Chapter 2 Wiring and Protection Article 230 Services

230.43 Revise this section as follows:

Article 230.43 Wiring Methods for 1000 Volts, Nominal, or Less.

Add the following: (20) Reserved, and (21) Reserved

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
			x	

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
			x

COMMENT 2:

Name:
Date:

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

Index keywords:	

COMMENT : TSD Analysis

Name:
Date:

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

Chapter 2 Wiring and Protection Article 250 Grounding and Bonding

250.50 Revise the first paragraph and the second paragraph of this section as follows:

Article 250.50 Grounding Electrode System.

All grounding electrodes as described in 250.52(A)(1) through (A)(7) that are present at each building or structure served shall be bonded together to form the grounding electrode system. A concrete encased electrode as defined by 250.52(A)(3) shall be installed at each new building or structure, and for existing buildings or structures when a new or replacement foundation or footing with a perimeter length of 6.0 m (20 ft.) or more is installed in direct contact with the earth. ~~**Where**~~ **If** none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and used.

Exception: Concrete-encased electrodes of existing buildings or structures shall not be required to be part of the grounding electrode system ~~***where the steel reinforcing bars or rods are***~~ ***if the rebar is*** *not accessible for use without disturbing the concrete.*

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
			x	

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
			x

COMMENT 2:

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Date:

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

Index keywords:	

COMMENT : TSD Analysis

Name:
Date:

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

Chapter 2 Wiring and Protection Article 250 Grounding and Bonding

250.64(B) Revise this section as follows:
Article 250.64(B) Securing and Protection Against Physical Damage. ~~Where~~ <u>If</u> exposed, a grounding electrode conductor or its enclosure shall be securely fastened to the surface on which it is carried. Grounding electrode conductors shall be permitted to be installed on or through framing members.
(1) **Not Exposed to Physical Damage.** A 6 AWG [←] grounding electrode conductor [←] that is free from exposure to physical damage shall be permitted to be run along the surface of the building construction without metal covering or protection.
(2) **Exposed to Physical Damage.** A [←] 4 AWG or larger copper or aluminum grounding electrode conductor exposed to physical damage shall be protected in rigid metal conduit (RMC), intermediate metal conduit (IMC), rigid polyvinyl chloride conduit
(PVC), reinforced thermosetting resin conduit Type XW (RTRC-XW), electrical metallic tubing (EMT), or cable armor. Exposed grounding electrode conductors that are accessible to the general public shall be installed in approved metallic raceway.
(3) **Smaller than 6 AWG.** Grounding electrode conductors smaller than 6 AWG shall be protected in RMC, IMC, PVC, RTRCXW, EMT, or cable armor. 6 AWG or smaller grounding electrode conductors shall not be installed exposed below 5 feet.
(4) **In contact with the Earth.** Grounding electrode conductors and grounding electrode bonding jumpers in contact with the earth shall not be required to comply with 300.5, **<u>or 305.15</u>** but shall be buried or otherwise protected if subject to physical damage.

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
			x	

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
			x

COMMENT 2:

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Date:

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

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Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**	

Chapter 3 Wiring Methods and Materials Article 300 General Requirements for Wiring Methods and Materials

300.3(C) Revise this section as follows:
Article 300.3(C) Conductors of Different Systems.

300.3(C)(1) 1000 Volts ac, 1500 volts dc, Nominal or Less. Conductors of ac and dc circuits rated 1000 volts ac, 1500 volts dc, circuits,[←] from separately derived systems, from separate services, or from separate utility meters shall not be permitted to occupy the same equipment wiring enclosure, cable or raceway with conductors from other systems, services, or meters. All conductors shall have an insulation rating equal to at least the maximum circuit voltage applied to any conductor within the enclosure, cable, or raceway.
Secondary wiring to electric-discharge lamps of 1000 volts **ac**, **1500 volts dc**, or less, if insulated for the secondary voltage involved, shall be permitted to occupy the same luminaire, sign, or outline lighting enclosure as the branch-circuit conductors.
Informational Note No. 1: See 725.136(A) for Class 2 and 3 circuit conductors.
Informational Note No. 2: See ~~690.4(B)~~ **690.31(B)** for photovoltaic source and output circuits.
Exception No 1: Photovoltaic Systems: PV Source Circuits and PV Output Circuits in accordance with Section 690.31(B) Identification and Grouping.
Exception No. 2: Emergency Systems: Conductors installed in accordance with Section 700.10 Wiring.
Exception No. 3: Remote-Control, Signaling, and Power-Limited Circuits: Class 1, 2 or 3 Conductors installed in accordance with Article 725.136(A) General.
Exception No. 4: Auxiliary Gutters: When approved by the AHJ Conductors connected to Separately Derived Systems, Service Equipment, or Meter Banks Article 366.

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	Retain as is:	Update as noted:	Revise:	Delete:
			x	

Place an X in one of the following:	More Restrictive:	Less Restrictive:	Neither more nor less:
			x

COMMENT 2:

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Comments/Findings:

Place an X in one of the following:	Retain as is:	Update as noted:	Revise:	Delete:

Place an X in one of the following:	More Restrictive:	Less Restrictive:	Neither more nor less:

Index keywords:	

COMMENT : TSD Analysis

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Comments/Findings:				
Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**	

Chapter 3 Wiring Methods and Materials Article 330 Metal Clad Cable: Type MC

330.12 Revise this section as follows:

Article 330.12 Uses Not Permitted. Type MC cable shall not be used under either of the following conditions:
(1) Where subject to physical damage
Informational Note: See the ~~2022~~ **2025** San Francisco Electrical Code Section 300.4 (I) Subject to Physical Damage.
Exception: Type MC Cable #4 AWG or larger, installed in a lockable room dedicated solely to an electrical service and distribution
equipment and accessible only to qualified personnel, shall be considered to have equivalent protection from physical damage when installed in a neat and workman like manner, properly supported, and securely fastened in place.

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
			x	

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
			x

COMMENT 2:

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Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

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Comments/Findings:

Place an X in one of the following:	Retain as is:	Update as noted:	Revise:	Delete:

Place an X in one of the following:	More Restrictive:	Less Restrictive:	Neither more nor less:

Chapter 3 Wiring Methods and Material Article 334 Nonmetallic Sheathed Cable: Types NM and NMC

334.12 Revise this section as follows:
Article 334.12 Uses Not Permitted.
(11) In any nonresidential structure or occupancy.
(12) In Common Areas of Multi-family Dwelling Units of Group R-1 and R-2 buildings of Type IIIA construction per the ~~2022~~ **2025** California Building Code 510.5
(13) Nominal voltages above 120 volts to ground

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
			x	

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
			x

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Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

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COMMENT : TSD Analysis

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Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	More Restrictive:	Less Restrictive:	Neither more nor less:

Chapter 3 Wiring Methods and Materials Article 352 Rigid Polyvinyl Chloride Conduit: Type PVC

352.10 Revise this section as follows:

Article 352.10 Uses Permitted. The use of PVC conduit shall be permitted in accordance with 352.10 ~~(A) through (I)~~ **(A) through (K).**

352.10(A) Reserved

~~352.10(A) Concealed~~ **352.10(B) Encased in Concrete** PVC conduit shall be permitted [←] embedded in concrete. The conduit may emerge not more than 3 inches from the concrete within wiring enclosures, otherwise metal raceways shall be provided where emerging from the concrete.

352.10(C) Corrosive Influences.

PVC conduit shall be permitted in locations subject to severe corrosive influences as covered in 300.6 and where subject to chemicals for which the materials are specifically approved.

352.10(D) Cinders

PVC conduit shall be permitted in cinder fill.

352.10(E) Reserved

352.10(F) Reserved

352.10(G) Reserved

352.10(H) Underground Installations. For underground installations, PVC shall be permitted for direct burial and underground encased in concrete. See 300.5 and 305.15.

352.10(I) Reserved

352.10(J) Reserved

352.10(K) Reserved

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	Retain as is:	Update as noted:	Revise:	Delete:
			x	

Place an X in one of the following:	More Restrictive:	Less Restrictive:	Neither more nor less:
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Place an X in one of the following:	Retain as is:	Update as noted:	Revise:	Delete:

Place an X in one of the following:	More Restrictive:	Less Restrictive:	Neither more nor less:

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Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**	

Instructions for Code Comment Form

SFEC 362.10 – Uses Permitted

(6) Encased in poured concrete floors, ceiling, walls, and slabs.
(7) Embedded in a concrete slab on grade where ENT … connections. Metal raceway shall be provided where emerging from the concrete.

(10) [←] Reserved.

COMMENT 1: *(leave this section blank)*

Name: *Jason Cheng*
Date: *3/18/25*

Comments/Findings:

- *2022 (6) split into 2025 (6) & (7).*
- *Add (10).*

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
			X	

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
	Not required to	*mark anything on*	*this line unless you wish to.*

COMMENT 2:

Name:
Date:

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

Index keywords:	

COMMENT : **TSD Analysis**

Name:
Date:

Comments/Findings:				
Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**	

Chapter 4 Equipment for General Use Article 411 Low Voltage Lighting

~~*411.5 Revise Section 411.5(A) as follows:*~~ ***411.6 Revise Section 411.6(A) as follows:***

411.6(A) Walls, Floors, and Ceilings.

Conductors concealed or extended through a wall, floor, ~~or~~ ceiling, or suspended ceiling shall be in accordance with ~~(1) or (2)~~ **one of the following:**

(1) Installed using any of the wiring methods specified in Chapter 3

(2) Installed using wiring supplied by a listed Class 2 power source and installed in accordance with 725.130

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
			x	

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
			x

COMMENT 2:

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Date:

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

Index keywords:	

COMMENT : TSD Analysis

Name:
Date:

Comments/Findings:

Place an X in one	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**

of the following:				
Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**	

Chapter 7 Special Conditions Article 700 Emergency Systems

~~*700.12(I)(2)*~~ ***700.12(H)(2)*** *Revise this section as follows:*
Article ~~700.12(I)(2)~~ 700.12(H)(2) Installation of Unit Equipment. Unit equipment shall be installed in accordance with the following:
(2) Unit equipment shall be permanently fixed (i.e., not portable) in place and shall have all wiring to each unit installed in accordance with the requirements of any of the wiring methods in Chapter 3. Flexible cord-and-plug connection shall not be permitted [←].
(5) Emergency luminaires (illumination fixtures) that obtain power from a unit equipment and are not part of the unit equipment shall be wired to the unit equipment as required by 700.10 and by one of the wiring methods of Chapter 3.

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
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Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
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Comments/Findings:

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of the following:				
Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**	

Chapter 7 Special Conditions Article 760 Fire Alarm Systems

760.180 Revise this section as follows:
Article 760.180 System Requirements.
(A) Supervising Station Fire Alarm Systems. Supervising station fire alarm system wiring installed within or on buildings shall be installed in metallic race ways.
Exception: Communication conductors installed entirely within a dedicated telephone equipment room, switchboard area or fire control room.
(B) Source of Power. Circuits supplying fire alarm control units that are not monitored by an approved supervising station, or a constantly attended location approved by the fire code official shall be connected to either the line or load side of the service disconnect.
Circuits shall be protected by means of an externally operated fused safety switch or a circuit breaker either in a separate enclosure or within a switchboard entirely separate from other circuit breakers. The switch and/or circuit breaker shall be clearly labeled and locked in the on position.
Informational Note: See CEC ~~(2016)~~ **(2025)** 760.41 & 760.121; CBC ~~(2016)~~ **(2025)** 903.4; NFPA 72 ~~(2016)~~ **(2025)**~~10.5.3~~; NFPA 13 ~~(2016)~~ **(2025)** ~~6.8.4.1~~

COMMENT 1:

Name: Gary Clifton
Date: 3/12/2025

Comments/Findings:

Place an X in one of the following:	**Retain as is:**	**Update as noted:**	**Revise:**	**Delete:**
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Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**
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Comments/Findings:

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Place an X in one of the following:	**More Restrictive:**	**Less Restrictive:**	**Neither more nor less:**

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Comments/Findings:				
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