# FINAL EXPRESS TERMSFOR PROPOSED BUILDING STANDARDSOF THE DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION/OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENTREGARDING THE 2025 CALIFORNIA ELECTRICAL CODECALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3(OSHPD 01/23)

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* Repealed model code language appears ~~upright and in strikeout~~
* Repealed California amendments appear in *~~italic and strikeout~~*
* Ellipses (…) indicate existing text remains unchanged

## FINAL EXPRESS TERMS

### ITEM 1*CALIFORNIA ARTICLE 89GENERAL CODE PROVISIONS*

Carry forward existing amendment which is Article 89 from the 2022 California Electrical Code for OSHPD 1, 1R, 2, 3, 4, 5 & 6 and make the following amendments:

***SECTION 89.101
GENERAL***

***89.101.3.2 State-Regulated Buildings, Structures, and Applications.***

…

*13. General acute care hospitals, acute psychiatric hospitals, skilled nursing and/or intermediate care facilities, clinics licensed by the California Department of Public Health (DPH) and correctional treatment centers regulated by the Department of Health Care Access and Information/Office of Statewide ~~Health~~ Hospital Planning and Development. See Section 89.110 for additional scope provisions.*

…

***SECTION 89.110
DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION/ OFFICE OF STATEWIDE ~~HEALTH~~ HOSPITAL PLANNING AND DEVELOPMENT***

***89.110.1 OSHPD 1 and OSHPD 1R.*** *Specific scope of application of the agency* …

***OSHPD 1 and OSHPD 1R***

***Application*** *— [OSHPD 1] General acute-care hospital buildings.*

*[OSHPD 1R] Non-conforming hospital SPC or freestanding buildings that have been removed from acute care service.*

***Enforcing Agency*** *— Health Care Access and Information/Office of Statewide ~~Health~~ Hospital Planning and Development (OSHPD).* …

…

***89.110.2 OSHPD 2.*** *Specific scope of application of the agency* …

***OSHPD 2***

***Application*** *— Skilled nursing facility and intermediate-care facility buildings.*

***Enforcing Agenc****y — Health Care Access and Information/Office of Statewide ~~Health~~ Hospital Planning and Development (OSHPD).* …

…

***89.110.4 OSHPD 4.*** *Specific scope of application of the agency* …

***OSHPD 4***

***Application*** *— Correctional Treatment Centers.*

***Enforcing Agency*** *— Health Care Access and Information/Office of Statewide ~~Health~~ Hospital Planning and Development (OSHPD). …*

…

***89.110.5 OSHPD 5.*** *Specific scope of application of the agency* *…*

***OSHPD 5***

***Application*** *— Acute psychiatric hospital buildings.*

***Enforcing Agency*** *— Health Care Access and Information/Office of Statewide ~~Health~~ Hospital Planning and Development (OSHPD).* …

…

***89.110.6 OSHPD 6.*** *Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

***OSHPD 6***

***Application*** *— Chemical dependency recovery hospital not within an acute care hospital building or an acute psychiatric facility.*

***Enforcing Agency*** *— Local building department.*

***89.110.6.1 Applicable Administrative Standards.***

*1. Title 24, Part 1, California Code of Regulations: Chapter 7.*

*2. Title 24, Part 2, California Code of Regulations: Section 1.1 and 1.10, Chapter 1 Division I, and specified sections of Chapter 1, Division II.*

***89.110.6.2 Applicable Building Standards.*** *California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.*

#### Notation:

Authority: Health and Safety Code, Sections 1275, 18929, 129850

Reference: Health and Safety Code, Sections 1250.3, 1418.22, 129675-130070

### ITEM 2ARTICLE 90 Introduction

Adopt entire 2023 National Electrical Code Article 90 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3,1418.22, 129675-130070

### ITEM 3Chapter 1 General

**ARTICLE 100 Definitions**

Adopt entire 2023 National Electrical Code Article 100 for OSHPD 1, 1R, 2, 3, 4, 5 & 6, carry forward existing amendment of the 2022 California Electrical Code for OSHPD 1, 2, 3, 4 & 5, and make the following amendments. Life-Saving Equipment and Oxygen-Generation Devices are relocated from Article 517.2. No change to text, just add proper banner. Patient Care Space Category, Category 1 Space (Category 1) and Category 2 Space (Category 2) are relocated from Article 517.2, no change to text.

**Life Safety Branch.** A system of feeders and branch circuits …

(Relocated from 517.2) ***Life-Saving Equipment. [OSHPD 2]*** *Equipment required to either save or sustain the life of occupant(s) of a healthcare facility. Life-Saving Equipment may include but shall not be limited to, ventilators, AEDs, crash carts with defibrillators, intravenous therapy equipment, feeding pumps, IV pumps, nebulizer machines, suction equipment, and medication dispensing machines.*

...

**Overload.** Operation of equipment in excess of normal …

(Relocated from 517.2) ***Oxygen-Generating Devices.******[OSHPD 2]*** *Devices used to extract or make concentrated oxygen rich blends of air for human use. Oxygen-Generating Devices may include but shall not be limited to concentrators and positive pressure apparatus.*

…

**Patient Care Space Category.** Any space of a health care facility wherein patients are intended to be examined or treated …

(OSHPD Banner and text at the end of definition is relocated from 517.2)**Category 1 Space (Category 1).** Space in which failure of equipment or a system is likely to cause major injury or death of patients, staff, or visitors. **[99:**3.3.140.1] (CMP-15) *[OSHPD 1, 2, 3, 4 & 5] Includes special care units, intensive care units, coronary care units, sub-acute units, angiography laboratories, cardiac catheterization laboratories, delivery rooms, operating rooms, portions of emergency departments, electroconvulsive therapy procedure rooms, post-operative recovery rooms and similar areas in which patients are intended to be subjected to invasive procedures and are connected to line-operated electromedical devices.*

Informational Note: These spaces, formerly known as critical care rooms, are typically where patients are intended to be subjected to invasive procedures and connected to line-operated, patient care–related appliances. Examples include, but are not limited to, special care patient rooms used for critical care, intensive care, and special care treatment rooms such as angiography laboratories, cardiac catheterization laboratories, delivery rooms, operating rooms, post-anesthesia care units, trauma rooms, and other similar rooms. **[99:**A.3.3.140.1].

(OSHPD Banner and text at the end of definition is relocated from 517.2)**Category 2 Space (Category 2).** Space in which failure of equipment or a system is likely to cause minor injury to patients, staff, or visitors. **[99:**3.3.140.2] (CMP-15) *[OSHPD 1, 2, 3, 4 & 5] Includes areas such as patient bedrooms, examining rooms, treatment rooms, clinics, and similar areas where the patient may come into contact with electromedical devices or ordinary appliances such as a nurse call system, electric beds, examining lamps, telephones, and entertainment devices.*

Informational Note: These spaces were formerly known as general care rooms. Examples include, but are not limited to, inpatient bedrooms, dialysis rooms, in vitro fertilization rooms, procedural rooms, and similar rooms. **[99:**A.3.3.140.2]

…

**ARTICLE 110 Requirements for Electrical Installations**

Adopt entire 2023 National Electrical Code Article 110 for OSHPD 1, 1R, 2, 3, 4, 5 & 6, carry forward existing amendments from the 2022 California Electrical Code for OSHPD 1, 1R, 2, 3, 4 & 5.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 4Chapter 2 Wiring and Protection

**ARTICLE** **200 Use and Identification of Grounded Conductors
ARTICLE 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal
ARTICLE 215 Feeders**

Adopt entire 2023 National Electrical Code Articles 200, 210 and 215 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 220 Branch-Circuit, Feeder, And Service Load Calculations**

Repeal all existing OSHPD amendments. Adopt entire 2023 National Electrical Code Article 220 without amendments for OSHPD 1, 2, 3, 4, 5 & 6.

**220.1 Scope.** This article provides requirements for calculating branch-circuit, feeder, and service loads. Part I provides general requirements for calculation methods. Part II provides calculation methods for branch-circuit loads. Parts III and IV provide calculation methods for feeder and service loads. Part V provides calculation methods for farm loads. Part VI provides calculation methods for health care facilities. Part VII provides calculation methods for marinas, boatyards, floating buildings, and commercial and noncommercial docking facilities *~~[OSHPD 1, 2, 3, 4 & 5] Part VI provides calculation methods for health care facilities~~*.

*…*

**220.40 General.** The calculated load of a feeder or service shall not be less than the sum of the loads on the branch circuits supplied, as determined by Part II of this article, after any applicable demand factors permitted or required by Part III, IV, V, VI, or VII *~~[OSHPD 1, 2, 3, 4 & 5] Part VI~~* have been applied.

…

**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 essential electrical system. Administrative areas shall be included in “All others” Type of Occupancy~~***~~.~~**

…

***~~[OSHPD 1, 2, 3, 4 & 5] Part VI. Health Care Facilities~~***

***~~[OSHPD 1, 2, 3, 4 & 5] 220.110 Receptacle Loads~~***

*~~Receptacle loads calculated in accordance with 220.14(H) and (I) and supplied by branch circuits not exceeding 150 volts to ground shall be permitted to be subjected to the demand factors provided in~~* ***~~Table 220.110(1)~~*** *~~and~~* ***~~Table 220.110(2)~~*** *~~for Health Care facilities.~~*

*~~Information Note No. 1: See Article 517 for the definitions of patient care space categories.~~*

*~~Informational Note No 2: See 220.14(l)for the calculation of receptacle outlet loads.~~*

***~~[OSHPD 1, 2, 3, 4 & 5] Table 220.110(1) Demand Factors
for Receptacles Supplied by General-Purpose Branch Circuits in
Category 1 and Category 2 Patient Care Spaces~~***

| ***~~Portion of Receptacle Load to Which Demand Factor Applies (Volt-Amperes)~~*** | ***~~Demand Factor(%)~~*** |
| --- | --- |
| *~~First 5000 or less~~* | *~~100~~* |
| *~~From 5001 to 10,000~~* | *~~50~~* |
| *~~Remainder over 10,000~~* | *~~25~~* |

***~~[OSHPD 1, 2, 3, 4 & 5] Table 220.110(2) Demand Factors
for Receptacles Supplied by General-Purpose Branch Circuits in
Category 3 and Category 4 Patient Care Spaces~~***

| ***~~Portion of Receptacle Load to Which Demand Factor Applies (Volt-Amperes)~~*** | ***~~Demand Factor(%)~~*** |
| --- | --- |
| *~~First 10,000 or less~~* | *~~100~~* |
| *~~Remainder over 10,000~~* | *~~50~~* |

**ARTICLE 225 Outside Branch Circuits and Feeders
ARTICLE 230 Services
ARTICLE 235 Branch Circuits, Feeders, and Services Over 1000 Volts ac, 1500 Volts dc, Nominal
ARTICLE 240 Overcurrent Protection
ARTICLE 242 Overvoltage Protection
ARTICLE 245 Overcurrent Protection for Systems Rated Over 1000 Volts ac, 1500 Volts dc
ARTICLE 250 Grounding and Bonding**

Adopt entire 2023 National Electrical Code Articles 225, 230, 235, 240, 242, 245 and 250 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 5Chapter 3 Wiring Methods and Materials

**ARTICLE 300 General Requirements for Wiring Methods and Materials** **ARTICLE 305 General Requirements for Wiring Methods and Materials for Systems Rated Over 1000 Volts ac, 1500 Volts dc, Nominal
ARTICLE 310 Conductors for General Wiring
ARTICLE 312 Cabinets, Cutout Boxes, and Meter Socket Enclosures
ARTICLE 314 Outlet, Device, Pull, and Junction Boxes; Conduit Bodies; Fittings; and Handhole Enclosures****ARTICLE 315 Medium Voltage Conductors, Cable, Cable Joints, and Cable Terminations
ARTICLE 320 Armored Cable: Type AC
ARTICLE 322 Flat Cable Assemblies: Type FC
ARTICLE 324 Flat Conductor Cable: Type FCC
ARTICLE 326 Integrated Gas Spacer Cable: Type IGS
ARTICLE 330 Metal-Clad Cable: Type MC
ARTICLE 332 Mineral-Insulated, Metal-Sheathed Cable: Type MI
ARTICLE 334 Nonmetallic-Sheathed Cable: Types NM and NMC****ARTICLE 335 Instrumentation Tray Cable: Type ITC
ARTICLE 336 Power and Control Tray Cable: Type TC
ARTICLE 337 Type P Cable****ARTICLE 338 Service-Entrance Cable: Types SE and USE
ARTICLE 340 Underground Feeder and Branch-Circuit Cable: Type UF
ARTICLE 342 Intermediate Metal Conduit (IMC)
ARTICLE 344 Rigid Metal Conduit (RMC)
ARTICLE 348 Flexible Metal Conduit (FMC)
ARTICLE 350 Liquidtight Flexible Metal Conduit (LFMC)
ARTICLE 352 Rigid Polyvinyl Chloride Conduit (PVC)
ARTICLE 353 High Density Polyethylene Conduit (HDPE Conduit)
ARTICLE 354 Nonmetallic Underground Conduit with Conductors (NUCC)
ARTICLE 355 Reinforced Thermosetting Resin Conduit (RTRC)
ARTICLE 356 Liquidtight Flexible Nonmetallic Conduit (LFNC)
ARTICLE 358 Electrical Metallic Tubing (EMT)
ARTICLE 360 Flexible Metallic Tubing (FMT)
ARTICLE 362 Electrical Nonmetallic Tubing (ENT)
ARTICLE 366 Auxiliary Gutters
ARTICLE 368 Busways****ARTICLE 369 Insulated Bus Pipe (IBP)/Tubular Covered Conductors (TCC) Systems
ARTICLE 370 Cablebus****ARTICLE 371 Flexible Bus Systems
ARTICLE 372 Cellular Concrete Floor Raceways
ARTICLE 374 Cellular Metal Floor Raceways
ARTICLE 376 Metal Wireways****ARTICLE 378 Nonmetallic Wireways
ARTICLE 380 Multioutlet Assembly
ARTICLE 382 Nonmetallic Extensions
ARTICLE 384 Strut-Type Channel Raceway
ARTICLE 386 Surface Metal Raceways
ARTICLE 388 Surface Nonmetallic Raceways
ARTICLE 390 Underfloor Raceways
ARTICLE 392 Cable Trays
ARTICLE 393 Low-Voltage Suspended Ceiling Power Distribution Systems
ARTICLE 394 Concealed Knob-And-Tube Wiring****ARTICLE 395 Outdoor Overhead Conductors over 1000 Volts
ARTICLE 396 Messenger-Supported Wiring
ARTICLE 398 Open Wiring on Insulators**

Adopt entire 2023 National Electrical Code Articles 300, 305, 310, 312, 314, 315, 320, 322, 324, 326, 330, 332, 334, 335, 336, 337, 338, 340, 342, 344, 348, 350, 352, 353, 354, 355, 356, 358, 360, 362, 366, 368, 369, 370, 371, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 393, 394, 395, 396 and 398 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 6Chapter 4 Equipment for General Use

**ARTICLE 400 Flexible Cords and Flexible Cables
ARTICLE 402 Fixture Wires**

Adopt entire 2023 National Electrical Code Articles 400 and 402 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 404 Switches**

Adopt entire 2023 National Electrical Code Article 404 for OSHPD 1R, 3 & 6. Adopt entire 2023 National Electrical Code Article 404 and carry forward existing amendment of the 2022 California Electrical Code for OSHPD 1, 2, 4 & 5 with 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 & ~~5~~6] 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 900 mm (3 ft) of the perimeter of bathtubs or shower stalls.*

*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.*

*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.*

**ARTICLE 406 Receptacles, Cord Connectors, and Attachment Plugs (Caps)**

Repeal all OSHPD amendments in Article 406. Adopt entire 2023 National Electrical Code Article 406 without amendments for OSHPD 1, 1R, 2, 3, 4, 5, & 6.

**406.9 Receptacles in Damp or Wet Locations.**

…

**(C) Bathtub and Shower Space.** …

*…*

*~~[OSHPD 1, 2, 4 & 5] Exception not adopted.~~*

**ARTICLE 408 Switchboards, Switchgear, and Panelboards****ARTICLE 409 Industrial Control Panels****ARTICLE 410 Luminaires, Lampholders, and Lamps****ARTICLE 411 Low-Voltage Lighting****ARTICLE 422 Appliances
ARTICLE 424 Fixed Electric Space-Heating Equipment
ARTICLE 425 Fixed Resistance and Electrode Industrial Process Heating Equipment
ARTICLE 426 Fixed Outdoor Electric Deicing and Snow-Melting Equipment
ARTICLE 427 Fixed Electric Heating Equipment for Pipelines and Vessels
ARTICLE 430 Motors, Motor Circuits, and Controllers
ARTICLE 440 Air-Conditioning and Refrigerating Equipment
ARTICLE 445 Generators
ARTICLE 450 Transformers and Transformer Vaults (Including Secondary Ties)
ARTICLE 455 Phase Converters
ARTICLE 460 Capacitors
ARTICLE 470 Resistors and Reactors
ARTICLE 480 Stationary Standby Batteries
ARTICLE 495 Equipment Over 1000 Volts ac, 1500 Volts dc, Nominal**

Adopt entire 2023 National Electrical Code Articles 408, 409, 410, 411, 422, 424, 425, 426, 427, 430, 440, 445, 450, 455, 460, 470, 480 and 495 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 7Chapter 5 Special Occupancies

**ARTICLE 500 Hazardous (Classified) Locations, Classes I, II, and III, Divisions 1 and 2** **ARTICLE 501 Class I Locations
ARTICLE 502 Class II Locations
ARTICLE 503 Class III Locations
ARTICLE 504 Intrinsically Safe Systems
ARTICLE 505 Zone 0, 1, And 2 Locations
ARTICLE 506 Zone 20, 21, and 22 Locations for Combustible Dusts or Ignitible Fibers/Flyings**

Adopt entire 2023 National Electrical Code Articles 500, 501, 502, 503, 504, 505 and 506 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 511 Commercial Garages, Repair and Storage
ARTICLE 512 Cannabis Oil Equipment and Cannabis Oil Systems Using Flammable Materials
ARTICLE 513 Aircraft Hangars
ARTICLE 514 Motor Fuel Dispensing Facilities**

Articles 511, 512, 513 and 514 are not adopted for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 515 Bulk Storage Plants**

Adopt entire 2023 National Electrical Code Article 515 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

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

Article 516 is not adopted for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 8Chapter 5 Special Occupancies

**ARTICLE 517 Health Care Facilities**

Adopt entire 2023 National Electrical Code Article 517 for OSHPD 1, 1R, 2, 3, 4, 5 & 6, carry forward existing amendments from the 2022 California Electrical Code for OSHPD 1, 1R, 2, 3, 4 & 5. Relocate definitions in 517.2 to Article 100. Repeal OSHPD amendments in Sections 517.10(B)(2), 517.18(B)(2), 517.30(B.1), 517.31(D.1), 517.31(E), 517.42(E), 517.44(B)(3.1), 517.45(G), and 517.80. Renumber section 517.22 to 517.8. Renumber section 517.24 to 517.9. Add sections 517.30(A.1), 517.30(D), 517.30(E), 517.31(H), 517.41(A.1), 517.41(D), 517.41(E), 517.42(G), 517.45(H). Make the following amendments in Sections 517.1(C), 517.4, 517.18 (B)(2), 517.29(A.1), 517.41(B.1), 517.42(E), 517.45(E.1), 517.45(H), 517.63 & 517.123(C)(3).

**517.1 Scope.** …

***(C)******Electrical Equipment Schedules******[OSHPD 1, 2, 4, & 5].*** *Electrical equipment schedules in the construction documents shall clearly indicate which equipment will be powered by the essential electrical system ~~or~~ and provide appropriate**documentation**for special seismic certifications.*

**517.2 Definitions.** …

***~~Life-Saving Equipment. [OSHPD 2]~~*** *~~Equipment required to either save or sustain the life of occupant(s) of a healthcare facility. Life-Saving Equipment may include but shall not be limited to, ventilators, AEDs, crash carts with defibrillators, intravenous therapy equipment, feeding pumps, IV pumps, nebulizer machines, suction equipment, and medication dispensing machines.~~ (Relocate to Article 100 definitions.)*

*…*

***~~Microgrid, Health Care (Health Care Microgrid System). (Health Care Microgrid)~~*** *~~A group of interconnected loads and distributed energy resources within clearly defined boundaries that acts as a single controllable entity with respect to the utility. [NFPA~~* ***~~99:~~*** *~~3.3.75 (CMP-15).~~*

***~~Microgrid Control System (MCS).~~*** *~~A structured control system that manages microgrid operations, functionalities for utility interoperability, islanded operations, and transitions. (CMP-4).~~*

*~~Informational Note:~~*

*~~MCS differ from multiple standby generators or uninterruptible power supplies that are evaluated and rated to operate as a single source of backup power upon loss of the primary power source. MCS functions include coordination, transitions, and interoperability between multiple power sources.~~*

*…*

***~~Oxygen-Generating Devices.~~******~~[OSHPD 2]~~*** *~~Devices used to extract or make concentrated oxygen rich blends of air for human use. Oxygen-Generating Devices may include but shall not be limited to concentrators and positive pressure apparatus.~~ (Relocate to Article 100 definitions.)*

*…*

**Patient Care Space**. …

**Category 1 (Critical Care) Space.** Space in which failure of equipment or a system is likely to cause major injury or death of patients, staff, or visitors. **[99:**3.3.136.1]***~~[OSHPD 1, 2, 3, 4 & 5]~~*** *~~Includes special care units, intensive care units, coronary care units, sub-acute units, angiography laboratories, cardiac catheterization laboratories, delivery rooms, operating rooms, portions of emergency departments, electroconvulsive therapy procedure rooms, post-operative recovery rooms and similar areas in which patients are intended to be subjected to invasive procedures and are connected to line-operated electromedical devices.~~(Relocate to Article 100 definitions.)*

**Category 2 (General Care) Space.** Space in which failure of equipment or a system is likely to cause minor injury to patients, staff, or visitors. **[99:**3.3.140.2] ***~~[OSHPD 1, 2, 3, 4 & 5]~~*** *~~Includes areas such as patient bedrooms, examining rooms, treatment rooms, clinics, and similar areas where the patient may come into contact with electromedical devices or ordinary appliances such as a nurse call system, electric beds, examining lamps, telephones, and entertainment devices.~~ (Relocate to Article 100 definitions.)*

…

***517.4 [OSHPD 1, 1R, 2, 4 & 5] Electric Power Sources, Feeders and Services******~~/Systems and Utilities~~.*** *One source (or sets of sources) shall be sized to supply power to support the entire healthcare facility electrical load and shall be permitted to be located on-site or off-site. The source(s) shall be one of the following:*

*a. An off-site public utility source with service to the site*

*b. On-site resources (PV's Batteries, fuel cells, etc.)*

*c. A combination of both*

*All sources other than utility owned equipment that are required to meet the entire healthcare facility electrical load, shall have special seismic certification, and be located to minimize interruptions caused by natural forces common to the area or natural disasters identified in the facilities emergency operations plan.*

*Refer to Sections 1224.4.1.1, 1225.2.1, and 1228.4.1.1, California Building Code.*

*Informational Note: See Sections 220.40 for sizing requirements for Electric Power Sources, Feeders and Services.*

…

***517.8*** (Formerly 517.22) ***[OSHPD 1, 2, 3, 4, 5 & ~~5~~6] Artificial Lighting.*** …

***517.9*** (Formerly 517.24) ***[OSHPD 1, 1R, 2, 3, 4 & 5] Mobile Medical Facilities.*** …

**Part II. Wiring and Protection**

**517.10 Applicability.**

…

**(B) Not Covered.** Part II shall not apply to the following:

(1) Business offices, …

(2) Spaces of nursing homes and limited care facilities wired in accordance with Chapters 1 through 4 of this Code where these spaces are used exclusively as patient sleeping rooms, as determined by the health care facilities governing board. *~~Not adopted by [OSHPD 1, 2, 3, 4 & 5]~~*

...

**517.18 Category 2 Spaces.**

**(A) Patient Bed Location.** …

**(B) Patient Bed Location Receptacle.**

**(1) Minimum Number and Supply.** …

**(2) Receptacle Requirements.** The receptacles required in 517.18(B)(1) shall be permitted to be of the single, duplex, or quadruplex type or any combination of the three. All receptacles shall be listed “hospital grade” and shall be so identified. The grounding terminal of each receptacle shall be connected to an insulated copper equipment grounding conductor sized in accordance with Table 250.122.

Exception No. 1: The requirements of 517.18(B)(1) and (B)(2) shall not apply to psychiatric, substance abuse, and rehabilitation hospitals meeting the requirements of 517.10(B)(2).

Exception No. 2: Psychiatric security rooms shall not be required to have receptacle outlets installed in the room.

*~~Exception No. 3: [OSHPD 1, 2, 4 & 5] Hospital grade receptacles shall not be required in patient sleeping areas in nursing homes.~~*

*Exception No. ~~4~~3: [OSHPD 1 & 5] Psychiatric patient bedrooms shall not be required to have receptacle outlets installed in the room. If installed, the receptacles shall be tamper-resistant, controlled by a switch outside the room that is under the control of staff, and shall be protected by a ground-fault circuit interrupter.*

*Exception No. ~~5~~4: [OSHPD 1 & 1R] Outpatient Observation bed and gurney locations shall be provided with a minimum of four receptacles.*

(Relocate informational note after exceptions) Informational Note: It is not intended that there be a total, immediate replacement of existing non–hospital grade receptacles. It is intended, however, that non–hospital grade receptacles be replaced with hospital grade receptacles upon modification of use, renovation, or as existing receptacles need replacement.

...

***~~517.22~~*** (Relocated to *517.8*) ***~~[OSHPD 1, 2, 3, 4 & 5] Artificial Lighting.~~***~~…~~

***~~517.24~~*** (Relocated to *517.9*) ***~~[OSHPD 1, 1R, 2, 3, 4 & 5] Mobile Medical Facilities.~~***~~…~~

…

**517.29 Type 1 Essential Electrical Systems.** …

…

***(A.1) [OSHPD 1, 2, 3 (Surgical Clinics only), 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) services.*

…

**517.30 Sources of Power.**

**(A) Two Independent Power Sources.** Essential electrical systems (EES) shall have two or more independent sources (or sets of sources). One on-site source (or sets of sources) shall be sized to supply the entire EES. The other independent source (or sets of sources) shall be sized to supply the entire EES and shall be permitted to be located on-site or off-site. Additional sources other than the first two independent sources shall be permitted to be sized to supply the intended load.

***(A.1) [OSHPD 1, 3 (Surgical Clinics only), 4 & 5]******Two Independent Power Sources.*** *The Essential Electrical System (EES) shall be served by two or more independent sources (or sets of sources). In addition to the Electric Power Sources called out in 517.4, each healthcare facility shall have one on-site source (or sets of sources) sized to supply the entire EES. Both sources (entire site and EES) may share resources, however neither source (or sets of sources) shall depend on resources from the other to meet calculated load values for loads they are designated to feed.*

*Clearly indicate all EES components on the design documents.*

*The two independent sources (or sets of sources) shall be located to reduce the likelihood of simultaneous interruption of EES components and non-EES components.*

Informational Note: An example of a set of sources may be several generators that combined serve the entire EES.

**(B) Power Sources for the EES.** Power sources for the EES shall be permitted to be any of those specified in 517.30(B)(1) through (B)(5).

***~~(B.1)~~******~~[OSHPD 1, 3, 4 & 5] Power Sources for the EES.~~*** *~~Power sources for the EES shall be permitted to be any of those specified in 517.30(B)(1) through 517.30(B)(4). One on-site power source (or set of sources) that is sized to supply the entire EES shall meet the on-premises fuel or battery stored energy requirements specified in Article 700.12.~~*

**(1) Utility Supply Power.** …

**(2) Generating Units.** …

**(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.~~*

**(3) Fuel Cell Systems.** …

**(4) Energy Storage Systems.** …

***~~(4) Health Care Microgrid.~~*** *~~EES shall be permitted to be supplied by a Health Care Microgrid that also supplies nonessential loads. The EES Health Care Microgrid shall be permitted to share distributed resources with the normal source. EES Health Care Microgrid systems shall be designed with sufficient reliability to provide effective facility operation consistent with the facility emergency operations plan. EES Health Care Microgrid system components shall not be compromised by failure of the normal source. EES Health Care Microgrids shall meet the installation and commissioning requirements set forth in NFPA 99 Article 6.10.~~*

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

*~~[OSHPD 1, 3, 4 & 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 power requirements.~~*

**(5) Health Care Microgrid.** EES shall be permitted to be supplied by a health care microgrid that also supplies nonessential loads. The health care microgrid shall be permitted to share distributed resources with the normal system. Health care microgrid systems shall be designed with sufficient reliability to provide effective facility operation consistent with the facility emergency operations plan. Health care microgrid system components shall not be compromised by failure of the normal source. *[OSHPD 1, 2, 3 (Surgical Clinics only), 4 & 5]* *EES Health Care Microgrids shall meet the installation and commissioning requirements called out in NFPA 99 Section 6.10.7.*

**(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). [*OSHPD 1 & 4] Refer to California Building Code, Section 1617A.1.40]*

**(1) Services.** …

**(2) Feeders.** …

***(D) [OSHPD 1, 4, & 5]: Temporary Source of Power for Maintenance or repair of the Alternate Source of Power****. The Essential Electrical System (EES) shall include permanent switching means to connect temporary or permanent on-site resources (energy sources or stored energy power supply systems) configured and sized adequately to provide power for the EES, such that additional resources can be connected (without rewiring) to meet essential power requirements for individual equipment replacement, failures or maintenance.*

**517.31** **Requirements for the Essential Electrical System.**

...

*~~(D.1) [OSHPD 1, 1R, 2, 3, 4 & 5] Capacity of Systems. The essential electrical system shall have the capacity and rating to meet the maximum actual demand likely to be produced by the connected load.~~*

**(E) Receptacle Identification*.******~~[OSHPD 1, 2, 3, 4 & 5]~~***The cover plates for the electrical receptacles *~~or the electrical receptacles~~* 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)].

[2023 National Electrical Code shown for context]

**(E)** **Receptacle Identification**. The electrical receptacles or the cover plates for the electrical receptacles 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)].

**(F) Feeders from Alternate Power Source.** …

**(G) Coordination.** …

***(H)* *[SFM, OSHPD 1, 4 & 5]*** ***On-site energy storage systems and fuel supply.*** *The on-site Essential Electrical System sources (or set of sources) shall have sufficient resources on-site, and shall be available at all times to provide continuous essential power as follows:*

***(1)******[SFM, OSHPD 1 & 4]*** *For correctional treatment centers that provide optional services, resources shall be sufficient to support not less than 24 hours full-demand operation. For acute care hospital facilities required to meet NPC-5, the on- site resources shall be available at all times sufficient to support not less than 72 hours at full output of the required Emergency Power Supply System (EPSS). On-Site fuel for redundant power sources is not required (i.e., for N+1 generators fuel is required for N generators only).*

***(2) [SFM, OSHPD 4 & 5]****, For the following health facilities with seven or more beds: correctional treatment centers that provide only basic services and acute psychiatric hospitals**, on-site resources shall be available at all times sufficient to support not less than 6 hours at full output of the required Emergency Power Supply System (EPSS). On-Site fuel for redundant power sources is not required (i.e., for N+1 generators fuel is required for N generators only).*

**517.41 Required Power Sources.**

**(A) Independent Power Sources.** Essential electrical systems (EES) shall have two or more independent sources (or sets of sources). One on-site source (or sets of sources) shall be sized to supply the entire EES. The other independent source (or sets of sources) shall be sized to supply the entire EES and shall be permitted to be located on-site or off-site. Additional sources other than the first two independent sources shall be permitted to be sized to supply the intended load.

***(A.1) [OSHPD 2, 4 & 5] Two Independent Power Sources.*** *The Essential Electrical System (EES) shall be served by two or more independent sources (or sets of sources). In addition to the Electric Power Sources called out in 517.4, each healthcare facility shall have one on-site source (or sets of sources) sized to supply the entire EES. Both sources (entire site and EES) can share resources, however neither source (or sets of sources) shall depend on resources from the other to meet calculated load values for loads they are designated to feed.*

*Clearly indicate on design documents all EES components.*

*The two independent sources (or sets of sources) shall be located to reduce the likelihood of simultaneous interruption of EES components and non-EES components.*

…

***~~(B.1) [OSHPD 2, 4 & 5] Power Sources for the EES~~****~~. Power sources for the EES shall be permitted to be any of those specified in 517.41(B)(1) through (B)(4). One on-site power source (or set of sources) that is sized to supply the entire EES shall meet the on-premises fuel or battery stored energy requirements specified in Article 700.12.~~*

***~~(1) Generating Units.~~***

***~~(2) Fuel Cell Systems.~~*** *~~Fuel cell systems shall be permitted to serve as the alternate source for all or part of an essential electrical system, provided the following conditions apply:~~****~~[99:~~****~~6.7.1.4]~~*

*~~(1) Installation of fuel cells shall comply with the requirements in Parts I through VII of Article 692 for 1000 volts or less and Part VIII for over 1000 volts.~~*

*~~Informational Note: For information on installation of stationary fuel cells, see NFPA 853-2015, Standard for the Installation of Stationary Fuel Cell Power Systems.~~*

*~~(2) N + 1 units shall be provided where N units have sufficient capacity to supply the demand load of the portion of the system served.~~****~~[99:~~****~~6.7.1.4.2]~~*

*~~(3) Systems shall be able to assume loads within 10 seconds of loss of normal power source.~~****~~[99:~~****~~6.7.1.4.3]~~*

*~~(4) Systems shall have a continuing source of fuel supply, together with sufficient on-site fuel storage for the essential system type.~~**~~[~~****~~99:~~****~~6.7.1.4.4]~~*

*~~(5) Where life safety and critical portions of the distribution system are present, a connection shall be provided for a portable diesel generator. [~~****~~99:~~****~~6.7.1.4.5]~~*

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

*~~Informational Note: For information on installation of battery systems, see NFPA 111- 019, Standard on Stored Electrical Energy Emergency and Standby Power Systems.~~*

***~~(4) Health Care Microgrid.~~*** *~~EES shall be permitted to be supplied by a Health Care microgrid that also supplies nonessential loads. The EES Health Care Microgrid shall be permitted to share distributed resources with the normal source. EES Health Care Microgrid systems shall be designed with sufficient reliability to provide effective facility operation consistent with the facility emergency operations plan. EES Health Care Microgrid system components shall not be compromised by failure of the normal source. EES Health Care Microgrids shall meet the installation and commissioning requirements set forth in NFPA 99-2021 Article 6.10.~~*

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

*~~[OSHPD 2, 4 & 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 power requirements.~~*

*~~Informational Note: [OSHPD 2, 4 & 5] 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 need not have the wireless components connected to the alternate source of power.~~*

**(C) Location of Essential Electrical System Components.** EES 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]

Installations of electrical services shall be located to reduce possible interruption of normal electrical services resulting from similar causes as well as possible disruption of normal electrical service due to internal wiring and equipment failures. **[99:**6.2.4.2]

Feeders shall be located to provide physical separation of the feeders of the alternate source and from the feeders of the normal electrical source to prevent possible simultaneous interruption. **[99:**6.2.4.3]

***(D) [OSHPD 2, 4 & 5] Power Sources for the EES.*** *Power sources for the EES shall be permitted to be any of those listed in 517.30(B)(1) through (B)(5).*

***(E) [OSHPD 2, 4 & 5] Permanent Connection(s) Points for EES Maintenance and Repairs.*** *Permanent connection(s) points shall be provided for the connection of temporary or permanent on-site storage or power sources configured and sized adequately to provide power for the EES, such that additional resources can be connected (without rewiring) to meet essential power requirements for equipment failures or maintenance.*

**517.42 Essential Electrical Systems for Nursing Homes and Limited Care Facilities.**

**(E) Receptacle Identification.** ***~~[OSHPD 1, 2, 4 & 5]~~*** The electrical receptacles *~~or the cover plates for the electrical receptacles~~* supplied from the life safety or equipment branches shall have a distinctive color or marking so as to be readily identifiable. **[99:**6.7.6.3.2]

[2023 National Electrical Code shown for context]

**(E) Receptacle Identification.** The electrical receptacles or the cover plates for the electrical receptacles supplied from the life safety or equipment branches shall have a distinctive color or marking so as to be readily identifiable. **[99:**6.7.6.3.2]

*…*

***(G) [SFM, OSHPD 2, 4 &* 5*] On-site energy storage systems and fuel supply.*** *The on-site Essential Electrical System sources (or set of sources) shall have sufficient resources on-site to provide continuous essential power as follows:*

***(1) [SFM, OSHPD 2, 4 &* 5*]*** *For 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, on-site resources shall be available at all times sufficient to support not less than 6 hours at full output of the required Emergency Power Supply System (EPSS). On-Site fuel for redundant power sources is not required (i.e., for N+1 generators fuel is required for N generators only).*

***(2) [SFM, OSHPD 2]*** *For skilled nursing facilities that have an alternate source of power that is independent of the EES that provides power for mechanical equipment required to maintain safe temperatures, life-saving equipment and oxygen generating devices to meet requirements of CEC 517.1(B), sufficient onsite fuel (or contractual arrangement) shall be provided to operate the EPSS for 96 hours.*

**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 equipment 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~~*~~.~~

…

**517.45 Essential Electrical Systems for Other Health Care Facilities.** …

***(E.1) [OSHPD 3 (Surgical Clinics only)].*** *~~Ambulatory surgical clinics shall be provided with a generator with on-site fuel.~~ The essential electrical systems for ambulatory surgical clinics shall comply with 517.29 through 517.35.*

***(F) [OSHPD 3] Receptacle Identification.*** *The cover plates for the electrical receptacles or the electrical receptacles, supplied from the critical or life safety branches, shall have a distinctive color or marking so as to be readily identifiable.*

***~~(G) [OSHPD 3] Ambulatory Surgical Clinics.~~*** *~~The essential electrical systems for Ambulatory Surgical Clinics shall be as described in 517.29 through 517.35.~~*

***~~(H~~G)******[OSHPD 3] Hemodialysis Clinic****. Illumination for means of egress and exit lights shall be provided, using battery operated equipment with a capacity to sustain its connected load for a minimum of 1-1⁄2 hours after loss of the normal source.*

***(H)*** ***[SFM, OSHPD 3 (Surgical Clinics only)]*** *For ambulatory surgical clinics, sufficient resources on-site and shall be available at all times to provide not less than 4 hours at full output of the required Emergency Power Supply System (EPSS).*

**517.63 Grounded Power Systems in Anesthetizing Locations.**

**(A) Battery-Powered Lighting Units.** One or more battery-powered lighting units shall be provided and shall be permitted to be wired to the critical lighting circuit in the area and connected ahead of any local switches. ***[OSHPD 1, 3 (Surgical Clinics only) & 4]*** *Units shall be capable of providing lighting for 1-1/2 hours.*

…

**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:**6.7.2.2.7]

*~~[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.~~*

…

***517.123 [OSHPD 1, 2, 3, 4 & 5] Call Systems***

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

*(1) Shall be accessible to a patient lying on the floor. Pull cords shall be provided that extend to within 12 inches (304.8 mm) of the floor.*

*(2) The call may be reset only at the location where it was initiated.*

*(3) In shower stalls and tubs, the station shall be located between 5 and 6 feet (1524 to 1829 mm) above the floor, within normal view of the user ~~and within reach of staff without the need to step into the stall or tub~~.*

*(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 shall maintain a clearance of 12 inches (304.8 mm) above the horizontal grab bar.*

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 9Chapter 5 Special Occupancies

**ARTICLE 518 Assembly Occupancies
ARTICLE 520 Theaters, Audience Areas of Motion Picture and Television Studios, Performance Areas, and Similar Locations**

Adopt entire 2023 National Electrical Code Articles 518 and 520 withoutamendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 522 Control Systems for Permanent Amusement Attractions
ARTICLE 525 Carnivals, Circuses, Fairs, and Similar Events
ARTICLE 530 Motion Picture and Television Studios and Remote Locations**

Articles 522, 525 and 530 are not adopted for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 540 Motion Picture Projection Rooms
ARTICLE 545 Manufactured Buildings and Relocatable Structures**

Adopt entire 2023 National Electrical Code Articles 540 and 545 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 547 Agricultural Buildings
ARTICLE 550 Mobile Homes, Manufactured Homes, and Mobile Home Parks
ARTICLE 551 Recreational Vehicles and Recreational Vehicle Parks
ARTICLE 552 Park Trailers
ARTICLE 555 Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities**

Articles 547, 550, 551, 552 and 555 are not adopted for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 590 Temporary Installations**

Adopt entire 2023 National Electrical Code Article 590 withoutamendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 10Chapter 6 Special Equipment

**ARTICLE 600 Electric Signs and Outline Lighting
ARTICLE 604 Manufactured Wiring Systems
ARTICLE 605 Office Furnishings
ARTICLE 610 Cranes and Hoists**

Adopt entire 2023 National Electrical Code Articles 600, 604, 605 and 610 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

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

Adopt entire 2023 National Electrical Code Article 620 for OSHPD 1R, 2, 3, 4, 5 & 6. Adopt entire 2023 National Electrical Code Article 620 and carry forward existing amendment of the 2022 California Electrical Code for OSHPD 1.

**ARTICLE 625 Electric Vehicle Power Transfer System**

Adopt entire 2023 National Electrical Code Article 625 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 626 Electrified Truck Parking Spaces**

Article 626 is not adopted for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 630 Electric Welders
ARTICLE 640 Audio Signal Processing, Amplification, and Reproduction Equipment
ARTICLE 645 Information Technology Equipment
ARTICLE 646 Modular Data Centers
ARTICLE 647 Sensitive Electronic Equipment
ARTICLE 650 Pipe Organs
ARTICLE 660 X-Ray Equipment
ARTICLE 665 Induction and Dielectric Heating Equipment
ARTICLE 668 Electrolytic Cells**

Adopt entire 2023 National Electrical Code Articles 630, 640, 645, 646, 647, 650, 660, 665 and 668 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 669 Electroplating
ARTICLE 670 Industrial Machinery
ARTICLE 675 Electrically Driven or Controlled Irrigation Machines**

Articles 699, 670 and 675 are not adopted for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 680 Swimming Pools, Fountains, and Similar Installations
ARTICLE 682 Natural and Artificially Made Bodies of Water
ARTICLE 685 Integrated Electrical Systems
ARTICLE 690 Solar Photovoltaic (PV) Systems
ARTICLE 691 Large-Scale Photovoltaic (PV) Electric Supply Stations
ARTICLE 692 Fuel Cell Systems
ARTICLE 694 Wind Electric Systems**

Adopt entire 2023 National Electrical Code Articles 680, 682, 685, 690, 691, 692 and 694 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 695 Fire Pumps**

Adopt entire 2023 National Electrical Code Article 695 for OSHPD 1, 1R, 2, 3, 4, 5 & 6, carry forward existing amendments of the 2022 California Electrical Code for OSHPD 1, 1R, 2, 3, 4, & 5.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 11Chapter 7 Special Conditions

**ARTICLE 700 Emergency Systems**

Adopt entire 2023 National Electrical Code Article 700 for OSHPD 1, 1R, 2, 3, 4, 5 & 6, carry forward existing amendments of the 2022 California Electrical Code for OSHPD 1, 1R, 2, 3, 4, & 5 and repeal the following amendments in Section 700.12:

**700.12 General Requirements.** …

…

**(C) Storage Battery.** …

…

*~~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).~~*

**(D) Generator Set.**

**(1) Prime Mover-Driven.** ...

**(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.~~*

**(b) *Fuel Transfer Pumps*** *…*

…

**(G) Fuel Cell System.** …

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

**ARTICLE 701 Legally Required Standby Systems**

**ARTICLE 702 Optional Standby Systems**

Adopt entire 2023 National Electrical Code Articles 701 and 702 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 705 Interconnected Electric Power Production Sources**

Adopt entire 2023 National Electrical Code Article 705 for OSHPD 1, 1R, 2, 3, 4, 5 & 6, carry forward existing amendment of the 2022 California Electrical Code for OSHPD 1, 1R, 2, 3, 4 & 5, and make the following amendment to the OSHPD Banner in Section 705.20:

**705.20 Disconnecting Means, Source.** Means shall be provided to disconnect power source output circuit conductors of electric power production equipment from conductors of other systems. The disconnecting means shall comply with the following:

(1) Be one of the following types: …

…

(8) Be marked in accordance with the warning…

***[OSHPD 1, 1R, 2, 3, 4, 5 & ~~5~~6]*** *The disconnecting means shall be installed either inside or outside of the building that houses equipment that will have connection(s) from electric power production equipment. The disconnecting means shall be located as near as practicable to where the conductors enter or leave OSHPD Jurisdiction.*

...

**ARTICLE 706 Energy Storage Systems**

Adopt entire 2023 National Electrical Code Article 706, without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

**ARTICLE 708 Critical Operations Power Systems (COPS)**

Adopt entire 2023 National Electrical Code Article 708 for OSHPD 1, 1R, 2, 3, 4, 5 & 6, and carry forward existing amendment of the 2022 California Electrical Code for OSHPD 1, 1R, 2, 3, 4 & 5, and make the following amendment in 708.1:

**708.1 Scope.** *[Not required for OSHPD 1, 1R, 2, 3, 4, 5 & ~~5~~6]* This article applies to the installation, operation, monitoring, control, and maintenance of the portions of the premises wiring system intended to supply, distribute, and control electricity to designated critical operations areas (DCOA) in the event of disruption to elements of the normal system.

**ARTICLE 710 Stand-Alone Systems** **ARTICLE 722 Cables for Power-Limited Circuits and Fault-Managed Power Circuits** **ARTICLE 724 Class 1 Power-Limited Circuits and Class 1 Power-Limited Remote-Control and Signaling Circuits
ARTICLE 725 Class 2 and Class 3 Power-Limited Circuits** **ARTICLE 726 Class 4 Fault-Managed Power Systems
ARTICLE 728 Fire-Resistive Cable Systems
ARTICLE 750 Energy Management Systems
ARTICLE 760 Fire Alarm Systems
ARTICLE 770 Optical Fiber Cables**

Adopt entire 2023 National Electrical Code Articles 710, 722, 724, 725, 726, 728, 750, 760 and 770 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 12Chapter 8 Communications Systems

**ARTICLE 800 General Requirements for Communications Systems
ARTICLE 805 Communications Circuits
ARTICLE 810 Antenna Systems
ARTICLE 820 Community Antenna Television and Radio Distribution Systems
ARTICLE 830 Network-Powered Broadband Communications Systems
ARTICLE 840 Premises-Powered Broadband Communications Systems**

Adopt entire 2023 National Electrical Code Articles 800, 805, 810, 820, 830 and 840 without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 13Chapter 9 Tables

Adopt entire 2023 National Electrical Code Chapter 9 Tables without amendments for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070

### ITEM 14Annexes A, B, C, D, E, F, G, H, I, J and K

2023 National Electric Code Annexes A, B, C, D, E, F, G, H, I, J and K are not adopted for OSHPD 1, 1R, 2, 3, 4, 5 & 6.

#### Notation:

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

Reference: Health and Safety Code, Section 1250.3, 1418.22, 129675-130070