

ATTACHMENT 2

APPROVED BY THE CALIFORNIA BUILDING STANDARDS COMMISSION

AUGUST 13, 2020

**FINAL EXPRESS TERMS
FOR PROPOSED BUILDING STANDARDS
OF THE STATE FIRE MARSHAL
REGARDING THE 2019 CALIFORNIA FIRE CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 9
(SFM 04/19)**

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- Repealed model code language appears ~~upright and in strikeout~~
- Repealed California amendments appear in ~~*italic and strikeout*~~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: [SFM 04/19-1-1]

Chapter: [1, DIVISION II, ADMINISTRATION]

Section: [TITLE]

Express Terms:

[Chapter 1 Title]

**CHAPTER 1
DIVISION II
SCOPE AND ADMINISTRATION**

**SECTION 105
PERMITS**

Item: [SFM 04/19-1-2]

Chapter: [1, DIVISION II, ADMINISTRATION]

Section: [105, PERMITS]

Express Terms:

[Section: 105.6.52 (New)]

105.6 Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.6.1 through 105.6.502.

Item: [SFM 04/19-1-3]

Chapter: [1, DIVISION II, ADMINISTRATION]

Section: [105, PERMITS]

Express Terms:

[Section: 105.6.52 (New)]

105.6.52 Energy storage systems. *An operational permit is required for stationary and mobile energy storage systems regulated by Section 1206.*

Item: [SFM 04/19-1-4]

Chapter: [1, DIVISION II, ADMINISTRATION]

Section: [105, PERMITS]

Express Terms:

[Section: 105.7.2]

[A] 105.7.2 Battery systems. ~~A construction permit is required to install stationary storage battery systems regulated by Section 1206.2.~~ **Energy storage systems.** *A construction permit is required to install energy storage systems regulated by Section 1206.*

Item: [SFM 04/19-1-5]

Chapter: [1, DIVISION II, ADMINISTRATION]

Section: [105, PERMITS]

Express Terms:

[Section: 105.7.3]

[A] 105.7.3 Capacitor energy storage systems. ~~A construction permit is required to install capacitor energy storage systems regulated by Section 1206.3.~~ **Reserved.**

[ENERGY STORAGE SYSTEMS 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New),

TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**CHAPTER 2
DEFINITIONS**

**SECTION 202
GENERAL DEFINITIONS**

Item: [SFM 04/19-2-1]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definitions: Battery Types, Lead-acid battery]

BATTERY TYPES.

Lead-acid battery. A storage battery that is comprised of lead electrodes immersed in a solution of water and sulphuric acid electrolyte.

Item: [SFM 04/19-2-2]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definitions: Battery Types, Nickel-cadmium (Ni-Cd) battery]

Nickel-cadmium (Ni-Cd) battery. An alkaline storage battery in which the positive active material is nickel oxide, the negative contains cadmium and the electrolyte is a solution of water and potassium hydroxide.

Item: [SFM 04/19-2-3]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Capacitor Array (Delete)]

CAPACITOR ARRAY. ~~An arrangement of individual capacitor modules in close proximity to each other, mounted on storage racks or in cabinets or other enclosures.~~

Item: [SFM 04/19-2-4]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Capacitor Energy Storage System (Delete)]

CAPACITOR ENERGY STORAGE SYSTEM. ~~A stationary, rechargeable energy storage system consisting of capacitors, chargers, controls and associated electrical equipment designed to provide electrical power to a building or facility. The system is typically used to provide standby or emergency power, an uninterruptable power supply, load shedding, load sharing or similar capabilities.~~

Item: [SFM 04/19-2-5]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Pre-engineered capacitor energy storage system (Delete)]

~~**Pre-engineered capacitor energy storage system.** A capacitor energy storage system consisting of capacitors, an energy management system, components and modules that are produced in a factory, designed to comprise the system when assembled on the job site.~~

Item: [SFM 04/19-2-6]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Pre-packaged capacitor energy storage system (Delete)]

~~**Pre-packaged capacitor energy storage system.** A capacitor energy storage system consisting of capacitors, an energy management system, components and modules that is factory assembled and then shipped as a complete unit for installation at the job site.~~

Item: [SFM 04/19-2-7]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage Management System]

ENERGY STORAGE MANAGEMENT SYSTEMS. An electronic system that protects stationary energy storage batteries systems from operating outside their safe operating parameters, and generates an alarm and trouble signal for off-normal conditions disconnects electrical power to the ESS or places it in a safe condition if potentially hazardous temperatures or other conditions are detected.

Item: [SFM 04/19-2-8]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System (ESS) (New)]

ENERGY STORAGE SYSTEM (ESS). One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time.

Item: [SFM 04/19-2-9]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System Cabinet (New)]

ENERGY STORAGE SYSTEM CABINET. A cabinet containing components of the energy storage system that is included in the UL 9540 listing for the system. Personnel are not able to enter the enclosure, other than reaching in to access components for maintenance purposes.

Item: [SFM 04/19-2-10]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System Commissioning (New)]

ENERGY STORAGE SYSTEM COMMISSIONING. A systematic process that provides documented confirmation that an energy storage system functions according to the intended design criteria and complies with applicable code requirements.

Item: [SFM 04/19-2-11]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System Decommissioning (New)]

ENERGY STORAGE SYSTEM DECOMMISSIONING. *A systematic process that provides documentation and procedures that allow an energy storage system to be safely de-energized, disassembled, readied for shipment or storage, and removed from the premise in accordance with applicable code requirements.*

Item: [SFM 04/19-2-12]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System, Electrochemical (New)]

ENERGY STORAGE SYSTEM, ELECTROCHEMICAL. *An energy storage system that stores energy and produces electricity using chemical reactions. It includes, among others, battery ESS and capacitor ESS.*

Item: [SFM 04/19-2-13]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System, Mobile (New)]

ENERGY STORAGE SYSTEM, MOBILE. *An energy storage system capable of being moved and utilized for temporary energy storage applications, and not installed as fixed or stationary electrical equipment. The system can include integral wheels for transportation, or be loaded on a trailer and unloaded for charging, storage and deployment.*

Item: [SFM 04/19-2-14]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System, Stationary (New)]

ENERGY STORAGE SYSTEM, STATIONARY. *An energy storage system installed as fixed or stationary electrical equipment in a permanent location.*

Item: [SFM 04/19-2-15]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Energy Storage System, Walk-in Unit (New)]

ENERGY STORAGE SYSTEM, WALK-IN UNIT. *A pre-fabricated building that contains energy storage systems. It includes doors that provide walk-in access for personnel to maintain, test and service the equipment, and is typically used in outdoor and mobile ESS applications.*

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New),

1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New), UL 9540A (New)

Item: [SFM 04/19-2-16]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Mass Timber (New)]

MASS TIMBER. *Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross section dimensions of Type IV construction.*

[TALL WOOD AND HEAVY TIMBER 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

701.6, 914.3.1.2, 3308.9

Item: [SFM 04/19-2-17]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Mechanical-Access Enclosed Parking Garage (New)]

MECHANICAL-ACCESS ENCLOSED PARKING GARAGE *An enclosed parking garage which employs parking machines, lifts, elevators or other mechanical devices for vehicle moving from and to street level and in which public occupancy in the garage is prohibited in all areas except the vehicle access bay.*

[AUTOMATIC PARKING GARAGE 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202 (New), 903.2.10.2 (New)

Item: [SFM 04/19-2-18]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]
Express Terms:

[Definition: Factory Industrial F-1 Moderate-hazard occupancy]

OCCUPANCY CLASSIFICATION. For the purposes of this code, certain occupancies are defined as follows:

[Add an additional example to Group F-1 in alphabetical order, after Electronics and before Engines]

[BG] Factory Industrial F-1 Moderate-hazard occupancy.
(other examples remain unchanged)
Energy storage systems (ESS) in dedicated-use buildings

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7

(New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

Item: [SFM 04/19-2-19]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Residential Group R-2.1]

Residential Group R-2.1. *Residential Group R-2.1 occupancies shall include buildings, structures or parts thereof housing clients, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services.*

This occupancy may contain more than six non-ambulatory and/or bedridden clients. (See Section 435 Special Provisions for Licensed 24-Hour Care Facilities in a Group R-2.1, R-3.1 or R-4 Occupancy). This group shall include, but not be limited to, the following:

Assisted living facilities such as:

(example remain unchanged for assisted living facilities)

Social rehabilitation facilities such as:

Halfway houses,

Community correctional centers,

~~*Community correction reentry centers,*~~

Community treatment programs,

*Work furlough programs,
Alcoholism or drug abuse recovery or treatment facilities.*

**[I-3 OCCUPANCY WORKGROUP 2019 INTERVENING PROPOSALS]
[Related Sections in Part 9, California Fire Code]:
202,1004.5, TABLE 1004.5, TABLE 1020.2**

Item: [SFM 04/19-2-22]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Residential Group R-4]

BG] Residential Group R-4. Residential Group R-4 shall include buildings, structures or portions thereof for more than five but not more than six ambulatory clients, but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care. Buildings of Group R-4 shall be classified as one of the occupancy conditions indicated below. *The persons receiving care are capable of self-preservation. This group shall include, but not be limited to, the following: Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in the California Building Code. This occupancy classification may include a maximum six non-ambulatory or bedridden clients (see Appendix Chapter 4, Section 435, Special Provisions For Licensed 24-Hour Care Facilities in a Group R-2.1, R-3.1, or R-4 occupancy).* This group shall include, but not be limited to, the following:

~~This occupancy classification may include a maximum six nonambulatory or bedridden clients (see Appendix Chapter 4, Section 435, Special Provisions For Licensed 24-Hour Care Facilities in a Group R-2.1, R-3.1, or R-4 occupancy).~~

Assisted living facilities such as:

*Residential care facilities
Residential Care Facilities for the Elderly (RCFE's)
Adult Residential Facilities
Congregate Living Health facilities
Group homes*

Social rehabilitation facilities such as:

*Halfway houses
~~Community Correctional Centers~~
~~Community Correction Reentry Centers~~
Community Treatment Programs
Work Furlough Programs
Alcoholism or drug abuse recovery or treatment facilities*

~~Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in the California Building Code.~~

Item: [SFM 04/19-2-20]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Puzzle Room (New)]

PUZZLE ROOM *A puzzle room is a type of special amusement area in which occupants are encouraged to solve a challenge to escape from a room or series of rooms.*

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1, 914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Item: [SFM 04/19-2-21]

Chapter: [2, DEFINITIONS]

Section: [202, DEFINITIONS]

Express Terms:

[Definition: Special Amusement Area]

[BG] SPECIAL AMUSEMENT BUILDING AREA. A special amusement building area is any temporary or permanent building or portion thereof that is occupied for amusement, entertainment or educational purposes and ~~that contains a device or system that conveys passengers or provides a walkway along, around or over a course in any direction so arranged that the means of egress path is not readily apparent due to visual or audio distractions or is intentionally confounded or is not readily available because of the nature of the attraction or mode of conveyance through the building or structure~~ is arranged in a manner that:

1. Makes the means of egress path that is not readily apparent due to visual and audio distractions, or
2. Intentionally confounds identification of the means of egress path, or
3. Otherwise makes the means of egress path not readily available because of the nature of the attraction or mode of conveyance through the special amusement area, building, structure or portion thereof.

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1,
914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

CHAPTER 3 GENERAL REQUIREMENTS

SECTION 315 GENERAL STORAGE

Item: [SFM 04/19-3-1]

Chapter: [3, GENERAL REQUIREMENTS]

Section: [315, GENERAL STORAGE]

Express Terms:

[Section: TABLE 315.7.6(1)]

**TABLE 315.7.6(1)
SEPARATION DISTANCE BETWEEN WOOD PALLET STACKS AND BUILDINGS**

WALL CONSTRUCTION	OPENING TYPE	WOOD PALLET SEPARATION DISTANCE (feet)		
		≤50 Pallets	51 to 200 Pallets	>200 Pallets
Masonry	None	2	2	2
Masonry	Fire-rated glazing with open sprinklers	2	5	20
Masonry	Fire-rated glazing	4 5	5 10	20
Masonry	Plain glass with open sprinklers	4 5	5 10	20
Noncombustible	None	4 5	5 10	20
Wood with open sprinklers	—	4 5	5 10	20
Wood	None	15	30	90
Any	Plain glass	15	30	90

For SI: 1 foot = 304.8 mm.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

CHAPTER 5 FIRE SERVICE FEATURES

SECTION 508 FIRE COMMAND CENTER

Item: [SFM 04/19-4-1]

Chapter: [5, FIRE SERVICE FEATURES]

Section: [508, FIRE COMMAND CENTER]

Express Terms:

[Section: 508.1.2]

508.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a 42-hour fire barrier constructed in accordance with Section 707 of the *California Building Code* or horizontal assembly constructed in accordance with Section 711 of the *California Building Code*, or both.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

CHAPTER 6 BUILDING SERVICES AND SYSTEMS

SECTION 606 ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS

Item: [SFM 04/19-5-1]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.1.1 (New)]

606.1.1 Storage within elevator lobbies. *Where hoistway opening protection is required by Section 3006.2 of the California Building code, elevator lobbies shall be maintained free of storage.*

Item: [SFM 04/19-5-2]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.2]

606.2 Standby power. In buildings and structures where standby power is required or furnished to operate an elevator, standby power shall be provided in accordance with Section 1203 of this code and Chapter 30 of the California Building Code. Operation of the system shall be in accordance with Sections 606.2.1 through 606.2.4~~5~~.

Item: [SFM 04/19-5-3]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.2.4]

606.2.4 ~~Machine room ventilation~~ Temperature and Humidity Control. Where standby power is connected to elevators, the machine room, machine space, control room, and control space ventilation or air conditioning system shall be connected to the standby power source.

Item: [SFM 04/19-5-4]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.2.5 (New)]

606.2.5 Emergency Hoistway Venting. Where standby power is connected to elevators, the emergency hoistway ventilation system, if required, shall be connected to the standby power source.

Item: [SFM 04/19-5-5]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.8.6 (New)]

606.8.6 Emergency Hoistway Venting. Elevator hoistways containing the driving machine shall be provided with a means for venting smoke and hot gases to the outer air in case of fire.

Item: [SFM 04/19-5-6]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.8.6.1 (New)]

606.8.6.1 Location of vents. *Vents shall be located at the top of the hoistway and shall open either directly to the outer air or through noncombustible ducts to the outer air.*

Item: [SFM 04/19-5-7]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.8.6.2 (New)]

606.8.6.2 Area of vents. *Except as provided for in Section 3003.1.4.4 of the California Building Code, the area of the vents shall be not less than 3½ percent of the area of the hoistway nor less than 3 square feet (0.28 m²) for each elevator car.*

Item: [SFM 04/19-5-8]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.8.6.3 (New)]

606.8.6.3 Operation of vents. *Vent openings shall automatically open upon detection of smoke in the elevator hoistway and upon activation of a manual override control. The manual override control shall be capable of opening and closing the vents and shall be located in an approved location. Smoke detectors provided in elevator hoistways to activate the hoistway ventilation system, shall also be required to activate the elevator Phase I emergency recall operation function in accordance with California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders.*

Item: [SFM 04/19-5-9]

Chapter: [6, BUILDING SERVICES AND SYSTEMS]

Section: [606, ELEVATOR OPERATION, MAINTENANCE AND FIRE SERVICE KEYS]

Express Terms:

[Section: 606.8.6.4 (New)]

606.8.6.4 Reduced vent area. *Where mechanical ventilation conforming to the California Mechanical Code is provided, a reduction in the required vent area is allowed provided that all of the following conditions are met:*

- 1. The vents required by Section 3003.1.4.1 of the California Building Code do not have outside exposure.*
- 2. The hoistway does not extend to the top of the building.*
- 3. The hoistway exhaust fan is automatically reactivated by thermostatic means.*
- 4. Equivalent venting of the hoistway is accomplished.*

[ELEVATOR WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

606.1.1 (New), 606.2, 606.2.4, 606.2.5 (New), 606.8.6 (New), 606.8.6.1 (New), 606.8.6.2 (New), 606.8.6.3 (New), 606.8.6.4 (New), 1103.3, 1103.3.1, 1103.3.2, 1103.3.3 (New), [Chapter 80] ASME A17.1/CSA B44, ASME A17.3, [NFPA 13-16] 8.15.5.1, 8.15.5.2, 8.15.5.3, 8.15.5.7.1, 8.15.5.7.2, [Appendix K] K104.3.1, K104.3.2, K105

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**CHAPTER 7
FIRE AND SMOKE PROTECTION FEATURES**

**SECTION 701
GENERAL**

Item: [SFM 04/19-6-1]

Chapter: [7, FIRE AND SMOKE PROTECTION FEATURES]

Section: [701, GENERAL]

Express Terms:

[Section: 701.6]

701.6 Owner's responsibility. The owner shall maintain an inventory of all required fire-resistance-rated construction, construction installed to resist the passage of smoke and the construction included in Sections 703 through 707 and Sections 602.4.1 and 602.4.2 of the California Building Code. Such construction shall be visually inspected by the owner annually and properly repaired, restored or replaced where damaged, altered, breached or penetrated. Records of inspections and repairs shall be maintained. Where concealed, such elements shall not be required to be visually inspected by the owner unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile or similar movable entry to the space.

**[TALL WOOD AND HEAVY TIMBER 2019 INTERVENING PROPOSALS]
[Associated Sections in Part 9, California Fire Code]:
701.6, 914.3.1.2, 3308.9**

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**CHAPTER 9
FIRE PROTECTION AND LIFE SAFETY SYSTEMS**

**SECTION 903
AUTOMATIC SPRINKLER SYSTEMS**

Item: [SFM 04/19-7-1]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [903, AUTOMATIC SPRINKLER SYSTEMS]

Express Terms:

[Section: 903.2.10.2 (New)]

903.2.10.2 Mechanical-access enclosed parking garages. *An approved automatic sprinkler system shall be provided throughout buildings used for the storage of motor vehicles in a mechanical-access enclosed parking garage. The portion of the building that contains the mechanical-access enclosed parking garage shall be protected with a specially engineered automatic sprinkler system.*

Item: [SFM 04/19-7-2]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [903, AUTOMATIC SPRINKLER SYSTEMS]

Express Terms:

[Section: TABLE 903.2.11.6 (Automatic Parking Garage Workgroup)]

**TABLE 903.2.11.6
ADDITIONAL REQUIRED SUPPRESSION SYSTEMS**

SECTION	SUBJECT
<u>903.2.10.2</u>	<u>Mechanical-access enclosed parking garages</u>

[AUTOMATIC PARKING GARAGE 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202 (New), 903.2.10.2 (New)

Item: [SFM 04/19-7-3]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [903, AUTOMATIC SPRINKLER SYSTEMS]

Express Terms:

[Section: TABLE 903.2.11.6 (Energy Storage Workgroup)]

**TABLE 903.2.11.6
ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS**

SECTION	SUBJECT
<u>Table 1206.7, Table 1206.8, Table 1206.9, Table 1206.10</u>	<u>Stationary and mobile energy storage systems</u>

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2

(Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

Item: [SFM 04/19-7-4]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [903, AUTOMATIC SPRINKLER SYSTEMS]

Express Terms:

[Section: TABLE 903.2.11.6 (Puzzle Room Workgroup)]

TABLE 903.2.11.6 ADDITIONAL REQUIRED FIRE SUPPRESSION SYSTEMS

SECTION	SUBJECT
914.7.1	Special amusement buildings <u>areas</u>

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1, 914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Item: [SFM 04/19-7-5]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [903, AUTOMATIC SPRINKLER SYSTEMS]

Express Terms:

[Section: 903.3.1.1.1]

[F] 903.3.1.1.1 Exempt locations. ~~In other than Group I-2, I-2.1 and I-3 occupancies~~
Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. A room where the application of water, or flame and water, constitutes a serious life or fire hazard as determined by the authority having jurisdiction.
2. A room or space where sprinklers are considered undesirable because of the nature of the contents, ~~where approved~~ as determined by the ~~fire code official~~ authority having jurisdiction.
3. Machine rooms, machinery spaces, control rooms, control spaces and hoistways associated with ~~Fire service access elevators machine rooms and machinery spaces~~ provided [Editorial correction made during August 13, 2020 meeting by the by the Commission and agreed to by the Agency. See Amended Justification attached] in accordance with Section 3007.
4. Machine rooms, machinery spaces, control rooms, ~~and control spaces~~ and hoistways associated with occupant evacuation elevators designed in accordance with Section 3008.

(Items 5 through 7 existing text remains unchanged)

[Office of Statewide Health Planning Department (OSHPD) 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]

903.3.1.1.1, 904.13, 907.2.6.2.2, 907.3.2, 907.3.2.1, 907.3.2.3, 907.3.2.4,
907.3.2.5 (New), 909.5.3, 1010.1.9.7, 1010.1.9.8

Item: [SFM 04/19-7-5.1]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [903, AUTOMATIC SPRINKLER SYSTEMS]

Express Terms:

[Section: 903.3.1.2.3]

903.3.1.2.3 Attics. Attic protection shall be provided
as follows:

(Items 1 through 3 existing text remains unchanged)

~~4. Group R-4, Condition 2 occupancy attics not required by Item 1 to have
sprinklers shall comply with one of the following:~~

~~4.1. Provide automatic sprinkler system protection.~~

~~4.2. Provide a heat detection system throughout the attic that is
arranged to activate the building fire alarm system.~~

~~4.3. Construct the attic using noncombustible materials.~~

~~4.4. Construct the attic using fire-retardant treated wood complying with
Section 2303.2 of the *California Building Code*.~~

~~4.5. Fill the attic with noncombustible insulation.~~

SECTION 904 ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS

Item: [SFM 04/19-7-6]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [904, ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS]

Express Terms:

[Section: 904.13]

[F] 904.13 Domestic cooking systems. Cooktops and ranges installed in the following
occupancies shall be protected in accordance with Section 904.13.1:

1. In Group *R-2.1* occupancies where domestic cooking facilities are installed
in accordance with Section 420.89 of the *California Building Code*.

2. In Group I-2 ~~and I-2.1~~ occupancies where domestic cooking facilities are installed in accordance with Section 407.2.6 of the California Building Code.
3. In Group R-2 college dormitories where domestic cooking facilities are installed in accordance with Section 420.10 of the California Building Code.

**[Office of Statewide Health Planning Department (OSHPD) 2019
INTERVENING PROPOSALS]**

[Related Sections in Part 9, California Fire Code]

903.3.1.1.1, 904.13, 907.2.6.2.2, 907.3.2, 907.3.2.1, 907.3.2.3, 907.3.2.4,
907.3.2.5 (New), 909.5.3, 1010.1.9.7, 1010.1.9.8

**SECTION 907
FIRE ALARM AND DETECTION SYSTEMS**

Item: [SFM 04/19-7-7]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.2.6.2.2]

907.2.6.2.2 Automatic fire detection. *Smoke detectors shall be provided in accordance with this section.*

(Items 1 – 3 text remain unchanged)

4. In areas where patients are restrained, smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/ electrical spaces of smoke compartments and in adjacent smoke compartments where occupants of those compartments utilize the same means of egress.

Item: [SFM 04/19-7-8]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.2.10.2.6 (New)]

907.2.10.2.6 Group R-4. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-4 occupancies housing non-ambulatory clients.

Item: [SFM 04/19-7-9]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.2.11]

907.2.11 Special amusement buildings areas. An automatic smoke detection system shall be provided in special amusement buildings areas and throughout the exit access to the point of exit discharge in accordance with Sections 907.2.11.1 through 907.2.11.3.

907.2.11.1 Alarm. (no code change proposal, section title included for reader ease)

Item: [SFM 04/19-7-10]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.2.11.2]

907.2.11.2 System response.

1. (1.-3. Remain unchanged)
4. Activate a prerecorded message, audible throughout the special amusement building area and throughout the exit access to the point of exit discharge, instructing patrons to proceed to the nearest exit. Alarm signals used in conjunction with the prerecorded message shall produce a sound that is distinctive from other sounds used during normal operation.

Item: [SFM 04/19-7-11]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.2.11.3]

907.2.11.3 Emergency voice/alarm communication system. An emergency voice/alarm communication system, which is allowed to serve as a public-address system, shall be installed in accordance with Section 907.5.2.2 and be audible throughout the entire special amusement building area and throughout the exit access to the point of exit discharge.

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1, 914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Item: [SFM 04/19-7-11.1]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.2.22]

[F] 907.2.22 ~~Battery rooms~~ Energy Storage Systems. An automatic smoke detection system or radiant-energy detection system shall be installed in rooms, walk-in units and areas containing stationary energy storage ~~battery~~ systems as required in Section 1206-2 of this code.

Item: [SFM 04/19-7-12]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.3.2]

[F] 907.3.2 Special locking systems. Where special locking systems are installed on means of egress doors in accordance with Sections 1010.1.9.6~~7~~ or 1010.1.9.7~~8~~, an automatic smoke detection system shall be installed as required by ~~that~~ those sections and Sections 907.3.2.1 through 907.3.2.5.

Item: [SFM 04/19-7-13]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.3.2.1]

907.3.2.1 Delayed egress. *In other than Groups, I, R-2.1 and R-4 occupancies for single-story building, smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces. For multiple-story buildings, smoke detectors shall be installed throughout all occupied areas and mechanical/electrical spaces for the story where delayed egress devices are installed. Additional detectors are required on adjacent stories where occupants of those stories utilize the same means of egress.*

Exception: Refer to Section 907.3.2.4 for Group A courthouse occupancies.

Item: [SFM 04/19-7-14]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.3.2.2]

907.3.2.2 Delayed egress ~~F~~for Group I and R-2.1 occupancies. *Smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces of smoke-compartments where delayed egress devices are installed. Additional detectors are required in adjacent smoke-compartments where occupants of those compartments utilize the same means of egress.*

Item: [SFM 04/19-7-15]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.3.2.3]

907.3.2.3 Delayed egress ~~F~~for Group R-4. *Occupancies licensed as residential care facilities for the elderly, and housing clients with Alzheimer's disease or dementia residential facilities, smoke detectors shall be installed at ceilings throughout all occupiable rooms and areas and mechanical/ electrical rooms and spaces.*

Item: [SFM 04/19-7-16]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.3.2.4]

907.3.2.4 Delayed egress ~~F~~for Group A Courthouse occupancies. *An approved automatic smoke detection system shall be installed at ceilings in all occupied corridors and mechanical/electrical spaces of smoke-compartments occupancies where delayed egress devices are installed.*

Item: [SFM 04/19-7-17]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [907, FIRE ALARM AND DETECTION SYSTEMS]

Express Terms:

[Section: 907.3.2.5 (New)]

907.3.2.5 Controlled egress doors for Group I-2 occupancies. *Smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces of smoke-compartments where controlled egress doors are installed.*

SECTION 909 SMOKE CONTROL SYSTEMS

Item: [SFM 04/19-7-18]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [909, SMOKE CONTROL SYSTEMS]

Express Terms:

[Section: 909.5.3]

[F] 909.5.3 Opening protection. Openings in smoke barriers shall be protected by automatic-closing devices actuated by the required controls for the mechanical smoke control system. Door openings shall be protected by fire door assemblies complying with Section 716 of the California Building Code.

Exceptions:

(exceptions 1 and 2 remain unchanged)

3. In Group I-2, *I-2.1*, *R-2.1*; and ambulatory care facilities, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 909.5.3.1, the doors shall ~~not be required to be protected in accordance with Section 716 of the California Building Code. The doors shall be close-fitting within operational tolerances and shall not have a center mullion, or undercuts in excess of 3/4 inch (19.1 mm), louvers or grilles. The doors shall have head and jamb stops and astragals or rabbets at meeting edges and, where permitted by the door manufacturer's listing, positive-latching devices are not required. Positive-latching devices are required. Doors installed across corridors shall comply with Section 1010.1.1.~~
4. In Group I-2, *I-2.1*, *R-2.1* and ambulatory care facilities, where such doors are special-purpose horizontal sliding, accordion or folding door assemblies installed in accordance with Section 1010.1.4.3 and are automatic closing by smoke detection in accordance with Section 716.2.6.6 of the California Building Code, they shall be protected in accordance with Section 716 of the California Building Code. ~~The doors shall be close-fitting within operational tolerances and shall not have undercuts in excess of 3/4-inch (19.1 mm), louvers or grilles. Where permitted by the manufacturer's listing, positive-latching devices are not required. Doors installed across corridors shall comply with Section 1010.1.1.~~

(exceptions 5, 6, and 7 remain unchanged)

**[Office of Statewide Health Planning Department (OSHDP) 2019
INTERVENING PROPOSALS]**

[Related Sections in Part 9, California Fire Code]

903.3.1.1.1, 904.13, 907.2.6.2.2, 907.3.2, 907.3.2.1, 907.3.2.3, 907.3.2.4,
907.3.2.5 (New), 909.5.3, 1010.1.9.7, 1010.1.9.8

SECTION 911

EXPLOSION CONTROL

Item: [SFM 04/19-7-19]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [911, EXPLOSION CONTROL]

Express Terms:

[Section: 911.1]

911.1 General. Explosion control shall be provided in the following locations:

1. Where a structure, room or space is occupied for purposes involving explosion hazards as identified in Table 911.1.
2. Where quantities of hazardous materials specified in Table 911.1 exceed the maximum allowable quantities in Table 5003.1.1(1).

Such areas shall be provided with explosion (deflagration) venting, explosion (deflagration) prevention systems or barricades in accordance with this section and NFPA 68, NFPA 69, or NFPA 495 as applicable. Deflagration venting shall not be utilized as a means to protect buildings from detonation hazards.

Item: [SFM 04/19-7-20]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [911, EXPLOSION CONTROL]

Express Terms:

[Section: TABLE 911.1]

**TABLE 911.1
EXPLOSION CONTROL REQUIREMENTS ^f**

MATERIAL	CLASS	EXPLOSION CONTROL METHODS	
		Barricade construction	Explosion (deflagration) venting or explosion (deflagration) prevention systems
Hazard Category			
Special Uses			
Acetylene generator rooms			
<u>Energy storage systems</u> ^g	—	<u>Not required</u>	<u>Required</u>
Grain processing			

g. Where explosion control is required in Section 1206.

Item: [SFM 04/19-7-21]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [911, EXPLOSION CONTROL]

Express Terms:

[Section: 911.4 (New)]

911.4 Deflagration venting. *Deflagration venting shall be of an approved type and installed in accordance with the provisions of this code and NFPA 68.*

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New),

1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

SECTION 914 FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY

Item: [SFM 04/19-7-22]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [914, FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY]

Express Terms:

[Section: 914.7]

914.7 Special amusement buildings ~~areas~~. Special amusement buildings ~~areas~~ shall comply with Sections 914.7.1 and through 914.7.23 and Section 411 of the California Building Code.

Item: [SFM 04/19-7-23]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [914, FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY]

Express Terms:

[Section: 914.7.1]

914.7.1 Automatic sprinkler system. Special Buildings containing special amusement buildings ~~areas~~ shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Where the special amusement building ~~area~~ is temporary; less than 180 days; the sprinkler water

supply shall be of an approved temporary; less than 180 days; means determined by the authority having jurisdiction.

Exception: Automatic sprinklers are not required where the total floor area of a temporary; less than 180 days; special amusement building area is less than 1,000 square feet (93 m²) and the exit access travel distance from any point in the special amusement area to an exit is less than 50 feet (15 240 mm).

Item: [SFM 04/19-7-24]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [914, FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY]

Express Terms:

[Section: 914.7.2]

914.7.2 Automatic smoke detection-Fire alarm system. Special amusement buildings areas shall be equipped with an automatic smoke detection system in accordance with Section 907.2.11.

Item: [SFM 04/19-7-25]

Chapter: [9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS]

Section: [914, FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY]

Express Terms:

[Section: 914.7.3 (New)]

914.7.3 Emergency voice/alarm communications system. An emergency voice/alarm communications system shall be provided in accordance with Sections 907.2.11 and 907.5.2.2, is permitted to serve as a public-address system and shall be audible throughout the entire special amusement area.

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1, 914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**CHAPTER 10
MEANS OF EGRESS**

**SECTION 1004
OCCUPANT LOAD**

Item: [SFM 04/19-8-1]
Chapter: [10, MEANS OF EGRESS]
Section: [1004, OCCUPANT LOAD]
Express Terms:

[Section: TABLE 1004.5 (Business Area)]

**TABLE 1004.5
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR ^a
Business areas Concentrated business use areas	400 150 gross See Section 1004.8

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

Item: [SFM 04/19-8-2]
Chapter: [10, MEANS OF EGRESS]
Section: [1004, OCCUPANT LOAD]
Express Terms:

[Section: TABLE 1004.5 (I-3 Workgroup)]

**TABLE 1004.5
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR ^a
Institutional areas [§] Inpatient treatment areas Outpatient areas Sleeping areas	 240 gross 100 gross 120 gross

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

a. Floor area in square feet per occupant.

b. See California Building Code Section 453.2

c. See California Building Code Section 408.3.13 for I-3 Facilities.

Item: [SFM 04/19-8-3]

Chapter: [10, MEANS OF EGRESS]

Section: [1004, OCCUPANT LOAD]

Express Terms:

[Section: 1004.5- WITHDRAWN]

SECTION 1010 DOORS, GATES AND TURNSTILES

Item: [SFM 04/19-8-4]

Chapter: [10, MEANS OF EGRESS]

Section: [1010, GATES AND TURNSTILES]

Express Terms:

[Section: 1010.1.9.7]

1010.1.9.7 Reserved. Controlled egress doors in Group I-2. Electric locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-2 occupancies where the clinical needs of persons receiving psychiatric or mental health treatment ~~are~~ require their restraint or containment. Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and an approved automatic smoke ~~or heat~~ detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with all of the following:

1. The door locks shall unlock on actuation of the automatic sprinkler system or automatic smoke detection system.
2. The door locks shall unlock on loss of power controlling the lock or lock mechanism.
3. The door locking system shall be installed to have the capability of being unlocked by a switch located at the fire command center, a nursing station or other approved location. The switch shall directly break power to the lock.
4. A building occupant shall not be required to pass through more than one door equipped with a controlled egress locking system before entering an exit.
5. All clinical staff shall have the keys, codes or other means necessary to operate the locking systems.
6. Emergency lighting shall be provided at the door.

7. The door locking system units shall be listed in accordance with UL 294.

Exception:

Items 1 through 4 shall not apply to doors to areas occupied by persons who, because of clinical needs, require restraint or containment as part of the function of a psychiatric or mental health treatment area.

Item: [SFM 04/19-8-5]

Chapter: [10, MEANS OF EGRESS]

Section: [1010, GATES AND TURNSTILES]

Express Terms:

[Section: 1010.1.9.8]

[BE] 1010.1.9.8 Delayed egress. Delayed egress locking systems, shall be permitted to be installed on doors serving the following occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 *and* an approved automatic smoke detection system installed in accordance with Section 907:

1. Group B, F, I, M, R, S and U occupancies.

2. Group E classrooms with an occupant load of less than 50.

Exception: Delayed egress locking systems shall be permitted to be installed on exit or exit access doors, other than the main exit or exit access door, serving a Group A courtroom in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 *and an approved automatic smoke detection system installed in accordance with Section 907.* ~~Group A occupancy courtrooms are permitted to utilize delayed egress locks.~~

**[Office of Statewide Health Planning Department (OSHPD) 2019
INTERVENING PROPOSALS]**

[Related Sections in Part 9, California Fire Code]

903.3.1.1.1, 904.13, 907.2.6.2.2, 907.3.2, 907.3.2.1, 907.3.2.3, 907.3.2.4,
907.3.2.5 (New), 909.5.3, 1010.1.9.7, 1010.1.9.8, 1026.4.1

Item: [SFM 04/19-8-5.1]

Chapter: [10, MEANS OF EGRESS]

Section: [1010, GATES AND TURNSTILES]

Express Terms:

[Section: 1010.1.9.8.1]

[BE] 1010.1.9.8.1 Delayed egress locking system. The delayed egress locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the automatic sprinkler system and automatic fire detection system, allowing immediate, free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of electrical power, allowing immediate free egress, *to any one of the following:* (existing text to remain unchanged)

SECTION 1017 EXIT ACCESS TRAVEL DISTANCE

Item: [SFM 04/19-8-6]

Chapter: [10, MEANS OF EGRESS]

Section: [1017, EXIT ACCESS TRAVEL DISTANCE]

Express Terms:

[Section: TABLE 1017.2]

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE ^a (Table unchanged)

For SI: 1 foot = 304.8 mm.

a. See the following sections for modifications to exit access travel distance requirements:

~~Section 411.3~~ 411.2: For the distance limitation in special amusement buildings ~~buildings~~ areas.

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1, 914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

SECTION 1020 CORRIDORS

Item: [SFM 04/19-8-7]

Chapter: [10, MEANS OF EGRESS]

Section: [1020, CORRIDORS]

Express Terms:

[Section: TABLE 1020.1]

[BE] TABLE 1020.1 CORRIDOR FIRE-RESISTANCE RATING

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system ^c
<i>E</i>	<i>Greater than 10</i>	<i>1</i>	<i><u>4</u> 0</i>

Item: [SFM 04/19-8-8]

Chapter: [10, MEANS OF EGRESS]

Section: [1020, CORRIDORS]

Express Terms:

[Section: TABLE 1020.2]

**TABLE 1020.2
MINIMUM CORRIDOR WIDTH**

OCCUPANCY	MINIMUM WIDTH (inches)
Group I-2 <u>and I-3</u> in areas where required for bed movement	96
<i>Corridors in Group I-2 and I-3 occupancies serving any area caring for one or more non-ambulatory persons.</i>	<i>96 <u>72</u></i>

[I-3 OCCUPANCY 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

202,1004.5, TABLE 1004.5, TABLE 1020.2

Item: [SFM 04/19-8-9]

Chapter: [10, MEANS OF EGRESS]

Section: [1020, CORRIDORS]

Express Terms:

[Section: 1020.5]

1020.5 Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

1. (exceptions 1 through 3 remain unchanged)
4. Incidental air movement from pressurized rooms within health care facilities and Group L occupancies, provided that the corridor is not the primary source of supply or return to the room.

[L OCCUPANCY WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

1020.5, Section Title 1116, 1116.7, 5003.10.2, 5003.10.4.1.1 (New), 5003.10.4.4, 5003.10.5 (New), 5003.10.5.1 (New), 5003.10.5.2 (New), 5003.10.5.2.1 (New), 5003.10.5.3 (New), 5003.10.5.5 (New), 5003.10.5.5 (New), 5003.10.5.6 (New), 5003.10.5.7 (New), 5003.10.6 (New), 5003.10.6.1 (New), 5003.10.6.2 (New)

SECTION 1026 HORIZONTAL EXITS

Item: [SFM 04/19-8-10]

Chapter: [10, MEANS OF EGRESS]

Section: [1026, HORIZONTAL EXITS]

Express Terms:

[Section: 1026.4.1]

1026.4.1 Capacity. The capacity of the refuge area shall be computed based on a net floor area allowance of 3 square feet (0.2787 m²) for each occupant to be accommodated therein. Where the horizontal exit also forms a smoke compartment, the capacity of the refuge area for Group I-2, ~~I-2.1, and I-3 and R-2.1~~ occupancies and ~~Group B ambulatory care facilities~~ shall comply with Sections 407.5.3, 408.6.2, 420.6.4 and ~~422.3.2~~ 420.6.2 of the California Building Code as applicable.

**[Office of Statewide Health Planning Department (OSHPD) 2019
INTERVENING PROPOSALS]**

[Related Sections in Part 9, California Fire Code]

903.3.1.1.1, 904.13, 907.2.6.2.2, 907.3.2, 907.3.2.1, 907.3.2.3, 907.3.2.4, 907.3.2.5 (New), 909.5.3, 1010.1.9.7, 1010.1.9.8, 1026.4.1

SECTION 1030 EMERGENCY ESCAPE AND RESCUE

Item: [SFM 04/19-8-11]

Chapter: [10, MEANS OF EGRESS]

Section: [1030, EMERGENCY ESCAPE AND RESCUE]

Express Terms:

[Section: 1030.1]

1030.1 General. In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in the following Group R occupancies:

~~1. Group R-2 occupancies located in stories with only one exit or access to only one exit as permitted by Tables 1006.3.3(1) and 1006.3.3(2).~~

~~2. Group R-3 and R-4 occupancies.~~

(existing text to remain unchanged)

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**CHAPTER 11
CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS**

**SECTION 1103
FIRE SAFETY REQUIREMENTS
FOR EXISTING BUILDINGS**

Item: [SFM 04/19-9-1]

Chapter: [11, CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS]

Section: [1103, FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS]

Express Terms:

[Section: 1103.3]

1103.3 Existing elevators. In other than Group R-3, existing elevators, escalators and moving walks shall comply with the requirements of Sections 1103.3.1 and 1103.3.2~~3~~

Item: [SFM 04/19-9-2]

Chapter: [11, CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS]

Section: [1103, FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS]

Express Terms:

[Section: 1103.3.1]

1103.3.1 Elevators, escalators and moving walks. Existing elevators, escalators and moving walks in Group I-2, Condition 2 occupancies and serving ambulatory care facilities shall comply with ASME A17.3 California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders.

Item: [SFM 04/19-9-3]

Chapter: [11, CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS]

Section: [1103, FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS]

Express Terms:

[Section: 1103.3.2]

1103.3.2 Elevator emergency operation. Existing elevators with a travel distance of 25 feet (7620 mm) or more above or below the main floor or other level of a building and intended to serve the needs of emergency personnel for fire-fighting or rescue purposes shall be provided with emergency operation in accordance with ASME A17.3 California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders.

Exceptions:

1. (remain unchanged)

Item: [SFM 04/19-9-4]

Chapter: [11, CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS]

Section: [1103, FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS]

Express Terms:

[Section: 1103.3.3 (New)]

1103.3.3 Medical Emergency Elevator. *For existing hoistways with elevator alterations, or replacements, where the elevator car dimensions do not comply with Section 3002.4.1a of the California Building Code. The elevator car dimensions and/or the clear entrance opening dimensions may be altered where it can be demonstrated to the local jurisdictional authority's satisfaction that the proposed configuration will accommodate the designated gurney or stretcher with equivalent ease to the existing car and/or clear entrance conditions. Written documentation from the local authority shall be provided to the California Occupational Safety and Health Elevator Unit.*

[ELEVATOR WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

606.1.1 (New), 606.2, 606.2.4, 606.2.5 (New), 606.8.6 (New), 606.8.6.1 (New), 606.8.6.2 (New), 606.8.6.3 (New), 606.8.6.4 (New), 1103.3, 1103.3.1, 1103.3.2, 1103.3.3 (New), [Chapter 80] ASME A17.1/CSA B44, ASME A17.3, [NFPA 13-16] 8.15.5.1, 8.15.5.2, 8.15.5.3, 8.15.5.7.1, 8.15.5.7.2, [Appendix K] K104.3.1, K104.3.2, K105

Item: [SFM 04/19-9-5]

Chapter: [11, CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS]

Section: [1116, EXISTING GROUP L OCCUPANCIES [SFM]]

Express Terms:

[Section 1116 Title]

**SECTION 1116
EXISTING GROUP L AND GROUP H-8 OCCUPANCIES [SFM]**

Item: [SFM 04/19-9-6]

Chapter: [11, CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS]

Section: [1116, EXISTING GROUP L OCCUPANCIES [SFM]]

Express Terms:

[Section: 1116.7]

1116.7 Maximum allowable quantities. *Existing Group H-8 Laboratory suites approved prior to January 1, 2008 shall not exceed the maximum allowable quantities listed in Tables 1116.7(1) and 1116.7(2).*

[L OCCUPANCY WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

1020.5, Section Title 1116, 1116.7, 5003.10.2, 5003.10.4.1.1 (New), 5003.10.4.4, 5003.10.5 (New), 5003.10.5.1 (New), 5003.10.5.2 (New), 5003.10.5.2.1 (New), 5003.10.5.3 (New), 5003.10.5.5 (New), 5003.10.5.5 (New), 5003.10.5.6 (New), 5003.10.5.7 (New), 5003.10.6 (New), 5003.10.6.1 (New), 5003.10.6.2 (New)

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**CHAPTER 12
ENERGY SYSTEMS**

**SECTION 1201
GENERAL**

Item: [SFM 04/19-10-1]

Chapter: [12, ENERGY SYSTEMS]

Section: [1201, GENERAL]

Express Terms:

[Section: 1201.1]

1201.1 Scope. The provisions of this chapter shall apply to the installation, operation, and maintenance, repair, retrofitting, testing, commissioning and decommissioning of

energy systems used for generating or storing energy. It shall not apply to equipment associated with the generation, control, transformation, transmission, or distribution of energy installations that is under the exclusive control of an electric utility or lawfully designated agency.

Item: [SFM 04/19-10-2]

Chapter: [12, ENERGY SYSTEMS]

Section: [1201, GENERAL]

Express Terms:

[Section: 1201.3]

1201.3 Mixed system installation. Where approved, the aggregate nameplate kWh energy of all energy storage systems in a fire area shall not exceed the maximum quantity specified for any of the energy systems in this chapter. Where required by the fire code official, a hazard mitigation analysis shall be provided and approved in accordance with Section 104.7.2 to evaluate any potential adverse interaction between the various energy systems and technologies.

SECTION 1202 DEFINITIONS

Item: [SFM 04/19-10-3]

Chapter: [12, ENERGY SYSTEMS]

Section: [1202, DEFINITIONS]

Express Terms:

[Section:1202.1]

1202.1 Definitions. The following terms are defined in Chapter 2:

BATTERY SYSTEM, STATIONARY STORAGE.

BATTERY TYPES.

~~Lead-acid battery.~~

Item: [SFM 04/19-10-4]

Chapter: [12, ENERGY SYSTEMS]

Section: [1202, DEFINITIONS]

Express Terms:

~~CAPACITOR ARRAY.~~

Item: [SFM 04/19-10-5]

Chapter: [12, ENERGY SYSTEMS]

Section: [1202, DEFINITIONS]

Express Terms:

**CAPACITOR ENERGY STORAGE SYSTEM.
CRITICAL CIRCUIT.
EMERGENCY POWER SYSTEM.**

Item: [SFM 04/19-10-6]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE MANAGEMENT SYSTEMS.

Item: [SFM 04/19-10-7]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE SYSTEM.

Item: [SFM 04/19-10-8]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE SYSTEM CABINET.

Item: [SFM 04/19-10-9]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE SYSTEM COMMISSIONING.

Item: [SFM 04/19-10-10]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE SYSTEM DECOMMISSIONING.

Item: [SFM 04/19-10-11]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE SYSTEM, ELECTROCHEMICAL.

Item: [SFM 04/19-10-12]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE SYSTEM, MOBILE.

Item: [SFM 04/19-10-13]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

ENERGY STORAGE SYSTEM, WALK-IN UNIT.
FUEL CELL POWER SYSTEM, STATIONARY.

Item: [SFM 04/19-10-14]
Chapter: [12, ENERGY SYSTEMS]
Section: [1202, DEFINITIONS]
Express Terms:

STANDBY POWER SYSTEM.
~~STATIONARY BATTERY ARRAY.~~

SECTION 1203
EMERGENCY AND STANDBY POWER SYSTEMS

Item: [SFM 04/19-10-15]
Chapter: [12, ENERGY SYSTEMS]
Section: [1203, EMERGENCY AND STANDBY POWER SYSTEMS]
Express Terms:

[Section: 1203.2.6]

1203.2.6 Gas detection systems. Emergency power shall be provided for gas detection systems where required by Sections 1203.2.9 and 1203.2.16. Standby power shall be provided for gas detection systems where required by Section 916.5 and 1206.6.1.2.4.

Item: [SFM 04/19-10-16]
Chapter: [12, ENERGY SYSTEMS]
Section: [1203, EMERGENCY AND STANDBY POWER SYSTEMS]
Express Terms:

[Section: 1203.2.19]

1203.2.19 Exhaust ventilation. *Standby power shall be provided for mechanical exhaust ventilation systems as required in Section 1206.6.1.2.1. The system shall be capable of powering the required load for a duration of not less than 2 hours.*

SECTION 1205 STATIONARY FUEL CELL POWER SYSTEMS

Item: [SFM 04/19-10-17]

Chapter: [12, ENERGY SYSTEMS]

Section: [1205, STATIONARY FUEL CELL POWER SYSTEMS]

Express Terms:

[Section: 1205.1]

1205.1 General. Stationary fuel cell power systems in new and existing occupancies shall comply with this section.

Exception: *The temporary use of a fuel cell powered electric vehicle to power a Group R-3 or R-4 building while parked shall comply with Section 1205.14.*

Item: [SFM 04/19-10-18]

Chapter: [12, ENERGY SYSTEMS]

Section: [1205, STATIONARY FUEL CELL POWER SYSTEMS]

Express Terms:

[Section: 1205.5]

1205.5 Residential use. Stationary fuel cell power systems shall not be installed in Group R-3 and R-4 buildings, or dwelling units associated with Group R-2 buildings unless they are specifically listed for residential use.

Exception: *The temporary use of a fuel cell powered electric vehicle to power a Group R-3 or R-4 building while parked shall comply with Section 1205.14.*

Item: [SFM 04/19-10-19]

Chapter: [12, ENERGY SYSTEMS]

Section: [1205, STATIONARY FUEL CELL POWER SYSTEMS]

Express Terms:

[Section: 1205.14 (New)]

1205.14 Group R-3 and R-4 Fuel Cell Vehicle ESS Use. *The temporary use of the dwelling unit owner or occupant's fuel cell powered electric vehicle to power a Group R-3 or R-4 dwelling while parked in an attached or detached garage or outside shall comply with the vehicle manufacturer's instructions and NFPA 70.*

Item: [SFM 04/19-10-20]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TITLE, 1206.1]

SECTION 1206 ELECTRICAL ENERGY STORAGE SYSTEMS (ESS)

1206.1 Scope. The provisions in this section are applicable to stationary and mobile energy storage systems (ESS). ~~designed to provide electrical power to a building or facility. These systems are used to provide standby or emergency power, an uninterruptable power supply, load shedding, load sharing or similar capabilities.~~

Exception: *ESS in Group R-3 and R-4 occupancies shall comply with Section 1206.11.*

Item: [SFM 04/19-10-21]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.1 (New)]

1206.1.1 Scope. *ESS having capacities exceeding the values shown in Table 1206.1 shall comply with this section.*

Item: [SFM 04/19-10-22]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.2 (New)]

1206.1.2 Permits. *Permits shall be obtained for ESS as follows:*

- 1.** *Construction permits shall be obtained for stationary ESS installations and for mobile ESS charging and storage installations covered by 1206.10.1. Permits shall be obtained in accordance with Sections 105.7.2.*
- 2.** *Operational permits shall be obtained for stationary ESS installations and for mobile ESS deployment operations covered by Section 1206.10.3. Permits shall be obtained in accordance with Sections 105.6.52.*

Item: [SFM 04/19-10-23]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.2.1 (New)]

1206.1.2.1 Communication utilities. *Operational permits shall not be required for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities that comply with NFPA 76 and operate at less than 50 VAC and 60 VDC.*

Item: [SFM 04/19-10-24]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.1 (New)]

TABLE 1206.1
ENERGY STORAGE SYSTEM (ESS) THRESHOLD QUANTITIES

<u>TECHNOLOGY</u>	<u>ENERGY CAPACITY^a</u>
<u>Lead-acid batteries, all types</u>	<u>70 KWh (252 Megajoules)^c</u>
<u>Nickel-cadmium batteries (Ni-Cd)</u>	<u>70 KWh (252 Megajoules)</u>
<u>Nickel-metal hydride (Ni-MH)</u>	<u>70 KWh (252 Megajoules)</u>
<u>Lithium-ion batteries</u>	<u>20 KWh (72 Megajoules)</u>
<u>Flow batteries^b</u>	<u>20 KWh (72 Megajoules)</u>
<u>Other battery technologies</u>	<u>10 KWh (36 Megajoules)</u>
<u>Capacitor ESS</u>	<u>3 KWh (10.8 Mega joules)</u>
<u>Other electrochemical ESS technologies</u>	<u>3 KWh (10.8 Mega joules)</u>

a. Energy capacity is the total energy capable of being stored (nameplate rating), not the usable energy rating. For units rated in Amp-Hours, KWh shall equal rated voltage multiplied by the amp-hour rating divided by 1000.

b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte type technologies.

c. 50 gallons of lead-acid battery electrolyte shall be considered equivalent to 70 KWh.

Item: [SFM 04/19-10-25]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.3 (New)]

1206.1.3 Construction documents. *The following information shall be provided with the permit application:*

- 1. Location and layout diagram of the room or area in which the ESS is to be installed.*
- 2. Details on the hourly fire-resistance ratings of assemblies enclosing the ESS.*
- 3. The quantities and types of ESS to be installed.*
- 4. Manufacturer's specifications, ratings and listings of each ESS.*
- 5. Description of energy (battery) management systems and their operation.*
- 6. Location and content of required signage.*
- 7. Details on fire suppression, smoke or fire detection, thermal management, ventilation, exhaust and deflagration venting systems, if provided.*
- 8. Support arrangement associated with the installation, including any required seismic restraint.*
- 9. A commissioning plan complying with 1206.2.1.*
- 10. A decommissioning plan complying with 1206.2.3.*

Item: [SFM 04/19-10-26]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.4 (New)]

1206.1.4 Hazard mitigation analysis. *A failure modes and effects analysis (FMEA) or other approved hazard mitigation analysis shall be provided in accordance with Section 104.7.2 under any of the following conditions:*

- 1. Where ESS technologies not specifically identified in Table 1206.1 are provided.*
- 2. More than one ESS technology is provided in a room or enclosed area where there is a potential for adverse interaction between technologies.*

3. Where allowed as a basis for increasing maximum allowable quantities. See Section 1206.5.2.

Item: [SFM 04/19-10-27]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.4.1 (New)]

1206.1.4.1 Fault condition. *The hazard mitigation analysis shall evaluate the consequences of the following failure modes. Only single failure modes shall be considered.*

1. A thermal runaway condition in a single ESS rack, module or unit.
2. Failure of any battery (energy) management system.
3. Failure of any required ventilation or exhaust system.
4. Voltage surges on the primary electric supply.
5. Short circuits on the load side of the ESS.
6. Failure of the smoke detection, fire detection, fire suppression, or gas detection system.
7. Required spill neutralization not being provided or failure of a required secondary containment system.

Item: [SFM 04/19-10-28]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.4.2 (New)]

1206.1.4.2 Analysis approval. *The fire code official is authorized to approve the hazardous mitigation analysis provided the consequences of the hazard mitigation analysis demonstrate:*

1. Fires will be contained within unoccupied ESS rooms or areas for the minimum duration of the fire-resistance rated separations identified in Section 1206.7.4.

2. Fires in occupied work centers will be detected in time to allow occupants within the room or area to safely evacuate.
3. Toxic and highly toxic gases released during fires will not reach concentrations in excess of IDLH level in the building or adjacent means of egress routes during the time deemed necessary to evacuate occupants from any affected area.
4. Flammable gases released from ESS during charging, discharging and normal operation will not exceed 25 percent of their lower flammability limit (LFL).
5. Flammable gases released from ESS during fire, overcharging and other abnormal conditions will be controlled through the use of ventilation of the gases preventing accumulation or by deflagration venting.

Item: [SFM 04/19-10-29]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.4.3 (New)]

1206.1.4.3 Additional protection measures. Construction, equipment and systems that are required for the ESS to comply with the hazardous mitigation analysis, including but not limited to those specifically described in Section 1206 shall be installed, maintained and tested in accordance with nationally recognized standards and specified design parameters.

Item: [SFM 04/19-10-30]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.5 (New)]

1206.1.5 Large-scale fire test. Where required elsewhere in Section 1206, large-scale fire testing shall be conducted on a representative ESS in accordance with UL 9540A. The testing shall be conducted or witnessed and reported by an approved testing laboratory and show that a fire involving one ESS will not propagate to an adjacent ESS, and where installed within buildings, enclosed areas and walk-in units will be contained within the room, enclosed area or walk-in unit for a duration equal to the fire resistance rating of the room separation specified in Section 1206.7.4. The test report shall be provided to the fire code official for review and approval in accordance with Section 104.7.2.

Item: [SFM 04/19-10-31]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.6 (New)]

1206.1.6 Fire remediation. *Where a fire or other event has damaged the ESS and ignition or re-ignition of the ESS is possible, the system owner, agent, or lessee shall take the following actions, at their expense, to mitigate the hazard or remove damaged equipment from the premises to a safe location.*

Item: [SFM 04/19-10-32]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.6.1 (New)]

1206.1.6.1 Fire mitigation personnel. *Where, in the opinion of the fire code official, it is essential for public safety that trained personnel be on site to respond to possible ignition or re-ignition of a damaged ESS, the system owner, agent or lessee shall immediately dispatch one or more fire mitigation personnel to the premises, as required and approved, at their expense. These personnel shall remain on duty continuously after the fire department leaves the premises until the damaged energy storage equipment is removed from the premises, or earlier if the fire code official indicates the public safety hazard has been abated.*

Item: [SFM 04/19-10-33]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.1.6.2 (New)]

1206.1.6.2 Duties. *On-duty fire mitigation personnel shall have the following responsibilities:*

- 1. Keep diligent watch for fires, obstructions to means of egress and other hazards.**
- 2. Immediately contact the fire department if their assistance is needed to mitigate any hazards or extinguish fires.**
- 3. Take prompt measures for remediation of hazards in accordance with the decommissioning plan in Section 1206.2.3.**

4. Take prompt measures to assist in the evacuation of the public from the structures.

Item: [SFM 04/19-10-34]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.2 (Delete)]

**TABLE 1206.2
BATTERY STORAGE SYSTEM THRESHOLD QUANTITIES**

BATTERY TECHNOLOGY	CAPACITY ^a
Flow batteries ^b	20 kWh
Lead acid, all types	70 kWh
Lithium, all types	20 kWh
Nickel cadmium (Ni-Cd)	70 kWh
Sodium, all types	20 kWh ^c
Other battery technologies	10 kWh

For SI: 1 kilowatt hour = 3.6 megajoules.

a. For batteries rated in amp-hours, kWh shall equal rated voltage times amp-hour rating divided by 1000.

b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte-type technologies.

c. 70 kWh for sodium-ion technologies.

Item: [SFM 04/19-10-35]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2]

1206.2 Stationary storage battery systems Commissioning, decommissioning, operation and maintenance. Stationary storage battery systems having capacities exceeding the values shown in Table 1206.2 shall comply with Section 1206.2.4 through 1206.2.12.6, as applicable. Commissioning, decommissioning, operation and maintenance shall be conducted in accordance with this section.

Item: [SFM 04/19-10-36]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.1]

1206.2.1 ~~Permits~~ Commissioning. ~~Permits shall be obtained for the installation and operation of stationary storage battery systems in accordance with Section 405.7.2. Commissioning of newly installed ESS, and existing ESS that have been retrofitted, replaced or previously decommissioned and are returning to service shall be conducted prior to the ESS being placed in service in accordance with a commissioning plan that has been approved prior to initiating commissioning. The commissioning plan shall include the following:~~

1. A narrative description of the activities that will be accomplished during each phase of commissioning including the personnel intended to accomplish each of the activities.
2. A listing of the specific ESS and associated components, controls and safety related devices to be tested, a description of the tests to be performed and the functions to be tested.
3. Conditions under which all testing will be performed, which are representative of the conditions during normal operation of the system.
4. Documentation of the owner's project requirements and the basis of design necessary to understand the installation and operation of the ESS.
5. Verification that required equipment and systems are installed in accordance with the approved plans and specifications.
6. Integrated testing for all fire and safety systems.
7. Testing for any required thermal management, ventilation or exhaust systems associated with the ESS installation.
8. Preparation and delivery of operation and maintenance documentation.
9. Training of facility operating and maintenance staff.
10. Identification and documentation of the requirements for maintaining system performance to meet the original design intent during the operation phase.
11. Identification and documentation of personnel who are qualified to service, maintain and decommission the ESS, and respond to incidents involving the ESS, including documentation that such service has been contracted.
12. A decommissioning plan for removing the ESS from service, and from the facility in which it is located. The plan shall include details on providing a safe and

orderly shutdown of energy storage and safety systems with notification to the code officials prior to the actual decommissioning of the system. The decommissioning plan shall include contingencies for removing an intact operational ESS from service, and for removing an ESS from service that has been damaged by a fire or another event.

Exception: Commissioning shall not be required for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities that comply with NFPA 76 and operate at less than 50 VAC and 60 VDC. However, a decommissioning plan shall be provided and maintained when required by the fire code official.

Item: [SFM 04/19-10-37]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.1.1 (New)]

1206.2.1.1 Initial acceptance testing. During the commissioning process an ESS shall be evaluated for proper operation in accordance with the manufacturer's instructions and the commissioning plan prior to final approval.

Item: [SFM 04/19-10-38]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.1.2 (New)]

1206.2.1.2 Commissioning report. A report describing the results of the system commissioning and including the results of the initial acceptance testing required in Section 1206.2.1.1 shall be provided to the code official prior to final inspection and approval and maintained at an approved on-site location.

Item: [SFM 04/19-10-39]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.2]

1206.2.2 Construction documents Operation and maintenance. The following information shall be provided with the permit application An operating and maintenance manual shall be provided to both the ESS owner or the authorized

agent and the ESS operator before the ESS is put into operation and shall include the following:

1. ~~Location and layout diagram of the room in which the stationary storage battery system is to be installed.~~ Manufacturer's operation manuals and maintenance manuals for the entire ESS or for each component of the system requiring maintenance, that clearly identify the required routine maintenance actions.
2. ~~Details on hourly fire-resistance-rated assemblies provided.~~ Name, address and phone number of a service agency that has been contracted to service the ESS and its associated safety systems.
3. ~~Quantities and types of storage batteries and battery systems.~~ Maintenance and calibration information, including wiring diagrams, control drawings, schematics, system programming instructions and control sequence descriptions, for all energy storage control systems.
4. ~~Manufacturer's specifications, ratings and listings of storage batteries and battery systems.~~ Desired or field-determined control set points that are permanently recorded on control drawings at control devices or, for digital control systems, in system programming instructions.
5. ~~Details on energy management systems.~~ A schedule for inspecting and recalibrating all ESS controls.
6. ~~Location and content of signage.~~ A service record log form that lists the schedule for all required servicing and maintenance actions and space for logging such actions that are completed over time and retained on site.
7. ~~Details on fire-extinguishing, smoke detection and ventilation systems.~~
8. ~~Rack storage arrangement, including seismic support criteria.~~

The ESS shall be operated and maintained in accordance with the manual and a copy of the manual shall be retained at an approved on-site location.

Item: [SFM 04/19-10-40]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.2.1 (New)]

1206.2.2.1 Ongoing inspection and testing. Systems that monitor and protect the ESS installation shall be inspected and tested in accordance

with the manufacturer's instructions and the operating and maintenance manual. Inspection and testing records shall be maintained in the operation and maintenance manual.

Item: [SFM 04/19-10-41]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.3]

~~1206.2.3 Hazard mitigation analysis~~ Decommissioning. ~~A failure modes and effects analysis (FMEA) or other approved hazard mitigation analysis shall be provided in accordance with Section 104.7.2 under any of the following conditions. The code official shall be notified prior to the decommissioning of an ESS. Decommissioning shall be performed in accordance with the decommissioning plan that includes the following:~~

- ~~1. Battery technologies not specifically identified in Table 1206.2 are provided. A narrative description of the activities to be accomplished for removing the ESS from service, and from the facility in which it is located.~~
- ~~2. More than one stationary storage battery technology is provided in a room or indoor area where there is a potential for adverse interaction between technologies. A listing of any contingencies for removing an intact operational ESS from service, and for removing an ESS from service that has been damaged by a fire or another event.~~
- ~~3. Where allowed as a basis for increasing maximum allowable quantities in accordance with Section 1206.2.9.~~

Item: [SFM 04/19-10-42]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.3.1 (Delete)]

~~1206.2.3.1 Fault condition.~~ ~~The hazard mitigation analysis shall evaluate the consequences of the following failure modes, and others deemed necessary by the fire code official. Only single failure modes shall be considered.~~

- ~~1. Thermal runaway condition in a single battery storage rack, module or array.~~

- ~~2. Failure of any energy management system.~~
- ~~3. Failure of any required ventilation system.~~
- ~~4. Voltage surges on the primary electric supply.~~
- ~~5. Short circuits on the load side of the stationary battery storage system.~~
- ~~6. Failure of the smoke detection, fire-extinguishing or gas detection system.~~
- ~~7. Spill neutralization not being provided or failure of the secondary containment system.~~

Item: [SFM 04/19-10-43]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.3.2 (Delete)]

~~**1206.2.3.2 Analysis approval.** The fire code official is authorized to approve the hazardous mitigation analysis provided that the hazard mitigation analysis demonstrates all of the following:~~

- ~~1. Fires or explosions will be contained within unoccupied battery storage rooms for the minimum duration of the fire resistance-rated walls identified in Table 509.1 of the *California Building Code*.~~
- ~~2. Fires and explosions in battery cabinets in occupied work centers will be detected in time to allow occupants within the room to evacuate safely.~~
- ~~3. Toxic and highly toxic gases released during fires and other fault conditions shall not reach concentrations in excess of Immediately Dangerous to Life or Health (IDLH) levels in the building or adjacent means of egress routes during the time deemed necessary to evacuate from that area.~~
- ~~4. Flammable gases released from batteries during charging, discharging and normal operation shall not exceed 25 percent of their lower flammability limit (LFL).~~
- ~~5. Flammable gases released from batteries during fire, overcharging and other abnormal conditions shall not create an explosion hazard that will injure occupants or emergency responders.~~

Item: [SFM 04/19-10-44]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.3.3 (Delete)]

~~**1206.2.3.3 Additional protection measures.** Construction, equipment and systems that are required for the stationary storage battery system to comply with the hazardous mitigation analysis, including but not limited to those specifically described in Section 1206.2, shall be installed, maintained and tested in accordance with nationally recognized standards and specified design parameters.~~

Item: [SFM 04/19-10-45]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.4 (Delete)]

~~**1206.2.4 Seismic and structural design.** Stationary storage battery systems shall comply with the seismic design requirements in Chapter 16 of the *California Building Code*, and shall not exceed the floor loading limitation of the building.~~

Item: [SFM 04/19-10-46]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.5 (Delete)]

~~**1206.2.5 Vehicle impact protection.** Where stationary storage battery systems are subject to impact by a motor vehicle, including fork lifts, vehicle impact protection shall be provided in accordance with Section 312.~~

Item: [SFM 04/19-10-47]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.6 (Delete)]

~~**1206.2.6 Combustible storage.** Combustible materials not related to the stationary storage battery system shall not be stored in battery rooms, cabinets or enclosures. Combustible materials in occupied work centers covered by~~

~~Section 1206.2.8.5 shall not be stored less than 3 feet (915 mm) from battery cabinets.~~

Item: [SFM 04/19-10-48]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.7 (Delete)]

~~**1206.2.7 Testing, maintenance and repair.** Storage batteries and associated equipment and systems shall be tested and maintained in accordance with the manufacturer's instructions. Any storage batteries or system components used to replace existing units shall be compatible with the battery charger, energy management systems, other storage batteries and other safety systems. Introducing other types of storage batteries into the stationary storage battery system or other types of electrolytes into flow battery systems shall be treated as a new installation and require approval by the fire code official before the replacements are introduced into service.~~

Item: [SFM 04/19-10-49]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8 (Delete)]

~~**1206.2.8 Location and construction.** Rooms and areas containing stationary storage battery systems shall be designed, located and constructed in accordance with Sections 1206.2.8.1 through 1206.2.8.7.4.~~

Item: [SFM 04/19-10-50]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.1 (Delete)]

~~**1206.2.8.1 Location.** Stationary storage battery systems shall not be located in areas where the floor is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, or where the floor level is more than 30 feet (9144 mm) below the finished floor of the lowest level of exit discharge.~~

Exceptions:

- ~~1. Lead acid and nickel cadmium stationary storage battery systems.~~
- ~~2. Installations on noncombustible rooftops of buildings exceeding 75 feet (22 860 mm) in height that do not obstruct fire department rooftop operations, where approved by the fire code official.~~

Item: [SFM 04/19-10-51]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.2 (Delete)]

~~**1206.2.8.2 Separation.** Rooms containing stationary storage battery systems shall be separated from other areas of the building in accordance with Section 509.1 of the *California Building Code*. Battery systems shall be allowed to be in the same room with the equipment they support.~~

Item: [SFM 04/19-10-52]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.3 (Delete)]

~~**1206.2.8.3 Stationary battery arrays.** Storage batteries, prepackaged stationary storage battery systems and pre-engineered stationary storage battery systems shall be segregated into stationary battery arrays not exceeding 50 kWh (180 megajoules) each. Each stationary battery array shall be spaced not less than 3 feet (914 mm) from other stationary battery arrays and from walls in the storage room or area. The storage arrangements shall comply with Chapter 10.~~

Exceptions:

- ~~1. Lead acid and nickel cadmium storage battery arrays.~~
- ~~2. Listed pre-engineered stationary storage battery systems and prepackaged stationary storage battery systems shall not exceed 250 kWh (900 megajoules) each.~~
- ~~3. The fire code official is authorized to approve listed, pre-engineered and prepackaged battery arrays with larger capacities or smaller battery array spacing if large-scale fire and fault condition testing conducted or witnessed and~~

~~reported by an approved testing laboratory is provided showing that a fire involving one array will not propagate to an adjacent array, and be contained within the room for a duration equal to the fire-resistance rating of the room separation specified in Table 509 of the *California Building Code*.~~

Item: [SFM 04/19-10-53]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.4 (Delete)]

~~**1206.2.8.4 Separate rooms.** Where stationary batteries are installed in a separate equipment room that can be accessed only by authorized personnel, they shall be permitted to be installed on an open rack for ease of maintenance.~~

Item: [SFM 04/19-10-54]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.5 (Delete)]

~~**1206.2.8.5 Occupied work centers.** Where stationary storage batteries are located in an occupied work center, they shall be housed in a noncombustible cabinet or other enclosure to prevent access by unauthorized personnel.~~

Item: [SFM 04/19-10-55]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.5.1 (Delete)]

~~**1206.2.8.5.1 Cabinets.** Where stationary batteries are contained in cabinets in occupied work centers, the cabinet enclosures shall be located within 10 feet (3048 mm) of the equipment that they support.~~

Item: [SFM 04/19-10-56]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.6 (Delete)]

~~**1206.2.8.6 Signage.** Approved signs shall be provided on doors or in locations near entrances to stationary storage battery system rooms and shall include the following or equivalent:~~

- ~~1. The room contains energized battery systems.~~
- ~~2. The room contains energized electrical circuits.~~
- ~~3. The additional markings required in Section 1206.2.12 for the types of storage batteries contained within the room.~~

~~**Exception:** Existing stationary storage battery systems shall be permitted to include the signage required at the time it was installed.~~

Item: [SFM 04/19-10-57]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.6.1 (Delete)]

~~**1206.2.8.6.1 Electrical disconnects.** Where the stationary storage battery system disconnecting means is not within sight of the main service disconnecting means, placards or directories shall be installed at the location of the main service disconnecting means indicating the location of stationary storage battery system disconnecting means in accordance with the *California Electrical Code*.~~

Item: [SFM 04/19-10-58]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.6.2 (Delete)]

~~**1206.2.8.6.2 Cabinet signage.** Battery storage cabinets provided in occupied work centers in accordance with Section 1206.2.8.5 shall have exterior labels that identify the manufacturer and model number of the system and electrical rating (voltage and current) of the contained battery system. There shall be signs within the cabinet that indicate the relevant electrical and chemical hazards, as required by Section 1206.2.12.~~

Item: [SFM 04/19-10-59]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]
Express Terms:

[Section: 1206.2.8.7 (Delete)]

~~**1206.2.8.7 Outdoor installations.** Stationary storage battery systems located outdoors shall comply with Sections 1206.2.8.7 through 1206.2.8.7.4, in addition to all applicable requirements of Section 1206.2. Installations in outdoor enclosures or containers that can be occupied for servicing, testing, maintenance and other functions shall be treated as battery storage rooms.~~

~~**Exception:** Stationary battery arrays in noncombustible containers shall not be required to be spaced 3 feet (914 mm) from the container walls.~~

Item: [SFM 04/19-10-60]
Chapter: [12, ENERGY SYSTEMS]
Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]
Express Terms:

[Section: 1206.2.8.7.1 (Delete)]

~~**1206.2.8.7.1 Separation.** Stationary storage battery systems located outdoors shall be separated by a minimum 5 feet (1524 mm) from the following:~~

- ~~1. Lot lines.~~
- ~~2. Public ways.~~
- ~~3. Buildings.~~
- ~~4. Stored combustible materials.~~
- ~~5. Hazardous materials.~~
- ~~6. High-piled stock.~~
- ~~7. Other exposure hazards.~~

~~**Exception:** The fire code official is authorized to approve smaller separation distances if largescale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress from adjacent buildings, or adversely impact adjacent stored materials or structures.~~

Item: [SFM 04/19-10-61]
Chapter: [12, ENERGY SYSTEMS]
Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]
Express Terms:

[Section: 1206.2.8.7.2 (Delete)]

~~**1206.2.8.7.2 Means of egress.** Stationary storage battery systems located outdoors shall be separated from any means of egress as required by the fire code official to ensure safe egress under fire conditions, but not less than 10 feet (3048 mm).~~

~~**Exception:** The fire code official is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress.~~

Item: [SFM 04/19-10-62]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.7.3 (Delete)]

~~**1206.2.8.7.3 Security of outdoor areas.** Outdoor areas in which stationary storage battery systems are located shall be secured against unauthorized entry and safeguarded in an approved manner.~~

Item: [SFM 04/19-10-63]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.8.7.4 (Delete)]

~~**1206.2.8.7.4 Walk-in units.** Where a stationary storage battery system includes an outer enclosure, the unit shall only be entered for inspection, maintenance and repair of batteries and electronics, and shall not be occupied for other purposes.~~

Item: [SFM 04/19-10-64]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.2.9 (Delete)]

TABLE 1206.2.9
MAXIMUM ALLOWABLE BATTERY QUANTITIES

BATTERY TECHNOLOGY	MAXIMUM ALLOWABLE QUANTITIES ^a	GROUP H OCCUPANCY
Flow batteries ^b	600 kWh	Group H-2
Lead acid, all types	Unlimited	Not Applicable
Lithium, all types	Unlimited	Group H-2
Nickel cadmium (Ni-Cd)	Unlimited	Not Applicable
Sodium, all types	600 kWh	Group H-2
Other battery technologies	200 kWh	Group H-2c

For SI: 1 kilowatt hour = 3.6 megajoules.

- For batteries rated in amp-hours, Kilowatt-hours (kWh) shall equal rated battery voltage times the amp-hour rating divided by 1,000.
- Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte-type technologies.
- Shall be a Group H-4 occupancy if the fire code official determines that a fire or thermal runaway involving the battery technology does not represent a significant fire hazard.

Item: [SFM 04/19-10-65]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.9 (Delete)]

1206.2.9 Maximum allowable quantities. Fire areas within buildings containing stationary storage battery systems exceeding the maximum allowable quantities in Table 1206.2.9 shall comply with all applicable Group H occupancy requirements in this code and the *California Building Code*.

Exception: Where approved by the fire code official, areas containing stationary storage batteries that exceed the amounts in Table 1206.2.9 shall be treated as incidental use areas and not Group H occupancies based on a hazardous mitigation analysis in accordance with Section 1206.2.3 and large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory.

Item: [SFM 04/19-10-66]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.9.1 (Delete)]

~~**1206.2.9.1 Mixed battery systems.** Where areas within buildings contain different types of storage battery technologies, the total aggregate quantities of batteries shall be determined based on the sum of percentages of each battery type quantity divided by the maximum allowable quantity of each battery type. If the sum of the percentages exceeds 100 percent, the area shall be treated as a Group H occupancy in accordance with Table 1206.2.9.~~

Item: [SFM 04/19-10-67]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10 (Delete)]

~~**1206.2.10 Storage batteries and equipment.** The design and installation of storage batteries and related equipment shall comply with Sections 1206.2.10.1 through 1206.2.10.8.~~

Item: [SFM 04/19-10-68]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.1 (Delete)]

~~**1206.2.10.1 Listings.** Storage batteries and battery storage systems shall comply with the following:~~

- ~~1. Storage batteries shall be listed in accordance with UL 1973.~~
- ~~2. Prepackaged and preengineered stationary storage battery systems shall be listed in accordance with UL 9540.~~

~~**Exception:** Lead-acid batteries are not required to be listed.~~

Item: [SFM 04/19-10-69]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.2 (Delete)]

~~**1206.2.10.2 Prepackaged and preengineered systems.** Prepackaged and pre-engineered stationary storage battery systems shall be installed in accordance with their listing and the manufacturer's instructions.~~

Item: [SFM 04/19-10-70]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.3 (Delete)]

~~**1206.2.10.3 Energy management system.** An approved energy management system shall be provided for battery technologies other than lead-acid and nickel cadmium for monitoring and balancing cell voltages, currents and temperatures within the manufacturer's specifications. The system shall transmit an alarm signal to an approved location if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.~~

Item: [SFM 04/19-10-71]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.4 (Delete)]

~~**1206.2.10.4 Battery chargers.** Battery chargers shall be compatible with the battery chemistry and the manufacturer's electrical ratings and charging specifications. Battery chargers shall be listed and labeled in accordance with UL 1564 or provided as part of a listed pre-engineered or prepackaged stationary storage battery system.~~

Item: [SFM 04/19-10-72]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.5 (Delete)]

~~**1206.2.10.5 Inverters.** Inverters shall be listed and labeled in accordance with UL 1741. Only inverters listed and labeled for utility interactive system use and identified as interactive shall be allowed to operate in parallel with the electric utility power system to supply power to common loads.~~

Item: [SFM 04/19-10-73]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.6 (Delete)]

~~**1206.2.10.6 Safety caps.** Vented batteries shall be provided with flame arresting safety caps.~~

Item: [SFM 04/19-10-74]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.7 (Delete)]

~~**1206.2.10.7 Thermal runaway.** Where required by Section 1206.2.12, storage batteries shall be provided with a listed device or other approved method to prevent, detect and control thermal runaway.~~

Item: [SFM 04/19-10-75]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.10.8 (Delete)]

~~**1206.2.10.8 Toxic and highly toxic gas.** Stationary storage battery systems that have the potential to release toxic and highly toxic gas during charging, discharging and normal use conditions shall comply with Chapter 60.~~

Item: [SFM 04/19-10-76]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11 (Delete)]

~~**1206.2.11 Fire-extinguishing and detection systems.** Fire-extinguishing and detection systems shall be provided in accordance with Sections 1206.2.11.1 through 1206.2.11.5.~~

Item: [SFM 04/19-10-77]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.1 (Delete)]

~~**1206.2.11.1 Fire-extinguishing systems.** Rooms containing stationary storage battery systems shall be equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1. Commodity classifications for specific technologies of storage batteries shall be in accordance with Chapter 5 of NFPA 13. If the storage battery types are not addressed in Chapter 5 of NFPA 13, the fire code official is authorized to approve the fire-extinguishing system based on fullscale fire and fault condition testing conducted or witnessed and reported by an approved laboratory.~~

~~**Exception:** Spaces or areas containing stationary storage battery systems used exclusively for telecommunications equipment in accordance with Section 903.2.~~

Item: [SFM 04/19-10-78]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.1.1 (Delete)]

~~**1206.2.11.1.1 Alternative fire-extinguishing systems.** Battery systems that utilize water-reactive materials shall be protected by an approved alternative automatic fire-extinguishing system in accordance with Section 904. The system shall be listed for protecting the type, arrangement and quantities of storage batteries in the room. The fire code official shall be permitted to approve the alternative fire-extinguishing system based on full-scale fire and fault condition testing conducted or witnessed and reported by an approved laboratory.~~

Item: [SFM 04/19-10-79]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.2 (Delete)]

~~**1206.2.11.2 Smoke detection system.** An approved automatic smoke detection system shall be installed in rooms containing stationary storage battery systems in accordance with Section 907.2.~~

Item: [SFM 04/19-10-80]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.3 (Delete)]

~~**1206.2.11.3 Ventilation.** Where required by Section 1206.2.3 or 1206.2.12, ventilation of rooms containing stationary storage battery systems shall be provided in accordance with the *California Mechanical Code* and one of the following:~~

- ~~1. The ventilation system shall be designed to limit the maximum concentration of flammable gas to 25 percent of the lower flammability limit, or for hydrogen, 1.0 percent of the total volume of the room.~~
- ~~2. Continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute (cfm) per square foot [0.00508 m³/(s • m²³/min). The exhaust system shall be designed to provide air movement across all parts of the floor for gases having a vapor density greater than air and across all parts of the vault ceiling for gases having a vapor density less than air.~~

Item: [SFM 04/19-10-81]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.3.1 (Delete)]

~~**1206.2.11.3.1 Cabinet ventilation.** Where cabinets located in occupied spaces contain storage batteries that are required by Section 1206.2.3 or 1206.2.12 to be provided with ventilation, the cabinet shall be provided with ventilation in accordance with Section 1206.2.11.3.~~

Item: [SFM 04/19-10-82]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.3.2 (Delete)]

~~**1206.2.11.3.2 Supervision.** Required mechanical ventilation systems for rooms and cabinets containing storage batteries shall be supervised by an approved central station, proprietary or remote station service or shall initiate an audible and visual signal at an approved constantly attended on-site location.~~

Item: [SFM 04/19-10-83]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.4 (Delete)]

~~**1206.2.11.4 Gas detection system.** Where required by Section 1206.2.3 or 1206.2.12, rooms containing stationary storage battery systems shall be protected by a gas detection system complying with Section 916. The gas detection system shall be designed to activate where the level of flammable gas exceeds 25 percent of the lower flammable limit (LFL), or where the level of toxic or highly toxic gas exceeds one-half of the IDLH.~~

Item: [SFM 04/19-10-84]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.4.1 (Delete)]

~~**1206.2.11.4.1 System activation.** Activation of the gas detection system shall result in all the following:~~

- ~~1. Initiation of distinct audible and visible alarms in the battery storage room.~~
- ~~2. Transmission of an alarm to an approved location.~~
- ~~3. De-energizing of the battery charger.~~
- ~~4. Activation of the mechanical ventilation system, where the system is interlocked with the gas detection system.~~

~~**Exception:** Lead-acid and nickel-cadmium stationary storage battery systems shall not be required to comply with Items 1, 2 and 3.~~

Item: [SFM 04/19-10-85]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.11.5 (Delete)]

~~**1206.2.11.5 Spill control and neutralization.** Where required by Section 1206.2.12, approved methods and materials shall be provided for the control and neutralization of spills of electrolyte or other hazardous materials in areas containing stationary storage batteries as follows:~~

- ~~1. For batteries with free-flowing electrolyte, the method and materials shall be capable of neutralizing a spill of the total capacity from the largest cell or block to a pH between 5.0 and 9.0.~~
- ~~2. For batteries with immobilized electrolyte, the method and material shall be capable of neutralizing a spill of 3.0 percent of the capacity of the largest cell or block in the room to a pH between 5.0 and 9.0.~~

Item: [SFM 04/19-10-86]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.12 (Delete)]

~~**1206.2.12 Specific battery-type requirements.** This section includes requirements applicable to specific types of storage batteries. Stationary storage battery systems with more than one type of storage battery shall comply with requirements applicable to each battery type.~~

Item: [SFM 04/19-10-87]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.12.1 (Delete)]

~~**1206.2.12.1 Lead-acid storage batteries.** Stationary storage battery systems utilizing lead-acid storage batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 1206.2.11.3.~~
- ~~2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.~~
- ~~3. Thermal runaway protection shall be provided for valve-regulated lead-acid (VRLA) storage batteries in accordance with Section 1206.2.10.7.~~

- ~~4. The signage in Section 1206.2.8.6 shall indicate the room contains lead-acid batteries.~~

Item: [SFM 04/19-10-88]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.12.2 (Delete)]

~~**1206.2.12.2 Nickel-cadmium (Ni-Cd) storage batteries.** Stationary storage battery systems utilizing nickelcadmium (Ni-Cd) storage batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 1206.2.11.3.~~
- ~~2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.~~
- ~~3. Thermal runaway protection shall be provided for valve-regulated sealed nickel-cadmium storage batteries in accordance with Section 1206.2.10.7.~~
- ~~4. The signage in Section 1206.2.8.6 shall indicate the room contains nickel-cadmium batteries.~~

Item: [SFM 04/19-10-89]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.12.3 (Delete)]

~~**1206.2.12.3 Lithium-ion storage batteries.** The signage in Section 1206.2.8.6 shall indicate the type of lithium batteries contained in the room.~~

Item: [SFM 04/19-10-90]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.12.4 (Delete)]

~~**1206.2.12.4 Sodium-beta storage batteries.** Stationary storage battery systems utilizing sodium-beta storage batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 1206.2.11.3.~~
- ~~2. The signage in Section 1206.2.8.6 shall indicate the type of sodium batteries in the room and include the instructions, "APPLY NO WATER."~~

Item: [SFM 04/19-10-91]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.12.5 (Delete)]

~~**1206.2.12.5 Flow storage batteries.** Stationary storage battery systems utilizing flow storage batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 1206.2.11.3.~~
- ~~2. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.~~
- ~~3. The signage required in Section 1206.2.8.6 shall indicate the type of flow batteries in the room.~~

Item: [SFM 04/19-10-92]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.2.12.6 (Delete)]

~~**1206.2.12.6 Other battery technologies.** Stationary storage battery systems utilizing battery technologies other than those described in Sections 1206.2.12.1 through 1206.2.12.5 shall comply with the following:~~

- ~~1. Gas detection systems complying with Section 916 shall be provided in accordance with Section 1206.2.11.4 where the batteries have the potential to produce toxic or highly toxic gas in the storage room or cabinet in excess of the permissible exposure limits (PEL) during charging, discharging and normal system operation.~~

- ~~2. Mechanical ventilation shall be provided in accordance with Section 1206.2.11.3.~~
- ~~3. Spill control and neutralization shall be in accordance with Section 1206.2.11.5.~~
- ~~4. In addition to the signage required in Section 1206.2.8.6, the marking shall identify the type of batteries present, describe the potential hazards associated with the battery type, and indicate that the room contains energized electrical circuits.~~

Item: [SFM 04/19-10-93]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3]

~~**1206.3 Capacitor energy storage systems Equipment. ESS equipment shall be in accordance with Sections 1206.3.1 through 1206.3.9. Capacitor energy storage systems having capacities exceeding 3 kWh (10.8 megajoules) shall comply with Sections 1206.3 through 1206.3.2.6.1.**~~

~~**Exception:** Capacitors regulated by the *California Electrical Code*, Chapter 460, and capacitors included as a component part of other listed electrical equipment are not required to comply with this section.~~

Item: [SFM 04/19-10-94]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.1]

~~**1206.3.1 Permits Energy storage system listings.** Permits shall be obtained for the installation of capacitor energy storage systems in accordance with Section 105.7.3. ESS shall be listed and labeled in accordance with UL 9540.~~

~~**Exception: Lead-acid and nickel-cadmium battery systems installed in facilities under the exclusive control of communications utilities, and operating at less than 50 VAC and 60 VDC in accordance with NFPA 76 are not required to be listed.**~~

Item: [SFM 04/19-10-95]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2]

1206.3.2 ~~Location and construction~~ Equipment listing. ~~Rooms and areas containing capacitor energy storage systems shall be designed, located and constructed in accordance with Sections 1206.3.2 through 1206.3.2.5. Chargers, inverters and energy storage management systems shall be covered as part of the UL 9540 listing or shall be listed separately.~~

Item: [SFM 04/19-10-96]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.1 (Delete)]

~~1206.3.2.1 Location.~~ ~~Capacitor energy storage systems shall not be located in areas where the floor is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, or where the floor level is more than 30 feet (9144 mm) below the finished floor of the lowest level of exit discharge.~~

Item: [SFM 04/19-10-97]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.2 (Delete)]

~~1206.3.2.2 Separation.~~ ~~Rooms containing capacitor energy storage systems shall be separated from the following occupancies by fire barriers or horizontal assemblies, or both, constructed in accordance with the *California Building Code*.~~

- ~~1. Group B, F, M, S and U occupancies by 1-hour fire resistance-rated construction.~~
- ~~2. Group A, E, I and R occupancies by 2-hour fire resistance-rated construction.~~

Item: [SFM 04/19-10-98]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.3 (Delete)]

~~**1206.3.2.3 Capacitor arrays.** Capacitor energy storage systems shall be segregated into capacitor arrays not exceeding 50 kWh (180 megajoules) each. Each array shall be spaced not less than 3 feet (914 mm) from other arrays and from walls in the storage room or area. The storage arrangements shall comply with Chapter 10.~~

~~**Exception:** Capacitor energy storage systems in noncombustible containers located outdoors shall not be required to be spaced 3 feet (914 mm) from the container walls.~~

Item: [SFM 04/19-10-99]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.4 (Delete)]

~~**1206.3.2.4 Signage.** Approved signs shall be provided on doors or in locations adjacent to the entrances to capacitor energy storage system rooms and shall include the following or equivalent verbiage and information:~~

~~1. "CAPACITOR ENERGY STORAGE ROOM."~~

~~2. "THIS ROOM CONTAINS ENERGIZED ELECTRICAL CIRCUITS."~~

~~3. An identification of the type of capacitors present and the potential hazards associated with the capacitor type.~~

Item: [SFM 04/19-10-100]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.5 (Delete)]

~~**1206.3.2.5 Electrical disconnects.** Where the capacitor energy storage system disconnecting means is not within sight of the main service disconnecting means, placards or directories shall be installed at the location of the main service disconnecting means identifying the location of the capacitor energy storage system disconnecting means in accordance with the *California Electrical Code*.~~

Item: [SFM 04/19-10-101]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.6 (Delete)]

~~**1206.3.2.6 Outdoor installation.** Capacitor energy systems located outdoors shall comply with Sections 1206.3.2.6 through 1206.3.2.6.4 in addition to all applicable requirements of Section 1206.3. Installations in outdoor enclosures or containers that can be occupied for servicing, testing, maintenance and other functions shall be treated as capacitor storage rooms.~~

~~**Exception:** Capacitor arrays in noncombustible containers shall not be required to be spaced 3 feet (914 mm) from the container walls.~~

Item: [SFM 04/19-10-102]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.6.1 (Delete)]

~~**1206.3.2.6.1 Separation.** Capacitor energy systems located outdoors shall be not less than 5 feet (1524 mm) from the following:~~

- ~~1. Lot lines.~~
- ~~2. Public ways.~~
- ~~3. Buildings.~~
- ~~4. Stored combustible materials.~~
- ~~5. Hazardous materials.~~
- ~~6. High-piled stock.~~
- ~~7. Other exposure hazards.~~

~~**Exception:** The fire code official is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress from adjacent buildings, or adversely impact adjacent stored materials or structures.~~

Item: [SFM 04/19-10-103]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.6.2 (Delete)]

~~**1206.3.2.6.2 Means of egress.** Capacitor energy storage systems located outdoors shall be separated from any means of egress as required by the fire code official to ensure safe egress under fire conditions, but not less than 10 feet (3048 mm).~~

~~**Exception:** The fire code official is authorized to approve lesser separation distances if large-scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory is provided showing that a fire involving the system will not adversely impact occupant egress.~~

Item: [SFM 04/19-10-104]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.6.3 (Delete)]

~~**1206.3.2.6.3 Security of outdoor areas.** Outdoor areas in which capacitor energy storage systems are located shall be secured against unauthorized entry and safeguarded in an approved manner.~~

Item: [SFM 04/19-10-105]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.2.6.4 (Delete)]

~~**1206.3.2.6.4 Walk-in units.** Where a capacitor energy storage system includes an outer enclosure, the unit shall only be entered for inspection, maintenance and repair of batteries and electronics, and shall not be occupied for other purposes.~~

Item: [SFM 04/19-10-106]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.3]

~~1206.3.3 Maximum allowable quantities~~ Utility interactive systems.

~~Fire areas within buildings containing capacitor energy storage systems that exceed 600 kWh of energy capacity shall comply with all applicable Group H occupancy requirements in this code and the California Building Code. Inverters shall be listed and labeled in accordance with UL 1741. Only inverters listed and labeled for utility interactive system use and identified as interactive shall be allowed to operate in parallel with the electric utility power system to supply power to common loads.~~

Item: [SFM 04/19-10-107]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.4]

~~1206.3.4 Capacitors and equipment~~ Energy storage management system.

~~The design and installation of capacitor energy storage systems and related equipment shall comply with Sections 1206.3.4.1 through 1206.3.4.5. Where required by the ESS listing an approved energy storage management system shall be provided for that which monitors and balances cell voltages, currents and temperatures within the manufacturer's specifications. The system shall disconnect electrical connections to the ESS or otherwise place it in a safe condition if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.~~

Item: [SFM 04/19-10-108]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.4.1 (Delete)]

~~1206.3.4.1 Listing.~~ ~~Capacitors and capacitor energy storage systems shall comply with the following:~~

- ~~1. Capacitors shall be listed in accordance with UL 1973.~~
- ~~2. Prepackaged and pre-engineered stationary capacitor energy storage systems shall be listed in accordance with UL 9540.~~

Item: [SFM 04/19-10-109]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.4.2 (Delete)]

~~**1206.3.4.2 Prepackaged and pre-engineered systems.** In addition to other applicable requirements of this code, prepackaged and pre-engineered capacitor energy storage systems shall be installed in accordance with their listing and the manufacturer's instructions.~~

Item: [SFM 04/19-10-110]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.4.3 (Delete)]

~~**1206.3.4.3 Energy management system.** An approved energy management system shall be provided for monitoring and balancing capacitor voltages, currents and temperatures within the manufacturer's specifications. The system shall transmit an alarm signal to an approved location if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.~~

Item: [SFM 04/19-10-111]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.4.4 (Delete)]

~~**1206.3.4.4 Capacitor chargers.** Capacitor chargers shall be compatible with the capacitor manufacturer's electrical ratings and charging specifications. Capacitor chargers shall be listed and labeled in accordance with UL 1564 or provided as part of a listed pre-engineered or prepackaged capacitor energy storage system.~~

Item: [SFM 04/19-10-112]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.4.5 (Delete)]

~~**1206.3.4.5 Toxic and highly toxic gas.** Capacitor energy storage systems that have the potential to release toxic and highly toxic materials during charging, discharging and normal use conditions shall comply with Chapter 60.~~

Item: [SFM 04/19-10-113]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.5]

~~1206.3.5 Fire-extinguishing and detection systems~~ **Enclosures.** Fire-extinguishing and smoke detection systems shall be provided in capacitor energy storage system rooms in accordance with Sections 1206.3.5.1 through 1206.3.5.2. Enclosures of ESS shall be of noncombustible construction.

Item: [SFM 04/19-10-114]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.5.1 (Delete)]

~~1206.3.5.1 Fire-extinguishing systems.~~ Rooms containing capacitor energy storage systems shall be equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1. Commodity classifications for specific capacitor technologies shall be in accordance with Chapter 5 of NFPA 13. If the capacitor types are not addressed in Chapter 5 of NFPA 13, the fire code official is authorized to approve the automatic sprinkler system based on full-scale fire and fault condition testing conducted by an approved laboratory.

Item: [SFM 04/19-10-115]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.5.1.1 (Delete)]

~~1206.3.5.1.1 Alternative fire-extinguishing systems.~~ Capacitor energy storage systems that utilize water-reactive materials shall be protected by an approved alternative automatic fire-extinguishing system in accordance with Section 904. The system shall be listed for protecting the type, arrangement and quantities of capacitors in the room. The fire code official shall be permitted to approve the system based on full-scale fire and fault condition testing conducted by an approved laboratory.

Item: [SFM 04/19-10-116]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.5.2 (Delete)]

~~**1206.3.5.2 Smoke detection system.** An approved automatic smoke detection system shall be installed in rooms containing capacitor energy storage systems in accordance with Section 907.2.~~

Item: [SFM 04/19-10-117]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.5.3 (Delete)]

~~**1206.3.5.3 Ventilation.** Where capacitors release flammable gases during normal operating conditions, ventilation of rooms containing capacitor energy storage systems shall be provided in accordance with the *California Mechanical Code* and one of the following:~~

- ~~1. The ventilation system shall be designed to limit the maximum concentration of flammable gas to 25 percent of the lower flammability limit.~~
- ~~2. Continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute (cfm) per square foot [0.00508 m³/(s • m²)] of floor area, but not less than 150 cfm (4 m³/min). The exhaust system shall be designed to provide air movement across all parts of the floor for gases having a vapor density greater than air and across all parts of the ceiling for gases having a vapor density less than air.~~

Item: [SFM 04/19-10-118]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.5.3.1 (Delete)]

~~**1206.3.5.3.1 Supervision.** Required mechanical ventilation systems for rooms containing capacitor energy storage systems shall be supervised by an approved central station, proprietary or remote station service, or shall initiate an audible and visible signal at an approved, constantly attended on-site location.~~

Item: [SFM 04/19-10-119]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.5.4 (Delete)]

~~**1206.3.5.4 Spill control and neutralization.** Where capacitors contain liquid electrolyte, approved methods and materials shall be provided for the control and neutralization of spills of electrolyte or other hazardous materials in areas containing capacitors as follows:~~

- ~~1. For capacitors with free-flowing electrolyte, the method and materials shall be capable of neutralizing a spill of the total capacity from the largest cell or block to a pH between 5.0 and 9.0.~~
- ~~2. For capacitors with immobilized electrolyte, the method and material shall be capable of neutralizing a spill of 3.0 percent of the capacity of the largest cell or block in the room to a pH between 5.0 and 9.0.~~

Item: [SFM 04/19-10-120]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.6]

~~**1206.3.6 Testing, maintenance and repair** ***Repairs.*** Capacitors and associated equipment and systems shall be tested and maintained in accordance with the manufacturer's instructions. Any capacitors or system components used to replace existing units shall be compatible with the capacitor charger, energy management systems, other capacitors, and other safety systems. Introducing different capacitor technologies into the capacitor energy storage system shall be treated as a new installation and require approval by the fire code official before the replacements are introduced into service. *Repairs of ESS shall only be done by qualified personnel. Repairs with other than identical parts shall be considered retrofitting and comply with Section 1206.3.7. Repairs shall be documented in the service records log.*~~

Item: [SFM 04/19-10-121]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.7 (New)]

1206.3.7 Retrofits. *Retrofitting of an existing ESS shall comply with the following:*

1. A construction permit shall be obtained in accordance with Section 105.7.7.
2. New batteries, battery modules, capacitors and similar ESS components shall be listed.
3. Battery management and other monitoring systems shall be connected and installed in accordance with the manufacturer's instructions.
4. The overall installation shall continue to comply with UL 9540 listing requirements, where applicable.
5. Systems that have been retrofitted shall be commissioned in accordance with Section 1206.2.1.
6. Retrofits shall be documented in the service records log.

Item: [SFM 04/19-10-122]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.7.1 (New)]

1206.3.7.1 Retrofitting Lead Acid and Nickel Cadmium. Section 1206.3.7 shall not apply to retrofitting of lead-acid and nickel-cadmium batteries with other lead-acid and nickel-cadmium batteries at facilities under the exclusive control of communications utilities that comply with NFPA 76 and operate at less than 50 VAC and 60 VDC.

Item: [SFM 04/19-10-123]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.8 (New)]

1206.3.8 Replacements. Replacements of ESS shall be considered new ESS installations and shall comply with the provisions of Section 1206 as applicable to new ESS. The ESS being replaced shall be decommissioned in accordance with Section 1206.2.3.

Item: [SFM 04/19-10-124]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.3.9 (New)]

1206.3.9 Reused and repurposed equipment. *Equipment and materials shall only be reused or reinstalled as permitted in Section 104.7.1. Storage batteries previously used in other applications, such as electric vehicle propulsion, shall not be reused in applications regulated by Chapter 12, unless (1) approved by the fire code official and (2) the equipment is refurbished by a battery refurbishing company approved in accordance with UL 1974.*

Item: [SFM 04/19-10-125]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4 (New)]

1206.4 General installations requirements. *Stationary and mobile ESS shall comply with the requirements of Section 1206.4.1 through 1206.4.12.*

Item: [SFM 04/19-10-126]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.1 (New)]

1206.4.1 Electrical disconnects. *Where the ESS disconnecting means is not within sight of the main electrical service disconnecting means, placards or directories shall be installed at the location of the main electrical service disconnecting means indicating the location of stationary storage battery system disconnecting means in accordance with NFPA 70.*

Exception: *Electrical disconnects for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities and operating at less than 50 VAC and 60 VDC shall be permitted to have electrical disconnects signage in accordance with NFPA 76.*

Item: [SFM 04/19-10-127]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.2 (New)]

1206.4.2 Working clearances. *Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment in accordance with NFPA 70 and the manufacturer's instructions.*

Item: [SFM 04/19-10-128]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.3 (New)]

1206.4.3 Fire-resistance rated separations. *Rooms and other indoor areas containing ESS shall be separated from other areas of the building in accordance with Section 1206.7.4. ESS shall be permitted to be in the same room with the equipment they support.*

Item: [SFM 04/19-10-129]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.4 (New)]

1206.4.4 Seismic and structural design. *Stationary ESS shall comply with the seismic design requirements in Chapter 16 of the California Building Code, and shall not exceed the floor loading limitation of the building.*

Item: [SFM 04/19-10-130]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.5 (New)]

1206.4.5 Vehicle impact protection. *Where ESS are subject to impact by a motor vehicle, including fork lifts, vehicle impact protection shall be provided in accordance with Section 312.*

Item: [SFM 04/19-10-131]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.6 (New)]

1206.4.6 Combustible storage. *Combustible materials shall not be stored in ESS rooms, areas, or walk-in units. Combustible materials in occupied work centers covered by Section 1206.4.10 shall be stored at least 3 feet (914 mm) from ESS cabinets.*

Item: [SFM 04/19-10-132]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.7 (New)]

1206.4.7 Toxic and highly toxic gases. *ESS that have the potential to release toxic and highly toxic gas during charging, discharging and normal use conditions shall be provided with a hazardous exhaust system in accordance with Section 502.8 of the California Mechanical Code.*

Item: [SFM 04/19-10-133]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.8 (New)]

1206.4.8 Signage. *Approved signs shall be provided on or adjacent to all entry doors for ESS rooms or areas and on enclosures of ESS cabinets and walk-in units located outdoors, on rooftops or in open parking garages. Signs designed to meet both the requirements of this section and NFPA 70 shall be permitted. The signage shall include the following or equivalent.*

1. "Energy Storage System", "Battery Storage System", "Capacitor Energy Storage System", or the equivalent.
2. The identification of the electrochemical ESS technology present.
3. "Energized electrical circuits"
4. If water-reactive electrochemical ESS are present the signage shall include "APPLY NO WATER"
5. Current contact information, including phone number, for personnel authorized to service the equipment and for fire mitigation personnel required by Section 1206.1.6.1.

Exception: *Existing electrochemical ESS shall be permitted to include the signage required at the time they were installed.*

Item: [SFM 04/19-10-134]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.9 (New)]

1206.4.9 Security of installations. *Rooms, areas and walk-in units in which electrochemical ESS are located shall be secured against unauthorized entry and safeguarded in an approved manner. Security barriers, fences, landscaping, and other enclosures shall not inhibit the required air flow to or exhaust from the electrochemical ESS and its components.*

Item: [SFM 04/19-10-135]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.10 (New)]

1206.4.10 Occupied work centers. *Electrochemical ESS located in rooms or areas occupied by personnel not directly involved with maintenance, service and testing of the systems shall comply with the following.*

- 1.** *Electrochemical ESS located in occupied work centers shall be housed in locked noncombustible cabinets or other enclosures to prevent access by unauthorized personnel.*
- 2.** *Where electrochemical ESS are contained in cabinets in occupied work centers, the cabinets shall be located within 10 feet (3048 mm) of the equipment that they support.*
- 3.** *Cabinets shall include signage complying with Section 1206.4.8.*

Item: [SFM 04/19-10-136]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.11 (New)]

1206.4.11 Open rack installations. *Where electrochemical ESS are installed in a separate equipment room and only authorized personnel have access to the room, they shall be permitted to be installed on an open rack for ease of maintenance.*

Item: [SFM 04/19-10-137]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.4.12 (New)]

1206.4.12 Walk-in units. *Walk-in units shall only be entered for inspection, maintenance and repair of ESS units and ancillary equipment, and shall not be occupied for other purposes.*

Item: [SFM 04/19-10-138]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5 (New)]

1206.5 Electrochemical ESS Protection. *The protection of electrochemical ESS shall be in accordance with Sections 1206.5.1 through 1206.5.8 where required by Section 1206.7 through 1206.10.*

Item: [SFM 04/19-10-139]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.1 (New)]

1206.5.1 Size and separation. *Electrochemical ESS shall be segregated into groups not exceeding 50 KWh (180 Mega joules). Each group shall be separated a minimum 3 feet (914 mm) from other groups and from walls in the storage room or area. The storage arrangements shall comply with Chapter 10.*

Exceptions:

- 1. Lead-acid and nickel-cadmium battery systems in facilities under the exclusive control of communications utilities and operating at less than 50 VAC and 60 VDC in accordance with NFPA 76.**
- 2. The fire code official is authorized to approve larger capacities or smaller separation distances based on large-scale fire testing complying with Section 1206.1.5.**

Item: [SFM 04/19-10-140]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]
Express Terms:

[Section: 1206.5.2 (New)]

1206.5.2 Maximum allowable quantities. *Fire areas within rooms, areas and walk-in units containing electrochemical ESS shall not exceed the maximum allowable quantities in Table 1206.5.*

Exceptions:

- 1.** *Where approved by the fire code official, rooms, areas and walk-in units containing electrochemical ESS that exceed the amounts in Table 1206.5 shall be permitted based on a hazard mitigation analysis in accordance with Section 1206.1.4 and large-scale fire testing complying with Section 1206.1.5.*
- 2.** *Lead-acid and nickel-cadmium battery systems installed in facilities under the exclusive control of communications utilities, and operating at less than 50 VAC and 60 VDC in accordance with NFPA 76.*
- 3.** *Dedicated-use buildings in compliance with Section 1206.7.1.*

Item: [SFM 04/19-10-141]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.2.1 (New)]

1206.5.2.1 Mixed electrochemical energy systems. *Where rooms, areas and walk-in units contain different types of electrochemical energy technologies, the total aggregate quantities of the systems shall be determined based on the sum of percentages of each technology type quantity divided by the maximum allowable quantity of each technology type. The sum of the percentages shall not exceed 100 percent of the maximum allowable quantity.*

Item: [SFM 04/19-10-142]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.5 (New)]

TABLE 1206.5

MAXIMUM ALLOWABLE QUANTITIES OF ELECTROCHEMICAL ESS

<u>TECHNOLOGY</u>	<u>MAXIMUM ALLOWABLE QUANTITIES</u> ^a
<u>STORAGE BATTERIES</u>	
<u>Lead acid, all types</u>	<u>Unlimited</u>
<u>Nickel cadmium (Ni-Cd)</u>	<u>Unlimited</u>
<u>Nickel metal hydride (Ni-MH)</u>	<u>Unlimited</u>
<u>Lithium-ion</u>	<u>600 KWh</u>
<u>Flow batteries</u> ^b	<u>600 KWh</u>
<u>Other battery technologies</u>	<u>200 KWh</u>
<u>CAPACITORS</u>	
<u>All types</u>	<u>20 KWh</u>
<u>OTHER ELECTROCHEMICAL ESS</u>	
<u>All types</u>	<u>20 KWh</u>

- a. For electrochemical ESS units rated in Amp-Hours, KWh shall equal rated voltage multiplied by the Amp-hour rating divided by 1000
- b. Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte type technologies

Item: [SFM 04/19-10-143]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.3 (New)]

1206.5.3 Elevation. Electrochemical ESS shall not be located in the following areas:

1. Where the floor is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, or
2. Where the floor is located below the lowest level of exit discharge.

Exceptions:

1. Lead-acid and Nickel-cadmium battery systems less than 50 VAC and 60 VDC installed in facilities under the exclusive control of communications utilities in accordance with NFPA 76.
2. Where approved, installations shall be permitted in underground vaults complying with NFPA 70, Article 450, Part III.

3. Where approved by the fire code official, installations shall be permitted on higher and lower floors.

Item: [SFM 04/19-10-144]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.4 (New)]

1206.5.4 Fire detection. An approved automatic smoke detection system or radiant energy–sensing fire detection system complying with Section 907.2 shall be installed in rooms, indoor areas, and walk-in units containing electrochemical ESS. An approved radiant energy–sensing fire detection system shall be installed to protect open parking garage and rooftop installations. Alarm signals from detection systems shall be transmitted to a central station, proprietary or remote station service in accordance with NFPA 72, or where approved to a constantly attended location.

Item: [SFM 04/19-10-145]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.4.1 (New)]

1206.5.4.1 System status. Where required by the fire code official, visible annunciation shall be provided on cabinet exteriors or in other approved locations to indicate that potentially hazardous conditions associated with the ESS exist.

Item: [SFM 04/19-10-146]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.5 (New)]

1206.5.5 Fire suppression systems. Rooms and areas within buildings and walk-in units containing electrochemical ESS shall be protected by an automatic fire suppression system designed and installed in accordance with one of the following:

1. An automatic sprinkler system designed and installed in accordance with Section 903.3.1.1 with a minimum density of 0.3 gpm/ft. based on the fire area or 2,500 ft. design area, whichever is smaller.

2. Where approved, an automatic sprinkler system designed and installed in accordance with Section 903.3.1.1 with a sprinkler hazard classification based on large-scale fire testing complying with Section 1206.1.5.
3. The following alternate automatic fire extinguishing systems designed and installed in accordance with Section 904, provided the installation is approved by the fire code official based on large-scale fire testing complying with Section 1206.1.5

NFPA 12, Standard on Carbon Dioxide Extinguishing Systems
NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection
NFPA 750, Standard on Water Mist Fire Protection Systems
NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems
NFPA 2010, Standard for Fixed Aerosol Fire-Extinguishing Systems

Exception: Fire suppression systems for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities that operate at less than 50 VAC and 60 VDC shall be provided where required by NFPA 76.

Item: [SFM 04/19-10-147]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.5.1 (New)]

1206.5.5.1 Water-reactive systems. Electrochemical ESS that utilize water-reactive materials shall be protected by an approved alternative automatic fire-extinguishing system in accordance with Section 904, where the installation is approved by the fire code official based on large-scale fire testing complying with Section 1206.1.5.

Item: [SFM 04/19-10-148]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.6 (New)]

1206.5.6 Maximum enclosure size. Outdoor walk-in units housing ESS shall not exceed 53 feet by 8 feet by 9.5 feet high not including bolt-on HVAC and related equipment as approved. Outdoor walk-in units exceeding these limitations shall be considered indoor installations and comply with the requirements in Section 1206.7.

Item: [SFM 04/19-10-149]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.7 (New)]

1206.5.7 Vegetation control. *Areas within 10 feet (3 m) on each side of outdoor ESS shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted to be exempt, provided that they do not form a means of readily transmitting fire.*

Item: [SFM 04/19-10-150]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.5.8 (New)]

1206.5.8 Means of egress separation. *ESS located outdoors and in open parking garages shall be separated from any means of egress as required by the fire code official to ensure safe egress under fire conditions, but in no case, less than 10 feet (3048 mm).*

Exception: *The fire code official is authorized to approve a reduced separation distance if large-scale fire testing complying with Section 1206.1.5 is provided and shows that a fire involving the ESS will not adversely impact occupant egress.*

Item: [SFM 04/19-10-151]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6 (New)]

1206.6 Electrochemical ESS technology specific protection. *Electrochemical ESS installations shall comply with the requirements of this section in accordance with the applicable requirements of Table 1206.6.*

Item: [SFM 04/19-10-152]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.6 (New)]

TABLE 1206.6
ELECTROCHEMICAL ESS TECHNOLOGY SPECIFIC REQUIREMENTS

<u>COMPLIANCE REQUIRED^b</u>	<u>BATTERY TECHNOLOGY</u>				<u>OTHER ESS AND BATTERY TECHNOLOGIES^b</u>	<u>CAPACITOR ESS^b</u>
	<u>Lead- acid</u>	<u>Ni- Cad and Ni- MH</u>	<u>Lithium- ion</u>	<u>Flow</u>		
<u>1206.6.1 Exhaust ventilation</u>	<u>Yes</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.6.2 Spill control and neutralization</u>	<u>Yes^c</u>	<u>Yes^c</u>	<u>No</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.6.3 Explosion control</u>	<u>Yes^a</u>	<u>Yes^a</u>	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.6.4 Safety caps</u>	<u>Yes</u>	<u>Yes</u>	<u>No</u>	<u>No</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.6.5 Thermal runaway</u>	<u>Yes^d</u>	<u>Yes</u>	<u>Yes^e</u>	<u>No</u>	<u>Yes^e</u>	<u>Yes</u>

- a. Not required for lead-acid and nickel-cadmium batteries at facilities under the exclusive control of communications utilities that comply with NFPA 76 and operate at less than 50 VAC and 60 VDC.
- b. Protection shall be provided unless documentation acceptable to the fire code official is provided in accordance with Section 104.7.2 that provides justification why the protection is not necessary based on the technology used.
- c. Applicable to vented (i.e. flooded) type nickel-cadmium and lead-acid batteries.
- d. Not required for vented (i.e. flooded) type lead-acid batteries.
- e. The thermal runaway protection is permitted to be part of a battery management system that has been evaluated with the battery as part of the evaluation to UL 1973.

Item: [SFM 04/19-10-153]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.1 (New)]

1206.6.1 Exhaust ventilation. *Where required by Table 1206.6 or elsewhere in this code, exhaust ventilation of rooms, areas, and walk-in units containing electrochemical ESS shall be provided in accordance with the California Mechanical Code and Section 1206.6.1.1 or 1206.6.1.2.*

Item: [SFM 04/19-10-154]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.1.1 (New)]

1206.6.1.1 Ventilation based upon LFL. *The exhaust ventilation system shall be designed to limit the maximum concentration of flammable gas to 25 percent of the lower flammable limit (LFL) of the total volume of the room, area, or walk-in unit during the worst-case event of simultaneous charging of batteries at the maximum charge rate, in accordance with nationally recognized standards.*

Item: [SFM 04/19-10-155]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.1.2 (New)]

1206.6.1.2 Ventilation based upon exhaust rate. *Mechanical exhaust ventilation shall be provided at a rate of not less than 1 cu. ft. -/min/ft. (5.1 L/sec/m) of floor area of the room, area, or walk-in unit. The ventilation shall be either continuous or shall be activated by a gas detection system in accordance with Section 1206.6.1.2.4.*

Item: [SFM 04/19-10-156]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.1.2.1 (New)]

1206.6.1.2.1 Standby power. *Mechanical exhaust ventilation shall be provided with a minimum of 2 hours of standby power in accordance with Section 1203.2.19.*

Item: [SFM 04/19-10-157]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.1.2.2 (New)]

1206.6.1.2.2 Installation instructions. *Required mechanical exhaust ventilation systems shall be installed in accordance with the manufacturer's installation instructions and the California Mechanical Code.*

Item: [SFM 04/19-10-158]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.1.2.3 (New)]

1206.6.1.2.3 Supervision. *Required mechanical exhaust ventilation systems shall be supervised by an approved central station, proprietary or remote station service in accordance with NFPA 72, or shall initiate an audible and visible signal at an approved constantly attended on-site location.*

Item: [SFM 04/19-10-159]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.1.2.4 (New)]

1206.6.1.2.4 Gas detection system. *Where required by Section 1206.6.1.2, rooms, areas, and walk-in units containing ESS shall be protected by an approved continuous gas detection system that complies with Section 916 and with the following:*

- 1.** *The gas detection system shall be designed to activate the mechanical ventilation system when the level of flammable gas in the room, area, or walk-in unit exceeds 25 percent of the LFL.*
- 2.** *The mechanical ventilation system shall remain on until the flammable gas detected is less than 25 percent of the LFL.*

3. The gas detection system shall be provided with a minimum of 2 hours of standby power in accordance with Section 1203.2.6.
4. Failure of the gas detection system shall annunciate a trouble signal at an approved central station, proprietary or remote station service in accordance with NFPA 72, or shall initiate an audible and visible trouble signal at an approved constantly attended on-site location.

Item: [SFM 04/19-10-160]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.2 (New)]

1206.6.2 Spill control and neutralization. Where required by Table 1206.6 or elsewhere in this code, areas containing free-flowing liquid electrolyte or hazardous materials shall be provided with spill control and neutralization in accordance with this section.

Item: [SFM 04/19-10-161]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.2.1 (New)]

1206.6.2.1 Spill control. Spill control shall be provided to prevent the flow of liquid electrolyte or hazardous materials to adjoining rooms or areas. The method shall be capable of containing a spill from the single largest battery or vessel.

Item: [SFM 04/19-10-162]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.2.2 (New)]

1206.6.2.2 Neutralization. An approved method to neutralize spilled liquid electrolyte shall be provided that is capable of neutralizing a spill from the largest battery or vessel to a pH between 5.0 and 9.0.

Item: [SFM 04/19-10-163]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]
Express Terms:

[Section: 1206.6.2.3 (New)]

1206.6.2.3 Spill control and neutralization for Communication Utilities. *The requirements of Section 1206.6.2 - 1206.6.2.2 shall only apply when the aggregate capacity of multiple vessels exceeds 1,000 gallons (3785 L) for lead-acid and nickel-cadmium battery systems operating at less than 50 VAC and 60 VDC at facilities under the exclusive control of communications utilities and those facilities that comply with NFPA 76 in addition to applicable requirements of this code.*

Item: [SFM 04/19-10-164]
Chapter: [12, ENERGY SYSTEMS]
Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]
Express Terms:

[Section: 1206.6.3 (New)]

1206.6.3 Explosion control. *Where required by Table 1206.6 or elsewhere in this code, explosion control complying with Section 911 shall be provided for rooms, areas or walk-in units containing electrochemical ESS technologies.*

Exceptions:

- 1.** *Where approved, explosion control is permitted to be waived by the fire code official based on large-scale fire testing complying with Section 1206.1.5 which demonstrates that flammable gases are not liberated from electrochemical ESS cells or modules where tested in accordance with UL 9540A.*
- 2.** *Where approved, explosion control is permitted to be waived by the fire code official based on documentation provided in accordance with Section 104.7 that demonstrates that the electrochemical ESS technology to be used does not have the potential to release flammable gas concentrations in excess of 25 percent of the LFL anywhere in the room, area, walk-in unit or structure under thermal runaway or other fault conditions.*

Item: [SFM 04/19-10-165]
Chapter: [12, ENERGY SYSTEMS]
Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]
Express Terms:

[Section: 1206.6.4 (New)]

1206.6.4 Safety caps. *Where required by Table 1206.6 or elsewhere in this code, vented batteries and other ESS shall be provided with flame-arresting safety caps.*

Item: [SFM 04/19-10-166]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.6.5 (New)]

1206.6.5 Thermal runaway. *Where required by Table 1206.6 or elsewhere in this code, batteries and other ESS shall be provided with a listed device or other approved method to prevent, detect and minimize the impact of thermal runaway.*

Item: [SFM 04/19-10-167]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.7 (New)]

1206.7 Indoor installations. *Indoor ESS installations shall be in accordance with Sections 1206.7.1 through 1206.7.4.*

Item: [SFM 04/19-10-168]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.7.1 (New)]

1206.7.1 Dedicated-use buildings. *For the purpose of Table 1206.7, dedicated-use ESS buildings shall be classified as Group F-1 occupancies and comply with all the following:*

- 1. The building shall only be used for ESS, electrical energy generation, and other electrical grid related operations.*
- 2. Occupants in the rooms and areas containing ESS are limited to personnel that operate, maintain, service, test and repair the ESS and other energy systems.*
- 3. No other occupancy types shall be permitted in the building.*
- 4. Administrative and support personnel shall be permitted in areas within the buildings that do not contain ESS, provided:*

- 4.1. The areas do not occupy more than 10 percent of the building area of the story in which they are located.
- 4.2. A means of egress is provided from the incidental use areas to the public way that does not require occupants to traverse through areas containing ESS or other energy system equipment.

Item: [SFM 04/19-10-169]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.7.2 (New)]

1206.7.2 Non-dedicated-use buildings. For the purpose of Table 1206.7, non-dedicated-use buildings include all buildings that contain ESS and do not comply with Section 1206.7.2 dedicated-use building requirements.

Item: [SFM 04/19-10-170]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.7 (New)]

TABLE 1206.7
INDOOR ESS INSTALLATIONS

<u>COMPLIANCE REQUIRED</u>	<u>DEDICATED-USE BUILDINGS^a</u>	<u>NON-DEDICATED USE-BUILDINGS^b</u>
<u>1206.4 General installation requirements</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.1 Size and separation</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.2 Maximum allowable quantities</u>	<u>No</u>	<u>Yes</u>
<u>1206.5.3 Elevation</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.4 Smoke and automatic fire detection</u>	<u>Yes^{c, e}</u>	<u>Yes</u>
<u>1206.5.5 Fire suppression systems</u>	<u>Yes^d</u>	<u>Yes</u>
<u>1206.6 Technology specific protection</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.7.3 Dwelling units and sleeping units</u>	<u>NA</u>	<u>Yes</u>
<u>1206.7.4 Fire-resistance-rated separations</u>	<u>Yes</u>	<u>Yes</u>

NA = Not allowed.

a. See Section 1206.7.1.

- b. See Section 1206.7.2.
- c. Where approved by the fire code official, alarm signals are not required to be transmitted to a central station, proprietary or remote station service in accordance with NFPA 72, or a constantly attended location where local fire alarm annunciation is provided and trained personnel are always present.
- d. Where approved by the fire code official, fire suppression systems are permitted to be omitted in dedicated use buildings located more than 100 feet (30.5 M) from buildings, lot lines, public ways, stored combustible materials, hazardous materials, high-piled stock and other exposure hazards.
- e. Lead-acid and nickel-cadmium battery systems installed in Group U buildings and structures less than 1500 ft. (140 m) under the exclusive control of communications utilities, and operating at less than 50 VAC and 60 VDC in accordance with NFPA 76 are not required to have an approved automatic smoke or fire detection system.

Item: [SFM 04/19-10-171]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.7.3 (New)]

1206.7.3 Dwelling units and sleeping units. ESS shall not be installed in sleeping rooms, closets, spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.

Item: [SFM 04/19-10-172]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.7.4 (New)]

1206.7.4 Fire-resistance rated separations. Rooms and areas containing ESS shall include fire-resistance rated separations as follows:

1. In dedicated-use buildings, rooms and areas containing ESS shall be separated from areas in which administrative and support personnel are located.
2. In non-dedicated-use buildings, rooms and areas containing ESS shall be separated from other areas in the building.

Separation shall be provided by 2 hour rated fire barriers constructed in accordance with Section 707 of the California Building Code and 2 hour rated horizontal assemblies

constructed in accordance with Section 711 of the California Building Code, as appropriate.

Item: [SFM 04/19-10-173]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.8 (New)]

1206.8 Outdoor installations. Outdoor installations shall be in accordance with Sections 1206.8.1 through 1206.8.3. Exterior wall installations for individual ESS units not exceeding 20 KWh shall be in accordance with Section 1206.8.4.

Item: [SFM 04/19-10-174]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.8.1 (New)]

1206.8.1 Remote outdoor installations. For the purpose of Table 1206.8, remote outdoor installations include ESS located more than 100 feet (30.5 M) from buildings, lot lines, public ways, stored combustible materials, hazardous materials, high-piled stock and other exposure hazards.

Item: [SFM 04/19-10-175]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.8.2 (New)]

1206.8.2 Installations near exposures. For the purpose of Table 1206.8, installations near exposures include all outdoor ESS installations that do not comply with Section 1206.8.1 remote outdoor location requirements.

Item: [SFM 04/19-10-176]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.8 (New)]

TABLE 1206.8
OUTDOOR ESS INSTALLATIONS

<u>COMPLIANCE REQUIRED</u>	<u>REMOTE INSTALLATIONS ^a</u>	<u>INSTALLATIONS NEAR EXPOSURES ^b</u>
<u>1206.4 All ESS installations</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.1 Size and separation</u>	<u>No</u>	<u>Yes ^c</u>
<u>1206.5.2 Maximum allowable quantities</u>	<u>No</u>	<u>Yes</u>
<u>1206.5.4 Smoke and automatic fire detection</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.5 Fire suppression systems</u>	<u>Yes ^d</u>	<u>Yes</u>
<u>1206.5.6 Maximum enclosure size</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.7 Vegetation control</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.8 Means of egress separation</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.6 Technology specific protection</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.8.3 Clearance to exposures</u>	<u>Yes</u>	<u>Yes</u>

- a. See Section 1206.8.1.
- b. See Section 1206.8.2.
- c. In outdoor walk-in units, spacing is not required between ESS units and the walls of the enclosure.
- d. Where approved by the fire code official, fire suppression systems are permitted to be omitted.

Item: [SFM 04/19-10-177]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.8.3 (New)]

1206.8.3 Clearance to exposures. *ESS located outdoors shall be separated by a minimum ten feet (3048 mm) from the following exposures:*

1. Lot lines
2. Public ways
3. Buildings
4. Stored combustible materials
5. Hazardous materials

6. High-piled stock

7. Other exposure hazards

Exceptions:

1. Clearances are permitted to be reduced to 3 feet (914 mm) where a 1 hour free standing fire barrier, suitable for exterior use, and extending 5 feet (1.5 m) above and extending 5 feet (1.5 m) beyond the physical boundary of the ESS installation is provided to protect the exposure.
2. Clearances to buildings are permitted to be reduced to 3 feet (914 mm) where noncombustible exterior walls with no openings or combustible overhangs are provided on the wall adjacent to the ESS and the fire-resistance rating of the exterior wall is a minimum of 2 hours.
3. Clearances to buildings are permitted to be reduced to 3 feet (914.4 mm) where a weatherproof enclosure constructed of noncombustible materials is provided over the ESS, and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure based on large-scale fire testing complying with Section 1206.1.5.

Item: [SFM 04/19-10-178]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.8.4 (New)]

1206.8.4 Exterior wall installations. ESS shall be permitted to be installed outdoors on exterior walls of buildings when all the following conditions are met:

1. The maximum energy capacity of individual ESS units shall not exceed 20 kWh.
2. The ESS shall comply with applicable requirements in Section 1206.
3. The ESS shall be installed in accordance with the manufacturer's instructions and their listing.
4. Individual ESS units shall be separated from each other by at least 3 feet (914 mm).

5. The ESS shall be separated from doors, windows, operable openings into buildings, or HVAC inlets by at least 5 feet (1524 mm).

Exception: *Where approved, smaller separation distances in items 4 and 5 shall be permitted based on large-scale fire testing complying with Section 1206.1.5.*

Item: [SFM 04/19-10-179]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.9 (New)]

1206.9 Special installations. *Rooftop and open parking garage ESS installations shall comply with Sections 1206.9.1 through 1206.9.6.*

Item: [SFM 04/19-10-180]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.9.1 (New)]

1206.9.1 Rooftop installations. *For the purpose of Table 1206.9, rooftop ESS installations are those located on the roofs of buildings.*

Item: [SFM 04/19-10-181]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.9.2 (New)]

1206.9.2 Open parking garage installations. *For the purpose of Table 1206.9, open parking garage ESS installations are those located in a structure or portion of a structure that complies with Section 406.5 of the California Building Code.*

Item: [SFM 04/19-10-182]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.9 (New)]

TABLE 1206.9
SPECIAL ESS INSTALLATIONS

<u>COMPLIANCE REQUIRED</u>	<u>ROOFTOPS^a</u>	<u>OPEN PARKING GARAGES^b</u>
<u>1206.4 All ESS installations</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.1 Size and separation</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.2 Maximum allowable quantities</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.4 Smoke and automatic fire detection</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.6 Maximum enclosure size</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.5.8 Means of egress separation</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.9.3 Clearance to exposures</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.6 Technology specific protection</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.9.4 Fire suppression systems</u>	<u>Yes</u>	<u>Yes</u>
<u>1206.9.5 Rooftop installations</u>	<u>Yes</u>	<u>No</u>
<u>1206.9.6 Open parking garage installations</u>	<u>No</u>	<u>Yes</u>

a. See Section 1206.9.1.

b. See Section 1206.9.2.

Item: [SFM 04/19-10-183]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.9.3 (New)]

1206.9.3 Clearance to exposures. *ESS located on rooftops and in open parking garages shall be separated by a minimum ten feet (3048 mm) from the following exposures:*

1. Buildings, except the building on which rooftop ESS is mounted
2. Any portion of the building on which a rooftop system is mounted that is elevated above the rooftop on which the system is installed
3. Lot lines
4. Public ways
5. Stored combustible materials
6. Locations where motor vehicles can be parked
7. Hazardous materials

8. Other exposure hazards

Exceptions:

1. Clearances are permitted to be reduced to 3 feet (914 mm) where a 1 hour free standing fire barrier, suitable for exterior use, and extending 5 feet (1.5 m) above and extending 5 feet (1.5 m) beyond the physical boundary of the ESS installation is provided to protect the exposure.
2. Clearances are permitted to be reduced to 3 feet (914.4 mm) where a weatherproof enclosure constructed of noncombustible materials is provided over the ESS and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure based on large-scale fire testing complying with Section 1206.1.5.

Item: [SFM 04/19-10-184]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.9.4 (New)]

1206.9.4 Fire suppression systems. ESS located in walk-in units on rooftops or in walk-in units in open parking garages shall be provided with automatic fire suppression systems within the ESS enclosure in accordance with Section 1206.5.5. Areas containing ESS other than walk-in units in open parking structures on levels not open above to the sky shall be provided with an automatic fire suppression system complying with Section 1206.5.5.

Exception: A fire suppression system is not required in open parking garages if large-scale fire testing complying with Section 1206.1.5 is provided that shows that a fire will not impact the exposures in Section 1206.9.3.

Item: [SFM 04/19-10-185]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.9.5 (New)]

1206.9.5 Rooftop installations. ESS and associated equipment that are located on rooftops and not enclosed by building construction shall comply with the following:

1. Stairway access to the roof for emergency response and fire department personnel shall be provided either through a bulkhead from the interior of the building or a stairway on the exterior of the building.
2. Service walkways at least 5 feet (1524 mm) in width shall be provided for service and emergency personnel from the point of access to the roof, to the system itself.
3. ESS and associated equipment shall be located from the edge of the roof a distance equal to at least the height of the system, equipment, or component but not less than 5 feet (1.5 m).
4. The roofing materials under and within 5 feet (1524 mm) horizontally from an ESS or associated equipment shall be noncombustible or shall have a Class A rating when tested in accordance with ASTM E108 or UL 790.
5. A Class I standpipe outlet shall be installed at an approved location on the roof level of the building or in the stairway bulkhead at the top level.
6. The ESS shall be the minimum of 10 feet from the fire service access point on the roof top.

Item: [SFM 04/19-10-186]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.9.6 (New)]

1206.9.6 Open parking garages. ESS and associated equipment that are located in open parking garages shall comply with all the following:

1. ESS shall not be located within 50 feet (15,240 mm) of air inlets for building HVAC systems.

Exception: This distance shall be permitted to be reduced to 25 feet (7.620 mm) if the automatic fire alarm system monitoring the radiant-energy sensing detectors de-energizes the ventilation system connected to the air intakes upon detection of fire.

2. ESS shall not be located within 25 feet (7620 mm) of exits leading from the attached building where located on a covered level of the parking structure not directly open to the sky above.

3. An approved fence with a locked gate or other approved barrier shall be provided to keep the general public at least 5 feet (1524 mm) from the outer enclosure of the ESS.

Item: [SFM 04/19-10-187]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10 (New)]

1206.10 Mobile ESS equipment and operations. Mobile ESS equipment and operations shall comply with Sections 1206.10.1 through 1206.10.7.7

Item: [SFM 04/19-10-188]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.1 (New)]

1206.10.1 Charging and storage. For the purpose of Section 1206.10, charging and storage covers the operation where mobile ESS are charged and stored so they are ready for deployment to another site, and where they are charged and stored after a deployment.

Item: [SFM 04/19-10-189]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.2 (New)]

1206.10.2 Deployment. For the purpose of Section 1206.10, deployment covers operations where mobile ESS are located at a site other than the charging and storage site and are being used to provide power.

Item: [SFM 04/19-10-190]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.3 (New)]

1206.10.3 Permits. Construction and operational permits shall be provided for charging and storage of mobile ESS and operational permits shall be provided for deployment of mobile ESS as required by Section 1206.1.2.

Item: [SFM 04/19-10-191]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.4 (New)]

1206.10.4 Construction documents. *Construction documents complying with Section 1206.3 shall be provided with the construction permit application for mobile ESS charging and storage locations.*

Item: [SFM 04/19-10-192]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.4.1 (New)]

1206.10.4.1 Deployment documents. *The following information shall be provided with the operation permit applications for mobile ESS deployments:*

- 1. Relevant information for the mobile ESS equipment and protection measures in the construction documents required by Section 1206.1.3.*
- 2. Location and layout diagram of the area in which the mobile ESS is to be deployed, including a scale diagram of all nearby exposures.*
- 3. Location and content of signage, including no smoking signs.*
- 4. Description of fencing to be provided around the ESS, including locking methods.*
- 5. Details on fire suppression, smoke and automatic fire detection, system monitoring, thermal management, exhaust ventilation, and explosion control, if provided.*
- 6. For deployment, the intended duration of operation, including anticipated connection and disconnection times and dates.*
- 7. Location and description of local staging stops during transit to the deployment site. See Section 1206.10.8.5.*
- 8. Description of the temporary wiring, including connection methods, conductor type and size, and circuit overcurrent protection to be provided.*
- 9. Description of how fire suppression system connections to water supplies or extinguishing agents are to be provided.*

10. Contact information for personnel who are responsible for maintaining and servicing the equipment, and responding to emergencies as required by Section 1206.1.6.1.

Item: [SFM 04/19-10-193]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.5 (New)]

1206.10.5 Approved locations. Locations where mobile ESS are charged, stored and deployed shall be restricted to the locations established on the construction and operational permits.

Item: [SFM 04/19-10-194]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.6 (New)]

1206.10.6 Charging and storage. Installations where mobile ESS are charged and stored shall be treated as permanent ESS indoor or outdoor installations, and shall comply with the following sections, as applicable:

1. Indoor charging and storage shall comply with Section 1206.7.
2. Outdoor charging and storage shall comply with Section 1206.8.
3. Charging and storage on rooftops and in open parking garages shall comply with Section 1206.9.

Exceptions:

1. Electrical connections shall be permitted to be made using temporary wiring complying with the manufacturer's instructions, the UL 9540 listing, and the California Electrical Code.
2. Fire suppression system connections to the water supply shall be permitted to use approved temporary connections.

Item: [SFM 04/19-10-195]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7 (New)]

1206.10.7 Deployed mobile ESS requirements. *Deployed mobile ESS equipment and operations shall comply with this section and Table 1206.10.*

Item: [SFM 04/19-10-196]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7.1 (New)]

1206.10.7.1 Duration. *The duration of mobile ESS deployment shall not exceed 30 days.*

Exceptions:

- 1.** *Mobile ESS deployments that provide power for durations longer than 30 days shall comply with Section 1206.10.7.*
- 2.** *Mobile ESS deployments shall not exceed 180 days unless additional operational permits are obtained.*

Item: [SFM 04/19-10-197]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7.2 (New)]

1206.10.7.2 Restricted locations. *Deployed mobile ESS operations shall not be located indoors, in covered parking garages, on rooftops, below grade, or under building overhangs.*

Item: [SFM 04/19-10-198]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7.3 (New)]

1206.10.7.3 Clearance to exposures. *Deployed mobile ESS shall be separated by a minimum 10 feet (3048 mm) from the following exposures:*

- 1. Public ways**

2. Buildings
3. Stored combustible materials
4. Hazardous materials
5. High-piled stock
6. Other exposure hazards

Deployed mobile ESS shall be separated by a minimum 50 feet (15.3 M) from public seating areas and from tents, canopies and membrane structures with an occupant load of 30 or more.

Item: [SFM 04/19-10-199]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7.4 (New)]

1206.10.7.4 Electrical connections. Electrical connections shall be made in accordance with the manufacturer's instructions and the UL 9540 listing. Temporary wiring for electrical power connections shall comply with the California Electrical Code. Fixed electrical wiring shall not be provided.

Item: [SFM 04/19-10-200]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7.5 (New)]

1206.10.7.5 Local staging. Mobile ESS in transit from the charging and storage location to the deployment location and back shall not be parked within 100 feet (30,480 mm) of an occupied building for more than 1 hour during transit, unless specifically approved by the fire code official when the permit is issued.

Item: [SFM 04/19-10-201]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7.6 (New)]

1206.10.7.6 Fencing. *An approved fence with a locked gate or other approved barrier shall be provided to keep the general public at least 5 feet (1524 mm) from the outer enclosure of a deployed mobile ESS.*

Item: [SFM 04/19-10-202]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.10.7.7 (New)]

1206.10.7.7 Smoking. *Smoking shall be prohibited within 10 feet (3048 mm) of mobile ESS. Signs shall be posted in accordance with Section 310.*

Item: [SFM 04/19-10-203]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: TABLE 1206.10 (New)]

TABLE 1206.10
MOBILE ENERGY STORAGE SYSTEMS (ESS)

<u>COMPLIANCE REQUIRED</u>	<u>COMPLIANCE REQUIRED^a</u>
<u>1206.4 All ESS installations</u>	<u>Yes^b</u>
<u>1206.5.1 Size and separation</u>	<u>Yes^c</u>
<u>1206.5.2 Maximum allowable quantities</u>	<u>Yes</u>
<u>1206.5.4 Smoke and automatic fire detection</u>	<u>Yes^e</u>
<u>1206.5.5 Fire suppression systems</u>	<u>Yes^d</u>
<u>1206.5.6 Maximum enclosure size</u>	<u>Yes</u>
<u>1206.5.7 Vegetation control</u>	<u>Yes</u>
<u>1206.5.8 Means of egress separation</u>	<u>Yes</u>
<u>1206.6 Technology specific protection</u>	<u>Yes</u>

a. See Section 1206.10.2.

b. Mobile operations on wheeled vehicle or trailers shall not be required to comply with Section 1206.4.4 seismic and structural load requirements.

c. In walk-in units, spacing is not required between ESS units and the walls of the enclosure.

- d. Fire suppression system connections to the water supply shall be permitted to use approved temporary connections.
- e. Alarm signals are not required to be transmitted to an approved location for mobile ESS deployed 30 days or less.

Item: [SFM 04/19-10-204]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11 (New)]

1206.11 ESS in Group R-3 and R-4 Occupancies. Energy Storage Systems (ESS) in Group R-3 and R-4 occupancies shall be installed and maintained in accordance with Sections 1206.11.1 through 1206.11.910. The temporary use of an owner or occupant's electric powered vehicle as an ESS shall be in accordance with Section 1206.4.10.

Exceptions:

1. ESS listed and labeled in accordance with UL 9540 and marked "For use in residential dwelling units", where installed in accordance with the manufacturer's instructions and California Electrical Code.
2. ESS less than 1kWH (3.6megajoules).

Item: [SFM 04/19-10-205]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.1 (New)]

1206.11.1 Equipment listings. ESS shall be listed and labeled use in accordance with UL 9540. ESS listed and labeled solely for utility or commercial use shall not be used for residential applications.

Exception:

Where approved, repurposed unlisted battery systems from electric vehicles are allowed to be installed outdoors or in detached dedicated cabinets located not less than 5 feet (1524 mm) from exterior walls, property lines and public ways.

Item: [SFM 04/19-10-206]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.2 (New)]

1206.11.2 Installation. *ESS shall be installed in accordance with the manufacturer's instructions and their listing.*

Item: [SFM 04/19-10-207]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.2.1 (New)]

1206.11.2.1 Spacing. *Individual units shall be separated from each other by at least 3 feet (914 mm) except where smaller separation distances are documented to be adequate based on large-scale fire testing complying with Section 1206.1.5.*

Item: [SFM 04/19-10-208]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.3 (New)]

1206.11.3 Locations. *ESS shall be installed only in the following locations:*

- 1. Detached garages and detached accessory structures.*
- 2. Attached garages separated from the dwelling unit living space in accordance with Section R302.6.*
- 3. Outdoors or on the exterior side of exterior walls located not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit.*
- 4. Enclosed utility closets, basements, storage or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8-inch Type X gypsum wallboard.*

ESS shall not be installed in sleeping rooms, closets, spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.

Item: [SFM 04/19-10-209]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.4 (New)]

1206.11.4 Energy ratings. *Individual ESS units shall have a maximum rating of 20 KWh. The aggregate rating structure shall not exceed:*

- 1. 40 kWh within utility closets and storage or utility spaces.*
- 2. 80 kWh in attached or detached garages and detached accessory structures.*
- 3. 80 kWh on exterior walls.*
- 4. 80 kWh outdoors on the ground.*

ESS installations exceeding the permitted individual or aggregate ratings shall be installed in accordance with Sections 1206.1 through 1206.9 of the California Fire Code.

Item: [SFM 04/19-10-210]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.5 (New)]

1206.11.5 Electrical installation. *ESS shall be installed in accordance with the California Electrical Code. Inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems connected to the utility grid shall use inverters listed for utility interaction.*

Item: [SFM 04/19-10-211]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.6 (New)]

1206.11.6 Fire detection. *Rooms and areas within dwelling units, basements, and attached garages in which ESS are installed shall be protected by smoke alarms in accordance with Section R314. A listed heat detector, shall be installed in locations within dwelling units and attached garages where smoke alarms cannot be installed based on their listing.*

Item: [SFM 04/19-10-212]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.7 (New)]

1206.11.7 Protection from impact. *ESS installed in a location subject to vehicle damage shall be protected by approved barriers. Appliances in garages shall also be installed in accordance with Section 304.3 of the California Mechanical Code.*

Item: [SFM 04/19-10-213]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.8 (New)]

1206.11.8 Ventilation. *Indoor installations of ESS that include batteries that produce hydrogen or other flammable gases during charging shall be provided with mechanical ventilation in accordance with Section 1206.6.1 and the California Mechanical Code.*

Item: [SFM 04/19-10-214]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.9 (New)]

1206.11.9 Toxic and highly toxic gas. *ESS that have the potential to release toxic or highly toxic gas during charging, discharging and normal use conditions shall not be installed within Group R-3 or R-4 occupancies.*

Item: [SFM 04/19-10-215]

Chapter: [12, ENERGY SYSTEMS]

Section: [1206, ELECTRICAL ENERGY STORAGE SYSTEMS]

Express Terms:

[Section: 1206.11.10 (New)]

1206.11.10 Electric vehicle use. *The temporary use of an owner or occupant's electric powered vehicle to power a dwelling unit while parked in an attached or detached garage or outdoors shall comply with the vehicle manufacturer's instructions and the California Electrical Code.*

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3,

1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New),

1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New),
1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76
(New), UL 1974 (New, UL 9540A (New)

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,
1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114,
13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211,
17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education
Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211,
18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178,
51179, Public Resources Code Sections 4201-4204

**CHAPTER 22
COMBUSTIBLE DUST-PRODUCING OPERATIONS**

**SECTION 2204
ADDITIONAL REQUIREMENTS**

Item: [SFM 04/19-11-1]

Chapter: [22, COMBUSTIBLE DUST-PRODUCING OPERATIONS]

Section: [2204, ADDITIONAL REQUIREMENTS]

Express Terms:

[Section: TABLE 2204.1]

**TABLE 2204.1
SPECIFIC HAZARDS STANDARDS**

STANDARD	SUBJECT
<u>NFPA 68</u>	<u>Standard on Explosion Protection by Deflagration Venting</u>

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6,
907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3,
1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1,
1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New),
1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3
(New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New),
TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New),
1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete),
1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete),
1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete),

1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211,

17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

CHAPTER 31 TENTS, TEMPORARY SPECIAL EVENT STRUCTURES AND OTHER MEMBRANE STRUCTURES

SECTION 3103 TEMPORARY TENTS AND MEMBRANE STRUCTURES

Item: [SFM 04/19-12-1]

Chapter: [31, TENTS, TEMPORARY SPECIAL EVENT STRUCTURES AND OTHER MEMBRANE STRUCTURES]

Section: [3103, TEMPORARY TENTS AND MEMBRANE STRUCTURES]

Express Terms:

[Section: 3103.3.1]

3103.3.1 Special amusement building area. Tents and other membrane structures erected as a special amusement building area shall be equipped with an automatic sprinkler system in accordance with Section 411.3 of the California Building Code.

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1, 914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

SECTION 3308 OWNER'S RESPONSIBILITY

FOR FIRE PROTECTION

Item: [SFM 04/19-13-1]

Chapter: [33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION]

Section: [3308, OWNER'S RESPONSIBILITY FOR FIRE PROTECTION]

Express Terms:

[Section: 3308.9 (New)]

3308.9 Fire safety requirements for buildings of Types IV-A, IV-B, and IV-C construction. *Buildings of Types IV-A, IV-B, and IV-C construction designed to be greater than six stories above grade plane shall comply with the following requirements during construction unless otherwise approved by the fire code official.*

1. Standpipes shall be provided in accordance with Section 3313.
2. A water supply for fire department operations, as approved by the fire code official and the fire chief.
3. Where building construction exceeds six stories above grade plane, at least one layer of noncombustible protection where required by Section 602.4 of the California Building Code shall be installed on all building elements more than 4 floor levels, including mezzanines, below active mass timber construction before erecting additional floor levels.

Exception: *Shafts and vertical exit enclosures shall not be considered a part of the active mass timber construction.*

4. Where building construction exceeds six stories above grade plane required exterior wall coverings shall be installed on all floor levels more than 4 floor levels, including mezzanines, below active mass timber construction before erecting additional floor level.

Exception: *Shafts and vertical exit enclosures shall not be considered a part of the active mass timber construction.*

[TALL WOOD AND HEAVY TIMBER 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

701.6, 914.3.1.2, 3308.9

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

CHAPTER 50 HAZARDOUS MATERIALS—GENERAL PROVISIONS

SECTION 5003 GENERAL REQUIREMENTS

Item: [SFM 04/19-14-1]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.2]

5003.10.2 Carts and trucks required. Liquids in containers exceeding 5.28 gal (20 liters) ~~5 gallons (19 L)~~ in an elevator, a corridor or enclosure for a stairway or ramp shall be transported on a cart or truck. Containers of hazardous materials having a hazard ranking of 3 or 4 in accordance with NFPA 704 and transported within an elevator, corridors or interior exit stairways and ramps, shall be on a cart or truck. Where carts and trucks are required for transporting hazardous materials, they shall be in accordance with Section 5003.10.3. *Exceptions 1 through 4 shall not apply where elevators are utilized.*

Exceptions: (existing text remain unchanged)

Item: [SFM 04/19-14-2]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.4.1.1 (New)]

5003.10.4 Elevators utilized to transport hazardous materials.

5003.10.4.1. *When transporting hazardous materials, elevators shall have no other passengers other than the individual(s) handling the chemical transport cart.*

5003.10.4.1.1 When transporting cryogenic or liquefied compressed gasses [Misspelling. Spelling correction during August 13 Commission meeting] gases, there shall be no occupants in the elevator.

5003.10.4.2 *Hazardous materials liquid containers shall have a maximum capacity of 20 liters (5.28 gal).*

5003.10.4.3 *Toxic and highly-toxic gases shall be limited to a container of a maximum water capacity of 1 pound.*

Item: [SFM 04/19-14-3]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.4.4]

5003.10.4.4 *When transporting cryogenic or liquefied compressed ~~gasses~~ [Misspelling. Spelling correction during August 13 Commission meeting] gases, ~~A~~means shall be provided to prevent the elevator from being summoned to other floors.*

Item: [SFM 04/19-14-4]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5 (New)]

5003.10.5 *Elevators or conveyance systems utilized to transport hazardous materials in excess of the quantities listed in section 5003.10.4 shall comply with sections 5003.10.5.1 thru 5003.10.5.6.*

Item: [SFM 04/19-14-5]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.1 (New)]

5003.10.5.1 *Elevators or conveyance hoist-way enclosures shall be located in a shaft constructed in accordance with Section 713 of the California Building Code.*

Item: [SFM 04/19-14-6]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.2 (New)]

5003.10.5.2 *Elevators shall have no other passengers other than the individual handling the chemical transport and shall comply with the requirements of Section 5003.10.4.*

Item: [SFM 04/19-14-7]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.2.1 (New)]

5003.10.5.2.1 When transporting cryogenic or liquefied compressed gasses [Misspelling. Spelling correction during August 13 Commission meeting] gases, there shall be no occupants in the elevator.

Item: [SFM 04/19-14-8]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.3 (New)]

5003.10.5.3 Spill containment shall be provided for all transported liquids.

Item: [SFM 04/19-14-9]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.4 (New)]

5003.10.5.4 Ventilation shall be provided in the elevator shaft in accordance with Section 5004.3.1.

Item: [SFM 04/19-14-10]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.5 (New)]

5003.10.5.5 Signage shall be provided on all floors adjacent to each elevator call station to indicate the elevator is designated for hazardous materials transportation.

Item: [SFM 04/19-14-11]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.6 (New)]

5003.10.5.6 Use of an elevator or conveyance system described in this section shall be restricted to personnel that have been properly trained.

Item: [SFM 04/19-14-12]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.5.7 (New)]

5003.10.5.7 Means shall be provided to prevent the elevator from being summoned to other floors.

Item: [SFM 04/19-14-13]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.6 (New)]

5003.10.6 Posted Sequence of Operation. A documented sequence of operation shall be submitted to the Authority Having Jurisdiction for review and approval prior to the transportation of hazardous materials in elevators or conveyance systems described in Section 5003.10.5.

Item: [SFM 04/19-14-14]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.6.1 (New)]

5003.10.6.1 The approved sequence of operations shall be posted in the elevator car or conveyance system.

Item: [SFM 04/19-14-15]

Chapter: [50, HAZARDOUS MATERIALS-GENERAL PROVISIONS]

Section: [5003, GENERAL REQUIREMENTS]

Express Terms:

[Section: 5003.10.6.2 (New)]

5003.10.6.2 The approved sequence of operation shall be maintained, and tested upon the request of the Authority having Jurisdiction.

[L OCCUPANCY WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

1020.5, Section Title 1116, 1116.7, 5003.10.2, 5003.10.4.1.1 (New), 5003.10.4.4, 5003.10.5 (New), 5003.10.5.1 (New), 5003.10.5.2 (New), 5003.10.5.2.1 (New), 5003.10.5.3 (New), 5003.10.5.4 (New), 5003.10.5.5 (New), 5003.10.5.6 (New), 5003.10.5.7 (New), 5003.10.6 (New), 5003.10.6.1 (New), 5003.10.6.2 (New)

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**CHAPTER 80
REFERENCED STANDARDS**

Item: [SFM 04/19-15-0]

Chapter: [80, REFERENCED STANDARDS]

Section: [ANSI/APA]

Express Terms:

[Section: ANSI/APA PRG 320]

APA

ANSI/APA PRG 320-18: Standard for Performance-rated Cross Laminated Timber

Item: [SFM 04/19-15-1]

Chapter: [80, REFERENCED STANDARDS]

Section: [ASME]

Express Terms:

[Section: ASME/A17.1]

ASME

ASME/A17.1—2016/CSA B44—16 the edition as referenced in: Safety Code for Elevators and Escalators, California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders

907.3.3, 911.1.6, 1009.4.1, 11B-407.1, 11B-407.1.1, 11B-407.4.9, 11B-408.1, 11B-409.1, 11B-411.1, 11B-810.9, 1607.10.1, 3001.2, Table 3001.3, 3001.4, 3001.5, 3002.5, 3003.2, 3007.1, 3008.1.4, 3008.7.1

[ELEVATOR WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

606.2, 606.2.4, 606.2.5 (New), 606.8.6 (New), 606.8.6.1 (New), 606.8.6.2 (New), 606.8.6.3 (New), 606.8.6.4 (New), 1103.3, 1103.3.1, 1103.3.2, 1103.3.3 (New), [Chapter 80] ASME A17.1/CSA B44, ASME A17.3, [NFPA 13-16] 8.15.5.1, 815.5.2, 8.15.5.3, 815.5.7.1, 8.15.5.7.2, [Appendix K] K104.3.1, K104.3.2, K105

Item: [SFM 04/19-15-2]

Chapter: [80, REFERENCED STANDARDS]

Section: [ASTM]

Express Terms:

[Section: ASTM D3498-03]

ASTM

D3498-03(2011): Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems

[TALL WOOD AND HEAVY TIMBER 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

701.6, 914.3.1.2, 3308.9

Item: [SFM 04/19-15-3]

Chapter: [80, REFERENCED STANDARDS]

Section: [CALIFORNIA CODE OF REGULATIONS]

Express Terms:

[Section: CCR Title 8]

California Code of Regulations

A17.3—2015: Safety Code for Existing Elevators and Escalators—California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders

1103.3.1, 1103.3.2

[ELEVATOR WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

606.1.1 (New), 606.2, 606.2.4, 606.2.5 (New), 606.8.6 (New), 606.8.6.1 (New), 606.8.6.2 (New), 606.8.6.3 (New), 606.8.6.4 (New), 1103.3, 1103.3.1, 1103.3.2, 1103.3.3 (New), [Chapter 80] ASME A17.1/CSA B44, ASME A17.3, [NFPA 13-

16] 8.15.5.1, 815.5.2, 8.15.5.3, 815.5.7.1, 8.15.5.7.2, [Appendix K] K104.3.1, K104.3.2, K105

Item: [SFM 04/19-15-4]

Chapter: [80, REFERENCED STANDARDS]

Section: [ASME]

Express Terms:

[Section: ASME A17.1]

CSA

ASME A17.1—2016/CSA B44—16 the edition as referenced in: Safety Code for Elevators and Escalators, California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders

907.3.3, 911.1.6, 1009.4.1, 1607.10.1, 3001.2, Table 3001.3, 3001.5, 3002.5, 3003.2, 3007.1, 3008.1.4, 3008.7.1

[ELEVATOR WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

606.2, 606.2.4, 606.2.5 (New), 606.8.6 (New), 606.8.6.1 (New), 606.8.6.2 (New), 606.8.6.3 (New), 606.8.6.4 (New), 1103.3, 1103.3.1, 1103.3.2, 1103.3.3 (New), [Chapter 80] ASME A17.1/CSA B44, ASME A17.3, [NFPA 13-16] 8.15.5.1, 815.5.2, 8.15.5.3, 815.5.7.1, 8.15.5.7.2, [Appendix K] K104.3.1, K104.3.2, K105

Item: [SFM 04/19-15-5]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA 02-20]

NFPA

02—1620: Hydrogen Technologies Code

Item: [SFM 04/19-15-6]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA13-16]

13—16: Standard for Installation of Sprinkler Systems as amended*

712.1.3.1, 903.3.1.1, 903.3.2, 903.3.8.2, 903.3.8.5, 904.12, 905.3.4, 907.6.4, 1019.3

***NFPA 13, Amended Sections as follows:**

[Delete language to section 8.15.5.1 and reserve section number]

Item: [SFM 04/19-15-7]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA13-16, 8.15.5.1]

~~**8.15.5.1* Reserved.** Sidewall spray sprinklers shall be installed at the bottom of each elevator hoistway not more than 2 ft (600 mm) above the floor of the pit.~~

[Delete language to section 8.15.5.2 and reserve section number]

Item: [SFM 04/19-15-8]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA13-16, 8.15.5.2]

~~**8.15.5.2 Reserved.** The sprinkler required at the bottom of the elevator hoistway by 8.15.5.1 shall not be required for enclosed, noncombustible elevator shafts that do not contain combustible hydraulic fluids.~~

[Delete California Amendment to 8.15.5.3]

Item: [SFM 04/19-15-9]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA13-16, 8.15.5.3]

~~**8.15.5.3 Automatic sprinkler system.** Automatic sprinklers shall not be required to be installed in the elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator control room where all the following are met:~~

- ~~1. Approved smoke detectors shall be installed and connected to the building fire alarm system in accordance with Section 907 in the area where the fire sprinkler was removed per this section.~~
- ~~2. Activation of any smoke detector located in the elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator~~

~~control room shall cause the actuation of the building fire alarm notification appliances in accordance with 907.~~

- ~~3. Activation of any smoke detector located in the elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator control room shall cause all elevators having any equipment located in that elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator control room to recall nonstop to the appropriate designated floor in accordance with CCR Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders.~~
- ~~4. The elevator machine room, elevator machinery space, elevator control space, or elevator control room shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. The fire-resistance rating shall not be less than the required rating of the hoistway enclosure served by the machinery. Openings in the fire barriers shall be protected with assemblies having a fire protection rating not less than that required for the hoistway enclosure doors. The exceptions to Section 3005.4 shall not apply.~~
- ~~5. The building fire alarm system shall be monitored by an approved supervising station in accordance with 907.~~
- ~~6. An approved sign shall be permanently displayed in the room where the fire sprinkler was removed per this section in a conspicuous location with a minimum of 1½ inch letters on a contrasting background, stating:~~

~~NO COMBUSTIBLE STORAGE
PERMITTED IN THIS ROOM~~

~~By Order of the Fire Marshal [or name of fire authority]~~

[Revise NFPA13-16 section 8.15.5.3 by deleting condition (2) and renumbering the following conditions]

8.15.5.3 Automatic fire sprinklers shall not be required in elevator machine rooms, elevator machinery spaces, control spaces, or hoistways of traction elevators installed in accordance with the applicable provisions in ~~NFPA 101~~ the California Building Code or the applicable building code, where all of the following conditions are met:

- (1) The elevator machine room, machinery space, control room, control space, or hoistway of traction elevator is dedicated to elevator equipment only.
- ~~(2) The elevator machine room, machine room, machinery space, control room, control space, or hoistway of traction elevators are protected by~~

~~smoke detectors, or other automatic fire detection, installed in accordance with NFPA72.~~

(32) The elevator machinery space, control room, control space, or hoistway of traction elevators is separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire resistance rating of not less than that specified by the applicable building code.

(43) No materials unrelated to elevator equipment are permitted to be stored in elevator machine rooms, machinery spaces, control rooms, control spaces, or hoistways of traction elevators.

(54) The elevator machinery is not of the hydraulic type.

Item: [SFM 04/19-15-10]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA13-16, 8.15.5.7.1]

8.15.5.7.1 [PROPOSAL WITHDRAWN]

Item: [SFM 04/19-15-11]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA13-16, 8.15.5.7.2]

8.15.5.7.2 [PROPOSAL WITHDRAWN]

[ELEVATOR WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

606.2, 606.2.4, 606.2.5 (New), 606.8.6 (New), 606.8.6.1 (New), 606.8.6.2 (New), 606.8.6.3 (New), 606.8.6.4 (New), 1103.3, 1103.3.1, 1103.3.2, 1103.3.3 (New), [Chapter 80] ASME A17.1/CSA B44, ASME A17.3, [NFPA 13-16] 8.15.5.1, 8.15.5.2, 8.15.5.3, 8.15.5.7.1, 8.15.5.7.2, [Appendix K] K104.3.1, K104.3.2, K105

Item: [SFM 04/19-15-18]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA 45-15]

~~45—15: Standard on Fire Protection Laboratories Using Chemicals (2015 Edition)~~
~~428.3.7~~

Item: [SFM 04/19-15-12]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA 68-13 (New)]

68—13:

Standard on Explosion Protection by Deflagration Venting

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New),

1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

Item: [SFM 04/19-15-13]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA 76-16 (New)]

76 - 16:

Standard for the Fire Protection of Telecommunications Facilities

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete), 1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete),

1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

Item: [SFM 04/19-15-14]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA 289-18]

289—~~13~~18: Standard Method of Fire Test for Individual Fuel Packages

Item: [SFM 04/19-15-15]

Chapter: [80, REFERENCED STANDARDS]

Section: [NFPA]

Express Terms:

[Section: NFPA 1124-17]

1124—~~06~~17: Code for the Manufacture, Transportation, Storage and Retail Sales of Fireworks and Pyrotechnic Articles

Item: [SFM 04/19-15-16]

Chapter: [80, REFERENCED STANDARDS]

Section: [UL]

Express Terms:

[Section: UL 1974-17 (New)]

1974 -17:

Evaluation for Re-purposing Batteries

Item: [SFM 04/19-15-17]

Chapter: [80, REFERENCED STANDARDS]

Section: [UL]

Express Terms:

[Section: UL 9540, 9540A-17 (New)]

9540-44~~16~~: Outline of Investigation for Energy Storage Systems and Equipment

9540A-17:

Standard for Safety Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems

[ENERGY STORAGE SYSTEMS 2019 INTERVEING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

105.6, 105.6.52 (New), 105.7.2, 105.7.3, 202 (New), TABLE 903.2.11.6, 907.2.22, 907.2.23 (Delete), 911.1, TABLE 911.1, 911.4 (New), 1201.1, 1201.3, 1202.1 (New), 1203.2.6, 1203.2.19, 1205.1, 1205.5, 1205.14 (New), 1206.1, 1206.1.1 (New), 1206.1.2 (New), 1206.1.2.1 (New), TABLE 1206.1 (New), 1206.1.3 (New), 1206.1.4 (New), 1206.1.4.1 (New), 1206.1.4.2 (New), 1206.1.4.3 (New), 1206.1.5 (New), 1206.1.6 (New), 1206.1.6.1 (New), 1206.1.6.2 (New), TABLE 1206.2 (Delete), 1206.2, 1206.2.1, 1206.2.1.1 (New), 1206.2.1.2 (New), 1206.2.2, 1206.2.2.1 (New), 1206.2.3, 1206.2.3.1 (Delete), 1206.2.3.2 (Delete),

1206.2.3.3 (Delete), 1206.2.4 (Delete), 1206.2.5 (Delete), 1206.2.6 (Delete), 1206.2.7 (Delete), 1206.2.8 (Delete), 1206.2.8.1 (Delete), 1206.2.8.2 (Delete), 1206.2.8.3 (Delete), 1206.2.8.4 (Delete), 1206.2.8.5 (Delete), 1206.2.8.5.1 (Delete), 1206.2.8.6 (Delete), 1206.2.8.6.1 (Delete), 1206.2.8.6.2 (Delete), 1206.2.8.7 (Delete), 1206.2.8.7.1 (Delete), 1206.2.8.7.2 (Delete), 1206.2.8.7.3 (Delete), 1206.2.8.7.4 (Delete), TABLE 1206.2.9 (Delete), 1206.2.9 (Delete), 1206.2.9.1 (Delete), 1206.2.10 (Delete), 1206.2.10.1 (Delete), 1206.2.10.2 (Delete), 1206.2.10.3 (Delete), 1206.2.10.4 (Delete), 1206.2.10.5 (Delete), 1206.2.10.6 (Delete), 1206.2.10.7 (Delete), 1206.2.10.8 (Delete), 1206.2.11 (Delete), 1206.2.11.1 (Delete), 1206.2.11.1.1 (Delete), 1206.2.11.2 (Delete), 1206.2.11.3 (Delete), 1206.2.11.3.1 (Delete), 1206.2.11.3.2 (Delete), 1206.2.11.4 (Delete), 1206.2.11.4.1 (Delete), 1206.2.11.5 (Delete), 1206.2.12 (Delete), 1206.2.12.1 (Delete), 1206.2.12.2 (Delete), 1206.2.12.3 (Delete), 1206.2.12.4 (Delete), 1206.2.12.5 (Delete), 1206.2.12.6 (Delete), 1206.3, 1206.3.1, 1206.3.2, 1206.3.2.1 (Delete), 1206.3.2.2 (Delete), 1206.3.2.3 (Delete), 1206.3.2.4 (Delete), 1206.3.2.5 (Delete), 1206.3.2.6 (Delete), 1206.3.2.6.1 (Delete), 1206.3.2.6.2 (Delete), 1206.3.2.6.3 (Delete), 1206.3.2.6.4 (Delete), 1206.3.3, 1206.3.4, 1206.3.4.1 (Delete), 1206.3.4.2 (Delete), 1206.3.4.3 (Delete), 1206.3.4.4 (Delete), 1206.3.4.5 (Delete), 1206.3.5, 1206.3.5.1 (Delete), 1206.3.5.1.1 (Delete), 1206.3.5.2 (Delete), 1206.3.5.3 (Delete), 1206.3.5.3.1 (Delete), 1206.3.5.4 (Delete), 1206.3.6, 1206.3.7 (New), 1206.3.7.1 (New), 1206.3.8 (New), 1206.3.9 (New), 1206.4 (New), 1206.4.1 (New), 1206.4.2 (New), 1206.4.3 (New), 1206.4.4 (New), 1206.4.5 (New), 1206.4.6 (New), 1206.4.7 (New), 1206.4.8 (New), 1206.4.9 (New), 1206.4.10 (New), 1206.4.11 (New), 1206.4.12 (New), 1206.5 (New), 1206.5.1 (New), 1206.5.2 (New), 1206.5.2.1 (New), TABLE 1206.5 (New), 1206.5.3 (New), 1206.5.4 (New), 1206.5.4.1 (New), 1206.5.5 (New), 1206.5.5.1 (New), 1206.5.6 (New), 1206.5.7 (New), 1206.5.8 (New), 1206.6 (New), TABLE 1206.6 (New), 1206.6.1 (New), 1206.6.1.1 (New), 1206.6.1.2 (New), 1206.6.1.2.1 (New), 1206.6.1.2.2 (New), 1206.6.1.2.3 (New), 1206.6.1.2.4 (New), 1206.6.2 (New), 1206.6.2.1 (New), 1206.6.2.2 (New), 1206.6.2.3 (New), 1206.6.3 (New), 1206.6.4 (New), 1206.6.5 (New), 1206.7 (New), 1206.7.1 (New), 1206.7.2 (New), TABLE 1206.7 (New), 1206.7.3 (New), 1206.7.4 (New), 1206.8 (New), 1206.8.1 (New), 1206.8.2 (New), TABLE 1206.8 (New), 1206.8.3 (New), 1206.8.4 (New), 1206.9 (New), 1206.9.1 (New), 1206.9.2 (New), TABLE 1206.9 (New), 1206.9.3 (New), 1206.9.4 (New), 1206.9.5 (New), 1206.9.6 (New), 1206.10 (New), 1206.10.1 (New), 1206.10.2 (New), 1206.10.3 (New), 1206.10.4 (New), 1206.10.4.1 (New), 1206.10.5 (New), 1206.10.6 (New), 1206.10.7 (New), 1206.10.7.1 (New), 1206.10.7.2 (New), 1206.10.7.3 (New), 1206.10.7.4 (New), 1206.10.7.5 (New), 1206.10.7.6 (New), 1206.10.7.7 (New), TABLE 1206.10 (New), 1206.11 (New), 1206.11.1 (New), 1206.11.2 (New), 1206.11.2.1 (New), 1206.11.3 (New), 1206.11.4 (New), 1206.11.5 (New), 1206.11.6 (New), 1206.11.7 (New), 1206.11.8 (New), 1206.11.9 (New), 1206.11.10 (New), TABLE 2204.1, [Chapter 80] NFPA 68 (New), NFPA 76 (New), UL 1974 (New, UL 9540A (New)

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

APPENDIX K CONSTRUCTION REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES

SECTION K104 MEANS OF EGRESS REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES

Item: [SFM 04/19-16-1]

Chapter: [APPENDIX K, CONSTRUCTION REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES]

Section: [K104, MEANS OF EGRESS REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES]

Express Terms:

[Section: K104.3.1]

K104.3.1 Elevators, escalators, dumbwaiters and moving walks. Existing elevators, escalators, dumbwaiters and moving walks in ambulatory care facilities required to be separated by Section 422 of the *California Building Code* shall comply with ~~ASME A17.3~~ *California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders.*

Item: [SFM 04/19-16-2]

Chapter: [APPENDIX K, CONSTRUCTION REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES]

Section: [K104, MEANS OF EGRESS REQUIREMENTS FOR EXISTING AMBULATORY CARE FACILITIES]

Express Terms:

[Section: K104.3.2]

K104.3.2 Elevator emergency operation. Existing elevators with a travel distance of 25 feet (7620 mm) or more above or below the main floor or other level of a building and intended to serve the needs of emergency personnel for fire-fighting or rescue purposes shall be provided with emergency operation in accordance with ~~ASME A17.3~~ *California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders.*

SECTION K105 REFERENCED STANDARDS

Item: [SFM 04/19-16-3]

Chapter: [APPENDIX K, CONSTRUCTION REQUIREMENTS FOR EXISTING
AMBULATORY CARE FACILITIES]

Section: [K105, REFERENCED STANDARDS]

Express Terms:

[Section: California Code of Regulations, Title 8]

~~ASME A17.3—2015: Safety Code for Existing Elevators and Escalators~~ California Code
of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders
K104.3.1, K104.3.2

[ELEVATOR WORK GROUP 2019 INTERVENING PROPOSALS]

[Related Sections in Part 9, California Fire Code]:

606.1.1 (New), 606.2, 606.2.4, 606.2.5 (New), 606.8.6 (New), 606.8.6.1 (New),
606.8.6.2 (New), 606.8.6.3 (New), 606.8.6.4 (New), 1103.3, 1103.3.1, 1103.3.2,
1103.3.3 (New), [Chapter 80] ASME A17.1/CSA B44, ASME A17.3, [NFPA 13-
16] 8.15.5.1, 8.15.5.2, 8.15.5.3, 8.15.5.7.1, 8.15.5.7.2, [Appendix K] K104.3.1,
K104.3.2, K105

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502,
1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114,
13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211,
17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education
Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211,
18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178,
51179, Public Resources Code Sections 4201-4204

APPENDIX O TEMPORARY HAUNTED HOUSES, GHOST WALKS AND SIMILAR AMUSEMENT USES

SECTION O103 GENERAL REQUIREMENTS

Item: [SFM 04/19-17-1]

Chapter: [APPENDIX O, TEMPORARY HAUNTED HOUSES, GHOSTS WALKS AND
SIMILAR AMUSEMENT USES]

Section: [O103, GENERAL REQUIREMENTS]

Express Terms:

[Section: O103.1]

O103.1 Allowable structures. *Haunted houses, ghost walks, and similar amusement uses shall only be located in structures that comply with the provisions for Special Amusement Buildings Areas in accordance with the California Building Code.*

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1, 914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204

**INDEX
[EDITORIAL AMENDMENTS]**

Item: [SFM 04/19-18-1]

Chapter: [INDEX]

Section: [A]

Express Terms:

[A]

**AMUSEMENT BUILDING, SPECIAL
(see SPECIAL AMUSEMENT BUILDING AREA)**

Item: [SFM 04/19-18-2]

Chapter: [INDEX]

Section: [A]

Express Terms:

[A]

**AMUSEMENT PARK STRUCTURES
(Assembly, Group A-5)**

Special amusement ~~buildings~~ areas

Item: [SFM 04/19-18-3]

Chapter: [INDEX]

Section: [S]

Express Terms:

[S]

SPECIAL AMUSEMENT-BUILDING AREA

[PUZZLE ROOM 2019 INTERVENING PROPOSALS]

[Associated Sections in Part 9, California Fire Code]:

202, TABLE 903.2.11.6, 907.2.11, 907.2.11.2, 907.2.11.3, 914.7, 914.7.1,
914.7.2, TABLE 1017.2, 3103.3.1, O103.1, INDEX

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113, 13113.5, 13114, 13143, 13132, 13132.7, 13132, 13133, 13135, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18928, 18949.2, 25500-25545, Government Code Section 51189, Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13143.1, 13143.9, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201-4204