Second Revision No. 8038-NFPA 70-2024 [Definition: Busbar (as applied to low-voltage suspended cei...]

Busbar ~~(as applied to low-voltage suspended ceiling power distribution systems)~~ .

A noninsulated conductor electrically connected to the source of supply and physically supported on an insulator providing a power rail for connection to utilization equipment, such as sensors, actuators, A/V devices, low-voltage luminaire assemblies, and similar electrical equipment, for the low-voltage suspended ceiling power distribution system . (393) (CMP-18)

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:47:43 EDT 2024

Committee Statement

Committee Statement: The additional text “applies to low-voltage suspended ceiling power distribution systems” was removed from the title of the definition of Busbar and placed into the definition to comply the Section 2.1.2.6.2 of the NEC Style Manual.

Response Message: SR-8038-NFPA 70-2024

Public Comment No. 480-NFPA 70-2024 [Definition: Busbar (as applied to low-voltage suspended cei...]

Second Revision No. 8040-NFPA 70-2024 [Definition: Busbar Support (as applied to low-voltage suspe...]

Busbar Support ~~(as applied to low-voltage suspended ceiling power distribution systems)~~ .

An insulator that runs the length of a section of suspended ceiling bus rail that serves to support and isolate the busbars ~~from~~ of the ~~suspended grid rail~~ low-voltage suspended ceiling power distribution system . (393) (CMP-18)

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:50:38 EDT 2024

Committee Statement

Committee Statement: The additional text “applies to low-voltage suspended ceiling power distribution systems” was removed from the title of the definition of Busbar Support and placed into the definition to comply the Section 2.1.2.6.2 of the NEC Style Manual.

Response Message: SR-8040-NFPA 70-2024

Public Comment No. 481-NFPA 70-2024 [Definition: Busbar Support (as applied to low-voltage suspe...]

Second Revision No. 7956-NFPA 70-2024 [Definition: Luminaire.]

Luminaire.

Utilization equipment intended to illuminate a space or object(s), to facilitate visual tasks, activities, aesthetics, or security, or a similar purpose. Light-emitting devices such as lamps or LED modules could be removable or replaceable. The equipment can connect directly to the branch circuit (ac or dc) or be used with a separate power source that regulates the voltage, current, or both from the branch circuit. ~~A lampholder itself is not a luminaire.~~ (CMP-18)

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 18:37:00 EDT 2024

Committee Statement

Committee Statement: Removed last sentence to comply with the NEC Style Manual 2.1.2.5.

Response Message: SR-7956-NFPA 70-2024

Public Comment No. 492-NFPA 70-2024 [Definition: Luminaire.]

Second Revision No. 8041-NFPA 70-2024 [Definition: Power Supply (as applied to low-voltage suspend...]

Power Supply ~~(as applied to low-voltage suspended ceiling power distribution systems)~~ .

A Class 2 power supply connected between the branch-circuit power distribution system and the busbar of the low-voltage suspended ceiling power distribution system. (393) (CMP-18)

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:54:22 EDT 2024

Committee Statement

Committee Statement: The additional text “applies to low-voltage suspended ceiling power distribution systems” was removed from the title of the definition of Power Supply and placed into the definition to comply the Section 2.1.2.6.2 of the NEC Style Manual.

Response Message: SR-8041-NFPA 70-2024

Public Comment No. 500-NFPA 70-2024 [Definition: Power Supply (as applied to low-voltage suspend...]

Second Revision No. 7879-NFPA 70-2024 [Definition: Wiring Device.]

Wiring Device.

An electrical device with a yoke or used with flexible cord or cable that serves as either a connection point to facilitate the flow of current or as a control device in general distribution and branch circuits. (CMP-18)

Informational Note: Examples of wiring devices include attachment plugs, receptacles, general-use snap switches, pendant switches, surface switches, dimmers, and electronic control switches and lighting control switches.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 11:38:24 EDT 2024

Committee Statement

Committee Statement: Wiring Device definition has been revised to include “with a yoke” for clarity and consistency with the definition of yoke(strap). A yoke (strap) is the structural frame of a wiring device. "Or used with flexible cord or cable" was added to address attachment plugs, cord connectors and pendant switches, which do not have a yoke.

Response Message: SR-7879-NFPA 70-2024

Public Comment No. 549-NFPA 70-2024 [Definition: Wiring Device.]

Second Revision No. 7959-NFPA 70-2024 [New Definition after Definition: Labeled.]

Lampholder.

A contact device that makes an electrical connection to a lamp. (CMP-18)

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 18:41:46 EDT 2024

Committee Statement

Committee Statement: A definition of lampholder has been added to differentiate those items from luminaires. See related resolution of PC 492

Response Message: SR-7959-NFPA 70-2024

Second Revision No. 8036-NFPA 70-2024 [Section No. 393.14(A)]

(A) General Requirements.

All components of low-voltage suspended ceiling power distribution systems shall be installed by qualified persons ~~and in accordance with the manufacturer's installation instructions~~ . Cables and conductors installed exposed on the surfaces of ceilings and sidewalls shall be supported by the building structure such that cables are not damaged by normal building use. Such cables shall be supported by straps, staples, hangers, cable ties listed and identified for securement and support, or similar fittings designed and installed to not damage the cable.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:44:47 EDT 2024

Committee Statement

Committee Statement: The text "and in accordance with the manufacturer's installation instructions" was removed for redundancy with requirements that are already found in Article 110.

Response Message: SR-8036-NFPA 70-2024

Public Comment No. 408-NFPA 70-2024 [Section No. 393.14(A)]

Second Revision No. 8043-NFPA 70-2024 [Section No. 393.45]

393.45 Overcurrent Protection and Reverse Polarity (Backfeed) Protection.

(A) Overcurrent Protection.

The listed Class 2 power supply or transformer primary shall be protected at not greater than 20 amperes.

(B) Interconnection of Power Sources.

Listed Class 2 sources shall not have the output connections paralleled or otherwise interconnected unless listed for such interconnection.

(C) Reverse Polarity (Backfeed) Protection of ~~Direct-Current~~ dc Systems.

A suspended ceiling low-voltage power distribution system shall be permitted to have reverse polarity (backfeed) protection of dc circuits by one of the following means:

(1) If the power supply is provided as part of the system, the power supply is provided with reverse polarity (backfeed) protection~~; or~~ .

(2) If the power supply is not provided as part of the system, reverse polarity ~~or~~ (backfeed) protection can be provided as part of the grid rail busbar or as a part of the power feed connector.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 17:01:22 EDT 2024

Committee Statement

Committee Statement: The title of 393.45 was revised to “Overcurrent Protection and Reverse Polarity (Backfeed) Protection as it applies to the application of an overcurrent protective device. The change in 393.45(C)(2) is to match the terminology to the rest of the section.

Response Message: SR-8043-NFPA 70-2024

Second Revision No. 7921-NFPA 70-2024 [Section No. 406.9(A)]

(A) Damp Locations.

(1) Receptacles.

(a) *General.* Installations suitable for wet locations shall also be considered suitable for damp locations. Receptacles shall be considered to be ~~in locations~~ protected from ~~the~~ weather where located under roofed open porches, canopies, marquees, and ~~similar and~~ other water shedding structures that will not be subjected to beating rain or water runoff.

(b) *Weatherproof Enclosures.* ~~Receptacles~~ The enclosure and cover for receptacles installed outdoors in locations protected from the weather or in other damp locations shall ~~have enclosures and covers for the receptacles that are~~ be weatherproof when the ~~receptacles are covered (~~ cover is closed and without an attachment plug ~~caps not~~ cap inserted ~~and receptacle covers closed)~~ .

(c) *Weather-Resistant Receptacle Type.* All 125- and 250-volt nonlocking receptacles shall be listed weather-resistant type.

(d) *Covers.* Hinged covers of outlet box hoods shall be able to open at least 90 degrees, or fully open if the covers are not designed to open 90 degrees from the closed to open position, after installation.

Informational Note: See ANSI/NEMA WD 6~~-2016~~ , *Wiring Devices — Dimensional Specifications*, for the types of receptacles covered by this requirement.

(2) Switches.

Switches installed in damp locations shall comply with the following:

(1) Surface-mounted switches shall be enclosed in weatherproof enclosures that comply with 312.2.

(2) Flush-mounted switches shall be equipped with weatherproof covers.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 14:49:49 EDT 2024

Committee Statement

Committee Statement: The language “and similar” was replaced with “and other water shedding structures that” to comply with Section 3.5.4 of Style Manual.

The text of (b) Weatherproof Enclosures was revised to remove parenthetical phrase to comply with Section 3.5.1.1 of the Style Manual.

“b” and “cover is closed and without an attachment plug cap inserted” to clarify the position of the plug and the cover

Response Message: SR-7921-NFPA 70-2024

Public Comment No. 413-NFPA 70-2024 [Section No. 406.9(A)]

Second Revision No. 7922-NFPA 70-2024 [Section No. 406.9(B)(1)(b)]

(1) Receptacles of 15 Amperes and 20 Amperes in a Wet Location.

(a) *Weatherproof Enclosure.* Receptacles of 15 amperes and 20 amperes, 125 volts and 250 volts installed in a wet location shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted.

(b) *Outlet Box Hood.* An outlet box hood installed for this purpose shall be listed and identified as extra-duty. Other listed products, enclosures, or assemblies providing weatherproof protection that do not ~~utilize~~ use an outlet box hood need not be identified as extra duty.

(c) *Covers.* Hinged covers of outlet box hoods shall be able to open at least 90 degrees, or fully open if the cover is not designed to open 90 degrees from the closed to open position, after installation.

Informational Note: See ANSI/UL 514D–2016, *Cover Plates for Flush-Mounted Wiring Devices*, for extra-duty outlet box hoods. Extra duty identification and requirements are not applicable to listed receptacles, faceplates, outlet boxes, enclosures, or assemblies that are identified as either being suitable for wet locations or rated as one of the outdoor enclosure–type numbers of Table 110.28 that does not utilize an outlet box hood.

Exception: 15- and 20-ampere, 125- through 250-volt receptacles installed in a wet location and subject to routine high-pressure spray washing shall be permitted to have an enclosure that is weatherproof when the attachment plug is removed.

(d) *Weather-Resistant Receptacle Type.* All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles shall be listed and so identified as the weather-resistant type.

Informational Note: See ANSI/NEMA WD 6–2016, *Wiring Devices — Dimensional Specifications*, for receptacle configurations. The configuration of weather-resistant receptacles covered by this requirement are identified as 5-15, 5-20, 6-15, and 6-20.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 14:56:24 EDT 2024

Committee Statement

Committee Statement: There was no intention to remove listing requirement. The listing requirement needs to be maintained to coordinate with identified as extra-duty. Without “listed” and “identified” Outlet Box Hood could be self-declared as extra-duty.

Response Message: SR-7922-NFPA 70-2024

Public Comment No. 415-NFPA 70-2024 [Section No. 406.9(B)(1)]

Public Comment No. 1212-NFPA 70-2024 [Section No. 406.9(B)(1)(b)]

Second Revision No. 7923-NFPA 70-2024 [Section No. 406.9(B)(2)]

(2) Other Receptacles.

All other receptacles installed in wet locations shall be listed weather-resistant type and be installed in accordance with 406.9(B)(2)(a) or 406.9(B)(2)(b).

(a) For supplying a product that is unattended while in use, the receptacle shall have an enclosure that is weatherproof with the attachment plug cap inserted or removed.

(b) For supplying a product that is attended while in use~~(e.g., portable tools)~~ , the receptacle shall have an enclosure that is weatherproof when the attachment plug is removed.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 14:58:52 EDT 2024

Committee Statement

Committee Statement: Parenthetical phrase (e.g., portable tools) to comply with Section 3.5.1.1 of the Style Manual.

For supplying a product that is attended while in use “portable tools” was removed to avoid confusion or misunderstanding and is already covered by the text “supplying a product”.

Response Message: SR-7923-NFPA 70-2024

Public Comment No. 416-NFPA 70-2024 [Section No. 406.9(B)(2)]

Second Revision No. 7924-NFPA 70-2024 [Section No. 406.9(C)(1)]

(1) Receptacles.

Receptacles shall not be installed inside of tubs or showers or within the following zones:

(1) Horizontal zone, measured 900 mm (3 ft) horizontally from any outside edge of the bathtub or shower stall, including the space outside the bathtub or shower stall space below the zone

(2) Vertical zone, measured vertically from the floor to 2.5 m (8 ft) above the top of the bathtub rim or shower stall threshold

The identified zone shall be all-encompassing and include the space directly over the bathtub or shower stall and the space below this zone, but not the space separated by a floor, wall, ceiling, room door, window, or fixed barrier.

Exception No. 1: Receptacles installed in accordance with 680.73 shall be permitted.

Exception No. 2: In bathrooms with less than the required zone, the receptacle(s) required by 210.52(D) shall be permitted ~~to be installed~~ opposite the bathtub rim or shower stall threshold on the farthest wall within the room.

Exception No. 3: Weight-supporting ceiling receptacles (WSCRs) shall be permitted ~~to be installed~~ for listed luminaires that employ weight-supporting attachment fittings (WSAFs) in damp locations complying with 410.10(D).

Exception No. 4: In dwelling units, single receptacles shall be permitted for electronic toilets or personal hygiene devices such as electronic bidet seats. The receptacle shall be readily accessible and not located in the space between the toilet and the bathtub or shower.

Informational Note No. 1: See 210.8(A)(1) for GFCI requirements in a bathroom.

Informational Note No. 2: See 210.11(C) for bathroom branch circuits.

Informational Note No. 3: See 210.21(B)(1) for single receptacle on an individual branch.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 15:02:21 EDT 2024

Committee Statement

Committee Statement: The redundant text “to be installed” does not conform to sections 3.1.1, 3.1.2, and 3.5.1.1 of the NEC Style Manual and was removed from Exceptions No. 2 and 3. This also helps to create parallel structure in the exceptions.

Response Message: SR-7924-NFPA 70-2024

Second Revision No. 7881-NFPA 70-2024 [Section No. 406.10]

406.10 Wiring Device Terminations.

Wiring device terminations shall comply with all of the following:

(1) Wiring devices marked CO/ALR shall be permitted to directly terminate aluminum, copper, or copper-clad aluminum conductors in accordance with the branch-circuit conductor size (AWG) identified by the manufacturer's instructions.

(2) For wiring devices not marked CO/ALR, both of the following shall apply:

a. They shall not be permitted to directly terminate aluminum conductors.

b. They shall be permitted to directly terminate ~~directly to~~ copper conductors, copper-clad aluminum conductors, or both ~~other than aluminum~~ in accordance with the branch-circuit conductor size (AWG) and type of conductor(s) identified ~~in~~ by the manufacturer's instructions .

(3) Wiring devices installed using screwless terminals of conductor push-in type construction, ~~(~~ also known as push-in-terminals, ~~)~~ shall be installed on not greater than 15-ampere branch circuits and be connected with 14 AWG solid copper ~~wire~~ conductors only.

Informational Note No. 1: See UL 498~~-2017~~ , *Attachment Plugs and Receptacles*, for information regarding screwless terminals of various type constructions employed on receptacles. Screwless terminals of separable-terminal assembly, spring-action clamp, and insulation-displacement type constructions are not classified in UL 498 as screwless terminals of conductor push-in type construction, ~~(~~ also known as push-in terminals~~)~~ .

Informational Note No. 2: See UL 20, *General-Use Snap Switches* , for information regarding screwless terminals of various voltage type constructions employed on snap switches. Screwless terminals of separable-terminal assembly, spring-action clamp, and insulation-displacement type constructions are not classified in UL 20 as screwless terminals of conductor push-in type construction, also known as conductor push-in terminals.

Supplemental Information

File Name	Description	Approved
406.10_SR-7881.docx	406.10 SR-7881	
406.10_SR-7881.docx	For prod use	

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 11:44:35 EDT 2024

Committee Statement

Committee Statement: 1214 & 263 These two comments add informational note No. 2 addressing UL 20 Snap Switches.

1389 - Text was modified to positive language to differentiate devices intended for copper conductor only and those that are intended for both copper and copper-clad

aluminum conductors. It should be noted that copper conductors and copper-clad aluminum conductors are not equivalent. Due to the different ampacity rating, see Table 310.16.

718 – Informational note No. 2- i.e. UL 20 Snap Switches was added and provides needed coordination. See committee action on PC 1213 & PC 304. Additionally, parentheticals removed from (3) and informational note to comply with Style Manual Section 3.5.1.1.

739 Text was modified by changing “wires” to “conductor” for clarity. The other changes do not improve the text and meaning of the requirements.

409 Parenthetical phrase was removed “(also known as push-in-terminals) in 406.10(3)” to comply with the Style Manual 3.5.1.1.

“Manufacturer’s instructions” was retained to assure that

“Proper conductor size and type” are essential for safe use when terminated to a Wiring Device. Not providing clear and concise language to the reader can potentially create a hazardous condition simply due to not knowing the proper conductor size (AWG) and type (ex. Copper only and Copper Clad Aluminum and Aluminum).

Response Message: SR-7881-NFPA 70-2024

Public Comment No. 263-NFPA 70-2024 [Section No. 406.10]

Public Comment No. 1389-NFPA 70-2024 [Section No. 406.10]

Public Comment No. 409-NFPA 70-2024 [Section No. 406.3]

Public Comment No. 739-NFPA 70-2024 [Section No. 406.10]

Public Comment No. 718-NFPA 70-2024 [Section No. 406.10]

Public Comment No. 1214-NFPA 70-2024 [Section No. 406.10]

Second Revision No. 7892-NFPA 70-2024 [Sections 406.12(D)(2), 406.12(D)(3)]

(2) Non-Grounding-Type Receptacles.

Where attachment to equipment grounding conductors does not exist in receptacle enclosures, the installation shall comply with 406.12(D)(2)(a), 406.12(D)(2)(b), or 406.12(D)(2)(c).

(a) Non-grounding-type receptacles shall be permitted to be replaced with other non-grounding-type receptacles.

(b) Non-grounding-type receptacles shall be permitted to be replaced with ground-fault circuit-interrupter-type receptacles. These receptacles or their cover plates shall be marked "No Equipment Ground." ~~Equipment~~ The equipment grounding ~~conductors~~ terminal shall not be connected from the ground-fault circuit-interrupter-type receptacles to any outlets supplied from the ground-fault circuit-interrupter receptacles.

(c) Non-grounding-type receptacles shall be permitted to be replaced with grounding-type receptacles where supplied through ground-fault circuit interrupters. Where grounding-type receptacles are supplied through ground-fault circuit interrupters, grounding-type receptacles or their cover plates shall be marked "GFCI Protected" and "No Equipment Ground," visible after installation. ~~Equipment~~ The equipment grounding ~~conductors~~ terminal shall not be connected between the grounding-type receptacles.

Informational Note No. 1: Some equipment or appliance manufacturers require that the branch circuit to the equipment or appliance includes an equipment grounding conductor.

Informational Note No. 2: See 250.114 for a list of cord- and plug-connected equipment or appliances that require equipment grounding conductors.

(3) Ground-Fault Circuit-Interrupter Protection.

Ground-fault circuit-interrupter protection for receptacles shall be provided where replacements are made at receptacle outlets that are required to be so protected elsewhere in this code.

Exception: The receptacle shall be permitted to be replaced with a new receptacle of the existing type~~, where~~ if it is not possible to provide GFCI protection ~~is provided and the receptacle is marked "GFCI Protected" and "No Equipment Ground," in accordance with 406.12(D)(2)(a) , 406.12(D)(2)(b) , or 406.12(D)(2)(c) , as applicable,~~ where all of the following conditions exist:

(1) The outlet box size will not permit ~~the~~ installation of ~~the~~ a GFCI receptacle.

(2) No electrically upstream outlet box will permit ~~the~~ installation of a GFCI receptacle.

(3) A GFCI circuit breaker cannot provide the required GFCI protection.

Supplemental Information

File Name	Description	Approved
406.12_D_2_and_D_3_on_SR-7892.docx	SR-7892 on 406.12(D)(2) and (D)(3)	
406.12_D_2_and_D_3_on_SR-7892.docx	For prod use	

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 12:26:20 EDT 2024

Committee Statement

Committee Statement: The exception was modified by removing "where GFCI protection is provided, and the receptacle is marked “GFCI Protected” and “No Equipment

Ground,” in accordance with 406.12(D)(2)(a), 406.12(D)(2)(b), or 406.12(D)(2)(c), as applicable," provides little clarity. The suggested change improves the intent of the requirement. The cross references are removed to state the requirements in positive language rather than sending the reader to other sections of the code it explains the conditions here.

The text was modified to replace “conductors” with “terminal” to clarify that an equipment grounding conductor is not available and should not be extended as such.

The intent is to exhaust all protection options prior to applying the exception.

Response Message: SR-7892-NFPA 70-2024

Public Comment No. 1390-NFPA 70-2024 [Section No. 406.12(D)(3)]

Public Comment No. 294-NFPA 70-2024 [Sections 406.12(D)(2), 406.12(D)(3)]

Second Revision No. 8098-NFPA 70-2024 [Section No. 406.14(F)]

(F) Receptacles in Work Surfaces.

Receptacle assemblies and GFCI receptacle assemblies listed for work surface or countertop applications shall be permitted ~~to be installed~~ in work surfaces.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Sat Oct 19 15:54:22 EDT 2024

Committee Statement

Committee Statement: The redundant text “to be installed” does not conform to sections 3.1.1, 3.1.2, and 3.5.1.1 of the NEC Style Manual and was removed.

Response Message: SR-8098-NFPA 70-2024

Second Revision No. 7899-NFPA 70-2024 [Section No. 406.16]

406.16 Receptacle Faceplates ~~(~~ or Cover Plates~~)~~ .

Receptacle faceplates or cover plates shall be installed to completely cover openings and seat against mounting surfaces.

Receptacle faceplates or cover plates mounted inside boxes having recess-mounted receptacles shall effectively close openings and seat against mounting surfaces.

(A) Thickness of Metal Faceplates.

Metal faceplates or metal cover plates shall be of ferrous metal not less than 0.76 mm (0.030 in.) in thickness or of nonferrous metal not less than 1.02 mm (0.040 in.) in thickness.

(B) Grounding.

Metal faceplates or metal cover plates shall be grounded.

(C) Faceplates of Insulating Material.

Faceplates of insulating material shall comply with the following:

(1) They shall be noncombustible.

(2) They shall not be less than 2.54 mm (0.10 in.) in thickness unless formed or reinforced to provide adequate mechanical strength.

(D) Receptacle Faceplates ~~(~~ or Cover Plates~~)~~ with Integral Night Lights, USB Chargers, or Both.

Flush device faceplates ~~(~~ or cover plates~~)~~ that integrally incorporate night lights, Class 2 output connectors, ~~(~~ USB chargers~~)~~ connectors , or ~~both~~ any combination of them shall comply with all of the following:

(1) Faceplate ~~(~~ or cover plate~~)~~ assemblies shall be listed.

(2) During normal operation, night light ~~and~~ Class 2 supply or USB charger connections shall not introduce current to the grounding means or to the equipment grounding conductor.

(3) Night lights, ~~and~~ Class 2 connections, ~~(~~ or USB chargers~~)~~ , if relying on spring-tensioned contacts for electrical power, shall comply with the following:

a. They shall not be rated more than 1 watt.

b. They shall be connected to only unpainted or unenameled heads of receptacle terminal screws made only of copper alloy unless the faceplate ~~(~~ or cover plate~~)~~ is additionally listed and identified that the spring-tensioned contacts are suitable for connection to unpainted or unenameled heads of terminal screws made of plated steel.

Supplemental Information

File Name	Description	Approved
SR-7899_on_406.16.docx	SR-7899 on 406.16	
SR-7899_on_406.16.docx	For prod use	

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 12:55:09 EDT 2024

Committee Statement

Committee Statement: The title and text were revised by removing parenthetical phrase to comply with Section 3.5.1.1 of the Style Manual.

Response Message: SR-7899-NFPA 70-2024

Public Comment No. 411-NFPA 70-2024 [Section No. 406.16]

Second Revision No. 7900-NFPA 70-2024 [Section No. 406.18]

406.18 Attachment Plugs, Cord Connectors, and Flanged Surface Devices.

All attachment plugs, cord connectors, and flanged surface devices, ~~(~~ including inlets and outlets, ~~)~~ shall be marked with the manufacturer's name or identification and voltage and ampere ratings.

(A) Construction of Attachment Plugs and Cord Connectors.

Attachment plugs and cord connectors shall be constructed so that there are no exposed current-carrying parts except the prongs, blades, or pins. The cover for wire terminations shall be a part that is essential for the operation of attachment plugs or connectors ~~(dead-front construction)~~ .

(B) Connection of Attachment Plugs.

Attachment plugs shall be installed so that their prongs, blades, or pins are not energized unless inserted into energized receptacles or cord connectors. No receptacle shall be installed ~~so as to require the~~ such that insertion of an energized attachment plug as its source of supply is required .

(C) Attachment Plug Ejector Mechanisms.

Attachment plug ejector mechanisms shall not adversely affect engagement of the blades of attachment plugs with the contacts of receptacles.

(D) Flanged Surface Inlet.

Flanged surface inlets shall be installed such that the prongs, blades, or pins are not energized unless energized cord connectors are inserted into them.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 13:09:42 EDT 2024

Committee Statement

Committee Statement: Parenthetical removed parenthetical phrase to comply with Section 3.5.1.1 of the Style Manual. Dead front construction is a form of a plug construction and it is not necessary to call it out separately.

Response Message: SR-7900-NFPA 70-2024

Public Comment No. 412-NFPA 70-2024 [Section No. 406.18]

Second Revision No. 7903-NFPA 70-2024 [Section No. 406.30(B)]

(B) Grounded Conductors.

Switches ~~or circuit breakers~~ shall not disconnect the grounded conductors of circuits.

Exception: A switch ~~or circuit breaker~~ shall be permitted to disconnect a grounded circuit conductor where all circuit conductors are disconnected simultaneously, or where the device is arranged so that the grounded conductor cannot be disconnected until all the ungrounded conductors of the circuit have been disconnected.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 13:24:03 EDT 2024

Committee Statement

Committee Statement: "Circuit breakers" appearing in Article 406.30 (B) and in the Exception, was removed. Circuit breakers are covered by Article 404.

Response Message: SR-7903-NFPA 70-2024

Public Comment No. 1122-NFPA 70-2024 [Section No. 406.30(B)]

Second Revision No. 7904-NFPA 70-2024 [Section No. 406.30(C)]

(C) Switches Controlling Lighting Loads.

The grounded circuit conductor for the controlled lighting circuit shall be installed at the location where switches control lighting loads that are supplied by a grounded general-purpose branch circuit serving bathrooms, hallways, stairways, and habitable rooms or occupiable spaces as defined in the applicable building code. Where multiple switch locations control the same lighting load such that the entire floor area of the room or space is visible from the single or combined switch locations, the grounded circuit conductor shall only be required at one location. A grounded conductor shall not be required ~~to be installed~~ at lighting switch locations under any of the following conditions:

(1) Where conductors enter the box enclosing the switch through a raceway if the raceway is large enough for all contained conductors, including a grounded conductor

(2) Where snap switches with integral enclosures comply with 300.17(E)

(3) Where lighting in the area is controlled ~~by automatic means~~ from a remote location

(4) Where a switch controls a receptacle load

The grounded conductor shall be extended to any switch location as necessary, be connected to switching devices that require line-to-neutral voltage to operate the electronics of the switch in the standby mode, and meet the requirements of 406.50.

Exception: The connection requirement shall not apply to replacement or retrofit switches installed in locations prior to local adoption of 406.30(C) and where the grounded conductor cannot be extended without removing finish materials. The number of electronic control switches on a branch circuit shall not exceed five, and the number connected to any feeder on the load side of a system or main bonding jumper shall not exceed 25. For the purpose of this exception, a neutral busbar, in compliance with 200.4(B) and to which a main or system bonding jumper is connected, shall not be limited as to the number of electronic lighting control switches connected.

Informational Note: The provision for a grounded conductor is to complete a circuit path for electronic lighting control devices.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 13:31:03 EDT 2024

Committee Statement

Committee Statement: The lighting area was changed for clarity as to what is meant by automatic means. The redundant text “to be installed” does not conform to sections 3.1.1, 3.1.2, and 3.5.1.1 of the NEC Style Manual and was removed

Response Message: SR-7904-NFPA 70-2024

Public Comment No. 828-NFPA 70-2024 [Section No. 406.30(C)]

Second Revision No. 7905-NFPA 70-2024 [Section No. 406.36]

406.36 Indicating.

General-use ~~and motor circuit~~ snap switches where mounted in enclosures as described in 406.32 shall indicate, in locations that are visible when accessing the external operation means, whether they are in the open (off) or closed (on) position.

Exception: Vertically operated double-throw switches shall be permitted to be in the closed (on) position with the handle in either the up or down position.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 13:34:22 EDT 2024

Committee Statement

Committee Statement: Article 406.36 was revised by removing “and motor circuit”. Motor circuit switches are covered by Article 404. Additionally, “snap” was added to general use snap switch for clarity.

Response Message: SR-7905-NFPA 70-2024

Public Comment No. 1123-NFPA 70-2024 [Section No. 406.36]

Second Revision No. 7906-NFPA 70-2024 [Section No. 406.38(A)]

(A) Location.

All switches ~~and circuit breakers used as switches~~ shall comply with both of the following:

(1) They shall be located so that they can be operated from readily accessible places.

(2) They shall be installed such that the ~~center of the grip~~ actuating means of the switch's operating handle ~~of the switch or circuit breaker~~ , when in its highest position, is not more than 2.0 m (6 ft 7 in.) above the floor, ~~or~~ working platform, ~~except as follows:~~ or finished grade.

0. ~~On busway installations, fused switches and circuit breakers shall be permitted to be located at the same level as the busway if suitable means is provided to operate the handle of the device from the floor.~~

0. ~~Switches and circuit breakers installed adjacent to motors, appliances, or other equipment that they supply shall be permitted to be located higher than 2.0 m (6 ft 7 in.) and to be accessible by portable means.~~

0. ~~Hookstick operable isolating switches shall be permitted at greater heights.~~

Exception to (2): Switches ~~and circuit breakers~~ installed adjacent to motors, appliances, or other equipment that they supply shall be permitted to be located higher than 2.0 m (6 ft 7 in.) ~~and to be accessible by portable means~~ .

Supplemental Information

File Name	Description	Approved
SR-7906_on_Section_406.38_A_.docx	SR-7906 on 406.38(A)	
NEC_CMP-18_SR-7906_406.38_A_.docx	For prod use	

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 13:37:29 EDT 2024

Committee Statement

Committee Statement: Article 406.38 including 406.38(A) was revised by removing "and circuit breakers used as switches" since circuit breakers are covered by Article 404.

No. (2) was modified by removal of "center of grip of the"; and replaced with "actuating means" for clarity of a snap switch actuator; "or circuit breaker" was removed, since circuit breakers are covered by Article 404."Finished grade" was also added from existing Article 404 text .

a) and c) were removed since these are not relevant to a snap switch use;

and

b) was modified to remove "and circuit breakers" and relocated to an exception to (2) as it is the only remaining exception from the previous list of text.

Response Message: SR-7906-NFPA 70-2024

Public Comment No. 1124-NFPA 70-2024 [Section No. 406.38(A)]

Second Revision No. 7943-NFPA 70-2024 [Sections 406.40, 406.40(D)]

406.40 General-Use Snap Switches, Dimmers, and Control Switches.

(A) Faceplate ~~(~~ or Cover Plate~~)~~ Mounting.

Faceplates or cover plates provided for snap switches, dimmers, and control switches mounted in boxes and other enclosures shall be installed to completely cover the opening and, where the switch is flush mounted, seat against the finished surface.

Faceplates or cover plates that are installed on receptacles mounted on the same box as snap switches, dimmers, and control switches shall comply with 406.14(C), 406.14(D), 406.16, and, as applicable, 406.9.

(B) Grounding.

Snap switches, dimmers, and control switches shall be connected to an equipment grounding conductor and provide a means to connect metal faceplates or cover plates to the equipment grounding conductor, regardless of whether ~~or not~~ metal faceplates or cover plates are installed. Metal faceplates or cover plates shall be bonded to the equipment grounding conductor. Snap switches, dimmers, control switches, and metal faceplates or cover plates shall be connected to equipment grounding conductors using either of the following methods:

(1) The switch is mounted with metal screws to a metal box or metal cover that is connected to an equipment grounding conductor or to a nonmetallic box with integral means for connecting to an equipment grounding conductor.

(2) An equipment grounding conductor or equipment bonding jumper is connected to an equipment grounding termination of the snap switch.

Exception No. 1: Where no means exists within the enclosure for bonding to the equipment grounding conductor, or where the wiring method does not include or provide an equipment grounding conductor, a snap switch without a connection to an equipment grounding conductor shall be permitted for replacement purposes only. A snap switch wired under the ~~provisions~~ requirements of this exception and located within 2.5 m (8 ft) vertically~~,~~ or 1.5 m (5 ft) horizontally~~,~~ of ground or exposed grounded metal objects shall be provided with a faceplate or cover plate of nonconducting noncombustible material with nonmetallic attachment screws, unless the switch mounting strap or yoke is nonmetallic or the circuit is protected by a ground-fault circuit interrupter.

Exception No. 2: Listed kits or listed assemblies shall not be required to be bonded to an equipment grounding conductor if all of the following conditions are met:

(1) The device is provided with a nonmetallic faceplate~~,~~ or cover plates and the device is designed such that no metallic faceplate or cover plate replaces the one provided.

(2) The device does not have mounting means to accept other configurations of faceplates or cover plates .

(3) The device is equipped with a nonmetallic yoke.

(4) All parts of the device that are accessible after installation of the faceplate or cover plate are manufactured of nonmetallic materials.

Exception No. 3: A snap switch with an integral nonmetallic enclosure complying with 300.17(E) shall be permitted without a bonding connection to an equipment grounding conductor.

(C) Faceplate ~~(~~ or Cover Plate~~)~~ Construction.

Metal faceplates or cover plates shall be constructed of ferrous metal not less than 0.76 mm (0.030 in.) in thickness or of nonferrous metal not less than 1.02 mm (0.040 in.) in thickness. Faceplates or cover plates of insulating material shall be noncombustible and be not less than 2.54 mm (0.100 in.) in thickness unless formed or reinforced to provide adequate mechanical strength.

(D) Faceplates ~~(~~ or Cover Plates~~)~~ Incorporating Night Lights, USB Chargers, or Both.

For snap switches, dimmers, and control switches, faceplates ~~(~~ or cover plates~~)~~ that integrally incorporate night lights Class 2 connections, ~~(~~ USB ~~chargers)~~ charger connections , or both shall comply with all the following:

(1) Faceplate ~~(~~ or cover plate~~)~~ assemblies shall be listed.

(2) During normal operation, night lights and Class 2 connections, ~~(~~ or USB chargers~~)~~ shall not introduce current to the bonding means or the equipment grounding conductors.

(3) Electrical power supply connections to night lights and Class 2 connections, ~~(~~ or USB chargers~~)~~ shall not be connected across the line and load terminals of snap switches, dimmers, and control switches having a marked OFF position.

(4) Night lights and Class 2 connections ~~(~~ or USB chargers~~)~~ , if relying on spring-tensioned contacts for electrical power, shall comply with the following:

a. They shall not be rated more than 1 watt.

b. They shall be connected to only unpainted or unenameled heads of switch terminal screws made of only copper alloy unless the faceplate ~~(~~ or cover plate~~)~~ is additionally listed and identified that the spring-tensioned contacts are suitable for connection to unpainted or unenameled heads of terminal screws made of steel.

Supplemental Information

File Name	Description	Approved
NEC_CMP-18_SR-7943_406.40.docx		

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 17:18:40 EDT 2024

Committee Statement

Committee Statement: Parenthetical expressions have been removed and replaced in multiple clauses, for consistency with Style Manual Section 3.5.1.1.

Response Message: SR-7943-NFPA 70-2024

Public Comment No. 407-NFPA 70-2024 [Article 406]

Second Revision No. 7920-NFPA 70-2024 [Section No. 406.46(C)]

~~**(C)** Snap Switch Terminations.~~

~~Snap-switch terminations shall comply with the following:~~

(0) ~~Copper, aluminum, and copper-clad aluminum conductors shall be permitted to terminate at the terminals of snap switches marked CO/ALR.~~

(0) ~~Only copper and copper-clad aluminum conductors shall be permitted to be terminated at the terminals of 15-ampere and 20-ampere snap switches not marked CO/ALR.~~

(0) ~~Snap switches connected using screwless terminals of conductor push-in type construction (also known as conductor push-in terminals) shall be installed on not greater than 15-ampere branch circuits and be connected with 14 AWG solid copper wire only unless listed and marked for other types of conductors.~~

~~Informational Note: See UL 20-2018, *General-Use Snap Switches* , for information regarding screwless terminals of various voltage type constructions employed on snap switches. Screwless terminals of separable-terminal assembly, spring-action clamp, and insulation-displacement type constructions are not classified in UL 20 as screwless terminals of conductor push-in type construction (also known as conductor push-in terminals).~~

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 14:44:30 EDT 2024

Committee Statement

Committee Statement: This subsection is no longer necessary as result of relocating general use snap switches into section 406 under the new title of “Wiring Devices”. Subsection 406.10, in Part 1. General, applies generally to all wiring devices which renders 406.46(C) unnecessary. The current requirements in 406.10 is aligned with the UL 20 standards updates currently in process, which is identical to UL498 requirements.

There is a companion public comment to add Informational Note regarding UL 20 to subsection 406.10.

The two proposals will resolve the correlation concern expressed by the Correlating Committee.

Response Message: SR-7920-NFPA 70-2024

Public Comment No. 304-NFPA 70-2024 [Section No. 406.46(C)]

Public Comment No. 1213-NFPA 70-2024 [Section No. 406.46(C)]

Second Revision No. 7936-NFPA 70-2024 [Section No. 406.46(F)]

(E) Cord- and Plug-Connected Loads.

Where snap switches or control devices are used to control cord- and plug-connected equipment on general-purpose branch circuits, each snap switch or control device controlling receptacle outlets or cord connectors that are supplied by permanently connected cord pendants shall be rated at not less than the rating of the maximum permitted ampere rating or setting of the ~~overcurrent device~~ OCPD protecting the receptacles or cord connectors, as provided in 210.21(B).

Informational Note: See 210.50(A) and 400.10(A)(1) for equivalency to a receptacle outlet of a cord connector that is supplied by a permanently connected cord pendant.

Exception: Where a snap switch or control device is used to control not more than one receptacle on a branch circuit, the switch or control device shall be permitted to be rated at not less than the rating of the receptacle.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 17:06:00 EDT 2024

Committee Statement

Committee Statement: The term “overcurrent device” was removed and replaced with the acronym “OCPD” for consistency.

Response Message: SR-7936-NFPA 70-2024

Public Comment No. 1658-NFPA 70-2024 [Global Input]

Second Revision No. 7968-NFPA 70-2024 [Section No. 410.2]

410.2 Listing Requirements.

All luminaires, lampholders, lighting systems, and retrofit kits covered by this article shall be listed.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 19:05:54 EDT 2024

Committee Statement

Committee Statement: Added text to clarify that listing is required for equipment addressed by Article 410.

Response Message: SR-7968-NFPA 70-2024

Public Comment No. 698-NFPA 70-2024 [Section No. 410.2]

Second Revision No. 7981-NFPA 70-2024 [Section No. 410.3]

410.3 Reconditioned Equipment.

~~Reconditioned luminaires, lampholders, ballasts, LED drivers, lamps, and retrofit kits shall not be installed. If a retrofit kit is installed in a luminaire in accordance with the installation instructions, the retrofitted luminaire shall not be considered reconditioned.~~

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

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

(1) Luminaires

(2) Lampholders

(3) Ballasts

(4) LED drivers

(5) Lamps

(6) Retrofit kits

Luminaires equipped with retrofit kits shall not be considered reconditioned luminaires.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 19:36:51 EDT 2024

Committee Statement

Committee Statement: The NEC does not cover the ability to prohibit "reconditioned" equipment . However, what the NEC can address is the ability to install a reconditioned equipment. Changed to a list format to comply with the NEC Style Manual.

Response Message: SR-7981-NFPA 70-2024

Public Comment No. 1450-NFPA 70-2024 [Section No. 410.3]

Public Comment No. 417-NFPA 70-2024 [Section No. 410.3]

Second Revision No. 7989-NFPA 70-2024 [Section No. 410.56(C)]

(C) Splices and Taps.

~~No unnecessary splices or taps shall be made within or on a luminaire.~~ Splices and taps shall not be located within luminaire arms or stems.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 11:09:58 EDT 2024

Committee Statement

Committee Statement: Removed “No unnecessary splices or taps shall be made within or on a luminaire” because it is unenforceable and already addressed by product safety standards required for listing.

Response Message: SR-7989-NFPA 70-2024

Public Comment No. 418-NFPA 70-2024 [Section No. 410.56]

Second Revision No. 7953-NFPA 70-2024 [Section No. 410.59(A)]

(A) Cord Requirements.

Flexible cord shall be of the hard-service type, having conductors not smaller than the branch-circuit conductors, having ampacity at least equal to the branch-circuit ~~overcurrent device~~ OCPD , and having an equipment grounding conductor.

Informational Note: See Table 250.122 for size of equipment grounding conductor.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 18:15:13 EDT 2024

Committee Statement

Committee Statement: The term “overcurrent device” was removed and replaced with the acronym “OCPD” for consistency.

Response Message: SR-7953-NFPA 70-2024

Second Revision No. 7990-NFPA 70-2024 [Section No. 410.136(B)]

(B) Combustible Low-Density Cellulose Fiberboard.

Where a surface-mounted luminaire containing a ballast, transformer, LED driver, or power supply is to be installed on combustible low-density cellulose fiberboard, it shall be marked for this condition or be spaced not less than 38 mm (1½ in.) from the surface of the fiberboard. Where such luminaires are partially or wholly recessed, 410.110 through 410.118 shall apply.

Informational Note: See ASTM E84-~~2023c~~ 2023d , *Standard Test Method for Surface Burning Characteristics of Building Materials*, or ANSI/UL 723-~~2018~~ , *Standard for Test for Surface Burning Characteristics of Building Materials*. Combustible low-density cellulose fiberboard includes sheets, panels, and tiles that have a density of 320 kg/m^3 (20 lb/ft^3) or less and ~~are~~ is formed of bonded plant fiber material but does not include solid or laminated wood or fiberboard that has a density in excess of 320 kg/m^3 (20 lb/ft^3) or is a material that has been integrally treated with fire-retarding chemicals to the degree that the flame spread index in any plane of the material will not exceed 25, determined in accordance with tests for surface burning characteristics of building materials.

Submitter Information Verification

Committee: NEC-P18
Submittal Date: Fri Oct 18 11:14:20 EDT 2024

Committee Statement

Committee Statement: Reference standard years are being updated to the latest edition
Response Message: SR-7990-NFPA 70-2024

Public Comment No. 419-NFPA 70-2024 [Section No. 410.136(B)]

Second Revision No. 7992-NFPA 70-2024 [Section No. 410.137(C)]

(C) Wired Luminaire Sections.

Wired luminaire sections ~~are paired, with a ballast(s) or LED driver(s) to supply a light source or light sources in both. For interconnection between paired units, it shall be permissible to use metric designator 12 (trade size 3/8) flexible metal conduit in lengths not exceeding 7.5 m (25 ft), installed in accordance with Article 348 , Part II. Luminaire wire operating at line voltage, supplying only the ballast(s) or LED driver(s) of one of the paired luminaires, shall be permitted in the same raceway as the light source supply wires of the paired luminaires where the voltage rating of the light source supply wires is greater than the line voltage.~~ shall comply with both of the following:

(1) Wired luminaire sections that contain ballasts, LED drivers, or light sources shall be permitted to be connected together by metric designator 12 (3/8 in. trade size) flexible metal conduit at a maximum total length of 7.5 m (25 ft).

(2) All conductors shall have an insulation rating equal to at least the maximum circuit voltage applied to any conductor within the enclosure, cable, or raceway.

Supplemental Information

File Name	Description	Approved
SR-7992_on_410.137_C_.docx	SR-7992 on 410.137(C)	
NEC_CMP-18_SR-7992_410.137_C_.docx	For prod use	

Submitter Information Verification

Committee: NEC-P18
Submittal Date: Fri Oct 18 11:17:01 EDT 2024

Committee Statement

Committee Statement: Changed into a list format wording to comply with Section 3.5.1.1 of the NEC Style Manual.

The language was revised in list item 2 to reflect similar language in 300.5.

Response Message: SR-7992-NFPA 70-2024

Public Comment No. 420-NFPA 70-2024 [Section No. 410.137(C)]

Second Revision No. 7970-NFPA 70-2024 [Section No. 410.140(A)]

~~**(A)** Listing.~~

~~Electric-discharge lighting systems with an open-circuit voltage exceeding 1000 volts shall be listed and installed in conformance with that listing.~~

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Thu Oct 17 19:08:55 EDT 2024

Committee Statement

Committee Statement: List item A is being deleted as it has been added to the listing requirements in 410.2. See related resolution to PC 698 (SR 7968)

Response Message: SR-7970-NFPA 70-2024

Public Comment No. 421-NFPA 70-2024 [Section No. 410.140(A)]

Second Revision No. 8001-NFPA 70-2024 [Section No. 410.184]

410.184 Ground-Fault Circuit-Interrupter (GFCI) Protection and Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection.

Lighting equipment identified for horticultural use and employing flexible cords with one or more separable connectors or attachment plugs shall be supplied by lighting outlets protected in accordance with 410.184(A) or 410.184(B).

(A) For Circuits Not Exceeding 150 Volts or Less to Ground.

Branch circuits rated 150 volts or less to ground, single- or 3-phase, shall be provided with a listed Class A GFCI.

(B) ~~Above~~ For Circuits Exceeding 150 Volts to Ground.

Branch circuits rated above 150 volts to ground, single- or 3-phase, shall be provided with a listed SPGFCI with a ground-fault trip current not exceeding 20 mA. SPGFCI protective equipment that is listed only for use with protected equipment that employs a double insulation system shall not be used for this purpose.

Informational Note: See UL 943C~~-2012~~ , *Outline of Investigation for Special Purpose Ground-Fault Circuit-Interrupters*, for information on special installation considerations necessary for special purpose ground-fault circuit interrupters.

Supplemental Information

File Name	Description	Approved
NEC_CMP-18_SR-8001_410.184.docx		

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 11:57:56 EDT 2024

Committee Statement

Committee Statement: To comply with Section 3.2.2 of the NEC Style Manual, the headings were changed.

Response Message: SR-8001-NFPA 70-2024

Public Comment No. 422-NFPA 70-2024 [Section No. 410.184]

Second Revision No. 8007-NFPA 70-2024 [Section No. 410.191]

410.191 ~~Listing~~ Identification of Germicidal Luminaires .

Luminaires intended to emit germicidal irradiation shall be ~~listed and~~ identified as germicidal ~~equipment~~ luminaires .

Informational Note: See 410.2 for listing requirements related to germicidal luminaires.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 12:35:29 EDT 2024

Committee Statement

Committee Statement: Germicidal products have photobiological risks and emphasis that they be identified as germicidal luminaires is needed. The listed portion is being removed as that is covered in 410.2

Response Message: SR-8007-NFPA 70-2024

Public Comment No. 423-NFPA 70-2024 [Section No. 410.191]

Second Revision No. 8048-NFPA 70-2024 [Section No. 411.2]

411.2 Listing Requirements.

(A) Listed Systems.

The luminaires, power supply, and luminaire fittings, ~~(~~ including the exposed bare conductors~~)~~ , of a low-voltage lighting system shall be listed for use as part of the same identified lighting system.

(B) Assembly of Listed Parts.

A lighting system assembled from the following listed parts shall be permitted:

(1) Low-voltage luminaires identified for the use

(2) Power supply identified for the use

(3) Low-voltage luminaire fittings identified for the use

(4) ~~Suitably rated cord or cable~~ Approved flexible cords or cables , or any Chapter 3 wiring method for the secondary circuit

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 17:27:32 EDT 2024

Committee Statement

Committee Statement: Parenthetical expressions have been removed from 411.2 for consistency with the NEC Style Manual Section 3.5.1.1.

The vague and unenforceable term “Suitablye” was removed in 411.2(B)(4) and replaced to comply to the NEC Style Manual Section 3.2.1.

Response Message: SR-8048-NFPA 70-2024

Public Comment No. 424-NFPA 70-2024 [Sections 411.2, 411.3]

Second Revision No. 8050-NFPA 70-2024 [Section No. 411.3]

411.3 Reconditioned Equipment.

~~Reconditioned low-voltage lighting systems or a lighting system assembled from reconditioned parts shall not be installed.~~

(A) Permitted to be Installed. (Reserved)

(B) Not Permitted to be Installed.

~~Reconditioned~~ The installation of reconditioned low-voltage lighting systems or ~~a~~ lighting system~~s~~ assembled from reconditioned parts shall not be ~~installed~~ permitted .

Supplemental Information

File Name	Description	Approved
NEC_CMP-18_SR-8050_411.3.docx		

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 17:37:42 EDT 2024

Committee Statement

Committee Statement: The text of article 411.3 was modified to “The installation of reconditioned low-voltage lighting systems or a lighting system assembled from reconditioned parts shall not be permitted” to align with recommended wording and list structure regarding reconditioning.

Response Message: SR-8050-NFPA 70-2024

Public Comment No. 1452-NFPA 70-2024 [Section No. 411.3]

Second Revision No. 8052-NFPA 70-2024 [Section No. 411.4]

411.4 Low-Voltage Lighting Systems.

Low-voltage lighting systems shall consist of an isolating power supply, low-voltage luminaires, and associated equipment that are all identified for the use. ~~The output circuits of the power supply shall be rated for 25 amperes maximum under all load conditions.~~

(A) Power Supply Limitation.

The output circuits of the power supply shall be rated for 25 amperes maximum under all load conditions.

(B) Voltage Limitations.

The operating voltage of low-voltage lighting systems and their associated components shall not exceed 30 volts ac or 60 volts dc. If wet contact is likely to occur, the operating voltage of low-voltage lighting systems and their associated components shall not exceed 15 volts ac or 30 volts dc.

Informational Note: See 680.1 for swimming pools, fountains, and similar installations.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 17:41:53 EDT 2024

Committee Statement

Committee Statement: The duplicate wording “The output circuits of the power supply shall be rated for 25 amperes maximum under all load conditions.” in section 411.4 was removed because it is stated in the 411.4(A).

Response Message: SR-8052-NFPA 70-2024

Public Comment No. 425-NFPA 70-2024 [Section No. 411.4]

Second Revision No. 8054-NFPA 70-2024 [Section No. 411.8]

411.8 Branch Circuit.

~~Lighting systems covered by this article shall be supplied from a maximum 20-ampere branch circuit.~~

(A) Lighting Systems Supplied by Class 2 Power Sources.

Conductors and equipment supplying Class 2 power source shall comply with 725.127 .

(B) Lighting Systems Supplied by Other than Class 2 Power Sources.

~~Lighting systems covered by this article~~ Other than Class 2 power sources shall be supplied from a maximum 20-ampere branch circuit.

Supplemental Information

File Name	Description	Approved
SR-8054_on_411.8.docx	SR-8054 on 411.8	
NEC_CMP-18_SR-8054_411.8.docx	For prod use	

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 17:45:35 EDT 2024

Committee Statement

Committee Statement: Section 411.8 was revised to address the option of a low-voltage lighting systems to be supplied by a Class 2 power source installed in accordance with 725.127.

Response Message: SR-8054-NFPA 70-2024

Public Comment No. 1800-NFPA 70-2024 [Section No. 411.8]

Second Revision No. 8027-NFPA 70-2024 [Section No. 600.4(B)]

(B) Visibility.

Listing labels and markings that identify the input voltage and current rating shall be visible after installation and be permanently applied in a location visible prior to servicing. The marking shall be permitted ~~to be installed~~ in a location not viewed by the public.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:11:05 EDT 2024

Committee Statement

Committee Statement: The redundant text “to be installed” does not conform to sections 3.1.1, 3.1.2, and 3.5.1.1 of the NEC Style Manual.

Response Message: SR-8027-NFPA 70-2024

Second Revision No. 8032-NFPA 70-2024 [Section No. 600.5(D)(1)]

(1) Supply.

The wiring method used to supply signs and outline lighting systems shall terminate within a sign, an outline lighting system enclosure, a suitable box, a conduit body, or ~~an enclosed~~ a panelboard.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:28:17 EDT 2024

Committee Statement

Committee Statement: The term enclosed panelboard has been removed from Article 100. Additionally the term panelboard is more accurate to the rest of the requirement.

Response Message: SR-8032-NFPA 70-2024

Public Comment No. 1637-NFPA 70-2024 [Section No. 600.5(D)(1)]

Second Revision No. 8033-NFPA 70-2024 [Section No. 600.6(A)]

(A) Location.

The disconnecting means shall be accessible and located in accordance with 600.6(A)(1), 600.6(A)(2), or 600.6(A)(3). If the disconnecting means is remote from the sign it controls, it shall comply with 600.6(A)(4).

(1) At Point of Entry to a Sign.

The disconnect shall be located at the point the feeder circuit or branch circuits supplying a sign or outline lighting system enters a sign enclosure, a sign body, or a pole in accordance with 600.5(D)(3). The disconnect shall open all ungrounded conductors where it enters the enclosure of the sign or pole.

Exception No. 1: A disconnect shall not be required for branch circuits or feeder conductors passing through the sign where not accessible and enclosed in a Chapter 3 listed raceway or metal-jacketed cable identified for the location.

Exception No. 2: A disconnect shall not be required at the point of entry to a sign enclosure or sign body for branch circuits or feeder conductors that supply an internal panelboard in a sign enclosure or sign body if the installation meets all of the following: ~~. The conductors shall be enclosed where not accessible in a Chapter 3 listed raceway or metal-jacketed cable identified for the location. A field-applied permanent hazard label that is visible during servicing shall be applied to the raceway at or near the point of entry into the sign enclosure or sign body. The danger label shall state the following: "Danger. This raceway contains energized conductors." The marking shall include the location of the disconnecting means for the energized conductors. The disconnecting means shall be capable of being locked in the open position.~~

(1) ~~The~~ If accessible, the conductors shall be protected from physical damage by being enclosed ~~where not accessible in a Chapter 3 listed~~ in an approved raceway or ~~metal-jacketed cable identified for the location~~ other approved means .

(2) A field-applied permanent hazard label ~~that is~~ meeting the requirements of 110.21(B) and visible ~~during servicing shall be applied to the raceway at or near~~ from the point of entry into the sign enclosure or sign body during servicing shall be applied to the raceway or cable . The ~~danger~~ label shall include the location of the disconnecting means required by 600.6 and state the following: "Danger. This raceway contains energized conductors. " ~~and shall include the location of the disconnecting means required by 600.6 for the energized conductors.~~

(3) The disconnecting means required by 600.6 shall ~~meet the requirements of~~ comply with 110.25.

(2) Within Sight of the Sign.

The disconnecting means shall be within sight of the sign or outline lighting system that it controls. Where the disconnecting means is out of the line of sight from any section that is able to be energized, the disconnecting means shall be lockable open in accordance with 110.25. A permanent field-applied marking identifying the location of the disconnecting means shall be applied to the sign in a location visible during servicing.

(3) Within Sight of the Controller.

~~The~~ All of the following shall apply for signs or outline lighting systems operated by electronic or electromechanical controllers located external to the sign or outline lighting system:

(1) The disconnecting means shall be located within sight of the controller or in the same enclosure ~~with~~ as the controller.

(2) The disconnecting means shall disconnect the sign or outline lighting system and the controller from all ungrounded supply conductors.

(3) The disconnecting means shall be designed such that no pole can be operated independently and ~~shall~~ be lockable open in accordance with 110.25.

Exception: Where the disconnecting means is not located within sight of the controller, a permanent field-applied marking identifying the location of the disconnecting means shall be applied to the controller in a location visible during servicing.

(4) Remote Location.

The disconnecting means, if located remote from the sign, sign body, or pole, shall be mounted at an accessible location available to first responders and service personnel. The location of the disconnect shall be marked with a label at the sign location and marked as the disconnect for the sign or outline lighting system.

Supplemental Information

File Name	Description	Approved
SR-8033_on_600.6_A_1_.docx	SR-8033 on 600.6(A)(1)	
NEC_CMP-18_SR-8033_600.6_A_.docx	For prod use	

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:35:00 EDT 2024

Committee Statement

Committee Statement: The language is revised to comply with the NEC Style Manual (3.5.1.1) and to be consistent with other parts of this Code.

Response Message: SR-8033-NFPA 70-2024

Public Comment No. 427-NFPA 70-2024 [Section No. 600.6(A)]

Second Revision No. 8026-NFPA 70-2024 [Section No. 600.41(A)]

(A) Design.

The length and design of the tubing shall not cause a continuous ~~overcurrent~~ overload beyond the design loading of the transformer or electronic power supply.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:05:57 EDT 2024

Committee Statement

Committee Statement: The term overload has been used as that is consistent with the defined term based on the way it is used here.

Response Message: SR-8026-NFPA 70-2024

Second Revision No. 8028-NFPA 70-2024 [Section No. 600.42(H)(1)]

(1) Dry Locations.

Electrode enclosures that are listed, labeled, and identified for use in dry, damp, or wet locations shall be permitted ~~to be installed and used~~ in such locations.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:13:25 EDT 2024

Committee Statement

Committee Statement: The redundant text “to be installed” does not conform to sections 3.1.1, 3.1.2, and 3.5.1.1 of the NEC Style Manual.

Response Message: SR-8028-NFPA 70-2024

Second Revision No. 8029-NFPA 70-2024 [Section No. 600.42(H)(2)]

(2) Damp ~~and~~ or Wet Locations.

Electrode enclosures installed in damp ~~and~~ or wet locations shall be specifically listed, labeled, and identified for use in such locations.

Informational Note: See 110.3(B) covering installation and use of electrical equipment.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 16:14:42 EDT 2024

Committee Statement

Committee Statement: The correct terminology is “or” not “and” as it can be either condition and its not required to be both.

Response Message: SR-8029-NFPA 70-2024

Second Revision No. 8077-NFPA 70-2024 [Section No. 605.5]

605.5 Office Furnishing Interconnections.

The electrical connection between office furnishings shall be a flexible assembly identified for use with office furnishings or shall be permitted ~~to be installed~~ using flexible cord, provided that all the following conditions are met:

(1) The cord is extra-hard usage type with 12 AWG or larger conductors, with an insulated equipment grounding conductor.

(2) The office furnishings are mechanically contiguous.

(3) The cord is not longer than necessary for maximum positioning of the office furnishing but is in no case to exceed 600 mm (2 ft).

(4) The cord is terminated at an attachment plug and cord connector with strain relief.

Submitter Information Verification

Committee: NEC-P18

Submittal Date: Fri Oct 18 19:50:49 EDT 2024

Committee Statement

Committee Statement: he redundant text “to be installed” does not conform to sections 3.1.1, 3.1.2, and 3.5.1.1 of the NEC Style Manual and was removed.

Response Message: SR-8077-NFPA 70-2024