

Meeting Minutes: NEC 2026 Adoption Review Committee (Board of Electricity)

Date: Oct. 28, 2025

Time: 9:00 a.m.

Location: Minnesota Room, DLI, 443 Lafayette Road No., St. Paul, MN 55155

Committee Members Present

1. Dean Hunter (CO's Designee)
2. Travis Thul – WebEx
3. Trevor Turek (Chair)
4. Desiree Weigel (Secretary)

Committee Members Absent

Sarah Gudmunson (Vice Chair)
Jeff Heimerl

DLI Staff & Visitors

Jeff Lebowski (Board Counsel, DLI)
Lyndy Logan (DLI)
Sean Callanan (DLI)
Krystle Conley (DLI)
Scott Higgins (DLI)
Ken McGurran (DLI) – WebEx
Grace Greene (Housing First)
Chad Kurdi (BKV Group) – WebEx

1. Call to Order – Committee Chair Turek

- A. **Roll call:** Committee Chair Turek called the meeting to order at 9:08 a.m. Secretary Weigel took the roll call, and a quorum was declared with 4 of 6 voting committee members present in person or remotely.
- B. **Announcements/Introductions** – Committee Chair Turek
 - Committee members:
 1. Sarah Gudmunson – Power Ltd. Technician/Tech Sys Contractor
 2. Jeff Heimerl – Journeyworker Electrician
 3. Dean Hunter – Commissioner's Designee
 4. Travis Thul – Registered Consulting Electrical Engineer
 5. Trevor Turek – Journeyworker Electrician
 6. Desiree Weigel – Electrical Inspector
 - All handouts discussed and meeting information are posted on the Committee's website.
 - Everyone present in person and via phone can hear all discussions.
 - Public participation is welcome and encouraged.
 - All votes will be taken by roll call if any Committee member is attending via phone.

2. Approval of Meeting Agenda

A motion was made by Weigel, seconded by Hunter, to approve the agenda as presented. The vote was unanimous, with 4 votes in favor of the motion; the motion carried.

3. Approval of Previous Meeting Minutes

A motion was made by Weigel, seconded by Hunter, to approve the Sept. 25, 2025, special minutes, as presented. The vote was unanimous, with 4 votes in favor of the motion; the motion carried.

4. Regular Business

A. Expense Approval – No expenses

5. Special Business

A. Committee review of the 2026 NEC – Cost Analysis Review & Wrap-up | Dean Hunter

- Free access to the NFPA 70: <https://link.nfpa.org/free-access/publications/70/2026>
- Purchase the NFPA 70: <https://www.nfpa.org/product/nfpa-70-national-electrical-code-nec/p0070code>
- Hunter provided a handout of changes – see **Attachment A**, and summarized the presentation titled **2026 NEC Review Committee**, as shown below.
- **Introduction & Process Overview**
 - Hunter noted that no significant cost analysis concerns were identified for either residential or commercial sectors. Hunter noted they would discuss each item, and if no further cost issues were raised, the SONAR process would proceed without additional input.
 - This will be the final meeting of the NEC 2026 Committee; the previously scheduled December 9th meeting is no longer necessary.
 - The NEC adoption process was reviewed, emphasizing its structured and vetted nature through NFPA stages.
 - The 2029 NEC restructuring was noted, with public input closing in April; the new format would expand from 9 to 23 chapters
 - The IAEI (International Association of Electrical Inspectors) developed the PowerPoint, which is copyright-protected so it cannot be shared; however, it will soon be available for purchase.
 - Members were asked to review the adoption worksheet page by page, flagging any items needing further discussion or cost analysis.
 - The FAQ development would begin once the full board moved toward NEC adoption, aiming for public release before 2026 implementation.
 - **Desiree Weigel** inquired about alignment with IAEI code analysis changes; Dean confirmed the list covered 107 of 250 changes, focusing on substantive rather than editorial updates.
 - The group discussed NEC section 110.16 regarding new labeling requirements for services and feeders. The new labels will include clearing times, incident energy, and PPE information.
 - **Trevor Turek** was tasked with and completed a resource using 70E table values to assist contractors, which would be considered for inclusion in the FAQ.
- **Presentation Summary – Trevor Turek (110.16, 2026 NEC) – see Attachment B**
 - **Trevor Turek** presented on NEC section 110.16, referencing his presentation titled 110.16, 2026 NEC, and provided historical context, noting arc flash labeling requirements began in the 2002–2005 NEC editions.
 - The 2026 NEC specified new label requirements: nominal system voltage, arc flash boundary, available incident energy, and the date.
 - Compared the 2026 NEC language with the 2020 NEC, noting that while the requirements were similar, the 2026 version explicitly listed arc flash boundary and incident energy.
 - Emphasized that these values were already necessary in 2020 for selecting proper PPE, making the change more of a clarification than a new requirement.
 - Informational Note 2 in 110.16 directed users to NFPA 70E for compliance guidance, which is available online.
 - Explained the concept of arc flash boundaries using an image from Annex C of NFPA 70E, noting that the boundary is dynamic and depends on incident energy, fault current, and overcurrent device clearing time.
 - Highlighted the importance of available fault current data, which is required in NEC sections 110.24 and 408, for equipment selection and worker/public safety.

- Clarified that the arc flash boundary represents the distance at which incident energy equals 1.2 cal/cm²—the threshold between a sunburn and a second-degree burn.
- Referenced NFPA 70E Table 130.5(C), which lists tasks that increase the likelihood of arc flash incidents, including electrical testing during de-energization.
- Reiterated that such testing is considered energized work, requiring PPE and barricades.
- Outlined two methods for arc flash risk assessment per NFPA 70E:
 - Incident Energy Analysis Method – more precise, often resulting in lower PPE requirements.
 - Arc Flash PPE Category Method – table-based, more conservative, but still compliant and protective.
- While many contractors already use software for energy analysis, the PPE category **method remains a valid and accessible alternative.**
- Referenced NFPA 70E section 130.7(H), which provided guidance on equipment labeling—closely aligned with NEC 110.16.
- Required label elements included: nominal voltage, arc flash boundary, and either the minimum arc rating of PPE or the incident energy level.
- Reiterated that NFPA 70E allowed two compliance methods:
 - Incident Energy Analysis Method
 - Arc Flash PPE Category (Table) Method
- Explained the table method, which required:
 - Type of equipment (e.g., panelboard, switchgear, MCC)
 - Available fault current
 - Clearing the time of the overcurrent device
- Available fault current was often easier to determine using free software tools.
- For clearing time, he noted:
 - Molded case circuit breakers typically cleared in 1.5 cycles or less.
 - Current-limiting fuses cleared in 0.5 cycles or less.
 - Informational notes in the table provided typical clearing times for reference.
- Emphasized the variability of arc flash boundaries:
 - A 240V panelboard might have a 19-inch boundary.
 - Larger equipment like switchgear could require up to a 20-foot boundary.
- The table method also provided the arc flash PPE category, which could then be cross-referenced in Table 130.7(C)(15) to determine the minimum calorie rating for PPE.
- Concluded that while the full training is typically more extensive, the table method was a straightforward and effective approach.
- In response to a question from Desiree Weigel, Turek confirmed that NFPA 70E is updated every three years, one year after the NEC cycle. The current version in use was the 2024 edition.
- **Cost Analysis & Implementation Concerns**
 - **Hunter** raised a question regarding the cost implications of the new labeling requirements, particularly the perception that incident energy analysis would be a major burden during code adoption.
 - **Turek** responded that the primary costs involved were:
 - Time spent navigating the standards (which electricians are generally proficient in).
 - Label creation and printing.
 - **Weigel** noted that at the University of Minnesota, electricians were not comfortable performing incident energy calculations and preferred to hire engineers, which significantly increased costs.
 - **Trevor** clarified that:
 - Available fault current has long been a required value for services and equipment.
 - With that value, electricians could use NFPA 70E tables to determine labeling requirements, making the process relatively simple.

- **Weigel** explained that many university buildings were over 100 years old, with outdated equipment (e.g., Westinghouse, Federal Pacific), and lacked available fault current data—making compliance more difficult and costly.
- **Turek** emphasized that knowing available fault current was essential for safe equipment installation and code compliance, regardless of building age.
- **Weigel** acknowledged the importance of the requirement but noted growing concerns, especially regarding elevator equipment, which many were unaware was included.
- **Hunter** asked whether enough guidance could be included in the FAQ to help contractors navigate these requirements more easily in the field.
- **Turek** expressed confidence that sufficient guidance could be developed, but noted that access to NFPA 70E tables would be necessary. He suggested linking directly to the relevant sections on NFPA's website as a potential solution.
- **Thul** raised a question regarding whether arc flash or incident energy calculations were included in licensing exams for master and journeyman electricians, noting that such topics were standard on the PE exam.
- **Hunter** responded that, to his knowledge, these topics were not currently part of the licensing exam.
- **Turek** added that he had not reviewed the exam recently and could not confirm.
- **Thul** suggested that while this may be outside the scope of NEC adoption, it could be worth discussing whether such topics should be integrated into future licensing exams.
- **Turek** agreed and acknowledged the value of the suggestion.
- **Chad Kurdi**, a former board member attending the meeting, confirmed via chat that arc flash topics were not currently included in the exam.
- **Hunter** proposed contacting NFPA to request permission to post relevant 70E content as part of the adoption process, noting NFPA's general support for state adoption efforts. If NFPA permission was not granted, linking directly to the appropriate NFPA resources remained a viable alternative.
- **Cost Analysis – Attachment A – Dean Hunter**
 - **Page 1:**
 - **No cost concerns identified.**
 - Focused on **NEC restructuring** and new labeling requirements in **110.16**.
 - Labels must now include **incident energy** and **PPE information**.
 - A simplified approach using **NFPA 70E table values** was proposed for contractors.
 - Turek developed a resource to support this, intended for inclusion in the FAQ.
 - **Page 2:**
 - **No cost concerns identified.**
 - GFCI protection for outdoor electrical equipment remains required after **September 1, 2026**, as the current exception expires.
 - Adoption of the NEC will reflect this change in written code, but the requirement would already be in effect under the 2023 NEC.
 - **Page 3:**
 - **No cost concerns identified.**
 - Emergency disconnect requirement (**230.85**) moved to **230.70** and reclassified as a **service disconnect**.
 - No change in how the state has been interpreting or enforcing this requirement.
 - **Page 4:**
 - **No cost concerns identified.**
 - Minor updates to tables and formatting; no significant technical or financial impact.
 - **Page 5:**
 - **No cost concerns overall.**

- **Cost savings noted:** New allowance for **Romex (NM cable)** in non-residential storage buildings up to **1,500 sq. ft.**, reducing the need for metal wiring methods.
- **Page 6:**
 - **No cost concerns identified.**
 - Code improvements included better formatting in Article 500 and changes in Article 513.
 - Underground installations inside an aircraft hangar are now **unclassified**, aligning with other NEC sections.
- **Page 7:**
 - **No cost concerns identified.**
 - Revisions to Articles 525, 547, 555, and 682 clarified **equipotential plane** requirements.
 - Changes improved clarity and accessibility without increasing restrictions.
- **Page 8:**
 - **No cost concerns overall.**
 - **Key clarification:**
 - ✓ New requirement in **695.7** mandates **5-inch concrete encasement** for **interior** feeder conductors (e.g., fire pump circuits).
 - ✓ **Underground** installations remain exempt under **230.6**.
 - ✓ Change driven by fire safety research showing a 2-inch encasement failed under 2-hour fire conditions.
 - **Hunter** mentioned that a question raised by Randy Klossner regarding NEC 695.7 (fire pump feeder conductor encasement) had come up after the previous Board of Electricity meeting – see **Attachment D**. **Hunter** clarified that the issue was not included in the prior meeting minutes, but he wanted to ensure it was addressed in the current discussion. The concern involved whether the new 5-inch concrete encasement requirement applied to underground installations. **Hunter** confirmed that after further review, the requirement only applies to interior installations, and underground installations remain exempt under NEC 230.6. This clarification was included in the current meeting to ensure Randy's concern was documented and addressed.
 - **Jeff Lebowski** raised a concern about the cost increase from a 2-inch to a 5-inch concrete encasement. **Hunter** responded:
 - ✓ Multiple compliant installation options exist (e.g., 2-hour fire-rated cable).
 - ✓ Engineering exceptions may still allow 2-inch encasement.
 - ✓ Distance and design flexibility (e.g., same-room installations) often reduce the impact.
 - **Turek** added that underground installations are exempt, which is a common method.
 - **Weigel** asked about room rating requirements; **Hunter** confirmed a 2-hour rated room is typically required by building code.
 - **Chad Kurdi** noted that the change may push some projects toward using 2-hour rated cable due to space limitations. Most fire pump installations are underground, so the impact is limited.
 - **Hunter** noted that while the change could increase costs in specific scenarios, design flexibility and existing practices mitigate widespread cost impact.
 - **Hunter** addressed concerns raised by Brandon Nelson, Assistant Training Director at Minnesota Statewide LEA JATC – see **Attachment C** – regarding dropped content during NEC restructuring (e.g., speaker cables in raceways).
 - **Hunter** reviewed the list and consulted Kyle Kruger, task group leader for limited energy restructuring. Kruger advised that:
 - ✓ Issues were due to reorganization, not intentional code changes.
 - ✓ TIAs (Tentative Interim Amendments) were not supported.
 - ✓ Most concerns could be addressed through interpretation.
 - **Hunter** proposed:
 - ✓ Starting a 2026 FAQ to document and clarify these issues.

- ✓ Collaborating with Brandon Nelson to ensure state-specific guidance is developed.
- ✓ **Conclusion:** No cost analysis impact identified; issues will be addressed through FAQ and interpretation.
- **Brandon Nelson** agreed with Hunter's approach and clarified that several provisions were unintentionally omitted during the NEC restructuring. He highlighted a specific safety concern:
 - ✓ The previous version of Article 770 included language about openings around fiber optic penetrations.
 - ✓ The updated code no longer includes this, unless it falls under general limited energy provisions.
- While such penetrations may still be enforceable under building codes (e.g., firestopping), the omission could lead to reduced safety in fiber-only installations. Nelson expressed concern about three years of potentially less-safe buildings before the 2029 NEC corrections are implemented. He is actively drafting proposals to address these issues in the 2029 cycle.
- **Conclusion:** No direct cost analysis impact, but the issue warrants inclusion in the 2026 FAQ to guide safe enforcement in the interim.
- **Page 9:**
 - **No cost concerns identified.**
- **Hunter** concluded that the Committee had completed its review and discussion of the 2026 NEC changes. The next step would be to make a recommendation to the full board for adoption.
- **A motion was made by Weigel, seconded by Thul, to recommend that the full Board of Electricity proceed with the adoption of the 2026 NEC. The roll call vote was unanimous, with 4 votes in favor of the motion; the motion carried.**

6. Announcements

None

7. Adjournment

A motion was made by Thul, seconded by Weigel, to adjourn the meeting at 10:08 a.m. The roll call vote was unanimous, with 4 votes in favor of the motion; the motion carried.

Respectfully Submitted,

Desiree Weigel

Desiree Weigel

Secretary

Summary of Significant 2026 NEC® Changes

Line No.	NEC Code Section	Change Title	Change Summary	Committee Concern		
				Yes	No	CA
1	Global	Preparing the NEC for 2029 Reformatting	In preparation for the reformatting of the 2029 edition, structural changes were implemented during the 2026 code cycle. The proposed 2029 NEC structure will be located in Annex L of the 2026 NEC.			
2	Global	Limited-Energy Summary	The independence of Chapter 8, Communications Systems, has now been removed. Chapter 7 (Art. 720-760) now provides the main installation requirements for all Limited-Energy Systems, including Communications.			
3	90.3	90.3 Code Arrangement	Chapter 5 Specific Occupancies and Locations (previously Special Occupancies). Chapter 6 Specific Equipment (previously Special Equipment). Chapter 7 Specific Conditions and Systems (previously Special Conditions). Chapter 8 Communication Systems – Outside and Entering Buildings (previously just Communication Systems)			
4	110.3(B)	110.3 Examination, Identification, Installation, Use, and Listing (Product Certification) of Equipment, (B) Installation and Use.	A sentence was added to specify that instructions must result in an installation and use that complies with the NEC.			
5	110.16	110.16 Arc-Flash Hazard Marking	The generic warning requirement and reference to 1000 amps were removed. Labels must now include: nominal voltage, arc flash boundary, available incident energy or arc flash boundary, date of assessment.			
6	110.17	110.17 Servicing of Equipment	Title change removes “and maintenance” to reflect NEC’s exclusive scope over installation-related servicing.			
7	110.26	110.26 Spaces About Electrical Equipment	Equipment doors must be considered for potential obstructions to access or egress, ensuring safety; regardless of the door’s position, whether it can be removed, or opens more than 90 degrees.			
8	110.26(C)(2)	110.26 Spaces About Electrical Equipment, (C)(2) Large Equipment.	The requirement was broadened to cover feeder disconnects installed according to 225.33(A). Previously it only applied to service disconnects.			
9	120.7	120.7 Power Control System (PCS).	The energy management system (EMS) has now been renamed Power Control Systems (PCS). Reflects progress in automated systems for managing loads and preventing overloads.			
10	120.130 and 120.140	120 Branch-Circuit, Feeder, and Service Load Calculations. Part VIII and Part IX.	Calculations for RV parks and Mobile and Manufactured Home Parks were relocated to Article 120 - Parts VIII, and IX.			

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11	130.50, 60, 70 and .80	130 Energy Management Systems - Part II, Power Control Systems (PCS)	The New Part II for an Energy Management System used for overload control includes additional requirements for EMS that provide controls necessary to prevent overloading of conductors and equipment through the use of a PCS. The content from Article 750, Special Conditions, concerning the installation and operation of energy management systems was relocated to Article 130 to apply generally.			
12	200.7(A)(9)	200.7 Means of Identifying Grounded Conductors	A new list item 9 was added to allow a single stripe, other than green, for identifying the grounded conductor.			
13	Counter (Countertop)	Article 100 Definitions	The definition of "Countertop" has been revised to include beverage preparation or beverage serving.			
14	Work Surface	Article 100 Definitions	The definition of "Work Surface" was revised to clarify that a work surface is intended for dry use and tasks other than food or beverage preparation or serving.			
15	Ground-Fault Circuit Interrupter, (GFCI), (Class A GFCI)	Article 100 Definitions	Class A was added as an alternate term (NEC Style Manual Section 2.1.2.8) to align with three new defined terms for Class C, D, and E Special Purpose GFCI (SPGFCI).			
16	210.8	210.8 Ground-Fault Circuit-Interrupter Protection for Personnel	New informational note was added to recognize that Class A GFCIs marked HF and HF+ provide an option to address high-frequency ground-fault currents for interoperability concerns.			
17	210.8(F)	210.8 Ground-Fault Circuit-Interrupter Protection for Personnel, (F) Outdoor Outlets	The amperage threshold has been increased from 50 amps to 60 amps for single-phase branch circuits rated 150 volts or less to ground. New Exception No. 3 permits a listed Class C SPGFCI protection for listed HVAC equipment. No expiration date was given.			
18	210.12(E)	210.12 Arc-Fault Circuit-Interrupter Protection, (E) Branch Circuit Wiring Extensions, Modification, or Replacements	A listed OBCAFCI can now be located at the first receptacle outlet or switch of the existing branch circuit.			
19	210.52(A)(2)	210.52 Dwelling Unit Receptacle Outlets, (A) General Provisions.	In Subdivision (A)(2), Wall Space, list item (1) was revised to exclude any fixed cabinet from a wall space measurement. Previously, only fixed cabinets without countertops or similar work surfaces were excluded.			
20	210.52(A)(5)	210.52 Dwelling Unit Receptacle Outlets, (A) General Provisions.	Subdivision (A)(5), Receptacle Outlet Locations Prohibited, permits receptacle outlets to be installed on walls of cabinets supporting a countertop or work surface, provided the receptacle outlets are not installed less than 24 inches beneath the countertop.			
21	210.52(C)(4)	210.52 Dwelling Unit Receptacle Outlets, (C) Countertops and Work Surfaces.	Section 210.52(C)(4) is new and addresses the locations that are prohibited for receptacle outlets.			

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22	210.63	210.63 Equipment Requiring Servicing, (B) Other Electrical Equipment.	The requirement that the receptacle not be located on the load side of the disconnecting means was removed to address a conflict when the disconnect was located in a separate structure or building.			
23	210.70(A)(1)	210.70 Lighting Outlets Required, (A) Dwelling Units, (1) Habitable Rooms, Kitchens, Laundry Rooms, and Bathrooms.	Exception 3 was added to permit the lighting outlet to be located outside a laundry area in order to adequately illuminate the area where a closet houses the laundry equipment.			
24	225.31(A)	225.31 Disconnecting Means, (A) General.	The changes clarify that a single disconnect can meet the requirements of both 225.31 and 225.41.			
25	225.31(B)	225.31 Disconnecting Means, (B) Location.	Text was added to specify that when the disconnecting means is located outside the building, it must be placed in a readily accessible location on or within sight of the building, as required by 110.29. If the disconnect is within sight and not on the building, the next disconnect or distribution equipment could be anywhere inside the structure.			
26	230.46	230.46 Spliced and Tapped Conductors	A new informational note states that an industry identification marking "SVC" is considered equivalent to "suitable for use on the line side of service equipment."			
27	230.68	230.68 Meter Sockets	A new exception was added for meter sockets in fire pump applications to only be sized to the circuit ampere rating and not the current rating of the fire pump service.			
28	230.70(A)(1)	230.70(A) Service Disconnect Location	Section 230.70(A)(1), One- and Two-Family Dwellings, requires that the service disconnecting means be installed in a readily accessible outdoor location either on the dwelling unit or within sight.			
29	230.70(D)	230.70(D) Identification of Other Source Disconnects	Previously, this applied only to emergency disconnects. Now, all sources not located at the service disconnect must be listed on a plaque or directory to show their location.			
30	230.82	230.82 Equipment Connected to the Supply Side of the Service Disconnect	The list was reorganized into a more logical order by grouping similar items together. Some list items are equipment, while others are systems.			
31	240.24(E)	240.24 Location in or on Premises, (E) Not Located in Bathrooms.	An exception was added to clarify that it is permissible to add OCPDs to an existing panelboard in a bathroom, provided the panelboard was installed in compliance with previous editions of the NEC.			
32	250.53(A)(4)	250.53(A)(4) Rod and Pipe Electrodes	The section has been revised to specify that a rod or pipe electrode should initially be driven vertically to a depth of 8 feet.			
33	250.64(C)	250.64 Grounding Electrode Conductor Installation, (C) Continuous.	The requirement has been revised to allow the splicing of grounding electrode conductors with listed grounding and bonding equipment.			
34	250.64(E)(1)	250.64(E)(1) Raceways, Cable Armor, and Enclosures for Grounding Electrode Conductors	Cable armor has been added to clarify that the bonding requirement for ferrous cable armor applies to both ends of the armor.			

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35	250.64(G)	250.64 Grounding Electrode Conductor Installation, (G) Enclosures with Ventilation, Mounting, or Drainage Openings.	Mounting and drainage openings are not intended for the installation of a grounding electrode conductor.			
36	250.102(A)	250.102 Grounded Conductor, Bonding Conductors, and Jumpers, (A) Material.	Non-flexible metal raceway and fittings were added as a permissible bonding jumper type to coordinate with 250.30(A)(2).			
37	265.19(B)	265.19 Conductors – Minimum Ampacity and Size, (B) Supervised Installations.	Conductor sizing for supervised installations shall be permitted to be determined by qualified persons under engineering supervision. This wording is similar to the wording in 266.4(C), 267.39(C), 268.23 (C), 268.31, 268.42, 270.5.			
38	300.4(C)	300.4(C) Damaged Conductors and Wiring Methods	Text has been added to require that conductors and wiring methods that are no longer “suitable for use” must be replaced. Damaged cables could include cables that have been exposed to overheating, fire, water, or subjected to corrosive influences.			
39	300.6(C)	300.6 Protection Against Physical Damage, (E) Wiring Methods and Materials in or Under Roof Decking.	Removed the specific reference to “metal-corrugated” roof decking, the minimum spacing requirements now apply to all roof decking, and all wiring methods. A new exception was added for wiring methods and materials encased in at least 2 inches of concrete in concealed locations.			
40	300.7(D)(3)	300.7 Underground Installations, (D) Protection from Damage.	The new revision states that a warning ribbon must be placed over underground service raceways as well as direct buried service conductors.			
41	300.11(B)	300.11 Raceways in Wet Locations Above Grade, (B) Drainage.	Revisions have been added to specify that raceways installed in indoor wet locations must include drainage.			
42	300.13(E)	300.13 Securing and Supporting, (E) Securing and Supporting	A new subdivision and informational note in 300.13(E) were added to utilize this new term and are essential for the proper installation of cable ties. Cable ties and cable tie fixing devices must be listed and identified for securement and support purposes.			
43	300.24	300.24 Bends	This new section clarifies that the 360-degree bend limitation between pull points applies even if you transition to another type of raceway.			
44	310.5	310.5 Conductors, (A) Minimum Size of Conductors.	The minimum sizes of the conductor ratings are now 16 AWG copper, 14 AWG copper-clad aluminum, or 12 AWG aluminum.			
45	310.15(E)	310.15 Ampacity Tables, (E) Neutral Conductor.	A new list format will clearly identify when a neutral is considered as a current-carrying conductor as opposed to a non-current-carrying conductor.			
46	330.30	Type MC cable, 330.30 Securing and Supporting	Cable cleats were added as an approved method for supporting or securing Type MC cable.			

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47	334.10(3)	Type NM cable, 334.10(3) Uses Permitted	An exception has been added to permit nonhabitable grade-level storage garages and storage buildings less than 1500 square feet to use NM cable without the 15-minute thermal barrier.			
48	342.19	IMC, 342.29 Paired Locknuts	The requirement now states that locknuts must be installed on both the inside and outside of the enclosure.			
49	392.18	392.18 Cable Tray Installation, (F) Access	This revision adds a requirement for a minimum access space of 12 inches above a cable tray. There are 4 conditions that are new exceptions to forgo the requirement.			
50	404.1	404 Switches, Scope.	The requirements for wiring device type switches (e.g., single pole, 3-way, 4-way snap switches) have been moved to Article 406.			
51	406.1	406 Wiring Devices, Part III	The article was expanded and restructured to include the requirements for wiring device-type switches, as formally found in Article 404.			
52	406.12(D)(3)	406.12(D)(3) Ground-Fault Circuit-Interrupter Protection	This revision will allow the installer to consider other options when applying the exception to forgo providing GFCI protection:			
53	406.4(G)	406.14(G) Receptacle Orientation	A new List Item 3 was added to exclude receptacles from being mounted in the face-up position in laundry areas.			
54	406.26(11)	406.26 Tamper-Resistant Receptacles	The requirements for listed tamper-resistant receptacles have been expanded to include a new List Item (11) Park and recreation areas.			
55	408.10(F)	408.10(F) Switchboard, Switchgear, or Panelboard Identification	A requirement was added to locate caution signs and labels in a readily accessible location on the front of the enclosure.			
56	422.12	422.12 Central Heating Equipment	Exception No. 2 was added to permit the servicing receptacles required by 210.63(A) and the lighting outlets for areas where equipment will be serviced required by 210.70(C) to be supplied from the circuit supplying the equipment.			
57	426, Part VI	426 Fixed Outdoor Electric Deicing and Snow-Melting Equipment, Part VI Conductive Pavement Heating System.	Part VI was added to specify the requirements for conductive pavement heating systems.			
58	430	430 Motors, Motor Circuits, and Controllers	BE and CE motors have been included throughout Article 430 due to their energy-efficient design. The motors, typically, have higher locked rotor currents.			
59	430.98(A)	430.98(A) Motor Control Centers	The section clarifies that an MCC supplied by a feeder must be marked with the location of the means necessary to disconnect all power to the MCC.			
60	440.11	440.11 General, Disconnecting means.	The revision requires doors or covers that expose energized parts to be locked or require a tool to be opened.			

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Line No.	NEC Code Section	Change Title	Change Summary	Committee Concern		
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61	440.15	440.15 Split-System Disconnect Identification	A new section was created for marking requirements to identify the location of all indoor units supplied by the exterior disconnect of a split-system HVAC system in other than one- and two-family dwellings.			
62	480.1	480 Stationary Batteries	Informational Note 1 clarifies that Article 480 will apply to all stationary battery installations that are not listed energy storage systems.			
63	480.14	480.14 Overcharge Control	Addresses risks of fire, thermal runaway, and equipment failure. New requirement mandates overcharge prevention provisions for all stationary battery systems.			
64	495.2	495 Equipment Over 1000 Volts ac, 1500 Volts dc, Nominal, Listing Requirements.	The listing requirement for equipment rated up to 15,000 volts will take effect on January 1, 2029. The listing requirement for equipment operating over 15,000 volts up to 52,000 volts will take effect on January 1, 2032.			
65	500.8(G)	500.8(G) Equipment Involving Optical Radiation	Specifies that the requirements apply to optical equipment located outside the hazardous (classified) location when the optical radiation extends into a hazardous (classified) location.			
66	Table 501.10(A)(1) & (B)(1)	501.10(A)(1) & (B)(1) Class I, Divisions 1 and 2 Locations	Tables were added to consolidate the wiring methods permitted for use in Class I, Division 1 and 2 Locations. There are six additional wiring methods, including: Type MC-HL cable, Type ITC-HL cable, Type TC-ER-HL cable, Type P cable, RMC, and PVC conduit.			
67	501.130(C)	501.130 Wiring Methods, (C) Luminaire Retrofit Kits.	The revision adds requirements for luminaire retrofit kits in hazardous locations. This equipment existed but was not explicitly specified in the NEC.			
68	512.6	512.6 Prohibited locations	Added locations where cannabis extraction is prohibited by adding text from NFPA 1, Section 8.6.1.1.3.			
69	513.8	513.8 Underground Wiring	Revised text removes the requirement to classify underground installations at aircraft hangars as Class I, Division 1. This change aligns with the requirements in Section 514.8 regarding underground wiring at motor fuel dispensing facilities.			
70	514.11(A)	514.11(A) Emergency Electrical Disconnects	Revised text to update extracted language from NFPA 30A 6.7.4. The clarification added text to include receptacles over or adjacent to motor fuel dispensing devices in hazardous classified locations.			
71	517.4	517.4 Electrical Service	This new section provides the ability for microgrids to act as a source on either side of the transfer switch. Subdivision (B), Capacity of Systems, states that system capacity can be determined by the actual demand of the connected load.			

NEC 2026 Adoption Review Committee

Line No.	NEC Code Section	Change Title	Change Summary	Committee Concern		
				Yes	No	CA
72	517.20(A)	517.20 Wet Procedure Locations, (A) Receptacles and Fixed Equipment.	New requirements have been added for GFCI protection in operating rooms. If installed, it must be one of the following: 1. An individual receptacle-type GFCI device. 2. A receptacle individually protected by a single GFCI device — a separate GFCI device protecting each receptacle.			
73	517.26	517.26 Application of Other Articles	The references to the Article 700 exclusions have been removed.			
74	517.42(F)	517.42 Essential Electrical Systems, (F) Coordination.	New subsection (F) requires the coordination of OCPDs for Type 2 essential electrical systems.			
75	525	525 Carnivals, Circuses, Fairs, and Similar Events	Article 525 was restructured and revised for clarity, including specific references for portable and vehicle- and trailer-mounted generators, and separating the disconnecting means requirements for moving and nonmoving equipment.			
76	525.31	525.31 Equipment Grounding	The exception would allow the use of portable 'inverter' generators that are manufactured with no grounded conductor connection to the generator frame.			
77	545.22	545.22 Power Supply, (D) Grounding.	The reference to Article 250 Part III was removed because a relocatable structure is supplied by a feeder and does not require an additional grounding electrode system.			
78	547.44(C)	547.44(C) Equipotential Plane Construction	Text was added to include the requirements for the construction of the equipotential plane. In past editions of the NEC®, there was no specific language as to how to install and construct the equipotential plane.			
79	550.51(A)	550.51 Service Equipment, (A) Mobile Home Service Equipment.	Revisions were made to point to the general requirements for a service disconnect found in Article 230.			
80	550.51(F)	550.51 Service Equipment, (E) Replacement Home.	Where the existing service equipment is reconnected to a replacement mobile or manufactured home, the installer must provide a surge protective device in compliance with 230.67.			
81	555.9	555.9 Engineered Design	New language permits an AHJ to request an engineered design for a pier distribution system.			
82	555.14	555.14 Equipotential Planes and Bonding of Equipotential Planes.	Additional text provides details on how the equipotential plane is to be constructed and bonded to the electrical system when the system voltages exceed 250 volts to ground, and the equipment is located within 10 feet of the water.			
83	555.15	555.15 Servicing and Replacing of Equipment	Revised the language to align with the definition for "servicing." (A) Servicing. Equipment can be serviced to the edition of the Code to which it was installed. (B) Replacing. If replacing equipment, it must comply with the current adopted Code. Additionally, the circuit must be inspected, and any issues found must be addressed as required in Section 555.15(A).			

NEC 2026 Adoption Review Committee

Line No.	NEC Code Section	Change Title	Change Summary	Committee Concern		
				Yes	No	CA
84	555.35(B)	555.35 GFPE and GFCI Protection, (B) Fire Pump Circuits.	Section 555.35(B) was added to address the GFPE monitoring for a fire pump.			
85	555.35(F)	555.35 GFPE and GFCI Protection, (F) Coordination and Performance Testing.	Requirements were added to mandate that GFPE protection systems be coordinated and undergo performance testing using an approved method. A written record of this testing is to be made available to the authority having jurisdiction.			
86	620.62(B) & (C)	620.62 Selective Coordination, (B) Replacements & (C) Modifications.	Requirements were added to re-evaluate selective coordination when overcurrent protection is replaced or if there are modifications, additions, or deletions to the existing elevator system.			
87	624	Article 624 Electric Self-Propelled Vehicle Power Transfer Systems (ESVSEs)	This new article addresses new technology regarding electric vehicles that do not meet the definition of "Electric Vehicle" in Article 100.			
88	625.42	625.42 Rating, (A) Power Control System and (B) EVSE with Adjustable Controls.	The requirement was clarified to state that the service, feeder, and branch circuit supplying the EVSE must have a sufficient rating to supply the load served.			
89	625.44	625.44 Equipment Connection	Text was added to require the attachment plug for cord- and plug-connected equipment to be listed for "EV".			
90	625.54	625.54 GFCI and SPGFCI Protection	Requirements were added for permanently wired equipment. The title and new requirements recognize SPGFCI protection.			
91	680.22(B)(1)	680.22(B)(1) Outdoor Clearances	Festoon lighting is now subject to the minimum height requirements above a pool, including the area surrounding the pool.			
92	680.26(B)(2)	680.26(B)(2) Perimeter Surfaces	Expands the requirement to provide GFCI protectionThe height requirement from the perimeter surface was increased from 2 ft to 3 ft below maximum water level.			
93	682.33(A)	682.33(A) Equipotential Plane Construction and Bonding	Equipotential planes for systems over 250 volts to ground and located within 10 feet of the water must encompass the area around outdoor service equipment and/or the disconnecting means and must extend at least 36 inches in all directions from the equipment, covering areas where a person could stand and touch the equipment.			
94	690.7(A)	690.7(A) PV Source Circuits	References were added to clarify this section is specific to only dc voltages. The 100kW inverter generating capacity threshold was removed allowing engineering calculation to be used on any size PV system.			
95	690.47	690.47 Grounding Electrode System	Language from Article 250, Grounding and Bonding, with regard to additional grounding electrodes has been removed from Subdivision (B).			
96	695.7(A)(2)	695.7(A)(2) Feeder Supply Conductors	The existing 2" concrete encasement requirement was revised to also require it to provide a 2-hour fire rating that is documented by a PE. A new option for 5" of concrete encasement is permitted, with the measurement being taken from the surface of the raceway or cable.			

NEC 2026 Adoption Review Committee

Line No.	NEC Code Section	Change Title	Change Summary	Committee Concern		
				Yes	No	CA
97	700.6(C)	700.6(C) Bypass and Isolation of Transfer Equipment	The list of exceptions has been removed, and the requirement now applies to assembly occupancies, educational occupancies, and high-rise buildings. Applies to installations where the emergency loads are supplied by a single feeder.			
98	700.10(D)(2)(5)	700.10(D)(2)(5) Feeder-Circuit Wiring	The existing 2" concrete encasement requirement was revised to also require it to provide a 2-hour fire rating that is documented by a PE. A new option for 5" of concrete encasement is permitted, with the measurement being taken from the surface of the raceway or cable.			
99	700.28	700.28 Class 4 Powered Emergency Lighting Systems	Class 4 Fault-Managed Power (FMP) is allowed if listed for emergency use and integrated into an emergency lighting system.			
100	702.4(A)(2)(b)	702.4 Capacity and Rating, System Capacity, Automatic Load Connection, EMS.	This revision recognizes that traditional EMS may shed load during standby power, while PCS systems will manage load and sources based on the control settings.			
101	702.4(A)(3)	702.4 Capacity and Rating, Multimode Inverter-Based Systems in One- and Two-Family Dwellings.	This revision provides a third option for listed multi-mode inverter-based systems that are nominally grid-interactive but can be capable of transitioning to standby operation.			
102	705.11(C)(1)(2) & (3)	705.11 Source Connections to a Service, Power Source Connections in Buildings.	The length of the service tap conductors is limited to 16.5' or 66' with cable limiters. Supply-side connection is to existing service equipment			
103	Cable, Limited-Energy	Article 100 Definition	Created to provide a comprehensive term that clearly defines all cable types qualifying as limited-energy cables.			
104	Limited-Energy System	Article 100 Definition	This definition was revised to provide clarity and incorporate specific terminology from various limited-energy product standards. A limited-energy system is capable of limiting or shutting down the power source, preventing deviations above normal operating limits. This mitigates hazards related to electrical shock and fire.			
105	800	800 General Requirements for Communications Systems Outside and Entering Buildings.	Chapter 8 is no longer independent due to the revisions of 90.3. Now, Article 800 only covers the requirements for communications system wires and cables located outside of and entering buildings.			
106	Chapter 9 Annex L	Annex L, Proposed Organization of the 2029 National Electrical Code.	In preparation for the reformatting of the 2029 edition, structural changes were implemented during the 2026 code cycle.			

Attachment B

110.16



2026 NEC

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THE CHANGE



110.16 Arc-Flash Hazard Marking.

In other than dwelling units, a permanent arc flash marking shall be field or factory applied to service equipment and feeder-supplied equipment, such as switchboards, switchgear, enclosed panelboards, industrial control panels, meter socket enclosures, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized. The marking shall comply with [110.21\(B\)](#), be located so as to be clearly visible to qualified persons, and be in accordance with applicable industry practice, containing the following information:

- (1) The nominal system voltage
- (2) The arc flash boundary
- (3) The available incident energy or minimum required level of personal protective equipment
- (4) The date the assessment was completed

Informational Note No. 1: See ANSI Z535.4-2011 (R2017), *Product Safety Signs and Labels*, for guidelines for the design of safety signs and labels for application to products.

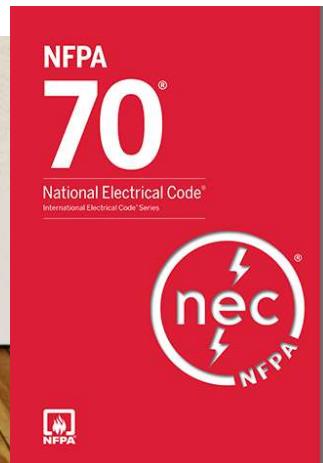
Informational Note No. 2: See NFPA 70E, *Standard for Electrical Safety in the Workplace*, for applicable industry practices for equipment marking. This standard provides specific criteria for developing arc-flash labels for equipment that provides nominal system voltage, incident energy levels, arc-flash boundaries, minimum required levels of personal protective equipment, and so forth.

(B) Service Equipment.

In other than dwelling units, in addition to the requirements in [110.16\(A\)](#), a permanent label shall be field or factory applied to service equipment rated 1200 amps or more. The label shall meet the requirements of [110.21\(B\)](#) and contain the following information:

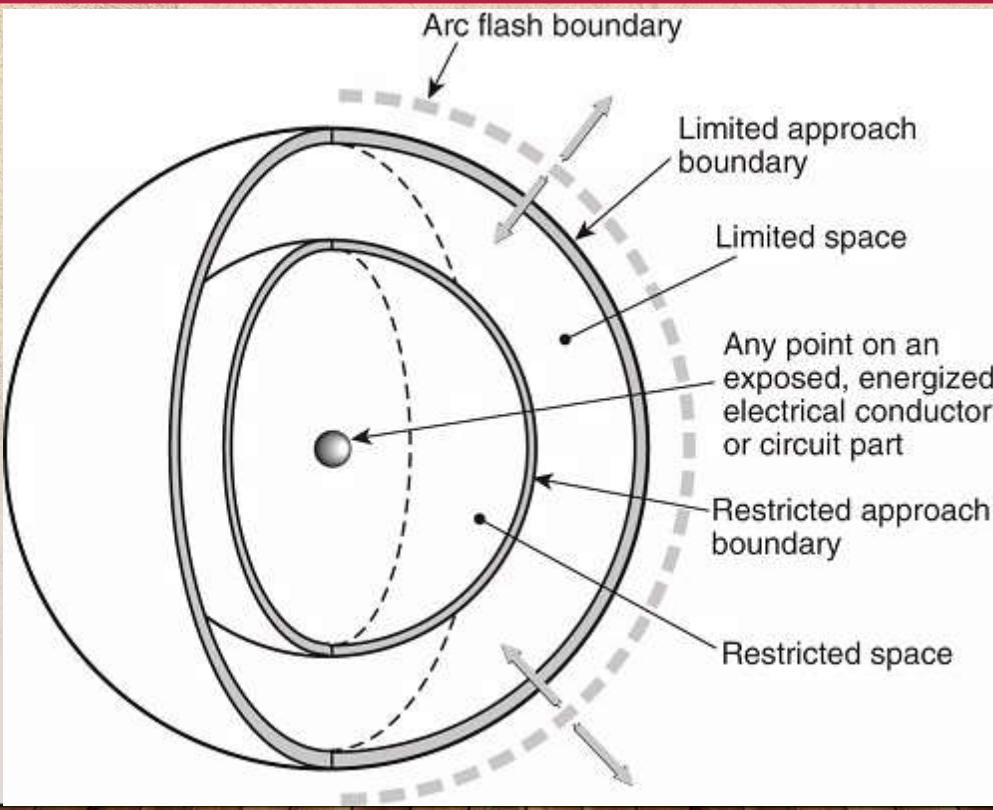
- (1) Nominal system voltage
- (2) Available fault current at the service overcurrent protective devices
- (3) The clearing time of service overcurrent protective devices based on the available fault current at the service equipment
- (4) The date the label was applied

Exception: Service equipment labeling shall not be required if an arc flash label is applied in accordance with acceptable industry





ANNEX C BOUNDARIES



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THE WHY | 30.5(C)



Table 130.5(C) Estimate of the Likelihood of
Occurrence of an Arc Flash Incident for ac and dc
Systems

Task	Operating Condition ^a	Likelihood of Occurrence ^b
For ac systems, work on energized electrical conductors and circuit parts, including electrical testing.	Any	Yes
Operation of a CB or switch the first time after installation or completion of maintenance in the equipment.		
For dc systems, working on energized electrical conductors and circuit parts of series-connected battery cells, including electrical testing.		
Removal or installation of CBs or switches.		
Opening hinged door(s) or cover(s) or removal of bolted covers (to expose bare, energized electrical conductors and circuit parts). For dc systems, this includes bolted covers, such as battery terminal covers.		
Application of temporary protective grounding equipment, after voltage test.		
Working on control circuits with exposed energized electrical conductors and circuit parts, greater than 120 volts.		
Insertion or removal of individual starter buckets from motor control center (MCC).		
Insertion or removal (racking) of circuit breakers (CBs) or starters from cubicles, doors open or closed.		
Insertion or removal of plug-in devices into or from busways.		
Examination of insulated cable with manipulation of cable.		
Working on exposed energized electrical conductors and circuit parts of equipment directly supplied by a panelboard or motor control center.		
Insertion or removal of revenue meters (kW-hour, at primary voltage and current).		



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TWO METHODS



- 130.5 Arc Flash Risk Assessment
 - Incident Energy Analysis Method
 - Arc Flash PPE Category Method



130.5(H)



(H) Equipment Labeling.

Electrical equipment such as switchboards, panelboards, industrial control panels, meter socket enclosures, and motor control centers that are in other than dwelling units and that are likely to require examination, adjustment, servicing, or maintenance while energized shall be marked with a label containing all the following information:

- (1) Nominal system voltage
- (2) Arc flash boundary
- (3) At least one of the following:
 - a. Available incident energy and the corresponding working distance, or the arc flash PPE category in [Table 130.7\(C\)\(15\)\(a\)](#) or [Table 130.7\(C\)\(15\)\(b\)](#) for the equipment, but not both
 - b. Minimum arc rating of clothing
 - c. Site-specific level of PPE

Exception No. 1: Unless changes in electrical distribution system(s) render the label inaccurate, labels applied prior to the effective date of this edition of the standard shall be acceptable if they complied with the requirements for equipment labeling in the standard in effect at the time the labels were applied.

Exception No. 2: In supervised industrial installations where conditions of maintenance and engineering supervision ensure that only qualified persons monitor and service the system, the information required in [130.5\(H\)\(1\)](#) through [130.5\(H\)\(3\)](#) shall be permitted to be documented in a manner that is readily available to persons likely to perform examination, servicing, maintenance, and operation of the equipment while energized.

The method of calculating and the data to support the information for the label shall be documented. The data shall be reviewed for accuracy at intervals not to exceed 5 years. Where the review of the data identifies a change that renders the label inaccurate, the label shall be updated.

The label shall be of sufficient durability to withstand the environment involved.

The owner of the electrical equipment shall be responsible for the documentation, installation, and maintenance of the marked label.

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2024

TABLE 130.7(C)(15)(A)



Table 130.7(C)(15)(a) Arc Flash PPE Categories for Alternating Current (ac) Systems

Equipment	Arc Flash PPE Category	Arc Flash Boundary
Panelboards or other equipment rated 240 volts and below Parameters: Maximum of 25 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in.)	1	485 mm (19 in.)
Panelboards or other equipment rated greater than 240 volts and up to 600 volts Parameters: Maximum of 25 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in.)	2	900 mm (3 ft)
600-volt class motor control centers (MCCs) Parameters: Maximum of 65 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in.)	2	1.5 m (5 ft)
600-volt class motor control centers (MCCs) Parameters: Maximum of 42 kA available fault current; maximum of 0.33 sec (20 cycles) fault clearing time; minimum working distance 455 mm (18 in.)	4	4.3 m (14 ft)
600-volt class switchgear (with power circuit breakers or fused switches) and 600-volt class switchboards Parameters: Maximum of 35 kA available fault current; maximum of up to 0.5 sec (30 cycles) fault clearing time; minimum working distance 455 mm (18 in.)	4	6 m (20 ft)
Other 600-volt class (277 volts through 600 volts, nominal) equipment Parameters: Maximum of 65 kA available fault current; maximum of 0.03 sec (2 cycles) fault clearing time; minimum working distance 455 mm (18 in.)	2	1.5 m (5 ft)

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NOTES TO TABLE 130.7(C)(15)(A)



N/A: Not applicable

Note:

For equipment rated 600 volts and below and protected by upstream current-limiting fuses or current-limiting molded case circuit breakers sized at 200 amperes or less, the arc flash PPE category can be reduced by one number but not below arc flash PPE category 1.

*For DOORS OPEN refer to the corresponding non-arc-resistant equipment section of this table.

Informational Note No. 1 to Table 130.7(C)(15)(a): The following are typical fault clearing times of overcurrent protective devices:

- (1) 0.5 cycle fault clearing time is typical for current-limiting fuses and current-limiting molded case circuit breakers when the fault current is within the current limiting range.
- (2) 1.5 cycle fault clearing time is typical for molded case circuit breakers rated less than 1000 volts with an instantaneous integral trip.
- (3) 3.0 cycle fault clearing time is typical for insulated case circuit breakers rated less than 1000 volts with an instantaneous integral trip or relay operated trip.
- (4) 5.0 cycle fault clearing time is typical for relay operated circuit breakers rated 1 kV to 35 kV when the relay operates in the instantaneous range (i.e., "no intentional delay").
- (5) 20 cycle fault clearing time is typical for low-voltage power and insulated case circuit breakers with a short time fault clearing delay for motor inrush.
- (6) 30 cycle fault clearing time is typical for low-voltage power and insulated case circuit breakers with a short time fault clearing delay without instantaneous trip.

Informational Note No. 2 to Table 130.7(C)(15)(a): See Table 1 of IEEE 1584, *Guide for Performing Arc Flash Hazard Calculations*, for further information regarding list items (2) through (4) in Informational Note No. 1.

Informational Note No. 3 to Table 130.7(C)(15)(a): See IEEE C37.20.7, *Guide for Testing Switchgear Rated Up to 52 kV for Internal Arcing Faults*, for an example of a standard that provides information for arc-resistant equipment referred to in Table 130.7(C)(15)(a).

Informational Note No. 4 to Table 130.7(C)(15)(a): See Informative Annex O.2.4(9) for information on arc-resistant equipment.



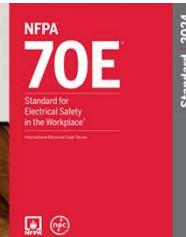
TABLE 130.7(C)(15)(C)



Unpin Header

Table 130.7(C)(15)(c) Personal Protective Equipment (PPE)

Arc-Flash PPE Category	PPE
1	<p>Arc-Rated Clothing, Minimum Arc Rating of 4 cal/cm² (16.75 J/cm²)^a</p> <p>Arc-rated long-sleeve shirt and pants or arc-rated coverall</p> <p>Arc-rated face shield^b or arc flash suit hood</p> <p>Arc-rated jacket, parka, high-visibility apparel, rainwear, or hard hat liner (AN)^f</p> <p>Protective Equipment</p> <p>Hard hat</p> <p>Safety glasses or safety goggles (SR)</p> <p>Hearing protection (ear canal inserts)^c</p> <p>Heavy-duty leather gloves, arc-rated gloves, or rubber insulating gloves with protectors (SR)^d</p> <p>Leather footwear^e (AN)</p>
2	<p>Arc-Rated Clothing, Minimum Arc Rating of 8 cal/cm² (33.5 J/cm²)^a</p> <p>Arc-rated long-sleeve shirt and pants or arc-rated coverall</p> <p>Arc-rated flash suit hood or arc-rated face shield^b and arc-rated balaclava</p>



QUESTIONS?



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Attachment C

Logan, Lyndy (DLI)

From: Hunter, Dean (DLI)
Sent: Tuesday, October 28, 2025 8:05 AM
To: Logan, Lyndy (DLI)
Subject: FW: Issues to be addressed by the NEC 2026 Adoption Committee

FYI- Dean

From: Brandon Nelson <bnelson@statewidelea.org>
Sent: Monday, October 27, 2025 3:26 PM
To: ELECTRICITY, DLI (DLI) <dli.electricity@state.mn.us>
Cc: Dave Dressler <ddressler@statewidelea.org>
Subject: Issues to be addressed by the NEC 2026 Adoption Committee

You don't often get email from bnelson@statewidelea.org. [Learn why this is important](#)

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To the NEC 2026 Adoption Review Committee,

I am writing on behalf of the Minnesota Statewide Limited Energy JATC regarding the adoption of the 2026 National Electric Code (NEC) by our state. As we do every NEC cycle we have performed our own analysis of changes. As a part of that process, we discovered several issues that cause us to be concerned about certain aspects of this edition. While some of the issues that we flagged are addressed by the *Summary of Significant NEC Changes* that will be reviewed by the Adoption Review Committee, many of our most concerning issues were not present in that document. With that having been stated, we would ask the Adoption Committee to please review the following changes to the 2026 NEC:

720.6 (D) – This subdivision says that if screws may penetrate to use a protection method in 720.6, but what protection method is required? 720.6 is the entire protection section.

720.6(J) – Multiple issues exist here, this was 725.31 in the 2020 and 2023 NECs. The first issue actually goes back to the last version when the circuit reclassification went away. That reclassification allowed Technology Contractors to do the work, but we cannot find a record of whether or not the Board considered the implications of that change at that time. Now in the 2026, the requirement has been further weakened by the removal of the Class 1 wiring (724.31) methods which specified the acceptable raceway types. The requirement now just requires those cables to be “protected from physical damage.” Without further guidance, the average contractor is likely to interpret this incorrectly.

720.21 – There used to be multiple separate versions of this for a reason. The current version for all Limited Energy cabling covers all “openings around electrical penetrations.” 770.26 used to give the requirement for “penetrations of optical fiber cables” as well. A strict reading of the 2026 version would allow no firestopping if the penetration only contains fiber optic cabling.

720.22 – Nonconductive Optical Fiber cables (OFN) would no longer be allowed in dust / loose stock / or vapor removal ducts. While not a decrease in safety, this is a new burden that must at least be considered by the Board as an increased cost.

722.13 – Speaker cables in the same raceway with other types of CL2/CL3 circuits has always been a heating, shock hazard, and induction issue. That is why speaker cables have not been allowed in the same raceway or cable as other CL2/CL3 circuits for a very long time (2023 NEC 725.139(F) as an example). That restriction no longer exists for any Limited Energy system except for PLFA (722.13(F)(6) 2026 NEC). However, even the PLFA version incorrectly cites the allowance for using CL2/CL3 wiring methods in 722.136; the problem with that citation is the fact that the subject of section 722.136 is low-power network-powered broadband cables and not audio cables.

723.40 – The 2023 NEC required that Article 392 Pats I & II (722.3 (E) 2023 NEC as an example) needed to be followed for cable trays for most Limited Energy systems, but this new section makes no such reference. As such, there are more questions than answers as to the installation methodologies.

Cables and conductors in a wet location issues:

1. There is a blanket exemption for all communications cables, coax, and fiber regardless of circuit type in 720.5 (A). This appears to be an error as the remainder of those types of exceptions only apply to “*unlisted* outside plant limited-energy” items.
2. 720.11 has an equally problematic exception for that includes all of the cables in the last point and also NPBLP cable. This should also point to 722.2(B) for the cable, but it points to 310.010(C); which is not necessarily problematic but it is the wrong item nonetheless.

These exceptions will make the installations of these cables inherently less reliable and ultimately less safe.

We would ask the NEC 2026 Adoption Review Committee to consider these changes at the October 28th meeting in addition to the changes already being considered. We thank you for this opportunity to give our input during this important process.

Sincerely,



Brandon Nelson RCDD
Assistant Training Director
Minnesota Statewide LEA JATC

Main: 763.571.5922
Direct: 763.296.9823
Mobile : 612.590.5868

452 Northco Drive
Suite 140
Fridley, MN 55432

www.statewidelea.org

Attachment D

Logan, Lyndy (DLI)

From: Hunter, Dean (DLI)
Sent: Tuesday, October 28, 2025 8:30 AM
To: Logan, Lyndy (DLI)
Subject: FW: Section 695.7 language

FYI- Dean

From: Randy Klossner <randy.klossner@ci.stpaul.mn.us>
Sent: Friday, October 17, 2025 12:04 PM
To: Hunter, Dean (DLI) <dean.hunter@state.mn.us>; Trevor Turek <turek@mplsjatc.org>
Cc: Hunter, Mark (DLI) <mark.hunter@state.mn.us>
Subject: RE: Section 695.7 language

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Thanks, Dean,

That all makes sense to me. I appreciate you digging in to it.



SAINT PAUL
MINNESOTA

Randy Klossner
Senior Electrical Inspector
Department of Safety and Inspections
375 Jackson Street, Suite 220
Saint Paul, MN 55101
P: 651-266-9032
randy.klossner@ci.stpaul.mn.us
www.stpaul.gov/dsi



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From: Hunter, Dean (DLI) <dean.hunter@state.mn.us>
Sent: Thursday, October 16, 2025 2:47 PM
To: Randy Klossner <randy.klossner@ci.stpaul.mn.us>; Trevor Turek <turek@mplsjatc.org>
Cc: Hunter, Mark (DLI) <mark.hunter@state.mn.us>

Subject: Re: Section 695.7 language

Importance: High

Think Before You Click: This email originated outside our organization.

Hello Randy, and Trevor,

I wanted to circle back after reviewing the language in Section 695.7 regarding fire pump supply conductors.

Here's how I interpret the requirement: If you're in agreement with this position, I'd like to propose clarifying the revision at our next meeting.

First off, Randy — thank you for raising the question!

The 2-inch encasement with engineering approval, or the 5-inch encasement, applies only to fire pump conductors routed through the building. Upon closer review of the code language, encasement is not required for cables and raceways considered outside the building. Therefore, if the conductors are installed below a 2-inch slab, they are still classified as outside the building and would be permitted.

The Code-Making Panel (CMP) removed the reference to 230.6 from section (A)(1) because it was redundant; that provision already applies generally. The second sentence of (A)(1) clearly states:

"Where supply conductors cannot be physically routed outside of buildings, the conductors shall be permitted to be routed through the building(s) where installed in accordance with 695.7(A)(2)(d)(1) or 695.7(A)(2)(d)(2)."

This is where the 2-inch and 5-inch encasement requirements are specified.

Sorry- I didn't have the question off the top of my head – I didn't mean to create any confusion. 😊

695.7 Power Wiring.

Power circuits and wiring methods shall comply with the requirements in 695.7(A) through 695.7(J), and as permitted in 230.90(A) Exception No. 4; 230.94 Exception No. 4; 240.13; 268.91; 240.4(A); and 430.31.

(A) Supply Conductors.

(1) Services and On-Site Power Production Facilities.

Service conductors and conductors supplied by on-site power production facilities shall be physically routed outside a building(s) and shall be installed as service-entrance conductors in accordance with 230.9 and Article 230 Parts III and IV. Where supply conductors cannot be physically routed outside of buildings, the conductors shall be permitted to be routed through the building(s) where installed in accordance with 695.7(A)(2)(d)(1) or 695.7(A)(2)(d)(2).

Exception: The supply conductors within the fire pump room shall not be required to meet 695.7(A)(2).

(2) Feeders.

Fire pump supply conductors on the load side of the final disconnecting means and overcurrent device(s) permitted by 695.5(B) or conductors that connect directly to an on-site standby generator shall comply with 695.7(A)(2)(a) through 695.7(A)(2)(d).

- a. *Independent Routing.* The conductors shall be kept entirely independent of all other wiring.
- b. *Associated Fire Pump Loads.* The conductors shall supply only loads that are directly associated with the fire pump system.

- c. *Protection from Potential Damage.* The conductors shall be protected from potential damage by fire, structural failure, or operational accident.
- d. *Inside of a Building.* Where routed through a building, the conductors shall be protected from fire for 2 hours using one of the following methods:
 - 1. The cable or raceway is encased in concrete with a minimum thickness of 50 mm (2 in.) measured from each point on the surface of the cable or raceway, and the installation provides a 2-hour fire rating as documented by a licensed professional engineer qualified in such designs with the documentation available to the AHJ upon request..
 - 2. The cable or raceway is encased in concrete with a minimum thickness of 127 mm (5 in.) measured from each point on the surface of the cable or raceway.

Informational Note: See Fire Protection Research Foundation Report FPRF-2018-16, "Fire Resistance of Concrete for Electrical Conductors," for information about concrete fire resistance.
- 3. The cable or raceway is part of a listed fire-resistive cable system.

Informational Note No. 1: See UL 2196, *Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control and Data Cables*, for one method of defining a fire-resistive cable system.

Informational Note No. 2: See UL *Guide Information for Electrical Circuit Integrity Systems* (FHIT) for identifying the system and its installation limitations to maintain a minimum 2-hour fire-resistive rating.

Informational Note No. 3: The listing organization provides information for fire-resistive cable systems on proper installation requirements to maintain the fire rating.

- 4. The cable or raceway is protected by a listed electrical circuit protective system.

Informational Note No. 4: See UL 1724, *Fire Tests for Electrical Circuit Protective Systems*, for one method of defining an electrical circuit protective system.

Informational Note No. 5: See UL *Guide Information for Electrical Circuit Integrity Systems* (FHIT) for identifying the system and its installation limitations to maintain a minimum 2-hour fire-resistive rating.

Informational Note No. 6: The listing organization provides information for electrical circuit protective systems on proper installation requirements to maintain the fire rating.

Exception No. 1: Cables and raceways installed underground shall not be considered to be inside the building.

Exception No. 2: The supply conductors located in the electrical equipment room where they originate and in the fire pump room shall not be required to have the minimum 2-hour fire separation or fire-resistance rating unless otherwise required by 700.10(D) of this code.

Take care~

Dean

Dean Hunter

Assistant Director / Chief Electrical Inspector

Minnesota Department of Labor and Industry

443 Lafayette Road N., St. Paul, MN 55155

Phone: Office (651) 284-5314 Cell (218) 770-1263| Web: www.dli.mn.gov



Approval as a result of an inspection shall not be construed to be an approval of a hidden, concealed, undetected or other violation of the provisions of the code or of the laws and rules of the state. Electrical inspections only include readily accessible systems and components. Latent and concealed defects, deficiencies and violations are excluded from inspections.

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