6, and 314.7
- (2) Part II: 314.15; 314.17; 314.20; 314.23(A), 314.23(B), or 314.23(G); 314.28(B); and 314.29
- (3) Part IV: 314.100(A) and 314.100(C); and 314.101
- (B) Conduit Bodies.

Where conduit bodies are used on systems over 1000 volts ac, 1500 volts dc, nominal, installations shall comply with Article 314, Part IV Part III, and with the following general requirements:

- (1) Part I: 314.6, and 314.7
- (2) Part II: 314.15; 314.17; 314.23(A), 314.23(E), or 314.23(G); 314.28(A)(3); and 314.29
- (3) Part IV: 314.100(A) and 314.101
- (C) Handhole Enclosures.

Where handhole enclosures are used on systems over 1000 volts ac, 1500 volts dc, nominal, the installation shall comply with Article 314, Part IV Part III, and with the following requirements:

- (1) Part I: 314.5, 314.6, and 314.7
- (2) Part II: 314.15, 314.17, 314.23(G), 314.28(B), 314.29, and 314.30

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 17:04:46 EDT 2024

Committee Statement

Committee Statement: This revision corrects the part number to cross-reference the user to Part III.

Response Message: SR-7935-NFPA 70-2024

Public Comment No. 116-NFPA 70-2024 [Section No. 314.70]
Public Comment No. 73-NFPA 70-2024 [Section No. 314.70]



Second Revision No. 8017-NFPA 70-2024 [Section No. 342.3]

342.3 Reconditioned Equipment.

Reconditioned IMC,

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) IMC

(2) IMC factory elbows and couplings

, and

(3) IMC associated fittings

shall not be permitted.

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8017_342.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 14:05:29 EDT 2024

Committee Statement

Committee Revised the section to comply with the correlating committees recommended

Statement: formatting style.

Response Message: SR-8017-NFPA 70-2024

Public Comment No. 597-NFPA 70-2024 [Section No. 342.3]

Reconditioned IMC, factory elbows and couplings, and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) IMC
- (2) IMC factory elbows and couplings
- (3) IMC associated fittings



Second Revision No. 8025-NFPA 70-2024 [Section No. 342.29]

342.29 Paired Locknuts.

Paired locknuts shall be used for each enclosure opening that is not a threaded hub. Locknuts shall be installed with a minimum of one locknut on each side of the penetrated enclosure wall. Other fittings listed for the purpose shall be permitted to serve as the locknut installed inside the

If conduit threads enter a box, cabinet, or similar enclosure through an opening other than a threaded opening, a locknut or listed fitting shall be installed on the inside and outside of the enclosure

Submitter Information Verification

NEC-P08 Committee:

Submittal Date: Fri Oct 18 14:33:58 EDT 2024

Committee Statement

Committee This revision simplifies the requirement to align with the NEC style manual, 3.5.1.2. Statement:

This revision additionally clarifies that listed fittings can be used on the inside or the

outside of enclosures for electrical and mechanical continuity.

SR-8025-NFPA 70-2024 Response

Message:

Public Comment No. 1606-NFPA 70-2024 [Section No. 342.29]



Second Revision No. 8034-NFPA 70-2024 [Section No. 342.42(A)]

[See attached Word document for 342.42 (A) - Threadless revisions.

Threadless couplings

1

(A) General.

<u>Couplings</u> and connectors shall be <u>made tight and be</u> installed in accordance with one or more of the following:

- (1) Threadless couplings and connectors used with conduit shall be made tight.
- (2)
- (3) Where buried in masonry or concrete, threadless couplings and connectors fittings shall be the listed for concrete-tight type.
- (4) Where installed in wet locations, threadless couplings and connectors shall use fittings fittings shall be listed for wet locations.
- (5) Threadless couplings and connectors shall not be used Where installed on threaded conduit ends-unless, fittings shall be listed for the purpose.

Supplemental Information

File Name Description Approved

342.42 A SR 8034.docx

342.42 A SR 8034 CMP-8.docx For prod use

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 16:36:00 EDT 2024

Committee Statement

Committee Revised the title of the section to clarify the provisions apply to both threaded and

Statement: threadless connections. Redundant language was removed.

Response SR-8034-NFPA 70-2024

Message:

Public Comment No. 1258-NFPA 70-2024 [Section No. 342.42]

Public Comment No. 31-NFPA 70-2024 [Section No. 342.42(A)]

(A) Threadless. General.

Couplings and connectors shall be made tight and be installed in accordance with one of the following:

- (1) Where buried in masonry or concrete, fittings shall be listed for concrete-tight type.
- (2) Where installed in wet locations, fittings shall be listed for wet locations.
- (3) Where installed on threaded conduit ends, fittings shall be listed for that purpose.

Threadless couplings and connectors shall be installed in accordance with one or more of the following:

- (1)—Threadless couplings and connectors used with conduit shall be made tight.
- (2)—Where buried in masonry or concrete, threadless couplings and connectors shall be the concrete-tight type.
- (3)—Where installed in wet locations, threadless couplings and connectors shall use fittings listed for wet locations.
- (4)—Threadless couplings and connectors shall not be used on threaded conduit ends unless listed for the purpose.



Second Revision No. 8035-NFPA 70-2024 [Section No. 344.3]

344.3 Reconditioned Equipment.

Reconditioned RMC,

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) RMC

(2) RMC factory elbows and couplings

, and

(3) RMC associated fittings

shall not be permitted.

Supplemental Information

File Name

Description Approved

NEC_CMP-8_SR-8035_344.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 16:41:09 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8035-NFPA 70-2024

Public Comment No. 598-NFPA 70-2024 [Section No. 344.3]

Reconditioned RMC, factory elbows and couplings, and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) RMC
- (2) RMC factory elbows and couplings
- (3) RMC associated fittings



Second Revision No. 8037-NFPA 70-2024 [Section No. 344.29]

344.29 Paired Locknuts.

Paired locknuts shall be used for each enclosure opening that is not a threaded hub. Locknuts shall be installed with a minimum of one locknut on each side of the penetrated enclosure wall. Other fittings listed for the purpose shall be permitted to serve as the locknut installed inside

29 Terminations.

If conduit threads enter a box, cabinet, or similar enclosure through an opening other than a threaded opening, a locknut or listed fitting shall be installed on the inside and outside of the enclosure.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 16:46:26 EDT 2024

Committee Statement

CommitteeThreadless connectors, threaded entries, threaded hubs, bonding locknuts and bonding type bushing are permitted as they are considered other fittings listed for

bonding type bushing are permitted as they are considered other fittings listed for the purpose. Which aligns with 344.2 where fittings are required to be listed. Also see

action taken on 344.29 which simplified the requirement.

Response SR-8037-NFPA 70-2024

Message:

Public Comment No. 1607-NFPA 70-2024 [Section No. 344.29]



Second Revision No. 8045-NFPA 70-2024 [Section No. 344.42(A)]

[See attached Word document for revisions to 344.42 (A) - Threadless .

Threadless couplings

1

(A) General.

<u>Couplings</u> and connectors shall be <u>made tight and be</u> installed in accordance with one or more of the following:

- (1) Threadless couplings and connectors used with conduit shall be made tight.
- (2)
- (3) Where buried in masonry or concrete, threadless couplings and connectors fittings shall be the listed for concrete-tight type.
- (4) Where installed in wet locations, threadless couplings and connectors shall use fittings fittings shall be listed for wet locations.
- (5) Threadless couplings and connectors shall not be used Where installed on threaded conduit ends-unless, fittings shall be listed for the purpose.

Supplemental Information

File Name Description Approved

344.42 A SR 8045.docx

344.42 A SR 8045 CMP-8.docx For prod use

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 17:11:03 EDT 2024

Committee Statement

Committee Revised the title of the section to clarify the provisions apply to both threaded and

Statement: threadless connections. Redundant language was removed.

Response SR-8045-NFPA 70-2024

Message:

Public Comment No. 32-NFPA 70-2024 [Section No. 344.42(A)]

Public Comment No. 1259-NFPA 70-2024 [Section No. 344.42(A)]

(A) Threadless. General.

 $\underline{\text{Couplings and connectors shall be made tight and be installed in accordance with one of the following:}\\$

- (1) Where buried in masonry or concrete, fittings shall be listed for concrete-tight type.
- (2) Where installed in wet locations, fittings shall be listed for wet locations.
- (3) Where installed on threaded conduit ends, fittings shall be listed for that purpose

Threadless couplings and connectors shall be installed in accordance with one or more of the following:

- 1. Threadless couplings and connectors used with conduit shall be made tight.
- 2. Where buried in masonry or concrete, threadless couplings and connectors shall be the concrete-tight type.
- 3: Where installed in wet locations, threadless couplings and connectors shall use fittings listed for wet locations.
- 4. Threadless couplings and connectors shall not be used on threaded conduit ends unless listed for the purpose.

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Second Revision No. 8004-NFPA 70-2024 [Section No. 348.3]

348.3 Reconditioned Equipment.

Reconditioned FMC and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) FMC

(2) FMC associated fittings

Supplemental Information

File Name <u>Description</u> <u>Approved</u>

NEC_CMP_8_SR-8004_348.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 12:12:35 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8004-NFPA 70-2024

Public Comment No. 599-NFPA 70-2024 [Section No. 348.3]

Reconditioned FMC and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) FMC
- (2) FMC associated fittings



Second Revision No. 8005-NFPA 70-2024 [Section No. 350.3]

350.3 Reconditioned Equipment.

Reconditioned LFMC and associated fittings (A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) LFMC

(2) LFMC associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8005_350.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 12:18:29 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual Section 2.2.1

Response Message: SR-8005-NFPA 70-2024

Public Comment No. 600-NFPA 70-2024 [Section No. 350.3]

Reconditioned LFMC and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

(1) LFMC

(2) LFMC associated fittings



Second Revision No. 8008-NFPA 70-2024 [Section No. 352.3]

352.3 Reconditioned Equipment.

Reconditioned PVC conduit, factory elbows, and associated fittings shall not be permitted. (A)

Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) PVC conduit

(2) PVC conduit factory elbows

(3) PVC conduit associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8008_352.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 12:45:26 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8008-NFPA 70-2024

Public Comment No. 601-NFPA 70-2024 [Section No. 352.3]

Reconditioned PVC conduit, factory elbows, and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) PVC conduit
- (2) PVC conduit factory elbows
- (3) PVC conduit associated fittings



Second Revision No. 8010-NFPA 70-2024 [Section No. 352.20(B)]

(B) Maximum.

PVC conduit larger than metric designator 155 (trade size 6) shall not be used.

Exception: Listed <u>PVC</u> conduit exceeding metric designator 155 (trade size 6) shall be permitted where all the following conditions are met:

- (1) It is used where Where no part of the conduit is installed aboveground- and
- (2) Where the conduit is backfilled in accordance with 300.5 7 (F).
- (3) It is located where it does not pass through or enter a Class I or Zone 0, Zone 1, or Zone 2 hazardous (classified) location.
- (4) The percent of cross section of conduit for conductors and cables does not exceed the percentages shown in Chapter 9, Table 1.

Informational Note: See 300.1(C) for trade sizes and metric designators that are for identification purposes only and are not actual dimensions.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 12:51:58 EDT 2024

Committee Statement

Committee

Statement:

The exception has not been deleted to account for innovations within the industry and where listings are currently being developed. Product and manufacturing standards already exist within the industry (e.g., see NEMA Standards Publication TC 2-2020 Electrical Polyvinyl Chloride (PVC) Conduit). The exception has been revised to include

PVC conduit to clarify that PVC sewer pipe is not permitted.

Response Message:

SR-8010-NFPA 70-2024

Public Comment No. 1292-NFPA 70-2024 [Section No. 352.20(B)]



Second Revision No. 8600-NFPA 70-2024 [Section No. 352.44]

352.44 Expansion Fittings.

(A) Thermal Expansion and Contraction.

-

Expansion fittings for PVC conduit shall be provided to compensate for thermal expansion and contraction where the length change, in accordance with Table 352.44(A), is expected to be 6 mm (½ in.) or greater in a straight run between securely mounted items such as boxes, cabinets, elbows, or other conduit terminations.

<u>Table 352.44 (A) Expansion</u> <u>Expansion Characteristics of PVC Rigid Nonmetallic Conduit</u> <u>Coefficient of Thermal Expansion = 6.084×10^{-5} mm/mm/°C (3.38×10^{-5} in./in./°F)</u>

Temperature Change (°C)	Length Change of PVC Conduit (mm/m)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)
<u>5</u>	0.30	<u>5</u>	<u>0.20</u>	<u>105</u>	4.26
<u>10</u>	<u>0.61</u>	<u>10</u>	<u>0.41</u>	<u>110</u>	4.46
<u>15</u>	<u>0.91</u>	<u>15</u>	<u>0.61</u>	<u>115</u>	4.66
<u>20</u>	<u>1.22</u>	<u>20</u>	<u>0.81</u>	<u>120</u>	4.87
<u>25</u>	<u>1.52</u>	<u>25</u>	<u>1.01</u>	<u>125</u>	<u>5.07</u>
<u>30</u>	<u>1.83</u>	<u>30</u>	<u>1.22</u>	<u>130</u>	5.27
<u>35</u>	2.13	<u>35</u>	<u>1.42</u>	<u>135</u>	5.48
<u>40</u>	2.43	<u>40</u>	<u>1.62</u>	<u>140</u>	<u>5.68</u>
<u>45</u>	2.74	<u>45</u>	<u>1.83</u>	<u>145</u>	<u>5.88</u>
<u>50</u>	3.04	<u>50</u>	<u>2.03</u>	<u>150</u>	6.08
<u>55</u>	<u>3.35</u>	<u>55</u>	2.23	<u>155</u>	6.29
<u>60</u>	<u>3.65</u>	<u>60</u>	<u>2.43</u>	<u>160</u>	6.49
<u>65</u>	<u>3.95</u>	<u>65</u>	<u>2.64</u>	<u>165</u>	6.69
<u>70</u>	4.26	<u>70</u>	<u>2.84</u>	<u>170</u>	6.90
<u>75</u>	4.56	<u>75</u>	<u>3.04</u>	<u>175</u>	<u>7.10</u>
80	4.87	<u>80</u>	3.24	<u>180</u>	7.30
<u>85</u>	<u>5.17</u>	<u>85</u>	<u>3.45</u>	<u>185</u>	7.50
90	<u>5.48</u>	<u>90</u>	<u>3.65</u>	<u>190</u>	<u>7.71</u>
<u>95</u>	<u>5.78</u>	<u>95</u>	<u>3.85</u>	<u>195</u>	<u>7.91</u>
<u>100</u>	<u>6.08</u>	<u>100</u>	<u>4.06</u>	<u>200</u>	<u>8.11</u>

(B) Earth Movement.

Where required by 300.7(J) or to compensate for other earth movement, the expansion fittings for underground runs of direct buried PVC conduit emerging from the ground shall be provided above grade.

File Name Description Approved

NEC_CMP-8_SR-8600_352.44.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Mon Oct 28 10:54:24 EDT 2024

Committee Statement

Committee Statement: Duplicated material already covered in section 300.7(J).

Response Message: SR-8600-NFPA 70-2024

Public Comment No. 1355-NFPA 70-2024 [Section No. 352.44(B)]

352.44 Expansion Fittings.

Expansion fittings for PVC conduit shall be provided to compensate for thermal expansion and contraction where the length change, in accordance with Table 352.44 $\frac{(A)}{(A)}$, is expected to be 6 mm (1/4 in.) or greater in a straight run between securely mounted items such as boxes, cabinets, elbows, or other conduit terminations.

Table 352.44 $\frac{(A)}{C}$ Expansion Characteristics of PVC Rigid Nonmetallic Conduit Coefficient of Thermal Expansion = 6.084×10^{-5} mm/mm/°C (3.38×10^{-5} in./in./°F)

Temperature Change (°C)	Length Change of PVC Conduit (mm/m)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)
5	0.30	5	0.20	105	4.26
10	0.61	10	0.41	110	4.46
15	0.91	15	0.61	115	4.66
20	1.22	20	0.81	120	4.87
25	1.52	25	1.01	125	5.07
30	1.83	30	1.22	130	5.27
35	2.13	35	1.42	135	5.48
40	2.43	40	1.62	140	5.68
45	2.74	45	1.83	145	5.88
50	3.04	50	2.03	150	6.08
55	3.35	55	2.23	155	6.29
60	3.65	60	2.43	160	6.49
65	3.95	65	2.64	165	6.69
70	4.26	70	2.84	170	6.90
75	4.56	75	3.04	175	7.10
80	4.87	80	3.24	180	7.30
85	5.17	85	3.45	185	7.50
90	5.48	90	3.65	190	7.71

Temperature Change (°C)	Length Change of PVC Conduit (mm/m)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)
95	5.78	95	3.85	195	7.91
100	6.08	100	4.06	200	8.11

(A) Thermal Expansion and Contraction.

Expansion fittings for PVC conduit shall be provided to compensate for thermal expansion and contraction where the length change, in accordance with Table 352.44(A), is expected to be 6 mm (1/4 in.) or greater in a straight run between securely mounted items such as boxes, cabinets, elbows, or other conduit terminations.

Table 352,44(A) Expansion Characteristics of PVC Rigid Nonmetallic Conduit Coefficient of Thermal Expansion = 6.084 × 10⁻⁵ mm/mm/°C (3.38 × 10⁻⁵ in./in./°F)

Temperature Change (°C)	Length Change of PVC Conduit (mm/m)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)
5	0.30	5	0.20	105	4.26
10	0.61	10	0.41	110	4.46
15	0.91	15	0.61	115	4.66
20	1.22	20	0.81	120	4.87
25	1.52	25	1.01	125	5.07
30	1.83	30	1.22	130	5.27
35	2.13	35	1.42	135	5.48
40	2.43	40	1.62	140	5.68
45	2.74	45	1.83	145	5.88
50	3.04	50	2.03	150	6.08
55	3.35	55	2.23	155	6.29
60	3.65	60	2.43	160	6.49

Commented [SB1]: Move text to main section.

Temperature Change (°C)	Length Change of PVC Conduit (mm/m)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)	Temperature Change (°F)	Length Change of PVC Conduit (in./100 ft)
65	3.95	65	2.64	165	6.69
70	4.26	70	2.84	170	6.90
75	4.56	75	3.04	175	7.10
80	4.87	80	3.24	180	7.30
85	5.17	85	3.45	185	7.50
90	5.48	90	3.65	190	7.71
95	5.78	95	3.85	195	7.91
100	6.08	100	4.06	200	8.11

(B) Earth Movement.

Where required by 300.7(J) or to compensate for other earth movement, the expansion fittings for underground runs of direct buried PVC conduit emerging from the ground shall be provided above grade:



Second Revision No. 8002-NFPA 70-2024 [Section No. 353.3]

353.3 Reconditioned Equipment.

Reconditioned HDPE conduit and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) HDPE conduit
- (2) HDPE conduit associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8002_353.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 12:00:57 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual.

Response Message: SR-8002-NFPA 70-2024

Public Comment No. 602-NFPA 70-2024 [Section No. 353.3]

Reconditioned HDPE conduit and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) HDPE conduit
- (2) HDPE conduit associated fittings



Second Revision No. 7955-NFPA 70-2024 [Section No. 353.20(B)]

(B) Maximum.

HDPE conduit larger than metric designator 155 (trade size 6) shall not be used.

Exception: Listed HDPE conduit exceeding metric designator 155 (trade size 6) shall be permitted where all the following conditions are met:

- (1) It is used where Where no part of the conduit is installed aboveground- and
- (2) Where the conduit is backfilled in accordance with 300.7(F).
- (3) It is located where it does not pass through or enter a Class I, or Zone 0, Zone 1, or Zone 2 hazardous (classified) location.
- (4) The percent of cross section of conduit for conductors and cables does not exceed the percentages shown in Chapter 9, Table 1.

Informational Note: See 300.1(C) for trade sizes and metric designators that are for identification purposes only and are not actual dimensions.

Submitter Information Verification

NEC-P08 Committee:

Submittal Date: Thu Oct 17 18:32:08 EDT 2024

Committee Statement

Committee

Statement:

The exception has not been deleted to account for innovations within the industry and where listings are currently being developed. Product and manufacturing standards already exist within the industry (e.g., see NEMA Standards Publication TC 7-2021 Solid-Wall Coilable and Straight Electrical Polyethylene Conduit). The exception has been revised to include HDPE conduit to clarify that HDPE sewer pipe is not permitted.

Response Message:

SR-7955-NFPA 70-2024

Public Comment No. 1293-NFPA 70-2024 [Section No. 353.20(B)]



Reconditioned NUCC and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) NUCC

(2) NUCC associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8003_354.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 12:04:53 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual.

Response Message: SR-8003-NFPA 70-2024

Public Comment No. 603-NFPA 70-2024 [Section No. 354.3]

Reconditioned NUCC and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

- (1) NUCC
- (2) NUCC associated fittings



Second Revision No. 7969-NFPA 70-2024 [Section No. 354.10]

354.10 Uses Permitted.

The use of NUCC and fittings shall be permitted in the following:

- (1) For direct <u>Direct</u> burial underground installation- (For minimum cover requirements, see Table 300.7(A) and Table 305.15(A).
- (2) Encased or embedded in concrete
- (3) In cinder fill
- (4) In underground locations subject to severe corrosive influences as covered in 300.8 and where subject to chemicals for which the assembly is specifically approved
- (5) Above ground, except as prohibited in 354.12, where encased in not less than 50 mm (2 in.) of concrete

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 19:05:59 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 Style manual Section 3.5.1.1.

Response Message: SR-7969-NFPA 70-2024

Public Comment No. 595-NFPA 70-2024 [Section No. 354.10]



Second Revision No. 7971-NFPA 70-2024 [Section No. 355.3]

355.3 Reconditioned Equipment.

Reconditioned RTRC, factory elbows, and associated fittings (A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) RTRC

(2) RTRC factory elbows

(3) RTRC associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-7971_355.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 19:14:27 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual.

Response Message: SR-7971-NFPA 70-2024

Public Comment No. 604-NFPA 70-2024 [Section No. 355.3]

Reconditioned RTRC, factory elbows, and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

- (1) RTRC
- (2) RTRC factory elbows
- (3) RTRC associated fittings



Second Revision No. 7979-NFPA 70-2024 [Section No. 355.20(B)]

(B) Maximum.

RTRC larger than metric designator 155 (trade size 6) shall not be used.

Exception: Listed <u>RTRC</u> conduit exceeding metric designator 155 (trade size 6) shall be permitted where all of the following conditions are met:

- (1) It is used where Where no part of the conduit is installed aboveground and backfilled per
- (2) Where the conduit is backfilled in accordance with 300.7(F)
- (3) It is located where it does not pass through or enter, a Class I, or Zone 0, 1, or 2 hazardous (classified) Location
- (4) The percent of cross section of conduit for conductors and cables does not exceed the percentages shown in Chapter 9Table 1

Informational Note: See 300.1(C) for the trade sizes and metric designators that are for identification purposes only and do not relate to actual dimensions.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 19:27:31 EDT 2024

Committee Statement

Committee Statement:

The exception has not been deleted to account for innovations within the industry and where listings are currently being developed. The exception has been revised to

include RTRC conduit.

Response

SR-7979-NFPA 70-2024

Message:

Public Comment No. 1294-NFPA 70-2024 [Section No. 355.20(B)]



Second Revision No. 7937-NFPA 70-2024 [Section No. 356.3]

356.3 Reconditioned Equipment.

Reconditioned LFNMC and associated fittings

(A)Permitted to be Installed. (Reserved)

(B)Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) LFNC

(2) LFNC associated fittings

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 17:11:22 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1

Response Message: SR-7937-NFPA 70-2024

Public Comment No. 605-NFPA 70-2024 [Section No. 356.3]



Second Revision No. 7942-NFPA 70-2024 [Section No. 356.30]

[See attached Word document for revisions to 356. 30.]

356. 30 Securing and Supporting.

LFNC shall be securely fastened and supported in accordance with one of the following:

- (1) Where installed in lengths exceeding 1.8 m (6 ft), the conduit shall be securely fastened at intervals not exceeding 900 mm (3 ft) and within 300 mm (12 in.) on each side of every outlet box, junction box, cabinet, or fitting. Where used, cable ties shall be listed for the application and for securing and supporting.
- (2) Securing or supporting of the conduit shall not be required where it is fished, installed in lengths not exceeding 900 mm (3 ft) at terminals where flexibility is required, or installed in lengths not exceeding 1.8 m (6 ft) from a luminaire terminal connection for tap conductors to luminaires permitted in 410.117(C).
- (3) Horizontal runs of LFNC supported by openings through framing members at intervals not exceeding 900 mm (3 ft) and securely fastened within 300 mm (12 in.) of termination points shall be permitted.
- (4) Securing or supporting of LFNC shall not be required where installed in lengths not exceeding 1.8 m (6 ft) from the last point where the raceway is securely fastened for connections within an accessible ceiling to a luminaire(s) or other equipment.

For the purpose of 356.30this section, listed liquidtight flexible nonmetallic conduit fittings shall be permitted as a means of support.

Where used, cable ties shall be listed for the application and for securing and supporting.

Supplemental Information

File Name Description Approved

356.30 SR 7942.docx

356.30 SR 7942 CMP-8.docx For prod use

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 17:18:24 EDT 2024

Committee Statement

Committee Relocation of cable tie listing requirements clarifies it applies to all conditions. No Statement:

changes were required to the length requirements in 356.30 (1) as lengths 6ft or

shorter have not been shown to be a hazard when unsupported.

Response

SR-7942-NFPA 70-2024

Message:

Public Comment No. 58-NFPA 70-2024 [Section No. 356.30]

356.30 Securing and Supporting.

LFNC shall be securely fastened and supported in accordance with one of the following:

- (1) Where installed in lengths exceeding 1.8 m (6 ft), the conduit shall be securely fastened at intervals not exceeding 900 mm (3 ft) and within 300 mm (12 in.) on each side of every outlet box, junction box, cabinet, or fitting. Where used, cable ties shall be listed for the application and for securing and supporting.
- (2) Securing or supporting of the conduit shall not be required where it is fished, installed in lengths not exceeding 900 mm (3 ft) at terminals where flexibility is required, or installed in lengths not exceeding 1.8 m (6 ft) from a luminaire terminal connection for tap conductors to luminaires permitted in 410.117(C).
- (3) Horizontal runs of LFNC supported by openings through framing members at intervals not exceeding 900 mm (3 ft) and securely fastened within 300 mm (12 in.) of termination points shall be permitted.
- (4) Securing or supporting of LFNC shall not be required where installed in lengths not exceeding 1.8 m (6 ft) from the last point where the raceway is securely fastened for connections within an accessible ceiling to a luminaire(s) or other equipment.

For the purpose of this section, listed liquidtight flexible nonmetallic conduit fittings shall be permitted as a means of support.

Where used, cable ties shall be listed for the application and for securing and supporting.



Second Revision No. 8046-NFPA 70-2024 [Section No. 358.3]

358.3 Reconditioned Equipment.

Reconditioned EMT, factory elbows, and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) EMT
- (2) EMT factory elbows
- (3) EMT associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8046_358.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 17:16:33 EDT 2024

Committee Statement

Committee Revised the section to comply with the correlating committees recommended

Statement: formatting style.

Response Message: SR-8046-NFPA 70-2024

Public Comment No. 606-NFPA 70-2024 [Section No. 358.3]

Reconditioned EMT, factory elbows, and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

- (1) EMT
- (2) EMT factory elbows
- (3) EMT associated fittings



Second Revision No. 8047-NFPA 70-2024 [Section No. 358.42]

358.42 Couplings and Connectors.

Couplings and connectors shall be <u>made tight and be</u> installed in accordance with one or more of the following:

- (1) Couplings and connectors used with EMT shall be made tight.
- (2) Where buried in masonry or concrete, couplings and connectors shall be concrete-tight type.
- (3) Where installed in wet locations, couplings and connectors shall use fittings listed for wet locations.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 17:22:17 EDT 2024

Committee Statement

Committee Redundant language was removed and the requirements have been

Statement: restructured for clarity. **Response Message:** SR-8047-NFPA 70-2024

Public Comment No. 1260-NFPA 70-2024 [Section No. 358.42]
Public Comment No. 33-NFPA 70-2024 [Section No. 358.42]



Second Revision No. 7982-NFPA 70-2024 [Section No. 360.3]

360.3 Reconditioned Equipment.

Reconditioned FMT and associated fittings (A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) FMT

(2) FMT associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-7982_360.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 19:40:29 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual.

Response Message: SR-7982-NFPA 70-2024

Public Comment No. 607-NFPA 70-2024 [Section No. 360.3]



Second Revision No. 7985-NFPA 70-2024 [Section No. 362.3]

362.3 Reconditioned Equipment.

Reconditioned ENT and associated fittings

- A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment _ shall not be permitted.

- (1) ENT
- (2) ENT associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-7985_362.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 19:45:22 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual.

Response Message: SR-7985-NFPA 70-2024

Public Comment No. 608-NFPA 70-2024 [Section No. 362.3]

Reconditioned ENT and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

- (1) ENT
- (2) ENT associated fittings



Reconditioned auxiliary gutters and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Auxiliary gutters
- (2) Auxiliary gutter associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8064_366.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 18:54:50 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8064-NFPA 70-2024

Public Comment No. 609-NFPA 70-2024 [Section No. 366.3]

Reconditioned auxiliary gutters and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

- (1) Auxiliary gutters
- (2) Auxiliary gutter associated fittings



Second Revision No. 8065-NFPA 70-2024 [Section No. 366.12]

366.12 Uses Not Permitted.

Auxiliary gutters shall not be used to enclose switches, overcurrent devices OCPDs, appliances, or other similar equipment.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 18:57:27 EDT 2024

Committee Statement

CommitteeThis second revision improves clarity by standardizing the phrases "overcurrent", "overcurrent protective devices". "OCPD" and "overcurrent protection" for alignment protection of the phrase of the phrase of the phrases of the phrases

"overcurrent protective devices", "OCPD" and "overcurrent protection" for alignment and consistency throughout the Code without changes to the technical provisions, see

PC-1648.

Response

SR-8065-NFPA 70-2024

Message:



Second Revision No. 8066-NFPA 70-2024 [Section No. 368.3]

368.3 Reconditioned Equipment.

Reconditioned Mylar-wrapped and powder-coated busways shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Mylar-wrapped busways
- (2) Powder-coated busways

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 19:01:10 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8066-NFPA 70-2024

Public Comment No. 610-NFPA 70-2024 [Section No. 368.3]



Second Revision No. 8068-NFPA 70-2024 [Section No. 368.17]

368.17 Overcurrent Protection.

Overcurrent protection shall be provided in accordance with 368.17(A) through 368.17(D).

(A) Rating of Overcurrent Protection — Feeders.

A busway shall be protected against overcurrent in accordance with the current rating of the busway.

Exception No. 1: The applicable provisions of 240.4 shall be permitted.

Exception No. 2: Where used as transformer secondary ties, 450.8(A)(3) shall be permitted.

(B) Reduction in Ampacity Size of Busway.

Overcurrent protection shall be required where busways are reduced in ampacity.

Exception: For industrial establishments only, omission of overcurrent protection shall be permitted at points where busways are reduced in ampacity, provided that the length of the busway having the smaller ampacity does not exceed 15 m (50 ft) and has an ampacity at least equal to one-third the rating or setting of the overcurrent device- OCPD next back on the line, and provided that such busway is free from contact with combustible material.

(C) Feeder or Branch Circuits.

Where a busway is used as a feeder, devices or plug-in connections for tapping off feeder or branch circuits from the busway shall contain the overcurrent devices. OCPDs required for the protection of the feeder or branch circuits. The plug-in device shall consist of an externally operable circuit breaker or an externally operable fusible switch. Where such devices are mounted out of reach and contain disconnecting means, suitable means such as ropes, chains, or sticks shall be provided for operating the disconnecting means from the floor.

Exception No. 1: As permitted in 240.21.

Exception No. 2: For fixed or semifixed luminaires, where the branch-circuit overcurrent device OCPD is part of the luminaire cord plug on cord-connected luminaires.

Exception No. 3: Where luminaires without cords are plugged directly into the busway and the overcurrent device OCPD is mounted on the luminaire.

Exception No. 4: Where the branch-circuit overcurrent plug-in device unit contains an OCPD and is directly supplying a readily accessible disconnect, a method of floor operation shall not be required.

(D) Rating of Overcurrent Protection — Branch Circuits.

A busway used as a branch circuit shall be protected against overcurrent in accordance with 210.20.

Submitter Information Verification

NEC-P08 Committee:

Submittal Date: Fri Oct 18 19:06:27 EDT 2024

Committee Statement

Committee This second revision improves clarity by standardizing the phrases "overcurrent", Statement:

"overcurrent protective devices", "OCPD" and "overcurrent protection" for alignment and consistency throughout the Code without changes to the technical provisions, see PC-

1648. In 368.17(A) and 368.17(D), "protected against overcurrent" has not been changed to "provided with overcurrent protection" as recommended by the CC with PC-1648. This change was not made since the recommended text would be misleading the user. The OCPD is not integral to the product.

Response Message:

SR-8068-NFPA 70-2024



Second Revision No. 8097-NFPA 70-2024 [Section No. 369.3]

369.3 Reconditioned Equipment.

Reconditioned IBP and IBP systems

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

<u>(1) IBP</u>

(2) IBP systems

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8097_369.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 15:45:33 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8097-NFPA 70-2024

Public Comment No. 611-NFPA 70-2024 [Section No. 369.3]

Reconditioned IBP and IBP systems shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

(1) IBP

(2) IBP systems



Second Revision No. 8092-NFPA 70-2024 [Section No. 370.3]

370.3 Reconditioned Equipment.

Reconditioned cablebus and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Cablebus
- (2) Cablebus associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8092_370.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 14:41:17 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8092-NFPA 70-2024

Public Comment No. 612-NFPA 70-2024 [Section No. 370.3]

Reconditioned cablebus and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

- (1) Cablebus
- (2) Cablebus associated fittings



Second Revision No. 8093-NFPA 70-2024 [Section No. 371.3]

371.3 Reconditioned Equipment.

Reconditioned flexible bus systems
(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) Flexible bus systems

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 14:47:27 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8093-NFPA 70-2024

Public Comment No. 613-NFPA 70-2024 [Section No. 371.3]



Second Revision No. 8071-NFPA 70-2024 [Sections 371.10, 371.12]

Sections 371.10, 371.12

371.10 Uses Permitted.

Flexible bus systems shall be permitted for the following:

- (1) Services, feeders, and branch circuits
- (2) Indoors
- (3) Outdoors where identified for outdoor use
- (4) Installed in corrosive, wet, or damp locations where identified for use
- (5) Exposed
- (6) Behind access panels- where the space behind the access panel is not used for airhandling purposes
- (7) To penetrate through walls and floors in accordance with 371.18
- (8) Air-handling spaces where listed for air-handling spaces

371.12 Uses Not Permitted.

Flexible bus systems shall not be permitted to be installed in the following:

- (1) Hoistways
- (2) Where exposed to severe physical damage
- (3) Hazardous (classified) locations, unless specifically permitted in Chapter 5
- (4) Air-handling spaces

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 19:21:40 EDT 2024

Committee Statement

Committee Statement:

The allowance for use in air handling spaces where identified for air handling spaces has been added to 371.10 as item (8) and deleted from 371.12(4) is a correlating action.

CMP-8 recognizes the associated outlines of investigation, UL 1386 and UL 1387, currently exclude air handling spaces and will require modification in order to list the product with the additional rating. Item 371.10(6) has been edited to align with new

371.10(8).

Response Message:

SR-8071-NFPA 70-2024

<u>Public Comment No. 1687-NFPA 70-2024 [Section No. 371.10]</u>

Public Comment No. 1696-NFPA 70-2024 [Section No. 371.12]



Second Revision No. 8072-NFPA 70-2024 [Sections

371.17(D), 371.17(E), 371.17(F), 371.17(G) 1

Sections 371.17(D), 371.17(E), 371.17(F), 371.17(G)

(D) Transformer Secondary Flexible Bus Systems.

Flexible bus systems installed on a transformer secondary to the disconnect and overcurrent protection device- OCPD shall be protected from overcurrent in accordance with 240.21(C).

(E) Flexible Bus Systems from Generator Terminals.

Flexible bus systems installed from generator terminals that meet the size requirement in 445.13 shall be permitted to be protected against overload by the generator overload protective device(s) required by 445.12.

(F) Flexible Bus Systems from Battery Terminals.

Flexible bus systems installed for battery systems shall be protected from overcurrent in accordance with 240.21(H).

(G) Reduction in Size of Flexible Bus Systems.

Overcurrent protection shall be required at the point where flexible bus systems are reduced in size.

Exception: For industrial establishments only, omission of overcurrent protection shall be permitted at points where a flexible bus system is reduced in size, provided that the length of the flexible bus system having a reduced size does not exceed 15 m (50 ft) and has a current rating at least equal to one-third the rating or setting of the overcurrent device- OCPD ahead of the point of connection and provided that such a flexible bus system is free from contact with combustible material.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 19:27:25 EDT 2024

Committee Statement

This second revision improves clarity by modifying the terms "overcurrent protection Statement: device" and "overcurrent device" to "OCPD" for consistency throughout the Code, see

PC-1648. In 371.17(A), 371.17(B), 371.17(C), and 371.17(F) "protected against overcurrent" has not been changed to "provided with overcurrent protection" as recommended by the CC with PC-1648. This change was not made since the recommended text would be misleading the user. The OCPD is not integral to the

product.

Response Message:

SR-8072-NFPA 70-2024



Second Revision No. 8075-NFPA 70-2024 [New Section after 371.120]

(D) Environmental Marks.

Where listed for use in specific environments, the applicable environmental marking shall be applied to the flexible insulated bus.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 19:37:23 EDT 2024

Committee Statement

Committee The environmental marking requirement is added to require the identification of

Statement: products suitable for use in specific environments. This action correlates with the action

taken in 371.10. CMP-8 recognizes the associated outlines of investigation, UL 1386 and UL 1387, can require modification in order to list the product with the additional

ratings.

Response SR-8075-NFPA 70-2024

Message:

Public Comment No. 1692-NFPA 70-2024 [Section No. 371.120]



Reconditioned cellular concrete floor raceways and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Cellular concrete floor raceways
- (2) Cellular concrete floor raceway associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8094_372.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 15:16:25 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8094-NFPA 70-2024

Public Comment No. 614-NFPA 70-2024 [Section No. 372.3]

Reconditioned cellular concrete floor raceways and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

- (1) Cellular concrete floor raceways
- (2) Cellular concrete floor raceway associated fittings



Second Revision No. 8095-NFPA 70-2024 [Section No. 374.3]

374.3 Reconditioned Equipment.

Reconditioned cellular metal floor raceways and associated fittings

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) Cellular metal floor raceways

(2) Cellular metal floor raceway associated fittings

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 15:24:04 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8095-NFPA 70-2024

Public Comment No. 615-NFPA 70-2024 [Section No. 374.3]



Reconditioned metal wireways and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Metal wireways
- (2) Metal wireway associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8096_376.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 15:36:34 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8096-NFPA 70-2024

Public Comment No. 616-NFPA 70-2024 [Section No. 376.3]

Reconditioned metal wireways and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

- (1) Metal wireways
- (2) Metal wireway associated fittings



Second Revision No. 7945-NFPA 70-2024 [Section No. 378.3]

378.3 Reconditioned Equipment.

Reconditioned nonmetallic wireways and associated fittings (A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Nonmetallic wireways
- (2) Nonmetallic wireway associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-7945_378.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Thu Oct 17 17:24:56 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-7945-NFPA 70-2024

Public Comment No. 617-NFPA 70-2024 [Section No. 378.3]

Reconditioned nonmetallic wireways and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

- (1) Nonmetallic wireways
- (2) Nonmetallic wireway associated fittings



Second Revision No. 7994-NFPA 70-2024 [Section No. 380.3]

380.3 Reconditioned Equipment.

Reconditioned multioutlet assemblies and associated fittings (A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) Multioutlet assemblies

(2) Multioutlet assembly associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-7994_380.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 11:38:26 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1

Response Message: SR-7994-NFPA 70-2024

Reconditioned multioutlet assemblies and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

- (1) Multioutlet assemblies
- (2) Multioutlet assembly associated fittings



Second Revision No. 8099-NFPA 70-2024 [Section No. 384.3]

384.3 Reconditioned Equipment.

Reconditioned strut-type channel raceways and accessories

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) Strut-type channel raceways

(2) Strut-type channel raceway accessories

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 15:58:59 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8099-NFPA 70-2024

Public Comment No. 618-NFPA 70-2024 [Section No. 384.3]



Second Revision No. 8100-NFPA 70-2024 [Section No. 386.3]

386.3 Reconditioned Equipment.

Reconditioned surface metal raceways and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Surface metal raceways
- (2) Surface metal raceway associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8-SR-8100_386.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 16:03:19 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8100-NFPA 70-2024

Public Comment No. 619-NFPA 70-2024 [Section No. 386.3]

Reconditioned surface metal raceways and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

- (1) Surface metal raceways
- (2) Surface metal raceway associated fittings



Second Revision No. 8078-NFPA 70-2024 [Section No. 386.22]

386.22 Number of Conductors or Cables.

The number of conductors or cables installed in surface metal raceway shall not be greater than the number for which the raceway is designed. Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles.

The adjustment factors of 310.15(C)(1) shall not apply to conductors installed in surface metal raceways where all of the following conditions are met:

- (1) The cross-sectional area of the raceway exceeds 2500 mm² (4 in.²).
- (2) The current-carrying conductors do not exceed 30 in number.
- (3) The sum of the cross-sectional areas of all contained conductors does not exceed 20 percent of the interior cross-sectional area of the surface metal raceway.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 19:51:01 EDT 2024

Committee Statement

Committee Deleted "to be installed" as redundant language in alignment with CC

Statement: recommendations. Also see PC-649 of CMP-1.

Response SR-8078-NFPA 70-2024

Message:



Reconditioned surface nonmetallic raceways and associated fittings

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

- (1) Surface nonmetallic raceways
- (2) Surface nonmetallic raceway associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8101_388.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 16:07:42 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8101-NFPA 70-2024

Public Comment No. 620-NFPA 70-2024 [Section No. 388.3]

Reconditioned surface nonmetallic raceways and associated fittings shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

- (1) Surface nonmetallic raceways
- (2) Surface nonmetallic raceway associated fittings



Second Revision No. 8091-NFPA 70-2024 [Section No. 388.22]

388.22 Number of Conductors or Cables.

The number of conductors or cables installed in surface nonmetallic raceway shall not be greater than the number for which the raceway is designed. Cables shall be permitted to be installed where such use is not prohibited by the respective cable articles.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 14:11:47 EDT 2024

Committee Statement

Committee Deleted "to be installed" as redundant language in alignment with CC

Statement: recommendations. Also see PC-649 of CMP-1.

Response SR-8091-NFPA 70-2024

Message:



Second Revision No. 8102-NFPA 70-2024 [Section No. 390.3]

390.3 Reconditioned Equipment.

Reconditioned underfloor raceways

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) Underfloor raceways

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8102_390.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Sat Oct 19 16:10:46 EDT 2024

Committee Statement

Committee Statement: Edited to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8102-NFPA 70-2024

Public Comment No. 621-NFPA 70-2024 [Section No. 390.3]

Reconditioned underfloor raceways shall not be permitted.

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted:

(1) Underfloor raceways



Second Revision No. 8013-NFPA 70-2024 [Section No. 392.1]

392.1 Scope.

This article covers cable tray systems, including ladder, ventilated trough, ventilated channel, solid bottom, and other similar structures.

Informational Note: See ANSI/NEMA-VE 1-2017 NEMA BI-50015-2024 (NEMA VE-1), Metal Cable Tray Systems, NECA/NEMA 105-2015, Standard for Installing Metal Cable Tray Systems, NEMA BI-50016-2024 (NEMA VE- 2-2018), Cable Tray Installation Guidelines, and UL 568-2002, Standard for Safety for Nonmetallic Cable Tray Systems for further information on cable trays.

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 13:26:16 EDT 2024

Committee Statement

Committee Statement: Updated to current NEMA reference.

Response Message: SR-8013-NFPA 70-2024

Public Comment No. 62-NFPA 70-2024 [Section No. 392.1]



Second Revision No. 8014-NFPA 70-2024 [Section No. 392.3]

392.3 Reconditioned Equipment.

Reconditioned cable trays and associated fittings

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

The installation of the following reconditioned equipment shall not be permitted.

(1) Cable trays

(2) Cable tray associated fittings

Supplemental Information

File Name Description Approved

NEC_CMP-8_SR-8014_392.3.docx

Submitter Information Verification

Committee: NEC-P08

Submittal Date: Fri Oct 18 13:29:01 EDT 2024

Committee Statement

Committee Statement: Task Group to comply with NEC 2023 style manual Section 2.2.1.

Response Message: SR-8014-NFPA 70-2024

Public Comment No. 622-NFPA 70-2024 [Section No. 392.3]

Reconditioned cable trays and associated fittings shall not be permitted.

- (A) Permitted to be Installed. (Reserved)
- (B) Not Permitted to be Installed.

- (1) Cable trays
- (2) Cable tray associated fittings