# CALIFORNIA ADOPTED THE FOLLOWING:

FINAL EXPRESS TERMS

FOR STATE AGENCY APPROVED CHANGES

TO

THE 2020 NATIONAL ELECTRICAL CODE (NEC)

FOR

THE 2022 CALIFORNIA ELECTRICAL CODE (CEC)

CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 24, PART 3

- THE CALIFORNIA BUILDING STANDARDS COMMISSION (BSC)
- THE DIVISION OF THE STATE ARCHITECT STRUCTURAL SAFETY (DSA-SS)
- THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPEMENT (HCD)
- THE OFFICE OF STATE WIDE HEALTH PLANNING AND DEVELOPMENT (OSHPD)
- THE OFFICE OF THE STATE FIRE MARSHAL (SFM)
- CALIFORNIA ENERGY COMMISSION (CEC)

Disclaimer: All Final Express Terms for the above mentioned agencies are available and were obtained from the Building Standards Commission at the following link:

https://www.dgs.ca.gov/BSC/Rulemaking/2021-Triennial-Code-Adoption-Cycle/Dec-2021-Commission-Mtg

https://www.dgs.ca.gov/BSC/Rulemaking/2021-Triennial-Code-Adoption-Cycle/Jan-2022-Commission-Mtg

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### APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION

**DECEMBER 14, 2021** 

# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE CALIFORNIA BUILDING STANDARDS COMMISSION REGARDING THE 2022 CALIFORNIA ELECTRICAL CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3

(BSC 01/20)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italics and ellipsis.

### LEGEND for EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

- Model Code language appears upright
- Existing California amendments appear in *italic*
- Amended model code or new California amendments appear underlined & italic
- Repealed model code language appears upright and in strikeout
- Repealed California amendments appear in italic and strikeout
- Ellipsis (...) indicate existing text remains unchanged

### FINAL EXPRESS TERMS

### ITEM 1

### Article 89, General Code Provisions

BSC proposes to bring forward existing California amendments in Article 89, Section 89.101 through 89.102.3.2 from the 2019 California Electrical Code for adoption into the 2022 edition of the California Electrical Code with additional amendments as follows:

### CALIFORNIA ARTICLE 89 GENERAL CODE PROVISIONS

**89.101.1 Title.** These regulations shall be known as the California Electrical Code, may be cited as such and will be referred to herein as "this code." The California Electrical Code is Part 3 of thirteen parts of the official compilation and publication of the adoption, amendment, and repeal of electrical regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2017 2020 National Electrical Code of the National

Fire Protection Association with necessary California amendments.

- **89.101.2 Purpose.** The purpose of this code ... [No change to existing California amendment]
- **89.101.3 Scope.** The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or an any appurtenances connected or attached to such building buildings or structures throughout the State of California.
  - **89.101.3.1 Nonstate-Regulated Buildings, Structures, and Applications.** Except as modified by local ... [No change to existing California amendment]
  - **89.101.3.2 State-Regulated Buildings, Structures, and Applications.** The model code, state amendments ...

Note: See <u>Preface to distinguish the model code provisions from the California provisions</u> "<u>How to Distinguish Between Model Code Language and California Amendments</u>" in the front of the code.

- 1 through 13 [No change to existing California amendment]
- 14. Applications regulated by the Office of the State Fire Marshal include, but are not limited to, the following in accordance with Section 89.111:
  - 1. Buildings or structures used or intended for use as <u>an:</u>
    - 1.1 Asylum, jail, prison.
    - 1.2 -1.9 [No change to existing California amendment]
  - 2 through 6 [No change to existing California amendment]
- 15 through 17 [No change to existing California amendment]
- **89.101.3.3 Exempted from This Code.** This code does not cover: ... 1 through 6 [No change to existing California amendment]
- **89.101.4 Annexes.** Provisions contained in ... [No change to existing California amendment]
- **89.101.5 Referenced Codes.** The codes, standards ... [No change to existing California amendment]
- **89.101.6 Non-Building Standards, Orders and Regulations.** Requirements contained ... [No change to existing California amendment]
- 89.101.7 Order of Precedence and Use.
  - **89.101.7.1 Differences.** In the event of any ... [No change to existing California amendment]

- **89.101.7.2 Specific Provisions.** Where a specific provision... [No change to existing California amendment]
- **89.101.7.3 Conflicts.** When the requirements ... [No change to existing California amendment]
- 89.101.8 City, County, or City and County Amendments, Additions or Deletions. The provisions of this code do not limit the authority of city, county, or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section 89.101.8.1. The effective date of amendments, additions, or deletions to this code by <u>a</u> city, county, or city and county filed pursuant to Section 89.101.8.1 shall be the date filed. However, in no case shall the amendments, additions, or deletions to this code be effective any sooner than the effective date of this code.
  - **89.101.8.1 Findings and Filings.** The city, county, or city and ... [No change to existing California amendment]
  - **89.101.8.2 Locally Adopted Energy Standards California Energy Code, Part 6.** In addition to the provisions ... [No change to existing California amendment]
- **89.101.9 Effective Date of This Code.** Only those standards ... [No change to existing California amendment]
- **89.101.10 Availability of Codes.** At least one complete copy ... [No change to existing California amendment]
- **89.101.11 Format.** This part fundamentally adopts... [No change to existing California amendment]
- **89.101.12 Validity.** If any chapter, article, section, ... [No change to existing California amendment]

### SECTION 89.102 BUILDING STANDARDS COMMISSION

- **89.102.1** BSC Specific scope of application ... [No change to existing California amendment]
  - State Buildings for All Occupancies.
     Application State buildings (all occupancies), ... [No change to existing California amendment]
  - 2. University of California, California State Universities, and California Community Colleges.
    - **Application** Standards for lighting for parking lots and primary campus walkways at the University of California, California State Universities, and California Community Colleges.

. . .

- **89.102.1.1 State building.** For purposes of this code, a ... [No change to existing California amendment]
- **89.102.1.2 Enforcement.** [CSU, UC, Judicial Council... [No change to existing California amendment]
- 89.102.1.3 Enforcement, Reserved for DGS.
- **89.102.1.4 Adopting agency identification.** The provisions ... [No change to existing California amendment]
- **89.102.2 BSC-CG.** Specific scope of application ... [No change to existing California amendment]
  - 89.102.2.1 Green Building Standards for Nonresidential Occupancies.

**Application** – All occupancies where no other state agency ... [No change to existing California amendment]

89.102.2.2 Graywater Systems for Nonresidential Occupancies.

**Application** – The construction, installation, and alteration of graywater systems for indoor and outdoor uses in nonresidential occupancies.

**Enforcing agency** – State or local ... [No change to existing California amendment]

- **89.102.2.3 Adopting Agency Identification.** The provisions of this ... [No change to existing California amendment]
- **89.102.3 Alternative Materials, Design and Methods of Construction and Equipment.** The provisions of this code are not intended ... [No change to existing California amendment]
  - **89.102.3.1 Research Reports**. Supporting data, where ... [No change to existing California amendment]
  - **89.102.3.2 Tests.** Whenever there is insufficient evidence of compliance ... [No change to existing California amendment]

### **Notation:**

Authority: Health & Safety Code Sections 18928, 18928(b), 18928.1, 18930, 18930.5, 18934.5, 18938, & 18949.6

Reference(s): Health & Safety Code Sections 18928, 18928(b), 18928.1, 18930, 18934.5, & 18949.6ITEM 2

### Article 90 - Introduction

BSC proposes to Adopt ARTICLE 90 from the 2020 National Electrical Code, without

amendments into the 2022 edition of the California Electrical Code.

### **ARTICLE 90 - Introduction**

### **Notation:**

Authority: Health & Safety Code Sections 18928, 18928(b), 18928.1, 18930.5, 18934.5, 18938, and 18949.6

Reference(s): Health & Safety Code Sections 18928, 18928(b), 18928. 1, and 18934.5, & 18949.6

#### ITEM 3

### Chapter 1 General

BSC proposes to adopt CHAPTER 1, ARTICLES 100 and 110 from the 2020 National Electrical Code and to bring forward existing California amendments, as shown in the Express Terms, without change into the 2022 edition of the California Electrical Code. This action provides general provisions and specific state amendments for electrical systems used throughout the state.

### **Chapter 1 General**

### **ARTICLE 100 Definitions**

. . .

**Ballasted Solar Photovoltaic System [BSC]** A roof mounted system ... [No change to existing California amendment]

. . .

### **ARTICLE 110 Requirements for Electrical Installations**

### 110.13 Mounting and Cooling of Equipment.

(A) Mounting. Electrical equipment shall be firmly secured to the surface on which it is mounted. Wooded plugs driven into holes in masonry, concrete, plaster, or similar materials shall not be used.

**Exception:** [BSC] Roof mounted ballasted solar photovoltaic [No change to existing California amendment]

### **Notation:**

Authority: Health & Safety Code Sections 18928, 18928(b), 18928.1, 18930.5, 18934.5, 18938. and 18949.6

Reference(s): Health & Safety Code Sections 18928, 18928(b), 18928. 1, and 18934.5, & 18949.6

### ITEM 4

### Chapter 2 Wiring and Protection, Chapter 3 Wiring Methods and Materials, Chapter 4 Equipment for General Use

BSC proposes to adopt Chapters 2 through 4 (All Articles) from the 2020 National Electrical Code, without amendments into the 2022 edition of the California Electrical Code. By adopting these articles BSC meets the statutory mandate to adopt the model code provisions for the code users of California.

### **Chapter 2 - Wiring and Protection**

### **Chapter 3 - Wiring Methods and Materials**

### **Chapter 4 - Equipment for General Use**

### **Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1, and 18934.5

### ITEM 5

### **Chapter 5 Special Occupancies**

BSC proposes to adopt Chapter 5 from the 2020 National Electrical Code, but not to adopt ARTICLES 517- Health Care Facilities, or 550 - Mobile Homes, Manufactured Homes, and Mobile Home Parks into the 2022 edition of the California Electrical Code. Articles 517 and 550 are adopted by the state agencies that have statutory authority to adopt electrical provisions for health care facilities and mobile home manufacturing and mobile home parks.

### **Chapter 5 - Special Occupancies**

### **Notation:**

Authority: Health & Safety Code Sections 18928, 18928.1, 18930.5, 18934.5, 18938,

and 18949.6

Reference(s): Health & Safety Code Sections 18928, 18928. 1, and 18934.5, & 18949.6

### ITEM 6

### **Chapter 6 Special Equipment**

BSC proposes to adopt Chapter 6 from the 2020 National Electrical Code, with existing California amendments to Section 625.1.1 to be moved forward without change into the 2022 edition of the California Electrical Code. This action aids the code user in identifying additional provisions for electrical vehicle charging systems located in other parts of Title 24.

### Chapter 6 - Special Equipment ARTICLE 625

### **Electric Vehicle Charging System**

. . .

**625.1.1** [BSC-CG] Electric Vehicle (EV) Charging for New Construction. In addition to requirements in this Article, electric ... [No change to existing California amendment]

. . .

### Notation:

Authority: Health & Safety Code Sections 18928, 18928(b), 18928.1, 18930.5, 18934.5, 18938, and 18949.6

Reference(s): Health & Safety Code Sections 18928, 18928(b), 18928. 1, and 18934.5, & 18949.6

### ITEM 7

### Chapter 7 Special Conditions, Chapter 8 Communications Systems, Chapter 9 Tables

BSC proposes to adopt Chapters 7 through 9 from the 2020 National Electrical Code without amendments. However, BSC proposes to not adopt articles 708, 728, 750, and 840 in the 2022 edition of the California Electrical Code. This regulatory action by BSC meets the statutory mandate to adopt the model code provisions for the code users of California.

### **Chapter 7 – Special Conditions**

### **Chapter 8 – Communications Systems**

### Chapter 9 - Tables

### **Notation:**

Authority: Health & Safety Code Sections 18928, 18928(b), 18928.1, 18930.5, 18934.5, 18938, and 18949.6

Reference(s): Health & Safety Code Sections 18928, 18928(b), 18928.1, and 18934.5, & 18949.6

### ITEM 8

### ANNEX A, B, C, D, E, F, G, H, I, & J

BSC proposes not to adopt the Annexes from the 2020 National Electrical Code into the 2022 edition of the California Electrical Code. The Annexes are not part of the body of the adopted model code unless specifically identified for adoption in the matrix adoption tables. By not adopting the Annexes, BSC maintains the appropriate procedure for Annex adoption by local jurisdictions as needed.

. . .

STATE OF CALIFORNIA BUILDING STANDARDS COMMISSION ANNEXES A, B, C, D, E, F, G, H, I, & J

### **Notation:**

Authority: Health & Safety Code Sections 18928 and 18934.5

Reference(s): Health & Safety Code Sections 18928, 18928.1, and 18934.5

### Part 3 – California Electrical Code

Articles 89, 422, 440, 408, 706

**Article 89 General Code Provisions** 

89.101.8 City, County, or City and County Amendments, Additions or Deletions.

[...]

**89.101.8.2** Locally Adopted Energy Standards – California Energy Code, Part 6. California Energy Code Requirements for Locally Adopted Energy Standards. In addition to the provisions of Section 89.101.8.1 of this part, the provisions of this section apply to cities, counties, and cities and counties amending adopted energy standards affecting buildings and structures subject to the California Energy Code, Part 6. local jurisdictions that adopt changes to energy conservation or insulation standards (including energy efficiency measures) may not enforce such changes until the California Energy Commission has made the findings required by Public Resources Code Section 25402.1(h)(2), following the process specified in Section 10-106 of the California Administrative Code. Applicable provisions of Public Resources Code Section 25402.1 and applicable provisions of Chapter 10 of the California Administrative Code, Part 1 apply to local amendment of energy standards adopted by the California Energy Commission.

Notation:

Authority: Sections 25213, 25218, 25218.5, 25402 and 25402.1, Public Resources Code

Reference(s): Sections 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.8, and 25943, Public Resources Code

**Article 408 Switchboards and Panelboards** 

[...]

408.2(A) California Energy Code Requirements for panelboards in single-family buildings. In single-family residential buildings that include one or two dwellings, panelboards serving the individual dwelling unit shall be provided with circuit breaker spaces for heat pump water heaters, heat pump space heaters, electric cooktops and electric clothes dryers as specified in California Energy Code Section 150.0 (n), (t), (u) and (v).

[...]

408.2(B) California Energy Code Requirements for panelboards in multifamily buildings. In multifamily buildings, panelboards serving the individual dwelling unit shall be provided with circuit breaker spaces for heat pump space heaters, electric cooktops and electric clothes dryers as specified in California Energy Code Section 160.9 (a), (b) and (c).

Notation:

Authority: Sections 25213, 25218, 25218.5, 25402 and 25402.1, Public Resources Code Reference(s): Sections 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.8, and

25943, Public Resources Code.

### **Article 422 Appliances**

[...]

422.3(A) California Energy Code Requirements for heat pump water heaters, electric cooktops, electric clothes dryers and their readiness in single-family buildings. In single-family residential buildings that include one or two dwellings, each dwelling unit shall be provided with:

- (1) designated spaces, receptacles, branch circuits and circuit identifications as specified for heat pump water heaters in California Energy Code Section 150.0(n); and
- (2) dedicated circuits and circuit identifications as specified for electric cooktops in California Energy Code Section 150.0(u); and
- (3) dedicated circuits and circuit identifications as specified for electric clothes dryers in California Energy Code Section 150.0(v).

[...]

<u>422.3(B) California Energy Code Requirements for electric cooktops, electric clothes dryers and their readiness in multifamily buildings.</u> In multifamily buildings, each dwelling unit shall be provided with:

- (1) dedicated circuits and circuit identifications as specified for electric cooktops in California Energy Code Section 160.9(b); and
- (2) dedicated circuits and circuit identifications as specified for electric clothes dryers in California Energy Code Section 160.9(c).

#### Notation:

Authority: Sections 25213, 25218, 25218.5, 25402 and 25402.1, Public Resources Code Reference(s): Sections 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.8, and 25943, Public Resources Code.

**Article 440 Air-Conditioning and Refrigeration Equipment** 

[...]

440.3(E) California Energy Code Requirements for heat pump space heaters and their readiness in single-family buildings. In single-family residential buildings that include one or two dwellings, each dwelling unit shall be provided with designated spaces, receptacles, branch circuits and circuit identifications as specified for heat pump space heaters in California Energy Code Section 150.0(t).

[...]

440.3(F) California Energy Code Requirements for heat pump space heaters and their readiness in multifamily buildings. In multifamily buildings, each dwelling unit shall be provided with

<u>designated spaces, receptacles, branch circuits and circuit identifications as specified for heat</u> pump space heaters in California Energy Code Section 160.9(a).

### Notation:

Authority: Sections 25213, 25218, 25218.5, 25402 and 25402.1, Public Resources Code Reference(s): Sections 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.8, and 25943, Public Resources Code.

### **Article 706 Energy Storage Systems**

[...]

706.10 California Energy Code Requirements for energy storage systems and their readiness in single-family buildings. In single-family residential buildings that include one or two dwellings, each dwelling unit shall be provided with dedicated raceways, designated branch circuits and isolation devices for energy storage systems as specified in California Energy Code Section 150.0(s). Additionally, the panelboards shall be provided with the minimum busbar rating as specified in California Energy Code Section 150.0(s).

Alternatively, an energy storage systems (ESS) shall be installed with minimal backup capacity and ESS supplied branch circuits as specified in California Energy Code Section 150.0(s).

### Notation:

Authority: Sections 25213, 25218, 25218.5, 25402 and 25402.1, Public Resources Code Reference(s): Sections 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.8, and 25943, Public Resources Code.

### APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION

**DECEMBER 14, 2021** 

# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE STATE ARCHITECT-STRUCTURAL SAFETY

# (DSA-SS and DSA-SS/CC) REGARDING THE 2022 CALIFORNIA ELECTRICAL CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3

(DSA SS/CC 01/20)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

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- Ellipsis (...) indicate existing text remains unchanged

### **FINAL EXPRESS TERMS**

### Item 1

### California Article 89, General Code Provisions

Continue California Article 89 (General Code Provisions) of the 2019 triennial edition of the California Electric Code (CEC) for publication in the 2022 triennial edition of the CEC, with editorial amendments as shown below:

**89.101.1 Title.** These regulations shall be known as the California Electrical Code, may be cited as such and will be referred to herein as "this code." The California Electrical Code is Part 3 of thirteen parts of the official compilation and publication of the adoptions, amendment, and repeal of electrical regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2017 2020 National Electrical Code of the National Fire Protection Association with necessary California amendments.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section16022

STATE OF CALIFORNIA BUILDING STANDARDS COMMISSION

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 2

### **Article 90, Introduction**

Repeal Article 90 (Introduction) of the 2017 edition NEC.

Adopt Article 90 (Introduction) of the 2020 NEC without amendment for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 3

### Chapter 1, General

Repeal Chapter 1 (General) of the 2017 edition NEC.

Adopt Chapter 1 (General) of the 2020 edition NEC without amendment for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 4

### **Chapter 2, Wiring and Protection**

Repeal Chapter 2 (Wiring and Protection) of the 2017 NEC.

Adopt Chapter 2 (Wiring and Protection) of the 2020 NEC without amendment for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

STATE OF CALIFORNIA BUILDING STANDARDS COMMISSION

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 5

### **Chapter 3, Wiring Methods and Materials**

Repeal Chapter 3 (Wiring Methods and Materials) of the 2017 NEC.

Adopt Chapter 3 (Wiring Methods and Materials) of the 2020 NEC without amendment for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 6

### **Chapter 4, Equipment for Genral Use**

Repeal Chapter 4 (Equipment for General Use) of the 2017 NEC.

Adopt Chapter 4 (Equipment for General Use) of the 2020 NEC without amendment for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 7

### Chapter 5, Special Occupancies

Repeal Chapter 5 (Special Occupancies) of the 2017 NEC.

Adopt Chapter 5 (Special Occupancies) of the 2020 NEC without amendment for publication in the 2022 triennial edition of the CEC.

STATE OF CALIFORNIA BUILDING STANDARDS COMMISSION

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 8

### Chapter 6, Special Equipment

Repeal Chapter 6 (Special Equipment) of the 2017 NEC.

Adopt Chapter 6 (Special Equipment) of the 2020 NEC without amendment for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 9

### **Chapter 7, Special Conditions**

Repeal Chapter 7 (Special Conditions) of the 2017 NEC.

Adopt Chapter 7 (Special Conditions) of the 2020 NEC without amendment for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through 81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 10

### **Chapter 8, Communication Systems**

Repeal Chapter 8 (Communications Systems) of the 2017 NEC.

Adopt Chapter 8 (Communications Systems) of the 2020 NEC without amendment for

STATE OF CALIFORNIA BUILDING STANDARDS COMMISSION

publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through

81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 11

### Chapter 9, Tables

Repeal Chapter 9 (Tables) of the 2017 NEC.

Adopt Chapter 9 (Tables) of the 2020 NEC for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through

81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

### Item 12

#### **Annexes**

DSA-SS and DSA-SS/CC continue to not adopt Annexes A, B, C, D, E, F, G, H, I and J of the 2020 NEC for publication in the 2022 triennial edition of the CEC.

**Notation: DSA-SS** 

Authority: Education Code Sections 17310 and 81142, and H&S Code Section 16022

Reference(s): Education Code Sections 17280 through 17317, and 81130 through

81147, and H&S Code Sections 16000 through 16023.

**Notation: DSA-SS/CC** 

Authority: Education Code Section 81053.

Reference(s): Education Code Sections 81052, 81053, and 81130 through 81147.

# APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION DECEMBER 14, 2021

# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT REGARDING THE 2022 CALIFORNIA ELECTRICAL CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3

(HCD 01/20)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italic and ellipsis.

### **LEGEND for EXPRESS TERMS**

- Model Code language appears upright
- Existing California amendments appear in italic
- Amended model code or new California amendments appear underlined & italic
- Repealed model code language appears upright and in strikeout
- Repealed California amendments appear in italic and strikeout
- Ellipsis (...) indicate existing text remains unchanged

### **FINAL EXPRESS TERMS**

### Item 1

HCD proposes to bring forward existing California amendments in Article 89, from the 2019 California Electrical Code for adoption into the 2022 California Electrical Code with modifications as follows.

- 89.101.1 Title. These regulations shall be known as the California Electrical Code, may be cited as such and will be referred to herein as "this code." The California Electrical Code is Part 3 of thirteen parts of the official compilation and publication of the adoption, amendment, and repeal of electrical regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2017 2020 National Electrical Code of the National Fire Protection Association with necessary California amendments.
- 89.101.2 Purpose. 89.101.2 Purpose. The purpose of this code... (No change to existing California amendment other than bolding title.)
- 89.101.3 Scope. 89.101.3 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or an any appurtenances connected or attached to such building buildings or

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structures throughout the State of California.

- **89.101.3.1 Nonstate-Regulated Buildings, Structures, and Applications** (No change to existing California amendment.)
- **89.101.3.2 State-Regulated Buildings, Structures, Applications.** The model code, ... (No change to existing California amendment.)
- 89.101.3.3 Exempted from This Code. This code does not cover:
- 1 through 6 (No change to existing California amendment.)
- **89.101.4 Annexes.** Provisions contained... (No change to existing California amendment.)
- **89.101.5 Referenced Codes.** The codes... (No change to existing California amendment.)
- **89.101.6 Non-Building Standards, Orders and Regulations.** Requirements contained... (No change to existing California amendment.)
- 89.101.7 Order of Precedence and Use.
- **89.101.7.1 Differences.** In the event... (No change to existing California amendment.)
- **89.101.7.2 Specific Provisions.** Where a specific provision varies from a general provision, the specific provisions shall apply. (No change to existing California amendment.)
- **89.101.7.3 Conflicts.** When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirements shall prevail.
- **Exception:** Detached one- and two-family dwellings, lodging houses, live/work units, townhouses not more than three stories above grade plane with a separate means of egress, and their accessory structures, shall not be required to comply with the California Residential Code if constructed in accordance with the California Building Code.
  - 89.101.7.3.1 Detached One- and Two-Family Dwellings. Detached one- and two-family dwellings, lodging houses, live/work units, townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures, may be designed and constructed in accordance with the California Building Code or the California Residential Code, but not both, unless the proposed structure(s) or element(s) exceed the design limitations established in the California Residential Code, and the code user is specifically directed by the California Residential Code to use the California Building Code.
- 89.101.8 City, County, or City and County Amendments, Additions or Deletions. The provisions of this code do not limit the authority of city, county, or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section 89.101.8.1. The effective date of amendments, additions, or deletions to this code by a city, county, or city and county filed pursuant to Section 89.101.8.1 shall be the date filed. However, in no case shall the amendments, additions, or deletions to this code be effective any sooner than the effective date of this code.

Local modifications shall comply with Health and Safety Code Section 18941.5 for Building Standards Law, Health and Safety Code Section 17958 for State Housing Law or Health and Safety Code Section 13869.7 for Fire Protection Districts.

### 89.101.8.1 Findings and Filings.

1 and 2 (No change to existing California amendment.)

- 3. Findings prepared by fire protection districts shall be ratified by the local city, county, or city and county and filed with the California Department of Housing and Community Development, Division of Codes and Standards, P.O. Box 278180, Sacramento, CA 95827-8180 or at 9342 Tech Center Drive, Suite 500, Sacramento, CA 95826-2582.
- 89.101.8.2 Locally Adopted Energy Standards California Energy Code, Part 6.

In addition... (No change to existing California amendment.)

**89.101.9 Effective Date of This Code.** Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code. (No change to existing California amendment.)

### (HCD 1 & HCD 2) Exceptions Exceptions: (HCD 1 & HCD 2):

- 1. Retroactive permits issued in accordance with Health and Safety Code Section 17958.12.
- 2. Plans approved by the Department of Housing and Community Development or a Department-approved design approval agency for factory\_built housing as defined by Health and Safety Code Section 19971. Approved plans, pursuant to the California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, Article 3, Section 3048 3037 remain valid for a period of 36 months from the date of plan approval.
- **89.101.10 Availability of Codes.** At least... (No change to existing California amendment.)
- **89.101.11 Format.** This part fundamentally... (No change to existing California amendment.)
- **89.101.12 Validity.** If any chapter... (No change to existing California amendment.)
- **89.108.1 Purpose.** The purpose of... (No change to existing California amendment.)
- 89.108.2 Authority and Abbreviations. 89.108.2 Authority and Abbreviations.
  - **89.108.2.1 General.** The Department of... (No change to existing California amendment.)

**89.108.2.1.1 Housing Construction.** Application — Hotels, motels, lodging houses, apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities including accessory buildings, facilities, and uses thereto. Sections of this code which pertain to applications listed in this section are identified using the abbreviation "HCD 1."

**Enforcing Agency** — Local building department or the Department of Housing and Community Development.

**Authority Cited** — Health and Safety Code Sections 17040, <del>17050</del>, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, <u>17922.15</u>, <u>17926</u>, 17927, 17928, <u>17958.12</u>, <u>18300</u>, <u>18552</u>, <u>18554</u>, <u>18620</u>, <u>18630</u>, <u>18640</u>, <u>18670</u>, <u>18690</u>, <u>18691</u>, <u>18865</u>, <u>18871.3</u>, <u>18871.4</u>, <u>18873</u>, <u>18873.1</u> through <u>18873.5</u>, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

**Reference** — <u>Business and Professions Code Division 5</u>; Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, <u>18938.6</u>, 18941, <u>19890</u>, <u>19891</u>, <u>19892</u> and 19960 through 19997; Civil Code Sections <u>832</u>, 1101.4 and, 1101.5, <u>1954.201</u>, <u>1954.202</u> and <u>5551</u>; and Government Code Sections <u>8698.4</u>, 12955.1 and 12955.1.1. <u>California Code of Regulations</u>, Title 20, Sections 1605.1, 1605.3 and 1607.

89.108.2.1.2 Housing Accessibility. Application — Covered multifamily dwellings as defined in Chapter 2 of the California Code of Regulations, Title 24, Part 2, also known as the California Building Code including, but not limited to, lodging houses, dormitories, timeshares, condominiums, shelters for homeless persons, congregate residences, apartments, dwellings, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities. Sections of this code identified by the abbreviation "HCD 1-AC" require specific accommodations for persons with disabilities, as defined in Chapter 2 of the California Building Code. The application of such provisions shall be in conjunction with other requirements of this code and apply only to newly-constructed covered multifamily dwellings as defined in Chapter 2 of the California Building Code. "HCD 1-AC" applications include, but are not limited to, the following:

- (1) All newly constructed covered multifamily dwellings as defined in Chapter 2 of the California Building Code.
- (2) New common use areas as defined in Chapter 2 of the California Building Code serving existing covered multifamily dwellings.
- (3) Additions to existing buildings, where the addition alone meets the definition of covered multifamily dwellings as defined in Chapter 2 of the California Building Code.
- (4) Common New common use areas serving new covered multifamily dwellings.

(5) Where any portion of a building's exterior is preserved, but the interior of the building is removed, including all structural portions of floors and ceilings, the building is considered a new building for determining the application of the California Building Code, Chapter 11A.

"HCD 1-AC" building standards generally do not apply to public use areas or public accommodations such as hotels, motels and public housing. Public use areas, public accommodations and public housing as defined in Chapter 2 of the California Building Code are subject to the Division of the State Architect (DSA-AC) in Chapter 11B, and are referenced in Section 1.9.1. 89.109.1.

Newly constructed covered multifamilydwellings, multifamily dwellings, which can also be defined as public housing, shall be subject to the requirements of Chapter 11A and Chapter 11B.

**Enforcing Agency** — Local building department or the Department of Housing and Community Development.

**Authority Cited** — Health and Safety Code Sections 17040, <del>17050,</del> 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, <u>17926,</u> 17927, 17928, <u>17958.12,</u> <del>18300,</del> <del>18552,</del> <del>18554,</del> <del>18620,</del> <del>18630,</del> <del>18640,</del> <del>18670,</del> <del>18690,</del> <del>18691,</del> <del>18865,</del> <del>18871.3,</del> <del>18871.4,</del> <del>18873,</del> <del>18873.1 through 18873.5,</del> 18938.3, 18944.11, and 19990; and Government Code Sections 12955.1 <u>and 12955.1.1</u>.

**Reference** — Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.6, 18941 and 19960 through 19997; Civil Code Sections 1101.4 and 1101.5, 1954.201 and 1954.202; and Government Code Sections 12955.1 and 12955.1.1. California Code of Regulations, Title 20, Sections 1605.1, 1605.3 and 1607.

**89.108.2.1.3 Permanent Buildings in Mobilehome Parks and Special Occupancy Parks.** Application — Permanent buildings, and permanent accessory buildings or structures, constructed within mobilehome parks and special occupancy parks that are under the control and ownership of the park operator. Sections of this code which pertain to applications listed in this section are identified using the abbreviation "HCD 2."

**Enforcing Agency** — The Department of Housing and Community Development, local building department or other local agency that has assumed responsibility for the enforcement of Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 for mobilehome parks and Health and Safety Code, Division 13, Part 2.3 commencing with Section 18860 for special occupancy parks.

**Authority Cited** — Health and Safety Code Sections 17040, <del>17050,</del> 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, <u>17922.15, 17926,</u> 17927, 17928, <u>17958.12, 18300,</u> 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference — Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.6, 18941, 19890, 19891, 19892 and 19960 through 19997; Civil Code Sections 1101.4, and 1101.5 and 1954.201; and Government Code Sections 12955.1 and 12955.1.1. California Code of Regulations, Title 20, Sections 1605.1, 1605.3 and 1607; and Title 25, Sections 1042 and 2042.

### 89.108.3 Local Enforcing Agency.

**89.108.3.1 Duties and Powers.** The building department of every city, county, or city and county shall enforce all the provisions of law, this code, and the other rules and regulations promulgated by the Department of Housing and Community Development pertaining to the installation, erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartments, condominimums, condominiums, hotels, motels, lodging houses and dwellings, including accessory buildings, facilities, and uses thereto.

The provisions regulating the erection and construction of dwellings and appurtenant structures shall not apply to existing structures as to which construction is commenced or approved prior to the effective date of these regulations. Requirements relating to use, maintenance and occupancy shall apply to all dwellings and appurtenant structures approved for construction or constructed before or after the effective date of this code.

For additional information regarding the use and occupancy of existing buildings and appurtenant structures, see California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Article 1, Section 1.

For additional requirements regarding additions, alterations or repairs to existing buildings and appurtenant structures, see the California Existing Building Code.

- **89.108.3.2 Laws, Rules, and Regulations.** Other than... (No change to existing California amendment.)
  - 89.108.3.2.1 State Housing Law. Refer to the State Housing Law, California Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1, for the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartments, condominimums, condominiums, hotels, motels, lodging houses and dwellings, including accessory buildings, facilities, and uses thereto.
  - **89.108.3.2.2 Mobilehome Parks Act.** Refer to ... (No change to existing California amendment.)
  - **89.108.3.2.3 Special Occupancy Parks Act.** Refer to ... (No change to existing California amendment.)
  - **89.108.3.2.4 Employee Housing Act.** Refer to ... (No change to existing California amendment.)
  - **89.108.3.2.5 Factory-Built Housing Law.** Refer to ... (No change to existing California amendment.)

### 89.108.4 Permits, Fees, Applications and Inspections.

- **89.108.4.1 Permits.** (a) Except as exempted in paragraphs (b) or (c) of this subsection, a written construction permit shall be obtained from the enforcing agency prior to the erection, construction, reconstruction, installation, movement, or alteration of any electrical system.
- (b) Consistent with the requirements of Section 17960 of the Health and Safety Code, the local enforcing agency shall enforce the requirements of this code, but shall exempt the following activities from the requirement for a permit or inspection.
  - 1. Listed cord and plug connected temporary decorative lighting.
  - 2. Reinstallation of attachment plug receptacles, but not the outlets therefore.
  - 3. Repair or replacement of branch circuit overcurrent devices of the required capacity in the same location.
  - 4. Installation or maintenance of communications wiring, devices, appliances, apparatus or equipment.
- (c) Retroactive permits issued in accordance with Health and Safety Code Section 17958.12.

Exemptions from permit and inspection requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of any other provisions of law or this code.

- 89.108.4.2 Fees. Subject to other provisions of law, the governing body of any city, county, or city and county may prescribe fees to defray the cost of enforcement of rules and regulations promulgated by the Department of Housing and Community Development. The amount of the fees shall not exceed the amount reasonably necessary to administer or process permits, certificates, forms, or other documents, or to defray the costs of enforcement. For additional information, see the State Housing Law, Health and Safety Code, Division 13, Part 1.5, Section 17951 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, Article 3, commencing with Section 6.
- - **89.108.4.3.1 Retention of Plans**. The building department of every city, county, or city and county shall maintain an official copy, microfilm, or electronic or other type of photographic copy of the plans of every building, during the life of the building, for which the department issued a building permit.

### Exceptions:

- 1. Single or multiple dwellings not more than two stories and basement in height.
- 2. Garages and other structures appurtenant to buildings listed in Exception (1).
- 3. Farm or ranch buildings appurtenant to buildings listed in Exception (1).
- 4. Any one-story building where the span between bearing walls does not exceed 25 feet (7620 mm), except a steel frame or concrete building.

- All plans for common interest developments as defined in Section 4100 of the California Civil Code shall be retained. For additional information regarding plan retention and reproduction of plans by an enforcing agency, see Health and Safety Code Sections 19850 through 19852.
- **89.108.4.4 Inspections.** Construction or... (No change to existing California amendment.)
- 89.108.5 Right of Entry for Enforcement.
  - **89.108.5.1 General.** Subject to...1 through 3 and 5 (No change to existing California amendment.)
  - 4. For applications subject to the Employee Housing Act as referenced in Section 89.108.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
- 89.108.6 Local Modification by Ordinance or Regulation.
  - 89.108.6.1 General. Subject to ... (No change to existing California amendment.)
  - **89.108.6.2 Findings, Filings, and Rejections of Local Modifications.** Prior to making... (No change to existing California amendment.)
- 89.108.7 Alternate Materials, Designs, Tests and Methods of Construction.
  - **89.108.7.1 General.** The provisions... (No change to existing California amendment.)
  - **89.108.7.2 Local Building Departments.** The building department of any city, county, or city and county may approve alternates for use in the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartments, condominimums, condominiums, hotels, motels, lodging houses, dwellings, or accessory structures, except for the following:
    - 1 through 3 (No change to existing California amendment.).
      - **89.108.7.2.1 Approval of Alternates.** The consideration and approval of alternates by a local building department shall comply with the following procedures and limitations:
      - 1 through 3 (No change to existing California amendment.)
      - 4. If the proposed alternate is related to accessibility in covered multifamily dwellings or in facilities serving covered multifamily dwellings as defined in Chapter 2, of the California Building Code, the proposed alternate must also meet the threshold set for equilivant equivalent facilitation as defined in Chapter 2 of the California Building Code.
      - For additional information regarding approval of alternates by a local building department pursuant to the State Housing Law, see California Health and Safety Code Section 17951(e) and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.
  - **89.108.7.3 Department of Housing and Community Development.** The Department... (No change to existing California amendment.)

### 89.108.8 Appeals Board.

- **89.108.8.1 General.** Every city... (No change to existing California amendment.)
- **89.108.8.2 Definitions.** The following terms shall for the purposes of this section have the meaning shown.

**Housing Appeals Board.** The board ... (No change to existing California amendment.)

**Local Appeals Board.** The board... (No change to existing California amendment.)

89.108.8.3 Appeals. Except as otherwise provided by in law, any person, firm, or corporation adversely affected by a decision, order, or determination by a city, county, or city and county relating to the application of building standards published in the California Building Standards Code, or any other applicable rule or regulation adopted by the Department of Housing and Community Development, or any lawfully enacted ordinance by a city, county, or city and county, may appeal the issue for resolution to the local appeals board or housing appeals board as appropriate. The local appeals board shall hear appeals relating to new building construction and the housing appeals board shall hear appeals relating to existing buildings.

### 89.108.9 Unsafe Buildings or Structures.

**89.108.9.1 Authority to Enforce.** Subject to other provisions of law, the administration, enforcement, actions, proceedings, abatement, violations and penalties for unsafe buildings and structures are contained in the following statutes and regulations:

1 and 2 (No change to existing California amendment.)

- 3. For applications subject to the Special Occupancy Parks Act as referenced in Section 89.108.3.2.3 of this code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
- <u>4</u>. For applications subject to the Employee Housing Act as referenced in Section 89.108.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
- 4. <u>5.</u> For applications subject to the Factory-Built Housing Law as referenced in Section 89.108.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.
- **89.108.9.2 Actions and Proceedings.** Subject to other provisions of law, punishments, penalties and fines for violations of building standards are contained in the following statutes and regulations:
  - 1. For applications subject to the State Housing Law as referenced in Section 89.108.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.
  - 2 through 5 (No change to existing California amendment.)

### 89.108.10 Other Building Regulations.

- **89.108.10.1 Existing Structures.** Notwithstanding... (No change to existing California amendment.)
- **89.108.10.2 Moved Structures.** Subject to... (No change to existing California amendment.)

**Authority Cited:** Health and Safety Code Sections 17040, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17926, 17927, 17928, 17958.12, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, and 19990; and Government Code Sections 12955.1 and 12855.1.1.

**Reference:** Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.6, 18941, 18941.5, 19890, 19891, 19892 and 19960 through 19997; Civil Code Sections 1101.4, 1101.5, 1954.201, 1954.202 and 5551; and Government Code Sections 8698.4, 12955.1, 12955.1.1 and 65852.2. California Code of Regulations, Title 20, Sections 1605.1, 1605.3 and 1607.

### Item 2

HCD proposes to adopt Article 90 from the 2020 National Electrical Code into the 2022 California Electrical Code with modifications as follows.

### **ARTICLE 90**

### Introduction

### 90.2 Scope.

- (A) Covered... (No change to model code text.)
- **(B) Not Covered.** This Code does not cover the following:
- (1) Installations in ships, watercraft other than floating buildings, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles. (No change to model code text; shown only for reference.)
- (HCD 1 & HCD 2) Installations in ships, watercraft other than floating dwelling units, railway rolling stock, aircraft, automotive vehicles, commercial coaches, mobilehomes, and recreational vehicles.

Informational Note: Although the scope of this Code indicates that the Code does not cover installations in ships, portions of this Code are incorporated by reference into Title 46, Code of Federal Regulations, Parts 110-113.

- (2) (5) (No change to model code text.)
- (C) Special Permission. (No change to model code text.)

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 3

HCD proposes to adopt Chapter 1, Articles 100 and 110, from the 2020 National Electrical Code into the 2022 California Electrical Code with modified existing California amendments as follows.

### **CHAPTER 1 General**

### **ARTICLE 100**

### **Definitions**

Accessory Dwelling Unit. (HCD 1 & HCD 2) An attached... (No change to existing California amendment.)

**Ballasted Solar Photovoltaic System.** (HCD1 HCD 1 & HCD2 HCD 2) A roof mounted system composed of solar photovoltaic panels and supporting members that are unattached or partially attached to the roof and must rely on their weight, aerodynamics and friction to counter the effect of wind and seismic forces. (No change to existing California amendment.)

**Building.** A structure that stands alone or that is separated from adjoining structures by fire walls. (No change to model code text.)

**Exception:** (HCD 1, HCD 2 & HCD 1-AC) For applications... (No change to existing California amendment.)

### **ARTICLE 110**

### Requirements for Electrical Installations

### Part I. General

### 110.13 Mounting and Cooling of Equipment.

**(A) Mounting.** Electrical equipment shall be firmly secured to the surface on which it is mounted. Wooden plugs driven into holes in masonry, concrete, plaster, or similar materials shall not be used. (No change to model code text.)

**Exception:** (HCD 1 & <u>HCD</u> 2) Roof mounted ballasted solar photovoltaic systems provided that the wiring and interconnections are designed to accommodate for maximum system displacement. (No change to existing California amendment.)

(B) Cooling. Electrical equipment (no change to model code text)

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 4

HCD proposes to adopt Chapter 2, Articles 200, 210, 215, 220, 225, 230, 240, 242 (formerly 280 and 285), and 250, from the 2020 National Electrical Code into the 2022 California Electrical Code without amendment.

### **Chapter 2 Wiring and Protection**

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 5

HCD proposes to adopt Chapter 3, Articles 300, 310, 311 (formerly 328), 312, 314, 320, 322, 324, 326, 330, 332, 334, 336, 337 (new), 338, 340, 342, 344, 348, 350, 352, 353, 354, 355, 356, 358, 360, 362, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 393, 394, 396, 398 and 399, from the 2020 National Electrical Code into the 2022 California Electrical Code as follows with modified existing amendments.

# CHAPTER 3 Wiring Methods and Materials ARTICLE 334

### Nonmetallic-Sheathed Cable: Types NM and NMC

#### Part II. Installation

- **334.10 Uses Permitted.** Type NM and Type NMC, cables shall be permitted to be used in the following, except as prohibited in 334.12: (No change to model code text.)
- (1-4) (No change to existing model code text.)
- (5) Types I and II construction where installed within raceways permitted to be installed in Types I and II construction. (No change to model code text.)

**Note:** (HCD 1 and & HCD 2) Types I, II, III, IV, and V construction as referenced in Section 334.10 shall be as defined in the California Building Code. (Change to banner of existing California amendment.)

### **ARTICLE 394**

### **Concealed Knob-and-Tube Wiring**

### Part I. General

**394.12 Uses Not Permitted.** Concealed knob-and-tube wiring shall not be used in the following: (No change to model code text.)

(1-5) (No change to model code text.)

**Exception:** (HCD 1) This article is not intended to prohibit the installation of insulation where knob-and-tube wiring is present, provided the following are complied with:

1 through 6 (No change to existing California amendment.)

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 6

HCD proposes to adopt Chapter 4, Articles 400, 402, 404, 406, 408, 409, 410, 411, 422, 424, 426, 427, 430, 440, 445, 450, 455, 460, 470, 480 and 490, from the 2020 National Electrical Code into the 2022 California Electrical Code with modified existing amendment as follows.

## Chapter 4 Equipment for General Use ARTICLE 450

**Transformers and Transformer Vaults (Including Secondary Ties)** 

### **Part I. General Provisions**

**450.23 Less-Flammable Liquid-Insulated Transformers.** Transformers insulated with listed less-flammable liquids that have a fire point of not less than 300°C shall be permitted to be installed in accordance with 450.23(A) or 450.23(B).

- (A) Indoor Installations. (No change to model code text.)
- **(B) Outdoor Installations.** (No change to model code text.)

**Note:** (HCD 1 and & HCD 2) Types I and II construction as referenced in Section 450.23 (A)(1) and (B)(1) shall be as defined in the California Building Code.

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 7

HCD proposes to NOT adopt Chapter 4, Article 425, from the 2020 National Electrical Code.

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 8

HCD proposes to adopt Chapter 5, Articles 518, 545 and 590, from the 2020 National Electrical Code into the 2022 California Electrical Code without amendment.

### **CHAPTER 5 Special Occupancies**

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 9

HCD proposes to NOT adopt Chapter 5, Articles 500, 501, 502, 503, 504, 505, 506, 510, 511, 513, 514, 515, 516, 517, 520, 522, 525, 530, 540, 547, 550, 551, 552, and 555 (includes former 553) from the 2020 National Electrical Code.

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 10

HCD proposes to adopt Chapter 6, Articles 600, 620, 625, 626, 646, 680, 682, 690, 691, 692 and 694, from the 2020 National Electrical Code into the 2022 California Electrical Code, and to bring forward an existing California amendment as follows:

### **Chapter 6 Special Equipment**

**625.1.1 (HCD 1) Electric Vehicle (EV) Charging for New Construction.** In addition to .... (No change to existing California amendment.)

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 11

HCD proposes to NOT adopt Chapter 6, Articles 604, 605, 610, 630, 640, 645, 647, 650, 660, 665, 668, 669, 670, 675, 685 and 695 from the 2020 National Electrical Code.

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 12

HCD proposes to adopt Chapter 7, Articles 700, 702, 705, 706, 708, 710, 712, 720, 725, 727, 728, 750 and 770, from the 2020 National Electrical Code without amendment.

### **Chapter 7 Special Conditions**

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 13

HCD proposes to NOT adopt Chapter 7, Articles 701 and 760 from the 2020 National Electrical Code.

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 14

HCD proposes to adopt Chapter 8, Articles 800, 805 (new; includes portions of formerly 800, 820, 830, and 840), 810, 820, 830 and 840, from the 2020 National Electrical Code into the 2022 California Electrical Code without amendment.

### **Chapter 8 Communications Systems**

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 15

HCD proposes to adopt Chapter 9, Tables 1, 2, 4, 5, 5A, 8, 9, 10, 11(A), 11(B), 12(A) and 12(B), from the 2020 National Electrical Code into the 2022 California Electrical Code without amendment.

### **Chapter 9 Tables**

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### Item 16

HCD proposes to NOT adopt Annexes A, B, C, D, E, F, G, H, I and J from the 2020 National Electrical Code.

### **Notation:**

**Authority Cited**: Health and Safety Code Sections 17040, 17920.9, 17921, 17922, 18552, 18620, 18865, 18871.3, 18873, 18873.3, 18938.3, and 19990.

**Reference(s)**: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 18938.3 and 19960 through 19997.

### APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION DECEMBER 14, 2021

# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT REGARDING THE 2022 CALIFORNIA ELECTRICAL CODE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3

#### (OSHPD 01/20)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italic and ellipsis.

#### LEGEND for EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

- Model Code language appears upright
- Existing California amendments appear in italic
- Amended model code or new California amendments appear underlined & italic
- Repealed model code language appears upright and in strikeout
- Repealed California amendments appear in italic and strikeout
- Ellipsis (...) indicate existing text remains unchanged

#### FINAL EXPRESS TERMS

#### Item 1

#### **CALIFORNIA ARTICLE 89 GENERAL CODE PROVISIONS**

Carry forward Article 89 of the 2019 California Electrical Code (CEC) for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 2

#### **ARTICLE 90 Introduction**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

# Item 3 Chapter 1 General ARTICLE 100 Definitions

Adopt entire 2020 National Electric Code (NEC) Article, carry forward existing amendment of the 2019 California Electrical Code (CEC) for OSHPD 1, 2, 3, 4 & 5, and make the following amendment:

#### Part I. General

. . .

**Coordination, Selective (Selective Coordination).** Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the selection and installation of overcurrent protective devices and their ratings or settings for the full range of available overcurrents, from overload to the available fault current, and for the full range of overcurrent protective device opening times associated with those overcurrents. (CMP-10)

[OSHPD 1, 2, 3,—& 4\_& 5] Coordination. Localization of an overcurrent condition to restrict outages to the circuit or equipment affected, accomplished by the selection and installation of overcurrent protective devices and their ratings or settings utilizing the 0.10 second level of the overcurrent protective device from the time current curve as the basis for the lower limit of the calculation method.

. . .

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 4 - Not Used

#### Item 5

#### **Chapter 1 General**

#### **ARTICLE 110 Requirements for Electrical Installations**

Adopt entire 2020 National Electric Code (NEC) Article and make the following OSHPD amendments for OSHPD 1, 1R, 2, 3, 4 & 5 in Items 5 and 6.

**110.2 Approval.** The conductors and equipment required or permitted by this Code shall be acceptable only if approved.

### [OSHPD 1, 1R, 2, 3, 4 & 5] Equipment shall be approvable if the equipment meets the following requirements:

<u>Equipment is approved, listed, labeled or certified for its use by a</u>
 Nationally Recognized Testing Laboratory (NRTL) as recognized by the

- U.S. department of Labor, Occupational Safety and Health Administration
- When field evaluated, equipment is evaluated and labeled by a Field Evaluation Body (FEB) that is accredited by International Accreditation Services (IAS) in accordance with NFPA 790.
- Equipment has special seismic certifications when required by Sections 1705.13.3 and 1705A.13.3 of California Building Code.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 6

Chapter 1 General

**ARTICLE 110 Requirements for Electrical Installations** 

110.26 Spaces About Electrical Equipment.

. . .

(C) Entrance to and Egress from Working Space.

. . .

(3) Personnel Doors. Where equipment rated 800 amperes or more that contains overcurrent devices, switching devices, or control devices is installed and there is a personnel door(s) intended for entrance to and egress from the working space less than 7.6 m (25 ft) from the nearest edge of the working space, the door(s) shall open in the direction of egress and be equipped with listed panic hardware or listed fire exit hardware.

[OSHPD 1, 1R, 2, 3, 4 & 5]: See California Building Code, Section 1010.1.10 for additional exit door requirements for electrical room with equipment rated 800-amperes or more.

Informational Note: For information on panic hardware, see UL 305, Standard For Safety For Panic Hardware. For fire exit hardware, see UL 305, Standard For Panic Hardware, and UL 10C, Standard for Safety for Positive Pressure Fire Tests of Door Assemblies.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 7

### Chapter 2 Wiring and Protection ARTICLE 200 Use and Identification of Grounded Conductors

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

# Item 8 Chapter 2 Wiring and Protection ARTICLE 210 Branch Circuits

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

# Item 9 Chapter 2 Wiring and Protection ARTICLE 215 Feeders

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 10

### Chapter 2 Wiring and Protection ARTICLE 220 Branch-Circuit, Feeder, And Service Load Calculations

Adopt entire 2020 National Electric Code (NEC) Article for OSHPD 1R, 2, 3, 4 & 5. Adopt entire 2020 National Electric Code (NEC) Article, carry forward existing amendment of the 2019 California Electrical Code (CEC) for OSHPD 1, and make the following amendment:

**220.42 General Lighting.** The demand factors specified in Table 220.42 shall apply to that portion of the total branch-circuit load calculated for general illumination. They shall not be applied in determining the number of branch circuits for general illumination. [OSHPD 1] The factors of Table 220.42 shall not be applied in the following areas: surgery suite, including recovery; emergency department, kitchen, food service, dining, critical care areas as defined in Article 517, elevator lobbies, corridors, inpatient nurse stations, and loads connected to the life safety branch or the critical branch of the emergency essential electrical system. Administrative areas shall be included in "All others" Type of Occupancy.

. . .

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 2 Wiring and Protection ARTICLE 225 Outside Branch Circuits and Feeders

Adopt entire 2020 National Electrical Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 12

### Chapter 2 Wiring and Protection ARTICLE 230 Services

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 13

### Chapter 2 Wiring and Protection ARTICLE 240 Overcurrent Protection

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 14

### Chapter 2 Wiring and Protection ARTICLE 242 Overvoltage Protection

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### Chapter 2 Wiring and Protection ARTICLE 250 Grounding and Bonding

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 16

### Chapter 3 Wiring Methods and Materials ARTICLE 300 General Requirements for Wiring Methods and Materials

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 17

### Chapter 3 Wiring Methods and Materials ARTICLE 310 Conductors for General Wiring

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 18

### Chapter 3 Wiring Methods and Materials ARTICLE 311 Medium Voltage Conductors and Cable

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 312 Cabinets, Cutout Boxes, and Meter Socket Enclosures

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 20

Chapter 3 Wiring Methods and Materials
ARTICLE 314 Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings; and Handhole Enclosures

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 21

### Chapter 3 Wiring Methods and Materials ARTICLE 320 Armored Cable: Type AC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 22

### **Chapter 3 Wiring Methods and Materials ARTICLE 322 Flat Cable Assemblies: Type FC**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 324 Flat Conductor Cable: Type FCC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 24

### **Chapter 3 Wiring Methods and Materials ARTICLE 326 Integrated Gas Spacer Cable: Type IGS**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 25

### Chapter 3 Wiring Methods and Materials ARTICLE 330 Metal-Clad Cable: Type MC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 26

### Chapter 3 Wiring Methods and Materials ARTICLE 332 Mineral-Insulated, Metal-Sheathed Cable: Type MI

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 334 Nonmetallic-Sheathed Cable: Types NM<sub>7</sub> and NMC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 28

### **Chapter 3 Wiring Methods and Materials ARTICLE 336 Power and Control Tray Cable: Type TC**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 29

### Chapter 3 Wiring Methods and Materials ARTICLE 337 Type P Cable

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 30

### Chapter 3 Wiring Methods and Materials ARTICLE 338 Service-Entrance Cable: Types SE and USE

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 340 Underground Feeder And Branch-Circuit Cable: Type UF

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 32

### Chapter 3 Wiring Methods and Materials ARTICLE 342 Intermediate Metal Conduit: Type IMC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 33

### Chapter 3 Wiring Methods and Materials ARTICLE 344 Rigid Metal Conduit: Type RMC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 34

### Chapter 3 Wiring Methods and Materials ARTICLE 348 Flexible Metal Conduit: Type FMC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 350 Liquidtight Flexible Metal Conduit: Type LFMC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 36

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

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 37

### Chapter 3 Wiring Methods and Materials ARTICLE 353 High Density Polyethylene Conduit: Type HDPE Conduit

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 38

### Chapter 3 Wiring Methods and Materials ARTICLE 354 Nonmetallic Underground Conduit with Conductors: Type NUCC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 355 Reinforced Thermosetting Resin Conduit: Type RTRC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 40

### Chapter 3 Wiring Methods and Materials ARTICLE 356 Liquidtight Flexible Nonmetallic Conduit: Type LFNC

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 41

### Chapter 3 Wiring Methods and Materials ARTICLE 358 Electrical Metallic Tubing: Type EMT

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 42

### Chapter 3 Wiring Methods and Materials ARTICLE 360 Flexible Metallic Tubing: Type FMT

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 362 Electrical Nonmetallic Tubing: Type ENT

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 44

### **Chapter 3 Wiring Methods and Materials ARTICLE 366 Auxiliary Gutters**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 45

### Chapter 3 Wiring Methods and Materials ARTICLE 368 Busways

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 46

### Chapter 3 Wiring Methods and Materials ARTICLE 370 Cablebus

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 372 Cellular Concrete Floor Raceways

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 48

### Chapter 3 Wiring Methods and Materials ARTICLE 374 Cellular Metal Floor Raceways

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 49

### **Chapter 3 Wiring Methods and Materials ARTICLE 376 Metal Wireways**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 50

### Chapter 3 Wiring Methods and Materials ARTICLE 378 Nonmetallic Wireways

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### **Chapter 3 Wiring Methods and Materials ARTICLE 380 Multioutlet Assembly**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 52

### Chapter 3 Wiring Methods and Materials ARTICLE 382 Nonmetallic Extensions

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 53

### Chapter 3 Wiring Methods and Materials ARTICLE 384 Strut-Type Channel Raceway

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 54

### **Chapter 3 Wiring Methods and Materials ARTICLE 386 Surface Metal Raceways**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 388 Surface Nonmetallic Raceways

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 56

### Chapter 3 Wiring Methods and Materials ARTICLE 390 Underfloor Raceways

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 57

### Chapter 3 Wiring Methods and Materials ARTICLE 392 Cable Trays

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 58

### Chapter 3 Wiring Methods and Materials ARTICLE 393 Low-Voltage Suspended Ceiling Power Distribution Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 3 Wiring Methods and Materials ARTICLE 394 Concealed Knob-And-Tube Wiring

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 60

### **Chapter 3 Wiring Methods and Materials ARTICLE 396 Messenger-Supported Wiring**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 61

### **Chapter 3 Wiring Methods and Materials ARTICLE 398 Open Wiring on Insulators**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 62

#### Chapter 3 Wiring Methods and Materials

#### **ARTICLE 399 Outdoor Overhead Conductors Over 1000 Volts**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 4 Equipment for General Use ARTICLE 400 Flexible Cords and Cables

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 64

### Chapter 4 Equipment for General Use ARTICLE 402 Fixture Wires

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 65

### Chapter 4 Equipment for General Use ARTICLE 404 Switches

Adopt entire 2020 National Electric Code (NEC) Article for OSHPD 1R & 3. Adopt entire 2020 National Electric Code (NEC) Article, carry forward existing amendment of the 2019 California Electrical Code (CEC) for OSHPD 1, 2, 4 & 5, and make the following amendment:

#### 404.4 Damp or Wet Locations.

. . .

**(C) Switches in Tub or Shower Spaces.** Switches shall not be installed within tub or shower spaces unless installed as part of a listed tub or shower assembly. [OSHPD 1, 2, 4 & 5] Switches that are not part of a listed tub or shower assembly shall not be installed within shower rooms or stalls, or be accessible from within those areas. Switches shall not be installed within 900mm (3 ft) 5 feet (1.52m) of the perimeter of bathtubs or shower stalls.

<u>Exception 1: Bath station devices for Call Systems meeting the requirements of 517.123(C)(4) shall be permitted to be installed outside the perimeter of bathtubs or shower stalls.</u>

Exception 2: Bath station devices for Call Systems meeting the requirements of 517.123(C)(3) shall be permitted to be installed within the tub or shower spaces.

. . .

#### **ASSOCIATED ARTICLES TO ITEM 65**

Represents articles that may be impacted by this proposed code change item – Refer to those items in parentheses for related changes.

(ITEM 66) Chapter 4 Equipment for General Use

Section: 406.9(C)(1)

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 66

### Chapter 4 Equipment for General Use ARTICLE 406 Receptacles, Cord Connectors, and Attachment Plugs

Adopt entire 2020 National Electric Code (NEC) Article for OSHPD 1R & 3. Adopt entire 2020 National Electric Code (NEC) Article, repeal existing amendment of the 2019 California Electrical Code (CEC) for OSHPD 1, 2, 4 & 5, and make the following amendment:

#### 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: 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. [OSHPD 1, 2, 4 & 5] Exception not adopted.

(1) [OSHPD 1, 2, 4 & 5] Receptacles shall not be installed within shower rooms or stalls or be accessible from within these areas. Receptacles shall not be installed within 5 feet (1.52 m) of the perimeter of bathtubs or shower stalls.

#### **ASSOCIATED ARTICLES TO ITEM 66**

Represents articles that may be impacted by this proposed code change item – Refer to those items in parentheses for related changes

(ITEM 65) Chapter 4 Equipment for General Use

Section: 404.4(C)

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 4 Equipment for General Use ARTICLE 408 Switchboards, Switchgear, and Panelboards

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 68

### Chapter 4 Equipment for General Use ARTICLE 409 Industrial Control Panels

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 69

### Chapter 4 Equipment for General Use ARTICLE 410 Luminaires, Lampholders, and Lamps

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 70

### Chapter 4 Equipment for General Use ARTICLE 411 Low-Voltage Lighting

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 4 Equipment for General Use ARTICLE 422 Appliances

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 72

### **Chapter 4 Equipment for General Use ARTICLE 424 Fixed Electric Space-Heating Equipment**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 73

#### Chapter 4 Equipment for General Use ARTICLE 425 Fixed Resistance and Electrode Industrial Process Heating Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 74

### Chapter 4 Equipment for General Use ARTICLE 426 Fixed Outdoor Electric Deicing and Snow-Melting Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### Chapter 4 Equipment for General Use ARTICLE 427 Fixed Electric Heating Equipment for Pipelines and Vessels

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 76

### **Chapter 4 Equipment for General Use ARTICLE 430 Motors, Motor Circuits, and Controllers**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 77

### Chapter 4 Equipment for General Use ARTICLE 440 Air-Conditioning and Refrigerating Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 78

### Chapter 4 Equipment for General Use ARTICLE 445 Generators

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### **Chapter 4 Equipment for General Use**

#### **ARTICLE 450 Transformers and Transformer Vaults (Including Secondary Ties)**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 80

### Chapter 4 Equipment for General Use ARTICLE 455 Phase Converters

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 81

### Chapter 4 Equipment for General Use ARTICLE 460 Capacitors

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 82

### Chapter 4 Equipment for General Use ARTICLE 470 Resistors and Reactors

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 4 Equipment for General Use ARTICLE 480 Storage Batteries

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 84

### Chapter 4 Equipment for General Use ARTICLE 490 Equipment, Over 1000 Volts, Nominal

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 85

#### **Chapter 5 Special Occupancies**

### ARTICLE 500 Hazardous (Classified) Locations, Classes I, II, and III, Divisions 1 and 2

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 86

### Chapter 5 Special Occupancies ARTICLE 501 Class I Locations

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### **Chapter 5 Special Occupancies ARTICLE 502 Class II Locations**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 88

#### Chapter 5 Special Occupancies ARTICLE 503 Class III Locations

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 89

### **Chapter 5 Special Occupancies ARTICLE 504 Intrinsically Safe Systems**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 90

### Chapter 5 Special Occupancies ARTICLE 505 Zone 0, 1, And 2 Locations

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 91

#### **Chapter 5 Special Occupancies**

### ARTICLE 506 Zone 20, 21, And 22 Locations for Combustible Dusts or Ignitible Fibers/Flyings

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 92

### Chapter 5 Special Occupancies ARTICLE 510 Hazardous (Classified) Locations – Specific

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 93

### Chapter 5 Special Occupancies ARTICLE 511 Commercial Garages, Repair and Storage

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 94

### **Chapter 5 Special Occupancies ARTICLE 513 Aircraft Hangars**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### **Chapter 5 Special Occupancies ARTICLE 514 Motor Fuel Dispensing Facilities**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 96

### Chapter 5 Special Occupancies ARTICLE 515 Bulk Storage Plants

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 97

#### **Chapter 5 Special Occupancies**

### ARTICLE 516 Spray Application, Dipping, Coating, And Printing Processes Using Flammable or Combustible Materials

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 98

### Chapter 5 Special Occupancies ARTICLE 517 Health Care Facilities

Adopt entire 2020 National Electric Code (NEC) Article, carry forward existing amendments of the 2019 California Electrical Code (CEC) for OSHPD 1, 2, 3, 4 & 5 and make the following amendments in Item 98 - 110:

517.22 [OSHPD 1, 2, 3, 4 & 5] Artificial Lighting.

. . .

#### (B) Illumination.

(1) [OSHPD 1, 3, 4 & 5] Illumination intensity. Illumination intensity values in each area shall meet the recommended values in the latest edition of the Illuminating Engineering Society of North America (IESNA) Lighting Handbook ANSI/IES RP-29, Recommended Practice: Lighting Hospital and Healthcare Facilities.

. . .

(2) [OSHPD 2] Minimum illuminance. Minimum maintained average illuminance in each area shall meet the recommended values in the latest edition of ANSI/IESNA RP-28, Recommended Practice: Recommended Practice for Lighting and the Visual Environment for Senior Living Older Adults and the Visually Impaired.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 99 Chapter 5 Special Occupancies ARTICLE 517 Health Care Facilities

517.29 Type 1 Essential Electrical Systems.

. . .

(A.1) [OSHPD 1, 2, 3, 4 & 5] Applicability. The requirements of Part III, 517.29 through 517.35, shall apply to hospitals, facilities subject to the requirements of CEC 517.40(B), clinics subject to the requirements of CEC 517.45(B) or (C), correctional treatment centers and acute psychiatric hospitals providing critical care (Category 1) and/or general care (Category 2) services.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 100
Chapter 5 Special Occupancies
ARTICLE 517 Health Care Facilities

517.30 Sources of Power

. . .

(B) Types of Power Sources.

. .

- (1.1) [OSHPD 1, 3, 4 and 5] Generating Units. The alternate source of power shall be at least one of the following:
- (A) Generator(s) driven by some form of prime mover(s) and located on the premises.
- (B) Another generating unit(s) where the normal source consists of a generating unit(s) located on the premises.
- (C) As provided in paragraph (B)(2) below.

#### (D) As provided in paragraph (B)(3) below.

All on-premises sources of power shall meet the on-premises fuel or battery stored energy requirements specified in Article 700.12.

[OSHPD 1, 2, & 5]: For facilities subject to Centers for Medicare and Medicaid Services (CMS) regulations, see 42 CFR 482.15(e) and 42 CFR 483.73(e) for emergency generator requirements.

- (2) Fuel Cell Systems. ...
- (3) Battery Systems. Battery systems shall be permitted to serve as the alternate source for all or part of an essential electrical system. [OSHPD 1, 3, 4 and 5] Where life safety and critical portions of the distribution system are present, a connection shall be provided for a portable diesel generator.

#### **ASSOCIATED ARTICLES TO ITEM 100**

Represents articles that may be impacted by this proposed code change item – Refer to the item in parentheses for related changes

(ITEM 153) Chapter 7 Special Conditions

Section: 700.12(C)

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 101
Chapter 5 Special Occupancies
ARTICLE 517 Health Care Facilities

517.30 Sources of Power.

. . .

#### (C) Location of Essential Electrical System Components.

Essential electrical system components shall be located to minimize interruptions caused by natural forces common to the area (e.g., storms, floods, earthquakes, or hazards created by adjoining structures or activities). [99.6.2.4.1] [OSHPD 1, & 4 & 5] Refer to California Building Code, Section 1617A.1.40.

- (1) Services ...
- (2) Feeders ...

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Item 102
Chapter 5 Special Occupancies
ARTICLE 517 Health Care Facilities

517.31 Requirements for the Essential Electrical System.

. . .

(E) Receptacle [OSHPD 1, 2, 3, 4 & 5] and Switch Identification. The cover plates for the electrical receptacles [For OSHPD 1, 2, 3, 4 & 5] and light switches [For OSHPD 1, 2, 3, 4 & 5] or the electrical receptacles and light switches supplied from the life safety and critical branches shall have a distinctive color or marking so as to be readily identifiable. [99:6.7.2.3.5(B)]

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 103
Chapter 5 Special Occupancies
ARTICLE 517 Health Care Facilities

517.32 Branches Requiring Automatic Connection.

#### (A) Life Safety and Critical Branch Used in a Type 1 EES.

Those functions of patient care depending on lighting or appliances that are connected to the essential electrical system shall be divided into the life safety branch and the critical branch, as described in 517.33 and 517.34.

[OSHPD 1, 2, 3, 4 & 5] The life safety and critical branches shall be installed and connected to the alternate power source specified in 517.30(A) and (B) so that all functions specified herein for the life safety and critical branches are automatically restored to operation within 10 seconds after interruption of the normal source.

. . .

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 104
Chapter 5 Special Occupancies
ARTICLE 517 Health Care Facilities

#### 517.34 Critical Branch.

(A) Task Illumination, Fixed Equipment, and Selected Receptacles. The critical branch shall supply power for task illumination, fixed equipment, select receptacles, and select power circuits serving the following spaces and functions related to patient care:

. . .

(4) Nurse call systems

[OSHPD 1, 2, 3, 4 & 5] Exception: Battery-powered components of wireless emergency nurse call systems complying with the latest edition of ANSI/UL 1069, Standard for Hospital Signaling and Nurse Call Equipment.

. . .

- (7) Task illumination, select receptacles, and select power circuits for the following areas:
- a. Category 1 (critical care) or 2 (general care) spaces with at least one duplex receptacle per patient bed location, and task illumination as required by the governing body of the health care facility.

. . .

[Subsections j through k OSHPD 1, 2, 3 (surgery clinics), 4 & 5]]

- j. Food preparation areas, central supply, and utility rooms
- k. Electrical and mechanical rooms

I. [OSHPD 1] Imaging room containing imaging equipment approved by Licensing Agency for diagnostic services of emergency/trauma patients found in California Building Code Section 1705A.13.3.1 7. Imaging equipment shall be connected to critical branch or equipment branch.

. . .

(1011) [OSHPD 1, 2, 3, & 4 & 5] The following equipment:

a. Electric clocks required by California Building Code, where direct wired.

. . .

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

# Item 105 Chapter 5 Special Occupancies ARTICLE 517 Health Care Facilities

517.35 Equipment Branch Connection to Alternate Power Source.

(A) Equipment for Delayed Automatic Connection ...

(10) [OSHPD 1, 2, 3, 4 & 5] Where provided, UPS systems serving telephone, data, technology and telecommunications equipment rooms and closets.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

# Item 106 Chapter 5 Special Occupancies ARTICLE 517 Health Care Facilities

**517.44 Connection to Equipment Branch.** The equipment branch shall be installed and connected to the alternate power source such that equipment described in

517.35(A)(6) is automatically restored to operation at appropriate time-lag intervals following the energizing of the life safety and critical branches. [99:6.7.5.1.4.2(A)]

The equipment branch arrangement shall also provide for the additional connection of equipment listed in 517.44(B).

Exception: For essential electrical systems under 150 kVA, deletion of the time-lag intervals feature for delayed automatic connection to the equipment branch shall be permitted.

<u>517.44.1 [OSHPD 2, 4 & 5] Connection to Equipment Branch.</u> The equipment branch shall be installed and connected to the alternate power source such that equipment described in 517.44(A) is automatically restored to operation at appropriate time-lag intervals following the energizing of the life safety. [99:6.7.5.1.4.2(A)]

The equipment branch arrangement shall also provide for the additional connection of equipment listed in 517.44(B).

Exception: For essential electrical systems under 150 kVA, deletion of the time-lag intervals feature for delayed automatic connection to the equipment branch shall be permitted.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 107 Chapter 5 Special Occupancies ARTICLE 517 Health Care Facilities

517.44 Connection to Equipment Branch ...

- (B) Delayed Automatic or Manual Connection to the Equipment Branch ...
- (3) Optional Connections to the Equipment Branch. Additional illumination, receptacles, and equipment shall be permitted to be connected only to the critical branch.
- (3.1) [OSHPD 2, 4 & 5] Optional Connections to the Equipment Branch. Additional illumination, receptacles, and equipment shall be permitted to be connected only to the equipment branch.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

# Item 108 Chapter 5 Special Occupancies ARTICLE 517 Health Care Facilities

**517.80 Patient Care Spaces.** Equivalent insulation and isolation to that required for the electrical distribution systems in patient care areas shall be provided for communications, signaling systems, data system circuits, fire alarm systems, and systems less than 120 volts, nominal.

Class 2 and Class 3 signaling and communications systems, [OSHPD 1, 2, 3, 4 & 5] Class 2 circuits that transmit power and data to a power device, and power-limited fire alarm systems shall not be required to comply with the grounding requirements of 517.13, to comply with the mechanical protection requirements of 517.31(C)(3)(5), or to be enclosed in raceways, unless otherwise specified by Chapter 7 or 8.

Secondary circuits of transformer-powered communications or signaling systems shall not be required to be enclosed in raceways unless otherwise specified by Chapters 7 or 8. [99:6.7.2.3.7]

[OSHPD 1, 2, 3, 4 & 5] See ANSI/NEMA C137.3-2017, American National Standard for Lighting Systems — Minimum Requirements for Installation of Energy Efficient Power over Ethernet (PoE) Lighting Systems, for information on installation of cables for PoE lighting systems.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 109
Chapter 5 Special Occupancies
ARTICLE 517 Health Care Facilities
517.123 [OSHPD 1, 2, 3, 4 & 5] Call Systems

#### (A) General.

(1) Nurse call devices shall be installed in the locations shown required in Table 1224.4.6.5 and as described in Sections 1224, 1225, 1226, 1227, and 1228 of the California Building Code. One device shall be permitted to accommodate any combination of patient station, staff emergency, and code call, provided the individual functions and requirements listed below are met.

. . .

(C) Bath Stations. Bath stations shall meet the following requirements:

٠..

(4) At toilets, the call station shall be located to the side, within 12 inches (304.8 mm) of the front of the toilet bowl and <u>shall maintain a clearance of 12 inches (304.8 mm)</u> above the horizontal grab bar between 3 and 4 feet (914 mm to 1219 mm) above the floor.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 110

Chapter 5 Special Occupancies
ARTICLE 517 Health Care Facilities

#### 517.124 [OSHPD 1, 4 & 5] Technology and Telecommunications

**Rooms.** Where technology or telecommunications rooms are provided in accordance with Section 1224.5 of the California Building Code, the following requirements shall apply:

(A) General. Electrical equipment, <u>raceways</u>, <u>and cables</u> that is <u>are</u> not directly related to the support of the room shall not be installed in or pass through the room. Non-lighting circuits serving each room shall be dedicated to that room.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 111

### Chapter 5 Special Occupancies ARTICLE 518 Assembly Occupancies

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 112

#### **Chapter 5 Special Occupancies**

ARTICLE 520 Theaters, Audience Areas of Motion Picture and Television Studios, Performance Areas, and Similar Locations

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 113

#### **Chapter 5 Special Occupancies**

**ARTICLE 522 Control Systems for Permanent Amusement Attractions** 

Article is not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 114

#### **Chapter 5 Special Occupancies**

**ARTICLE 525 Carnivals, Circuses, Fairs, and Similar Events** 

Article is not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### **Item 115**

#### **Chapter 5 Special Occupancies**

ARTICLE 530 Motion Picture and Television Studios and Similar Locations

Article is not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 116

#### **Chapter 5 Special Occupancies**

#### **ARTICLE 540 Motion Picture Projection Rooms**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 117

#### **Chapter 5 Special Occupancies**

#### **ARTICLE 545 Manufactured Buildings and Relocatable Structures**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### Chapter 5 Special Occupancies ARTICLE 547 Agricultural Buildings

Article is not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 119

#### **Chapter 5 Special Occupancies**

#### ARTICLE 550 Mobile Homes, Manufactured Homes, and Mobile Home Parks

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 120

#### **Chapter 5 Special Occupancies**

#### **ARTICLE 551 Recreational Vehicles and Recreational Vehicle Parks**

Article is not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 121

#### Chapter 5 Special Occupancies

#### ARTICLE 552 Park Trailers

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 122

#### **Chapter 5 Special Occupancies**

### ARTICLE 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities

Article is not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 123 Chapter 5 Special Occupancies ARTICLE 590 Temporary Installations

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 124 Chapter 6 Special Equipment ARTICLE 600 Electric Signs and Outline Lighting

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 125 Chapter 6 Special Equipment ARTICLE 604 - Manufactured Wiring Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### Chapter 6 Special Equipment ARTICLE 605 Office Furnishings

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 127 Chapter 6 Special Equipment ARTICLE 610 Cranes and Hoists

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 128

#### **Chapter 6 Special Equipment**

ARTICLE 620 Elevators, Dumbwaiters, Escalators, Moving Walks, Platform Lifts, and Stairway Chairlifts

Adopt entire 2020 National Electric Code (NEC) Article for OSHPD 1R, 2, 3, 4 & 5. Adopt entire 2020 National Electric Code (NEC) Article and carry forward existing amendment of the 2019 California Electrical Code (CEC) for OSHPD 1.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 129

#### **Chapter 6 Special Equipment**

#### **ARTICLE 625 Electric Vehicle Power Transfer System**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 6 Special Equipment ARTICLE 626 Electrified Truck Parking Spaces

Article is not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 131 Chapter 6 Special Equipment ARTICLE 630 Electric Welders

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 132

## Chapter 6 Special Equipment ARTICLE 640 Audio Signal Processing, Amplification, and Reproduction Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### **Item 133**

### Chapter 6 Special Equipment ARTICLE 645 Information Technology Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 6 Special Equipment ARTICLE 646 Modular Data Centers

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 135

### Chapter 6 Special Equipment ARTICLE 647 Sensitive Electronic Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 136

### Chapter 6 Special Equipment ARTICLE 650 Pipe Organs

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 137 Chapter 6 Special Equipment ARTICLE 660 X-Ray Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### **Chapter 6 Special Equipment**

#### **ARTICLE 665 Induction and Dielectric Heating Equipment**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 139 Chapter 6 Special Equipment ARTICLE 668 Electrolytic Cells

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1. 1R. 2. 3. 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### **Item 140**

### Chapter 6 Special Equipment ARTICLE 669 Electroplating

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 141 Chapter 6 Special Equipment ARTICLE 670 Industrial Machinery

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### Chapter 6 Special Equipment

#### **ARTICLE 675 Electrically Driven or Controlled Irrigation Machines**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 143

#### **Chapter 6 Special Equipment**

#### **ARTICLE 680 Swimming Pools, Fountains, and Similar Installations**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### **Item 144**

#### **Chapter 6 Special Equipment**

#### ARTICLE 682 Natural and Artificially Made Bodies of Water

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 145

#### **Chapter 6 Special Equipment**

#### **ARTICLE 685 Integrated Electrical Systems**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 6 Special Equipment ARTICLE 690 Solar Photovoltaic (PV) Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 147

#### **Chapter 6 Special Equipment**

#### **ARTICLE 691 Large-Scale Photovoltaic (PV) Electric Supply Stations**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 148

### Chapter 6 Special Equipment ARTICLE 692 Fuel Cell Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 149

### Chapter 6 Special Equipment

#### **ARTICLE 694 Wind Electric Systems**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### Item 150 Chapter 6 Special Equipment ARTICLE 695 Fire Pumps

Adopt entire 2020 National Electric Code (NEC) Article and carry forward existing amendments of the 2019 California Electrical Code (CEC) for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 151 Chapter 7 Special Conditions ARTICLE 700 Emergency Systems

Adopt entire 2020 National Electric Code (NEC) Articles, carry forward existing amendments of the 2019 CEC for OSHPD 1, 1R, 2, 3, 4 & 5, and make the following amendments in Items 151 through 154:

#### 700.3 Tests and Maintenance.

. . .

**(B) Tested Periodically.** Systems shall be tested periodically on a schedule approved by the authority having jurisdiction to ensure the systems are maintained in proper operating condition. [OSHPD 1, 1R, and, 2 & 5] The authority having jurisdiction is Department of Public Health, Licensing and Certification.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 152 Chapter 7 Special Conditions ARTICLE 700 Emergency Systems

700.5 Transfer Equipment.

. . .

**(C) Automatic Transfer Switches.** Automatic transfer switches shall be electrically operated and mechanically held. Automatic transfer switches shall not be permitted to be reconditioned. *[OSHPD 1, 1R, 2, 3, 4 & 5] Automatic transfer switches rated above 1000 VAC shall be listed for emergency system use or approved by an alternative testing and approval program acceptable to the authority having jurisdiction.* 

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

## Item 153 Chapter 7 Special Conditions ARTICLE 700 Emergency Systems

#### 700.12 General Requirements ...

**(C) Storage Battery.** Storage batteries shall be of suitable rating and capacity to supply and maintain the total load for a minimum period of 11/2 hours, without the voltage applied to the load falling below 871/2 percent of normal. Automotive-type batteries shall not be used.

An automatic battery charging means shall be provided.

Exception: [OSHPD 1, 2, 3, 4 & 5] Battery system used as an alternate power source for Type 1 essential electrical system shall be of suitable rating and capacity to supply and maintain the full-demand load for the time durations specified in 700.12(D)(2)(a).

#### **ASSOCIATED ARTICLES TO ITEM 153**

Represents articles that may be impacted by this proposed code change item – Refer to those items in parentheses for related changes.

(ITEM 100) Chapter 5 Special Occupancies

Section: 517.30(B)(1.1)

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

Item 154 Chapter 7 Special Conditions ARTICLE 700 Emergency Systems

700.12 General Requirements ...

(D) Generator Set.

. . .

#### (2) Internal Combustion Engines as Prime Movers.

(a) On-Site Fuel Supply. Where internal combustion engines are used as the prime mover, an on-site fuel supply shall be provided with an on-premises fuel supply sufficient for not less than 2 hours' operation of the system.

Exceptions [SFM, OSHPD 1, 2, 3, 4 & 5]

Exception No.1: [SFM, OSHPD 1, 2, 3, 4 & 5] The on-premises fuel supply shall be sufficient for not less than 24 hours full-demand operation in acute general care hospitals and correctional treatment centers that provide optional services. For acute care hospital facilities required to meet NPC-5, the on-premise fuel supply shall be sufficient for no less than 72 hours full-demand operations.

Exception No. 2: [SFM, OSHPD 1, 2, 3, 4 & 5] The on-premises fuel supply shall be sufficient for not less than 6 hours full-demand operation in the following health facilities

of seven or more beds: correctional treatment centers that provide only basic services, acute psychiatric hospitals, intermediate care facilities, and skilled nursing facilities.

Exception No. 3: [SFM, OSHPD 1, 2, 3, 4 & 5] The on-premises fuel supply shall be sufficient for not less than 4 hours full-demand operation in ambulatory surgical clinics.

[OSHPD 1, 2, & 5]: For facilities subject to Centers for Medicare and Medicaid Services (CMS) regulations, see 42 CFR 482.15(e)(3) and 42 CFR 483.73(e)(3) for emergency generator fuel requirements.

. .

**(G) Fuel Cell System.** Fuel cell systems used as a source of power for emergency systems shall be of suitable rating and capacity to supply and maintain the total load for not less than 2 hours of full-demand operation.

Exception: [OSHPD 1, 2, 3, 4 & 5] Fuel cell system shall meet on-premises fuel requirements specified in Article 700.12 (B)(D)(2)(a).

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 155

### Chapter 7 Special Conditions ARTICLE 701 Legally Required Standby Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 156 Chapter 7 Special Conditions ARTICLE 702 Optional Standby Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

#### **Chapter 7 Special Conditions**

#### **ARTICLE 705 Interconnected Electric Power Production Sources**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 158

### Chapter 7 Special Conditions ARTICLE 706 Energy Storage Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 159

### Chapter 7 Special Conditions ARTICLE 708 Critical Operations Power Systems (COPS)

Adopt entire 2020 National Electric Code (NEC) Article and carry forward existing amendments of the 2019 California Electrical Code (CEC) for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

## Item 160 Chapter 7 Special Conditions ARTICLE 710 Stand-Alone Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 7 Special Conditions ARTICLE 712 Direct Current Microgrids

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 162

#### **Chapter 7 Special Conditions**

#### ARTICLE 720 Circuits and Equipment Operating at Less Than 50 Volts

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 163

#### **Chapter 7 Special Conditions**

### ARTICLE 725 Class 1, Class 2, And Class 3 Remote-Control, Signaling, and Power-Limited Circuits

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 164

#### **Chapter 7 Special Conditions**

#### **ARTICLE 727 Instrumentation Tray Cable: Type ITC**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### **Chapter 7 Special Conditions ARTICLE 728 Fire-Resistive Cable Systems**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### **Item 166**

### **Chapter 7 Special Conditions ARTICLE 750 Energy Management Systems**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 167

### Chapter 7 Special Conditions ARTICLE 760 Fire Alarm Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

### Item 168

### Chapter 7 Special Conditions ARTICLE 770 Optical Fiber Cables

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 8 Communications Systems ARTICLE 800 General Requirements for Communications Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 170

### Chapter 8 Communications Systems ARTICLE 805 Communications Circuits

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 171

### Chapter 8 Communications Systems ARTICLE 810 Radio and Television Equipment

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 172

### **Chapter 8 Communications Systems ARTICLE 820 Community Antenna Television and Radio Distribution Systems**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

### Chapter 8 Communications Systems ARTICLE 830 Network-Powered Broadband Communications Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 174

### Chapter 8 Communications Systems ARTICLE 840 Premises-Powered Broadband Communications Systems

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 175

#### **Chapter 9 Tables**

Adopt entire 2020 National Electric Code (NEC) Article without amendments for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

Reference: Health and Safety Code, Section 129850

#### Item 176

#### Annexes A, B, C, D, E, F, G, H, I and J

2020 National Electric Code (NEC) Annexes A, B, C, D, E, F, G, H, I and J are not adopted for OSHPD 1, 1R, 2, 3, 4 & 5.

#### **Notation:**

Authority: Health and Safety Code, Sections 1275, 18928, 129790, and 129850

## APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION DECEMBER 14, 2021

# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE STATE FIRE MARSHAL REGARDING THE 2022 CALIFORNIA ELECTRICAL CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3

(SFM 01/20)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italic and ellipsis.

#### LEGEND for EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

- Model Code language appears upright
- Existing California amendments appear in italic
- Amended model code or new California amendments appear underlined & italic
- Repealed model code language appears upright and in strikeout
- Repealed California amendments appear in italic and strikeout
- Ellipsis ( ...) indicate existing text remains unchanged

The Office of the State Fire Marshal (SFM) proposes to adopt the 2020 edition of the National Electrical Code (NEC) into the 2022 edition of the California Electrical Code (CEC). SFM further proposes to:

Repeal the adoption by reference of the 2017 National Electrical Code and incorporate and adopt by reference in its place the 2020 National Electrical Code for application and effectiveness in the 2022 California Electrical Code.

Repeal certain amendments to the 2017 National Electrical Code and/or California Building Standards not addressed by the model code that are no longer necessary.

Adopt new building standards or necessary amendments to the 2020 National Electrical Code that address inadequacies of the 2020 National Electrical Code as they pertain to California laws.

Bring forward previously existing California building standards or amendments, which represent no change in their effect from the 2019 California Building Standards Code.

Codify non-substantive editorial and formatting amendments from the format based upon the 2017 National Electrical Code to the format of the 2020 National Electrical Code.

#### FINAL EXPRESS TERMS

### ARTICLE 89 General Code Provisions

#### Item 1-1 Article 89, General Code Provisions, Section 89.101, General

[The SFM is proposing to maintain the adoption of those existing California provisions contained in Sections 89.101 through 89.101.12 with modification shown below.]

89.101.1 Title. These regulations shall be known as the California Electrical Code, may be cited as such and will be referred to herein as "this code." The California Electrical Code is Part 3 of thirteen parts of the official compilation and publication of the adoption, amendment, and repeal of electrical regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 20172020 National Electrical Code of the National Fire Protection Association with necessary California amendments.

#### Item 1-2 Article 89, General Code Provisions, Section 89.111.4.4, Fire Clearance Preinspection

89.111.4.4 Fire Clearance Preinspection. Pursuant to Health and Safety Code Section 13235, Fire Clearance Preinspection, fee; upon receipt of a request from a prospective licensee of a community care facility, as defined in Section 1502, of a residential-care facility for the elderly, as defined in Section 1569.2, or of a child day-care facility, as defined in Section 1596.750, the local fire enforcing agency, as defined in Section 13244, or sState fFire mMarshal, whichever has primary jurisdiction, shall conduct a preinspection of the facility prior to the final fire clearance approval. At the time of the preinspection, the primary fire enforcing agency shall price consultation and interpretation of the fire safety regulations, and shall notify the prospective licensee of the facility in writing of the specific fire safety regulations which shall be enforced in order to obtain fire clearance approval. A fee equal to, but not exceeding, the actual cost of the preinspection services may be charged for the preinspection of a facility\_with a capacity to serve 25 or fewer persons. A fee equal to, but not exceeding, the actual cost of the preinspection services may be charged for a preinspection of a facility with a capacity to serve 26 or more persons.

#### Item 1-3

#### Article 89, General Code Provisions, Section 89.111.4.5 Care Facilities

**89.111.4.5 Care Facilities.** The primary fire enforcing agency shall complete the final fire clearance inspection for a community care facility, residential-care facility for the elderly, or child <del>day</del>-care facility within 30 days of receipt of the request for the final inspection, or as of the date the prospective facility requests the final prelicensure inspection by the State Department of Social Services, whichever is later.

Pursuant to Health and Safety Code Section 13235, a preinspection fee equal to, but not exceeding, the actual cost of the of the preinspection services of not more than \$50.00 may be charged for the preinspection of a facility. with a capacity to serve 25 or less clients. A fee equal to, but not exceeding, the actual cost of preinspection may be charged for a preinspection of a facility with a capacity to serve 26 or more clients.

Pursuant to Health and Safety Code Section 13131.5, a reasonable final inspection fee, not to exceed the actual cost of inspection services necessary to complete a final inspection may be charged for ooccupancies classified as residential care facilities for the elderly (RCFE).

Pursuant to Health and Safety Code Section 1569.84, neither the <u>sS</u>tate <u>fF</u>ire <u>mM</u>arshal nor any local public entity shall charge any fee for enforcing fire inspection regulations pursuant to state law or regulation or local ordinance, with respect to residential-care facilities for the elderly (RCFE) which service six or fewer persons.

#### Item 1-4

Article 89, General Code Provisions, Section 89.111.6 Certificate of Occupancy

**89.111.6 Certificate of Occupancy.** A Certificate of Occupancy shall be issued as specified in Title 24. Part 2. California Building Code. Section 111.

**Exception:** Group R, Division 3 and Group U occupancies. Certificates of occupancy are not required for work exempt from permits in accordance with Section 105.2 of the California Building Code.

#### Item 1-5

Article 89, General Code Provisions, Section 89.111.7 Temporary Structures and Uses

**89.111.7 Temporary Structures and Uses.** See Title 24, Part 2, California Building Code, Section 1078.

#### **Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2 Reference(s): Health and Safety Code Sections 13143, 18949.2

### ARTICLE 90 INTRODUCTION

#### Item 2-1 Article 90, Introduction

[The SFM is proposing to maintain the adoption of Article 90.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 1 General ARTICLES 100-110

Item 3-1 & 3-2 Chapter 1, General, Article 100-110

[The SFM is proposing to maintain the existing SFM amendment of Articles 100 and 110 with existing amendments.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 2 Wiring and Protection ARTICLES 200-285

#### Item 4-1

Chapter 2, Wiring and Protection, Article 200-285

[The SFM is proposing the adoption by reference Articles 200, 210, 215, 220, 225, 230, 240, 242, and 250 without amendment.]

#### Item 4-2

Chapter 2, Wiring and Protection, Article 225, Outside Branch Circuits and Feeders, Section 225.30

[Correct the references in 225.30 as errata to read as follows]

**225.30 Number of Supplies.** A building or other structure that is served by a branch circuit or feeder on the load side of a service disconnecting means shall be supplied by

only one feeder or branch circuit unless permitted in 225.30(A) through (EF). For the purpose of this section, a multiwire branch circuit shall be considered a single circuit.

Where a branch circuit or feeder originates in these additional buildings or other structures, only one feeder or branch circuit shall be permitted to supply power back to the original building or structure, unless permitted in 225.30(A) through (EF).

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 3 Wiring Methods and Materials ARTICLES 300-399

#### Item 5-1

#### Chapter 3, Wiring Methods and Materials, Article 300-399

[The SFM is proposing the adoption by reference Articles 300, 310, 311, 312, 314, 320, 322, 324, 326, 330, 332, 334, 336, 337, 338, 340, 342, 344, 348, 350, 352, 353, 354, 355, 356, 358, 360, 362, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 393, 394, 396, 398, and 399 with existing amendment.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 4 Equipment for General Use ARTICLES 400-490

#### Item 6-1

#### **Chapter 4, Equipment for General Use, Article 400-490**

[The SFM is proposing the adoption by reference Articles 400, 402, 404, 406, 408, 409, 410, 411, 422, 424, 425, 426, 427, 430, 440, 445, 450, 455, 460, 470, 480, and 490 without amendment.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 5 Special Occupancies ARTICLES 500-590

#### Item 7-1

#### **Chapter 5, Special Occupancies, Article 500-590**

[The SFM is proposing the adoption by reference Articles 500, 501, 502, 503, 504, 505, 506, 510, 511, 513, 514, 515, 516, 518, 520, 522, 525, 530, 540, 545, 547, and 555 without amendment.]

#### Item 7-2

#### Chapter 5, Special Occupancies, Article 517 HealthCare Facilities

[The SFM is proposing the adoption by reference of the entire Article 517 (OSHPD amendment) as amended by OSHPD.]

#### Item 7-3

Chapter 5, Special Occupancies, Article 590 HealthCare Facilities, Section 590.3(C), Emergencies and Tests

[The SFM is proposing the adoption by reference of the entire Article 590 (except Section 590.3(C)).]

#### Item 7-4

Chapter 5, Special Occupancies, Article 590 HealthCare Facilities, Section 590.3(C.1), Emergencies and Tests

[The SFM is proposing to maintain the existing SFM amendment of Section 590.3(C.1).]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 6 Special Equipment ARTICLES 600-695

#### Item 8-1

#### Chapter 6, Special Equipment, Article 600-695

[The SFM is proposing the adoption by reference Articles 600, 604, 605, 610, 620, 625, 626, 630, 640, 645, 646, 647, 650, 660, 665, 668, 669, 670, 675, 680, 682, 685, 690, 691, 692, 694, and 695 with amendments shown below.]

[Section 625.52(B) is not adopted by SFM]

#### Item 8-2

Chapter 6, Special Equipment, Article 620 Elevators, dumbwaiters, escalators, moving walks, platform lifts and stairway chairlifts, Section 620.71

[The SFM is proposing an amendment to Section 620.71]

**620.71 Guarding Equipment.** Elevator, dumbwaiter, escalator, and moving walk driving machines; motor-generator sets; motor controllers; and disconnecting means shall be installed in a room or space set aside for that purpose unless otherwise permitted in 620.71(A) or (B). The room or space shall be secured against unauthorized access. Installation of Elevator motor controller and/or motion controller in the hoistway is prohibited.

#### Item 8-3

Chapter 6, Special Equipment, Article 625 Electric Vehicle Power Transfer System, Section 625.52 (B)

The SFM is proposing the adoption by reference of the entire Article 625 (except Section 625.52 (B)]

#### Item 8-4

Chapter 6, Special Equipment, Article 625 Electric Vehicle Power Transfer System, Section 625.52 (C)

The SFM is proposing to maintain the existing SFM amendment of Section 625.52(C) with modification.]

625.52 (C) Ventilation Required. [SFM] Where the electric vehicle supply equipment listed or labeled as suitable for charging electric vehicles that require ventilation for indoor charging shall be and marked in accordance with Section 625.15(C) clearly by the manufacturer "Ventilation Required". The marking shall be located so as to be clearly visible after installation. — mMechanical ventilation, such as fans, shall be provided as specified in the California Building Code.

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

#### **Chapter 7 Special Conditions ARTICLES 700-770**

#### Item 9-1

Chapter 7, Special Conditions, Article 700 Emergency Systems

The SFM is proposing to maintain the adoption by reference of the entire Article 700

with existing amendments.]

#### Item 9-2

Chapter 7, Special Conditions, Article 700, Section 700.12 (D) Generator Set (2) Internal Combustion Engines as Prime Movers.

[The SFM is proposing to maintain the existing SFM amendment of Section 700.12(D)(2).]

#### Item 9-3

Chapter 7, Special Conditions, Article 700, Section 700.16 (B) System Reliability

[Correct the reference in 700.16(B) as errata to read as follows]

**700.16(B) System Reliability.** Emergency lighting systems shall be designed and installed so that the failure of any illumination source cannot leave in total darkness any space that requires emergency illumination. Control devices in the emergency lighting system shall be listed for use in emergency systems. Listed unit equipment in accordance with 700.12(F) (I) shall be considered as meeting the provisions of this section.

#### Item 9-4

**Chapter 7, Special Conditions, Article 701-750** 

[The SFM is proposing the adoption by reference Articles 701, 702, 705, 708, 710, 712, 720, 725, 727, 728, 750 with amendments shown below.]

#### Item 9-5

Chapter 7, Special Conditions, Article 725 Class 1, Class 2, and Class 3 Remote-Control, Signaling, and Power-Limited Circuits

[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. <u>For equipment with a rated current per conductor less than 0.3 amperes, the effective date shall be January 1, 2021.</u>

#### Item 9-6

### Chapter 7, Special Conditions, Article 760, Sections 760.1.1, 760.176(F) and 760.179(G)

[The SFM is proposing to maintain the existing SFM amendment of Sections 760.1.1, 760.176(F) and 760.179(G).]

#### Item 9-7

#### **Chapter 7, Special Conditions, Article 770**

[The SFM is proposing the adoption by reference Article 770 without amendment.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 8 Communications Systems ARTICLES 800-840

#### Item 10-1

#### Chapter 8, Communication Systems, Article 800-840

[The SFM is proposing the adoption by reference Articles 800, 810, 820, 830, and 840 without amendment.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

### Chapter 9 Tables

#### Item 11-1

Chapter 9, Tables, Tables 1-12

[The SFM is proposing the adoption by reference Tables 1-12 without amendment.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

#### Annex

#### Item 12-1 Chapter Annex, Annex A-B

[The SFM is proposing the adoption by reference Annex A and Annex B without amendment.]

#### **Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,

1597.44, 1597.65, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2