Tentative Interim Amendment

NFPA® 70®

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2020 Edition

Reference: 725.121(C)
TIA 20-1
(SC 19-8-19 / TIA Log #1438)

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

1. Revise 725.121(C) to read as follows:

725.121(C) Marking. The power sources for limited power circuits in 725.121(A)(3), limited power circuits for listed audio/video equipment, listed information technology equipment, listed communications equipment, and listed industrial equipment in 725.121(A)(4) shall have a label indicating the maximum voltage and maximum current or maximum voltage and nominal current output per conductor for each connection point on the power source. Where multiple connection points have the same rating, a single label shall be permitted to be used. For equipment with a rated current per conductor less than 0.3 amperes, the effective date shall be January 1, 2021.

Issue Date: August 6, 2019

Effective Date: August 26, 2019

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Reference: 210.52(C)(2)
TIA 20-2
(SC 19-8-20 / TIA Log #1442)

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

1. Revise 210.52(C)(2) to read as follows:

210.52(C)(2) Island and Peninsular Countertops and Work Surfaces. Receptacle outlets shall be installed in accordance with 210.52(C)(2)(a) and (C)(2)(b).

(a) At least one receptacle shall be provided for the first 0.84 m^2 (9 ft^2), or fraction thereof, of the countertop or work surface. A receptacle outlet shall be provided for every additional 1.7 m^2 (18 ft^2), or fraction thereof, of the countertop or work surface.

(b) At least one receptacle outlet shall be located within 600 mm (2 ft) of the outer end of a peninsular countertop or work surface. Additional required receptacle outlets shall be permitted to be located as determined by the installer, designer, or building owner. The location of the receptacle outlets shall be in accordance with 210.52(C)(3).

A peninsular countertop shall be measured from the connected perpendicular wall.

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Reference: 725.121(C)
TIA 20-3
(SC 19-8-21 / TIA Log #1444)

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

1. Revise 725.121(C) to read as follows:

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

Informational Note No. 1: Rated current for power sources covered in 725.144 is the output current per conductor the power source is designed to deliver to an operational load at normal operating conditions, as declared by the manufacturer.

Informational Note No. 2: An example of a label is "52V @ 0.433A, 57V MAX" for an IEEE 802.3 compliant Class 8 power source.

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Reference: 240.67(C) and Informational Note (new)
TIA 20-4
(SC 19-8-22 / TIA Log #1451)

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

1. Revise 240.67(C) to read as follows:

240.67(C) Performance Testing. ~~Where a method to reduce clearing time is required in 240.67(B), the~~The arc energy reduction protection system shall be performance tested by primary current injection testing or another approved method when first installed on site. This testing shall be conducted by a qualified person(s) in accordance with the manufacturer's instructions.
~~Performance testing of an instantaneous element of the protective device shall be conducted by a qualified person(s) using a test process of primary current injection and the manufacturer's recommended test procedures.~~
A written record of this testing shall be made and shall be available to the authority having jurisdiction.

Informational Note: Some energy reduction protection systems cannot be tested using a test process of primary current injection due to either the protection method being damaged such as with the use of fuse technology or because current is not the primary method of arc detection.

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Reference: 240.87(C) and Informational Note (new)
TIA 20-5
(SC 19-8-23 / TIA Log #1452)

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

1. Revise 240.87(C) to read as follows:

240.87(C) Performance Testing. The arc energy reduction protection system shall be performance tested by primary current injection testing or another approved method when first installed on site. This testing shall be conducted by a qualified person(s) in accordance with the manufacturer's instructions.
~~Performance testing of an instantaneous element of the protective device shall be conducted by a qualified person(s) using a test process of primary current injection and the manufacturer's recommended test procedures.~~
A written record of this testing shall be made and shall be available to the authority having jurisdiction.

Informational Note: Some energy reduction protection systems cannot be tested using a test process of primary current injection due to either the protection method being damaged such as with the use of fuse technology or because current is not the primary method of arc detection.

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Reference: Annex D3
TIA 20-6
(SC 19-8-24 / TIA Log #1455)

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

1. Revise Annex Example D3 to read as follows:

Example D3 Store Building
A store ~~50~~80 ft by 60 ft, or ~~3000~~ 4,800 ft^2, has 30 ft of show window. There are a total of 80 duplex receptacles. The service is 120/240 V, single phase 3-wire service. Actual connected lighting load is ~~8500~~ 7,000 VA, all of which for this example is considered continuous. All calculations are rounded up or down as permitted in 220.5(B).

Calculated Load
(see 220.40)

Noncontinuous Loads		
Receptacle Load *(see 220.44)*		
80 receptacles at 180 VA		14,400 VA
10,000 VA at 100%		10,000 VA
14,400 VA - 10,000 VA = 4,400 VA at 50%		2,200 VA
	Subtotal	12,200 VA
Continuous Loads		
General Lighting*		
~~3000~~4,800 ft^2 at ~~3~~ 1.9 VA/ft^2		~~9,000~~ 9,120 VA
Show Window Lighting Load		
30 ft at 200 VA/ft *[see 220.14(G)]*		6,000 VA
Outside Sign Circuit *[see 220.14(F)]*		1,200 VA
	Subtotal	~~16,200~~16,320 VA
	Subtotal from noncontinuous	12,200 VA
	Total noncontinuous loads + continuous loads =	~~28,400~~28,520 VA

*In the example, the actual connected lighting load at 125% (~~8500~~7,000 × 1.25 VA) is less than the load from Table 220.12, so the required minimum lighting load from Table 220.12 is used in the calculation. Had the actual lighting load × 125% been greater than the value calculated from Table 220.12, the actual connected lighting load would have been used.

Minimum Number of Branch Circuits Required

General Lighting: Branch circuits need only be installed to supply the actual connected load *[see 210.11(B)]*.
~~8500~~ 7,000 VA × 1.25 = ~~10,625~~ 8,750 VA
~~10,625~~ 8,750 VA ÷ 240 V = ~~44~~ 36.45 A for 3-wire, 120/240 V
8,750 VA ÷ 120 V = 72.92 A
The lighting load would be permitted to be served by 2-wire or 3-wire, 15- or 20-A circuits with combined capacity equal to ~~44~~ 36 A or greater for 3-wire circuits or ~~88~~ 73 A or greater for 2-wire circuits. The feeder capacity as well as the number of branch-circuit positions available for lighting circuits in the panelboard must reflect the full calculated load of ~~9000 VA × 1.25 = 11,250~~ 9,120 VA. Lighting loads from Table 220.12 already include 125% for continuous load. See note at bottom of Table 220.12.

Show Window

6,000 VA × 1.25 = 7,500 VA
7,500 VA ÷ 240 V = 31.25 A for 3-wire, 120/240 V
7,500 VA ÷ 120 V = 62.5 A for 2-wire, 120 V

The show window lighting is permitted to be served by 2-wire or 3-wire circuits with a capacity equal to 31 A or greater for 3-wire circuits or ~~62~~ 63 A or greater for 2-wire circuits.

Receptacles required by 210.62 are assumed to be included in the receptacle load above if these receptacles do not supply the show window lighting load.

Receptacles

Receptacle Load:
14,400 VA ÷ 240 V = 60 A for 3-wire, 120/240 V
14,400 VA ÷ 120 V = 120 A for 3-wire, 120/240 V

The receptacle load would be permitted to be served by 2-wire or 3-wire circuits with a capacity equal to 60 A or greater for 3-wire circuits or 120 A or greater for 2-wire circuits.

Minimum Size Feeder (or Service) Overcurrent Protection
(see 215.3 or 230.90)

Subtotal noncontinuous loads		12,200 VA
Subtotal continuous loads not from Table 220.12 at 125% (~~16,200~~ 7,200 VA × 1.25) (sign and show window)		~~20,250~~ 9,000 VA
Subtotal of calculated continuous loads with 125% already included ~~Total~~		~~32,450~~ 9,120 VA
	Total	30,320 VA

~~32,450~~ 30,320 VA ÷ 240 V = ~~135~~ 126 A
The next higher standard size is 150 A *(see 240.6)*.

Minimum Size Feeders (or Service Conductors) Required
[see 215.2, 230.42(A)]

For 120/240 V, 3-wire system,
~~32,450~~ 30,320 VA ÷ 240 V = ~~135~~ 126 A Service or feeder conductor is ~~1/0~~ 1 AWG Cu in accordance with 215.3 and Table 310.16 (with 75°C terminations).

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Reference: Table 430.252
TIA 20-7
(SC 19-8-26 / TIA Log #1462)

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

1. Delete Table 430.252 in its entirety:

Table 430.252 Minimum Size Equipment Grounding Conductors for Grounding Motor Circuits and Equipment

Rating or Setting of Branch Circuit Short-Circuit and Ground-Fault Protective Device in Circuit Ahead of Equipment, Conduit, etc., Not Exceeding (Amperes)	Size (AWG or kcmil)	
	Copper	Aluminum or Copper-Clad Aluminum*
15	14	12
20	12	10
60	10	8
100	8	6
200	6	4
300	4	2
400	3	1
500	2	1/0
600	1	2/0
800	1/0	3/0
1000	2/0	4/0
1200	3/0	250
1600	4/0	350
2000	250	400
2500	350	600
3000	400	600
4000	500	750
5000	700	1200
6000	800	1200

Note: Where necessary to comply with 250.4(A)(5) or (B)(4), the equipment grounding conductor shall be sized larger than given in this table.

*See installation restrictions in 250.120.

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Reference: 551.71(F)
TIA 20-8
(SC 19 12-4 / TIA Log #1474)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the Code-Making Panel 7 and the Correlating Committee on National Electrical Code, and was issued by the Standards Council on December 6, 2019, with an effective date of December 26, 2019.

A Tentative Interim Amendment is tentative because it has not been processed through the entire standards development procedures. It is interim because it is effective only between editions of the standard. A TIA automatically becomes a public input of the proponent for the next edition of the standard; as such, it then is subject to all of the procedures of the standards development process.

1. Revise 551.71(F) to read as follows:

551.71(F) GFCI Protection.

~~All 125-volt, single-phase, 15- and 20-ampere receptacles shall have listed ground-fault circuit-interrupter protection for personnel. The GFCI devices used in RV site electrical equipment shall not be required to be weather or tamper resistant in accordance with 406.9 and 406.12.~~

~~Informational Note: The percentage of 50-ampere sites required by 551.71 could be inadequate for seasonal recreational vehicle sites serving a higher percentage of recreational vehicles with 50-ampere electrical systems. In that type of recreational vehicle park, the percentage of 50-ampere sites could approach 100 percent.~~

Ground-fault circuit-interrupter protection shall be provided as required in 210.8(B). GFCI protection shall not be required for other than 125-volt, 15- and 20-ampere receptacles used in the recreational vehicle site equipment.

Informational Note No. 1: Appliances used within the recreational vehicle can create leakage current levels at the supply receptacle(s) that could exceed the limits of a Class A GFCI device.

Informational Note No. 2: The definition of *Power-Supply Assembly* in 551.2 and the definition of *Feeder* in Article 100 clarifies that the power supply cord to a recreational vehicle is considered a feeder.

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Reference: 800.100(B)(2) Informational Note and Informational Note Figure caption
TIA 20-9
(SC 20-4-13 / TIA Log #1479)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70, *National Electrical Code*, 2020 edition. The TIA was processed by the National Electrical Code Panel 16 and the NEC Correlating Committee, and was issued by the Standards Council on April 1, 2020, with an effective date of April 21, 2020.

1. Revise 800.100(B)(2) Informational Note and its associated Figure's caption to read as follows:

800.100(B)(2) …
Informational Note: Informational Note Figure 800.100(B)(2) illustrates the connection of the bonding conductor in buildings or structures not equipped with an intersystem bonding termination or a terminal block providing access to the building grounding means.

Informational Note Figure 800.100(B)(2) Illustration of a Grounding Electrode Conductor and a Bonding Conductor in a Communications Installation.

Issue Date: April 1, 2020

Effective Date: April 21, 2020

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Reference: 356.10(8)
TIA 20-10
(SC 20-8-34 / TIA Log #1502)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code®*, 2020 edition. The TIA was processed by the National Electrical Code Panel 8 and the NEC Correlating Committee, and was issued by the Standards Council on August 11, 2020, with an effective date of August 31, 2020.

1. Revise 356.10 item (8) to read as follows:

356.10(8) Conductors or cables rated at a temperature higher than the listed temperature rating of LFNC conduit shall be permitted to be installed in LFNC, provided the conductors or cables are not operated at a temperature higher than the listed temperature rating of the LFNC.

Issue Date: August 11, 2020

Effective Date: August 31, 2020

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Reference: 520.21
TIA 20-11
(SC 21-8-26 / TIA Log #1573)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the National Electrical Code Panel 15, and the NEC Correlating Committee, and was issued by the Standards Council on August 26, 2021, with an effective date of September 15, 2021.

1. Revise Section 520.21 to read as follows:

520.21 General. Fixed stage switchboards shall comply with 520.21(1) through ~~(4)~~ (5):

(1) Fixed stage switchboards shall be listed.

(2) Fixed stage switchboards shall be readily accessible but shall not be required to be located on or adjacent to the stage. Multiple fixed stage switchboards shall be permitted at different locations.

(3) A fixed stage switchboard shall contain overcurrent protective devices for all branch circuits supplied by that switchboard.

(4) A fixed stage switchboard shall be permitted to supply both stage and non-stage equipment.

(5) Fixed stage switchboards shall comply with the marking and working space requirements in 408.18(C) but shall not be required to comply with the load terminal location requirements in 408.18(C)(1), (C)(2), and (C)(3).

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Reference: 520.53
TIA 20-12
(SC 21-8-27 / TIA Log #1574)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the National Electrical Code Panel 15, and the NEC Correlating Committee, and was issued by the Standards Council on August 26, 2021, with an effective date of September 15, 2021.

1. Revise Section 520.53 to read as follows:

520.53 Construction. Portable stage switchboards shall be listed and shall comply with 520.53(A) through (E). The load terminal location requirements in 408.18(C)(1), (C)(2), and (C)(3) shall not apply to portable stage switchboards.

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Reference: 210.8(F)
TIA 20-13
(SC 21-8-29 / TIA Log #1593)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the National Electrical Code Panel 2, and the NEC Correlating Committee, and was issued by the Standards Council on August 26, 2021, with an effective date of September 15, 2021.

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

210.8 Ground-Fault Circuit-Interrupter Protection for Personnel. …

(F) Outdoor Outlets. All outdoor outlets for dwellings, other than those covered in 210.8 (A)(3), Exception to (3), that are supplied by single-phase branch circuits rated 150 volts to ground or less, 50 amperes or less, shall have ground-fault circuit-interrupter protection for personnel. This requirement shall become effective on January 1, 2023 for mini-split-type heating/ventilating/air-conditioning (HVAC) equipment and other HVAC units employing power conversion equipment as a means to control compressor speed.

Informational Note: *Power conversion equipment* is the term used to describe the components used in HVAC equipment that is commonly referred to as a variable speed drive. The use of power conversion equipment to control compressor speed differs from multistage compressor speed control.

Exception: Ground-fault circuit-interrupter protection shall not be required on lighting outlets other than those covered in 210.8(C).

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Reference: Section 706.50
TIA 20-14
(SC 21-12-11 / TIA Log #1597)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the Code-Making Panel 13, and the NEC Correlating Committee, and was issued by the Standards Council on December 8, 2021, with an effective date of December 28, 2021.

1. Revise Section 706.50 to read as follows:

706.50 General. All electrical connections to and from the system and system components shall be in accordance with the applicable provisions of this *Code*. ~~Unless otherwise directed by this article, other energy storage technologies~~ The systems shall comply with ~~the applicable provisions of Part III of Article 705~~ Parts I, II, and III of this article.

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Reference: 406.9(C), Exception No. 2(new)
TIA 20-15
(SC 21-12-12 / TIA Log #1598)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the Code-Making Panel 18, and the NEC Correlating Committee, and was issued by the Standards Council on December 8, 2021, with an effective date of December 28, 2021.

1. Add a new Exception No. 2 to Section 406.9(C) to read as follows:

406.9 Receptacles in Damp or Wet Locations. …
(C) Bathtub and Shower Space. Receptacles shall not be installed within a zone measured 900 mm (3 ft) horizontally and 2.5 m (8 ft) vertically from the top of the bathtub rim or shower stall threshold. The identified zone is all-encompassing and shall include the space directly over the tub or shower stall.
Exception No. 1: In bathrooms with less than the required zone the receptacle(s) shall be permitted to be installed opposite the bathtub rim or shower stall threshold on the farthest wall within the room.
Exception No. 2: In a dwelling unit, a single receptacle shall be permitted for an electronic toilet or personal hygiene device such as an electronic bidet seat. The receptacle shall be readily accessible and located on one of the following:
(1) The wall behind the toilet but not behind the tank
(2) The opposite side of the toilet from the bathtub or shower

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Reference: 250.114(3)e and 250.114(4)e
TIA 20-16
(SC 21-12-13 / TIA Log #1608)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the Code-Making Panel 5, and the NEC Correlating Committee, and was issued by the Standards Council on December 8, 2021, with an effective date of December 28, 2021.

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

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

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Reference: Article 100, Part III, and various sections in Articles 500, 503, and 506
TIA 20-17
(SC 22-4-7 / TIA Log #1616)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the NEC Panel 14, and the NEC Correlating Committee and was issued by the Standards Council on April 12, 2022, with an effective date of May 2, 2022.

1. Revise Article 100, Part III to include Combustible Fibers/Flyings and Ignitible Fibers/Flyings to read as follows:

Part III. Hazardous (Classified) Locations (CMP-14).

…

Combustible Fibers/Flyings. Fibers/flyings, where any dimension is greater than 500 µm in nominal size, which can form an explosible mixture when suspended in air at standard atmospheric pressure and temperature. [**499:**3.3.4.1]

Informational Note No.1: This definition and Informational Notes No. 2 and 3 have been extracted from NFPA 499-2021, *Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas.* The NFPA 499 reference is in brackets. Only editorial changes were made to the extracted text to make it consistent with this *Code.*

Informational Note No. 2: Section 500.5(D) defines a Class III location. Combustible fibers/flyings can be similar in physical form to ignitible fibers/flyings and protected using the same electrical equipment installation methods. Examples of fibers/flyings include flat platelet-shaped particulate, such as metal flake, and fibrous particulate, such as particle board core material. If the smallest dimension of a combustible material is greater than 500 µm, it is unlikely that the material would be combustible fibers/flyings, as determined by test. Finely divided solids with lengths that are large compared to their diameter or thickness usually do not pass through a 500 µm sieve, yet when tested could potentially be determined to be explosible. [**499:**A.3.3.4.1]

Informational Note No. 3: See ASTM E1226-2012a, *Standard Test Method for Explosibility of Dust Clouds*, ISO 6184-1-1985 (2005), *Explosion protection systems — Part 1: Determination of explosion indices of combustible dusts in air*, or ISO/IEC/UL 80079-20-2-2016, *Explosive atmospheres — Part 20-2: Material characteristics — Combustible dusts test methods*, for procedures for determining the explosibility of dusts. A material that is found to not present an explosible mixture hazard could still be an ignitible fiber/flying, as defined in this article. Historically, the explosibility condition has been described as presenting a flash fire or explosion hazard. It could be understood that the potential hazard due to the formation of an explosible mixture when suspended in air at standard atmospheric pressure and temperature would include ignition. [**499:**A.3.3.4.1]

…

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

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

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

2. Revise Section 500.5(D) to read as follows:

500.5(D) Class III Locations. ~~Class III locations are those that are hazardous because of the presence of easily ignitible fibers or where materials producing combustible flyings are handled, manufactured, or used, but in which such fibers/flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitible mixtures. Class III locations shall include those specified in 500.5(D)(1) and (D)(2).~~ Class III locations shall be locations meeting the requirements of 500.5(D)(1) and (D)(2).

(1) Class III, Division 1. ~~A Class III, Division 1 location is a location in which easily ignitible fibers/flyings are handled, manufactured, or used.~~ Class III, Division 1 locations shall include those locations specified in 500.5(D)(1)(a) and (D)(1)(b).

(a) *Combustible Fibers/Flyings.* Locations where nonmetal combustible fibers/flyings are in the air under normal operating conditions in quantities sufficient to produce explosible mixtures or where mechanical failure or abnormal operation of machinery or equipment might cause combustible fibers/flyings to be produced and might also provide a source of ignition through simultaneous failure of electrical equipment, through operation of protection devices, or from other causes shall be classified as Class III, Division 1. Locations where metal combustible fibers/flyings are present shall be classified as Class II, Division 1, Group E.

Informational Note No. 1: Such locations usually include some parts of rayon, cotton, and other textile mills; ~~combustible fibers/flyings~~ associated manufacturing and processing plants; cotton gins and cotton-seed mills; flax-processing plants; clothing manufacturing plants; woodworking plants; and establishments and industries involving similar hazardous processes or conditions.

Informational Note No. 2: Combustible fibers/flyings include flat platelet-shaped particulate such as metal flakes and fibrous board such as particle board.

(b) *Ignitible Fibers/Flyings.* Locations where ignitible fibers/flyings are handled, manufactured, or used shall be classified as Class III, Division 1.

Informational Note No. 1: Such locations usually include some parts of rayon, cotton, and other textile mills; ~~combustible fibers/flyings~~ associated manufacturing and processing plants; cotton gins and cotton-seed mills; flax-processing plants; clothing manufacturing plants; woodworking plants; and establishments and industries involving similar hazardous processes or conditions.

Informational Note No. 2: ~~Easily i~~Ignitible fibers/flyings can include rayon, cotton (including cotton linters and cotton waste), sisal or henequen, istle, jute, hemp, tow, cocoa fiber, oakum, baled waste kapok, Spanish moss, excelsior, and other materials of similar nature.

(2) Class III, Division 2. A Class III, Division 2 location is a location in which easily ignitible fibers/flyings are stored or handled other than in the process of manufacture. Class III, Division 2 locations shall include those locations specified in 500.5(D)(2)(a) and (D)(2)(b).

(a) *Combustible Fibers/Flyings.* Locations where nonmetal combustible fibers/flyings might be present in the air in quantities sufficient to produce explosible mixtures due to abnormal operations or where accumulations of nonmetal combustible fibers/flyings accumulations are present but are insufficient to interfere with the normal operation of electrical equipment or other apparatus but could, as a result of infrequent malfunctioning of handling or processing equipment, become suspended in the air shall be classified as Class III, Division 2.

(b) *Ignitible Fibers/Flyings.* Locations where ignitible fibers/flyings are stored or handled, other than in the process of manufacture, shall be classified as Class III, Division 2.

3. Revise Section 500.6 to read as follows:

500.6 Material~~s~~, ~~Groups.~~ ~~For purposes of testing, approval, and area classification, various air mixtures (not oxygen-enriched) shall be grouped in accordance with 500.6(A) and (B).~~

~~*Exception: Equipment identified for a specific gas, vapor, dust, or fiber/flying.*~~

~~Informational Note: This grouping is based on the characteristics of the materials. Facilities are available for testing and identifying equipment for use in the various atmospheric groups.~~

(A) Class I Group Classifications. …

(B) Class II Combustible Dust Group Classifications. ~~Class II groups shall be in accordance with 500.6(B)(1) through (B)(3).~~ Combustible dust shall be grouped in accordance with 500.6(B)(1) through (B)(3).

(1) Group E. Atmospheres containing combustible metal dusts, including aluminum, magnesium, and their commercial alloys, or other combustible dusts whose particle size, abrasiveness, and conductivity present similar hazards in the use of electrical equipment. [**499**:~~3.3.4.1~~3.3.8.1.1]

(2) Group F. Atmospheres containing combustible carbonaceous dusts that have more than 8 percent total entrapped volatiles (see ASTM D3175-2017, *Standard Test Method for Volatile Matter in the Analysis Sample of Coal and Coke, for coal and coke dusts*) or that have been sensitized by other materials so that they present an explosion hazard. [**499**:~~3.3.4.2~~3.3.8.1.2] ~~Coal, carbon black, charcoal, and coke dusts are examples of carbonaceous dusts. [**499**:A.3.3.4.2]~~

Informational Note: Although coal, carbon black, charcoal, and coke dusts are examples of carbonaceous dusts, only those atmospheres containing combustible carbonaceous dusts that have more than 8 percent total entrapped volatiles are Class II, Group F. [**499**:A.3.3.8.1.2]

(3) Group G. Atmospheres containing combustible dusts not included in Group E or Group F, including flour, grain, wood, plastic, and chemicals. [**499**:~~3.3.4.3~~3.3.8.1.3]

(C) Class III Combustible Fibers/Flyings. Combustible fibers/flyings shall not be further grouped.

(D) Class III Ignitible Fibers/Flyings. Ignitible fibers/flyings shall not be further grouped.

4. Revise Section 500.8(D)(2) and (D)(3) to read as follows:

500.8(D) Temperature.

(1) Class I Temperature. …

(2) Class II Temperature. The temperature marking specified in 500.8(C) shall be less than the ignition temperature of the specific dust or metal fiber/flying to be encountered. For organic dusts that ~~may~~ might dehydrate or carbonize, the temperature marking shall not exceed the lower of either the ignition temperature or 165°C (329°F).

Informational Note: See NFPA 499-~~2017~~ 2021, *Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas*, for minimum ignition temperatures of specific dusts.

(3) Class III Temperature. The temperature marking specified in 500.8(C) shall be less than the ignition temperature of the specific fiber/flying to be encountered, except as specified in 500.8(D)(3)(a) or (D)(3)(b).

(a) For nonmetal combustible fibers/flyings that might dehydrate or carbonize, the temperature marking shall not exceed the lower of either the ignition temperature or 165°C (329°F).

(b) When ignitible fibers/flyings are present, the maximum surface temperatures under operating conditions shall not exceed 165°C (329°F) for equipment that is not subject to overloading, and 120°C (248°F) for equipment (such as motors or power transformers) that might be overloaded.

5. Revise Section 503.1 to read as follows:

503.1 Scope. Article 503 covers the requirements for electrical and electronic equipment and wiring for all voltages in Class III, Division 1 and Division 2 locations where fire or explosion hazards ~~may~~ might exist due to nonmetal combustible fibers/flyings or ignitible fibers/flyings.

6. Revise Section 503.5 and 503.6 to read as follows:

503.5 General. Equipment installed in Class III locations shall be able to function at full rating without developing surface temperatures high enough to cause excessive dehydration or gradual carbonization of accumulated fibers/flyings. ~~Organic material that is carbonized or excessively dry is highly susceptible to spontaneous ignition. The maximum surface temperatures under operating conditions shall not exceed 165°C (329°F) for equipment that is not subject to overloading, and 120°C (248°F) for equipment (such as motors or power transformers) that may be overloaded.~~

Informational Note No. 1: ~~For electric trucks, see~~ See NFPA 505-2018, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*, for information on electric trucks.

Informational Note No. 2: Organic material that is carbonized or excessively dry is highly susceptible to spontaneous ignition.

503.6 Zone Equipment. Equipment listed and marked in accordance with 506.9(C)(2) for Zone 20 locations and with a temperature marking ~~class of~~ in accordance with 500.8(D)(3) ~~not greater than T120°C (for equipment that may be overloaded) or not greater than T165°C (for equipment not subject to overloading)~~ shall be permitted in Class III, Division 1 locations.

Equipment listed and marked in accordance with 506.9(C)(2) for Zone 20, Zone 21, or Zone 22 locations and with a temperature marking in accordance with 500.8(D)(3) ~~class of not greater than T120°C (for equipment that may be overloaded) or not greater than T165°C (for equipment not subject to overloading)~~ shall be permitted in Class III, Division 2 locations.

7. Revise Section 503.125 Exception to read as follows:

503.125 Motors and Generators — Class III, Divisions 1 and Division 2. In Class III, Divisions 1 and Division 2 locations, motors, generators, and other rotating machinery shall be totally enclosed nonventilated, totally enclosed pipe ventilated, or totally enclosed fan cooled.

Exception: In locations where, in the judgment of the authority having jurisdiction, only moderate accumulations of ~~lint or~~ ignitible fibers/flyings are likely to collect on, in, or in the vicinity of a rotating electrical machine and where such machine is readily accessible for routine cleaning and maintenance, one of the following shall be permitted:

(1) Self-cleaning textile motors of the squirrel-cage type

(2) Standard open-type machines without sliding contacts~~,~~ or centrifugal or other types of switching mechanisms, including motor overload devices

(3) Standard open-type machines having such contacts, switching mechanisms, or resistance devices enclosed within tight housings without ventilating or other openings

8. Revise Section 503.145 Exception to read as follows:

503.145 Receptacles and Attachment Plugs — Class III, Divisions 1 and Division 2. Receptacles and attachment plugs shall be of the grounding type, shall be designed ~~so as~~ to minimize the accumulation or the entry of fibers/flyings, and shall prevent the escape of sparks or molten particles.

Exception: In locations where, in the judgment of the authority having jurisdiction, only moderate accumulations of ~~lint or~~ ignitible fibers/flyings are likely to collect in the vicinity of a receptacle, and where such receptacle is readily accessible for routine cleaning~~,~~ and mounted to minimize the entry of fibers/flyings, general-purpose grounding-type receptacles ~~mounted so as to minimize the entry of fibers/flyings~~ shall be permitted.

9. Revise Section 506.1 to read as follows:

506.1 Scope. This article covers the requirements for the zone classification system as an alternative to the division classification system covered in Article 500, Article 502, and Article 503 for electrical and electronic equipment and wiring for all voltages in Zone 20, Zone 21, and Zone 22 hazardous (classified) locations where fire and explosion hazards may exist due to combustible dusts, ~~or~~ combustible fibers/flyings, or ignitible fibers/flyings.

This article does not cover area classification and general requirements for dusts for the division system as described in 500.1. This article does not address the unique risk and explosion hazards associated with explosives, pyrotechnics, and blasting agents.

Informational Note No. 1: ~~For the requirements for electrical and electronic equipment and wiring for all voltages in Class I, Division 1 or Division 2; Class II, Division 1 or Division 2; Class III, Division 1 or Division 2; Zone 0; Zone 1; or Zone 2 hazardous (classified) locations where fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, or combustible dusts or ignitible fibers/flyings, refer to Articles 500 through 505.~~ See 505.20 or 505.22 for Zone 0, Zone 1, or Zone 2 hazardous (classified) locations where fire or explosion hazards may exist due to flammable gases or vapors or flammable liquids.

Informational Note No. 2: Zone 20, Zone 21, and Zone 22 area classifications are based on the modified IEC area classification system as defined in ANSI/ISA 60079-10-2 (12.10.05)- 2013, *Explosive Atmospheres — Part 10-2: Classification of Areas — Combustible Dust Atmospheres.*

~~Informational Note No. 3: The unique hazards associated with explosives, pyrotechnics, and blasting agents are not addressed in this article.~~

Informational Note No. 3~~4~~: NFPA 499-~~2017~~2021, *Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas*, provides additional information for classification of hazardous (classified) locations using zone methodology.

10. Revise Section 506.5 to read as follows:

506.5 Classification of Locations.

(A) Classifications of Locations. Locations shall be classified on the basis of the properties of the combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings that ~~may~~ might be present, and the likelihood that a combustible or ignitible ~~combustible~~ concentration or quantity is present. Each room, section, or area shall be considered individually in determining its classification. Where pyrophoric materials are the only materials used or handled, these locations are outside of the scope of this article.

(B) Zone 20, Zone 21, and Zone 22 Locations. Zone 20, Zone 21, and Zone 22 locations are those in which combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings are or ~~may~~ might be present in the air or in layers, in quantities sufficient to produce ~~explosive~~ explosible or ignitible mixtures. Zone 20, Zone 21, and Zone 22 locations shall include those specified in 506.5(B)(1), (B)(2), and (B)(3).

Informational Note: Through the exercise of ingenuity in the layout of electrical installations for hazardous (classified) locations, it is frequently possible to locate much of the equipment in a reduced level of classification and, thus, to reduce the amount of special equipment required.

(1) Zone 20. A Zone 20 location is a location ~~in which any of the following occur~~ where one of the following apply:

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

~~(2) Ignitible concentrations of combustible dust or ignitible fibers/flyings are present for long periods of time~~

~~Informational Note No. 1: As a guide to classification of Zone 20 locations, refer to ANSI/ISA 60079-10-2 (12.10.05) 2013, *Explosive Atmospheres — Part 10-2: Classification of areas — Combustible dust atmospheres*.~~

~~Informational Note No. 2: Zone 20 classification includes locations inside dust containment systems; hoppers, silos, etc., cyclones and filters, dust transport systems, except some parts of belt and chain conveyors, etc.; blenders, mills, dryers, bagging equipment, etc.~~

(2~~3~~) Group IIIC combustible dusts are present in quantities sufficient to be hazardous continuously or for long periods of time.

(2) Zone 21. A Zone 21 location is a location where one of the following apply:

(1) Ignitible concentrations of combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings are likely to exist occasionally under normal operating conditions.~~; or~~

(2) Ignitible concentrations of combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings ~~may~~ might exist frequently because of repair or maintenance operations or because of leakage.~~; or~~

(3) Equipment is operated or processes are carried on~~,~~ of such a nature that equipment breakdown or faulty operations could result in the release of ignitible concentrations of combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings and also cause simultaneous failure of electrical equipment in a mode to cause the electrical equipment to become a source of ignition.~~; or~~

(4) The location is adjacent to a Zone 20 location from which ignitible concentrations of combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings could be communicated.

Exception: When communication from an adjacent Zone 20 location is minimized by adequate positive pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

(5) Group IIIC combustible dusts are present in quantities sufficient to be hazardous occasionally; under normal or abnormal operating conditions; or frequently because of repair or maintenance operations or because of leakage.

Informational Note No. 1: As a guide to classification of Zone 21 locations, refer to ANSI/ISA 60079-10-2 (12.10.05)-2013, *Explosive Atmospheres — Part 10-2: Classification of areas — Combustible dust atmospheres*.

Informational Note No. 2: This classification usually includes locations outside dust containment and in the immediate vicinity of access doors subject to frequent removal or opening for operation purposes when internal combustible mixtures are present; locations outside dust containment in the proximity of filling and emptying points, feed belts, sampling points, truck dump stations, belt dump over points, etc., where no measures are employed to prevent the formation of combustible mixtures; locations outside dust containment where dust accumulates and where due to process operations the dust layer is likely to be disturbed and form combustible mixtures; locations inside dust containment where ~~explosive~~ explosible dust clouds are likely to occur (but neither continuously, nor for long periods, nor frequently) as, for example, silos (if filled and/or emptied only occasionally) and the dirty side of filters if large self-cleaning intervals are occurring.

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

(1) Ignitible concentrations of combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings are not likely to occur in normal operation and, if they do occur, will only persist for a short period.~~; or~~

(2) Combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings are handled, processed, or used, but ~~in which~~ the dust or fibers/flyings are normally confined within closed containers of closed systems from which they can escape only as a result of the abnormal operation of the equipment with which the dust or fibers/flyings are handled, processed, or used; or

(3) The location is adjacent to a Zone 21 location, from which ignitible concentrations of combustible dust, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings could be communicated.

Exception No. 1: When communication from an adjacent Zone 21 location is minimized by adequate positive pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

Exception No. 2: For Group IIIC combustible dusts or metal combustible fibers/flyings, there shall ~~are~~ only be Zone 20 or 21 locations.

Informational Note No. 1: As a guide to classification of Zone 22 locations, refer to ANSI/ISA 60079-10-2 (12.10.05)-2013, *Explosive Atmospheres — Part 10-2: Classification of areas — Combustible dust atmospheres*.

Informational Note No. 2: Zone 22 locations usually include outlets from bag filter vents, because in the event

of a malfunction there can be emission of combustible mixtures; locations near equipment that has to be opened at infrequent intervals or equipment that from experience can easily form leaks where, due to pressure above atmospheric, dust will blow out; pneumatic equipment, flexible connections that can become damaged, etc.; storage locations for bags containing dusty product, since failure of bags can occur during handling, causing dust leakage; and locations where controllable dust layers are formed that are likely to be raised into ~~explosive~~ explosible dust–air mixtures. Only if the layer is removed by cleaning before hazardous dust–air mixtures can be formed is the area designated unclassified.

Informational Note No. 3: Locations that normally are classified as Zone 21 can fall into Zone 22 when measures are employed to prevent the formation of ~~explosive~~ explosible dust–air mixtures. Such measures include exhaust ventilation. The measures should be used in the vicinity of (bag) filling and emptying points, feed belts, sampling points, truck dump stations, belt dump over points, etc.

11. Revise Section 506.6 to read as follows:

506.6 Material Groups. For the purposes of testing, approval, and area classification, various air mixtures (not oxygen enriched) shall be grouped as required in 506.6(A), (B), and (C).

(A) Group IIIC. Combustible metal dust, including combustible metal fibers/flyings. ~~Group IIIC shall be considered to be equivalent to Class II, Group E.~~ [**499:**3.3.8.2.1]

(B) Group IIIB. Combustible dust other than combustible metal dust. ~~Group IIIB shall be considered to be equivalent to Class II, Groups F and G.~~ [**499:**3.3.8.2.2]

Informational Note: Group IIIA materials are larger particle-size than Group IIIB materials and do not include metal dust or metal fibers/flyings. [**499**:A.3.3.8.2.3]

(C) Group IIIA. ~~Solid particles, including fibers, greater than 500 µm in nominal size, which could be suspended in air and could settle out of the atmosphere under their own weight. Group IIIA shall be considered to be equivalent to Class III.~~ Combustible fibers/flyings or ignitible fibers/flyings other than metal. [**499:**3.3.8.2.3]

Informational Note No. 1: Group IIIA materials are larger particle-size than Group IIIB materials and do not include metal dust or metal fibers/flyings. [**499:**A.3.3.8.2.3]

Informational Note No. 2: Examples of ignitible fibers/flyings include rayon, cotton (including cotton linters and cotton waste), sisal, jute, hemp, cocoa fiber, oakum, and baled waste kapok.

Informational Note No. 3: Combustible fibers/flyings include flat platelet-shaped particulates, such as metal flakes, and fibrous board, such as particle board.

12. Revise Sections 506.7(C) and (D) to read as follows:

506.7 Special Precaution.

…

(C) Reclassification Permitted. A Class II or Class III, Division 1 or Division 2 location shall be permitted to be reclassified as a Zone 20, Zone 21, or Zone 22 location~~, provided that~~ if all of the space that is classified because of a single combustible dust, ~~or ignitible~~ combustible fiber/flying, or ignitible fiber/flying source is reclassified under the requirements of this article.

(D) Simultaneous Presence of Flammable Gases and Combustible Dusts or Fibers/Flyings. Where flammable gases, combustible dusts, ~~or ignitible~~ combustible fibers/flyings, or ignitible fibers/flyings are or ~~may~~ might be present at the same time, the simultaneous presence shall be considered during the selection and installation of the electrical equipment and the wiring methods, including the determination of the safe operating temperature of the electrical equipment.

13. Revise Sections 506.9(B) and (C)(1) to read as follows:

506.9 Equipment Requirements.

…

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

(C) Marking.

(1) Division Equipment. Equipment identified for Class II, Division 1, ~~or~~ Class II, Division 2, Class III, Division 1, or Class III, Division 2 shall, in addition to being marked in accordance with 500.8(C), be permitted to be marked with all of the following:

(1) Zone 20, 21, or 22 (as applicable)

(2) Material group in accordance with 506.6

(3) Maximum surface temperature in accordance with 506.9(D), marked as a temperature value in degrees C, preceded by "T" and followed by the symbol "°C"

14. Revise Section 506.16 to read as follows:

506.16 Sealing. Where necessary to protect against the ingress of combustible dust, ~~or ignitible~~ combustible fiber/flying, or ignitible fiber/flying, or to maintain the type of protection, seals shall be provided. The seal shall be identified as capable of preventing the ingress of combustible, ~~or ignitible~~ combustible fiber/flying, or ignitible fiber/flying and maintaining the type of protection but need not be explosionproof or flameproof.

15. Revise Section 506.20 to read as follows:

506.20 Equipment Installation.

(A) Zone 20. In Zone 20 locations, only equipment listed and marked as suitable for the location shall be permitted.

Exception No. 1: Equipment listed for use in Class II, Division 1 locations with a suitable temperature class shall be permitted.

Exception No. 2: For locations involving Group IIIA materials, equipment listed for use in Class III, Division 1 locations with a suitable temperature in accordance with 500.8(D)(3) shall be permitted.

(B) Zone 21. In Zone 21 locations, only equipment listed and marked as suitable for the location shall be permitted.

Exception No. 1: Apparatus listed for use in Class II, Division 1 locations with a suitable temperature class shall be permitted.

Exception No. 2: Pressurized equipment identified for Class II, Division 1 shall be permitted.

Exception No 3: For locations involving Group IIIA materials, equipment listed for use in Class III, Division 1 locations with a suitable temperature in accordance with 500.8(D)(3) shall be permitted.

(C) Zone 22. In Zone 22 locations, only equipment listed and marked as suitable for the location shall be permitted.

Exception No. 1: Apparatus listed for use in Class II, Division 1 or Class II, Division 2 locations with a suitable temperature class shall be permitted.

Exception No. 2: Pressurized equipment identified for Class II, Division 1 or Division 2 shall be permitted.

Exception No 3: For Group IIIA materials, equipment listed for use in Class III, Division 1 or Class III, Division 2 locations with a suitable temperature in accordance with 500.8(D)(3) shall be permitted.

…

(F) Temperature. The temperature marking specified in 506.9(C)(2)(5) shall comply with 506.20(F)(1) or (F)(2):

(1) ~~For c~~Combustible dusts~~,~~ or combustible fibers/flyings shall be less than the lower of either the layer or cloud ignition temperature of the specific combustible dust or combustible fiber/flying. For nonmetal ~~organic~~ dusts or nonmetal combustible fibers/flyings that ~~may~~ might dehydrate or carbonize, the temperature marking shall not exceed the lower of either the ignition temperature or 165°C (329°F).

(2) For ignitible fibers/flyings, less than 165°C (329°F) for equipment that is not subject to overloading, or 120°C (248°F) for equipment (such as motors or power transformers) that may be overloaded.

Informational Note: See NFPA 499-~~2017~~2021, …

Issue Date: April 12, 2022

Effective Date: May 2, 2022

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

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2020 Edition

Reference: 700.10(B)(5) item e. (new)
TIA 20-18
(SC 22-8-14 / TIA Log #1632)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the NEC Code-Making Panel 13, and the NEC Correlating Committee, and was issued by the Standards Council on August 12, 2022, with an effective date of September 1, 2022.

1. Add a new item "e." to paragraph 700.10(B)(5) to read as follows:

700.10(B) Wiring. …
(1) …
(5) …
a. …
e. At the emergency power source, such as a generator, multiple integral overcurrent protective devices shall each be permitted to supply a designated emergency or a designated nonemergency load, provided that there is complete separation between emergency and nonemergency loads beginning immediately after the overcurrent protective device line-side connections.

Wiring of two or more emergency circuits supplied from the same source shall be permitted in the same raceway, cable, box, or cabinet.

Issue Date: August 12, 2022

Effective Date: September 1, 2022

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

Tentative Interim Amendment

NFPA® 70®

National Electrical Code®

2020 Edition

Reference: 210.8(F) and Exception No. 2(new)
TIA 20-19
(SC 22-8-16 / TIA Log #1653)

Pursuant to Section 5 of the NFPA *Regulations Governing the Development of NFPA Standards*, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 70®, *National Electrical Code*®, 2020 edition. The TIA was processed by the NEC Code-Making Panel 2, and the NEC Correlating Committee, and was issued by the Standards Council on August 12, 2022, with an effective date of September 1, 2022.

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

210.8(F) Outdoor Outlets.

All outdoor outlets for dwellings, other than those covered in 210.8(A)(3), Exception to (3), that are supplied by single-phase branch circuits rated 150 volts to ground or less, 50 amperes or less, shall have ground-fault circuit-interrupter protection for personnel. ~~This requirement shall become effective on January 1, 2023, for mini-split-type heating/ventilating/air-conditioning (HVAC) equipment and other HVAC units employing power conversion equipment as a means to control compressor speed.~~

~~Informational Note: *Power conversion equipment* is the term used to describe the components used in HVAC equipment that is commonly referred to as a variable speed drive. The use of power conversion equipment to control compressor speed differs from multistage compressor speed control.~~

Exception No. 1: Ground-fault circuit-interrupter protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: Ground-fault circuit-interrupter protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

Issue Date: August 12, 2022

Effective Date: September 1, 2022

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

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