

JAN 16 2019

APPROVED

**FINAL EXPRESS TERMS
FOR PROPOSED BUILDING STANDARDS
OF THE OFFICE OF THE STATE FIRE MARSHAL
REGARDING THE 2019 CALIFORNIA FIRE CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 9
(2018 TRIENNIAL RULEMAKING CYCLE)**

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)).

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

1. Model Code language appears upright.
2. Existing California amendments appear in *italics*.
3. Amended model code or new California amendments appear underlined and in italics.
4. Repealed model code language appears upright and in ~~strikeout~~.
5. Repealed California amendments appear in ~~*italics and strikeout*~~.

FINAL EXPRESS TERMS

SUMMARY OF SUBMITTAL FORMAT

****PART 1****

1. Bring forward existing California Amendments from the 2016 California Fire Code for adoption into the 2019 California Fire Code with amendment.
2. Adopt standards from the 2018 International Fire Code into the 2019 California Fire Code without amendment.
3. Adopt standards from the 2018 International Fire Code into the 2019 California Fire Code with amendment.
4. Repeal 2016 California Amendments, which are not brought forward into the 2019 California Fire Code.

****PART 2****



1. Bring forward existing California Amendments from the 2016 California Fire Code for adoption into the 2019 California Fire Code without amendment, except for editorial corrections.

****PART 1****

Item 1. California editorial updates and errata by chapter

[The OSFM proposes to adopt Chapter 1 with the following amendments and California regulations]

(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

[Chapter 1]

1.1.1 Title. *These regulations shall be known as the California Fire Code, may be cited as such and will be referred to herein as "this code." The California Fire Code is Part 9 of thirteen parts of the official compilation and publication of the adoptions, amendment, and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the ~~2015~~2018 International Fire Code of the International Code Council with necessary California amendments.*

...

1.1.7.3 Conflicts. *When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirements shall prevail.*

1.1.7.3.1: Detached one-and two-family dwellings, efficiency dwelling units, lodging houses, live/work units, townhouses not more than three stories above grade plane with a separate means of egress, and their accessory structures, may be designed and constructed in accordance with the California Building Code or the California Residential Code, but not both, unless the proposed structure(s) or element(s) exceed the design limitations established in the California Residential Code, and the code user is specially directed by the California Residential Code to use the California Building Code.

~~**Exception:** Detached one and two family dwellings, efficiency dwelling units, lodging houses, live/work units, townhouses not more than three stories above grade plane with a separate means of egress, and their accessory structures, shall not be required to comply with the California Residential Code if constructed in accordance with the California Building Code.~~

...

1.11.1 SFM—Office of The State Fire Marshal. Specific scope of application of the agency responsible for enforcement, the enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

Application:

Institutional, educational or any similar occupancy. Any building or structure used or intended for use as an asylum, jail, prison, mental hospital, hospital, sanitarium, home for the aged elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity.

...

1.11.6 Certificate of Occupancy. A Certificate of Occupancy shall be issued as specified in Title 24, Part 2, California Building Code, Section 111.

Exception: Group R-3, and Group U occupancies.

...



[The OSFM proposes to only adopt Sections 102.1 – 102.5, 102.9, 104.2, 104.5, 104.7 – 104.7.2, 104.10, 105.1 – 105.2.2, 105.2.4, 105.3, 105.3.3 – 105.6.8, Table 105.6.8, 105.6.11, Table 105.6.11 – 105.6.16, 105.6.21, Table 105.6.21 - 105.6.27, 105.6.36, 105.6.38, 105.6.40, 105.6.47, 105.6.50, 105.6.49, 105.7 – 105.7.16, 106.2 – 106.4, 109.1 – 109.3.1, 110.1 – 110.4, and 111.1 – 111.4 contained in Chapter 1, Division II pursuant to Health and Safety Code Sections 13108, 13113, 13114, 13131.5, 13143, 13143.6, 17921 and 18949.2.]

...

[Deleting the California amendment and adopting model code language]

~~**105.6.4.1 Carbon dioxide enrichment systems.** An operational permit is required for carbon dioxide enrichment systems having more than 874 cu. ft. of (100 pounds) of carbon dioxide.~~

...



[Deleting the California amendment and adopting model code language]

TABLE 105.6.9
PERMIT AMOUNTS FOR COMPRESSED GASES

TYPE OF GAS	AMOUNT (cubic feet at NTP)
<i>Carbon dioxide used in carbon dioxide enrichment systems</i>	<i>874 (100 lbs)</i>
<i>Corrosive</i>	<i>200</i>
<i>Flammable (except cryogenic fluids and liquefied petroleum gases)</i>	<i>200</i>
<i>Highly toxic</i>	<i>Any Amount</i>
<i>Inert and simple asphyxiate^a</i>	<i>6,000</i>
<i>Oxidizing (including oxygen)</i>	<i>504</i>
<i>Pyrophoric</i>	<i>Any Amount</i>
<i>Toxic</i>	<i>Any Amount</i>

For SI: 1 cubic foot = 0.02832 m³.

a. ~~For carbon dioxide used in beverage dispensing applications, see Section 105.6.4.~~

...

[Deleting the California amendment and adopting model code language]

105.6.17 Flammable and combustible liquids. An operational permit is required:
[Authors Note Items 1-9 of Section 105.6.16 to remained unchanged]

10. To engage in the dispensing of liquid fuels into the fuel tanks of motor vehicles at commercial, industrial, governmental or manufacturing establishments ~~in accordance with Section 5706.5.4 or to engage in on-demand mobile fueling operations in accordance with Section 5707.~~

11. To utilize a site for the dispensing of liquid fuels from tank vehicles into the fuel tanks of motor vehicles, marine craft and other special equipment at commercial, industrial, governmental or manufacturing establishments ~~in accordance with Section 5706.5.4 or, where required by the fire code official, to utilize a site for on-demand mobile fueling operations in accordance with Section 5707.~~

...

[Deleting the California amendment and adopting model code language]

105.6.50 Plant extraction systems. ~~An operational permit is required to use a plant extraction system.~~



...

~~105.6.49 105.6.51 Additional Permits.~~ *In addition to the permits required by Section 105.6, the following permits shall be obtained from the Bureau of Fire Prevention prior to engaging in the following activities, operations, practices or functions:*

...

~~105.6.502 Plant extraction systems.~~ *An operational permit is required to use a plant extraction system.*

...

[Deleting the California amendment and adopting model code language]

~~105.7.2 Battery systems.~~ *A construction permit is required to install stationary storage battery systems regulated by Section 608.*

...

[Deleting the California amendment and adopting model code language]

~~105.7.10 Gas detection systems.~~ *A construction permit is required for installation of or modification to gas detection systems. Maintenance performed in accordance with this code is not considered a modification and shall not require a permit.*

...

[Deleting the California amendment and adopting model code language]

~~105.7.20 Plant extraction systems.~~ *A construction permit is required for installation of or modification to a plant extraction system. Maintenance performed in accordance with this code is not considered to be modification and does not require a construction permit.*

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 2]

[The OSFM proposes to adopt Chapter 2 with the following amendments and California regulations]

(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

DEFINITIONS

...

CARE AND SUPERVISION. Any one or more of the following activities provided by a person or facility to meet the needs of the clients:

1. Assistance in dressing, grooming, bathing and other personal hygiene.
2. Assistance with taking medication.
3. Central storing and/or distribution of medications.
4. Arrangement of and assistance with medical and dental care.
5. Maintenance of house rules for the protection of clients.
6. Supervision of client schedules and activities.
7. Maintenance and/or supervision of client cash resources or property.
8. Monitoring food intake or special diets.
9. Providing basic services required by applicable law and regulation to be provided by the licensee in order to obtain and maintain a community-care facility license.

...
COMMON USE [DSA-AC] Interior or exterior circulation paths...
...

Withdrawn, per addendum at
§ 1.16.19 Commission meeting.

CA BUILDING STANDARDS
COMMISSION

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COMMUNITY CARE FACILITY. Any facility, place, or building that is maintained and operated to provide nonmedical residential care, day treatment, adult day care, or foster family agency services for children, adults, or children and adults, including, but not limited to, the physically handicapped, mentally impaired, incompetent persons, and abused or neglected children, and includes but is not limited to the following as defined in Health and Safety Code Section 1502:

1. Residential facility
2. Adult day program
3. Therapeutic day services facility
~~Foster family agency~~
~~Foster family home~~
~~Small family home~~
4. Social rehabilitation facility
5. Community treatment facility
6. Full-service adoption agency
~~Noncustodial adoption agency~~
7. Transitional shelter care facility
8. Transitional housing placement facility

...

CONGREGATE LIVING HEALTH FACILITY (CLHF). As defined in Health and Safety Code Section 1250, means

- (1) A residential home with a capacity, except as provided in paragraph ~~(3)~~ (4), of no more than ~~42~~ 18 beds, that provides inpatient care, including the following basic services: medical supervision, 24-hour skilled nursing and supportive care, pharmacy, dietary, social, recreational, and at least one type of service specified in paragraph ~~(4)~~ (2). The primary need of congregate living health facility residents shall be for availability of skilled nursing care on a recurring, intermittent, extended, or continuous basis. This care is generally less intense than that provided in general acute care hospitals but more intense than that provided in skilled nursing facilities.

- ~~(4)~~ (2) Congregate living health facilities shall provide one of the following services:



(A) Services for persons who are mentally alert, persons with physical disabilities, who may be ventilator dependent.

(B) Services for persons who have a diagnosis of terminal illness, a diagnosis of a life-threatening illness, or both. Terminal illness means the individual has a life expectancy of six months or less as stated in writing by his or her attending physician and surgeon. A "life-threatening illness" means the individual has an illness that can lead to a possibility of a termination of life within five years or less as stated in writing by his or her attending physician and surgeon.

(C) Services for persons who are catastrophically and severely disabled. A person who is catastrophically and severely disabled means a person whose origin of disability was acquired through trauma or nondegenerative neurologic illness, for whom it has been determined that active rehabilitation would be beneficial and to whom these services are being provided. Services offered by a congregate living health facility to a person who is catastrophically disabled shall include, but not be limited to, speech, physical, and occupational therapy.

~~(2)~~ (3) A congregate living health facility license shall specify which of the types of persons described in paragraph ~~(1)~~ (2) to whom a facility is licensed to provide services.

~~(3)~~ (4) (A) A facility operated by a city and county for the purposes of delivering services under this section may have a capacity of 59 beds.

(B) A congregate living health facility not operated by a city and county servicing persons who are terminally ill, persons who have been diagnosed with a life-threatening illness, or both, that is located in a county with a population of 500,000 or more persons, or located in a county of the 16th class pursuant to Section 28020 of the Government Code, may have not more than 25 beds for the purpose of serving persons who are terminally ill.

(C) A congregate living health facility not operated by a city and county serving persons who are catastrophically and severely disabled, as defined in subparagraph (C) of paragraph (1) that is located in a county of 500,000 or more persons may have not more than 12 beds for the purpose of serving persons who are catastrophically and severely disabled.

(5) A congregate living health facility shall have a non-institutional, homelike environment.



...

[BG] CONGREGATE LIVING FACILITIES. A building or part thereof that contains ~~sleeping units where residents share bathroom or kitchen facilities, or both.~~

...

FIREWORKS. Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration or detonation that meets the definition of 1.4G fireworks or 1.3G fireworks.

...

Note: Fireworks shall have the same meaning as defined in Health and Safety Code Section 12511 and 12512 which has been reprinted as follows:

...

FOSTER CARE FACILITIES. ~~See Foster family home.~~

FOSTER FAMILY HOME. ~~Foster family home means any residential facility providing 24-hour care for six or fewer foster children that is owned, leased, or rented and is the residence of the foster parent or parents, including their family, in whose care the foster children have been placed. The placement may be by a public or private child placement agency or by a court order, or by voluntary placement by a parent, parents, or guardian. It also means a foster family home described in Section 1505.2.~~

...

[Deleting the California amendment and adopting model code language]

~~GAS DETECTION SYSTEM.~~ ~~A system or portion of a combination system that utilizes one or more stationary sensors to detect the presence of a specified gas at a specified concentration and initiate one or more responses required by this code, such as notifying a responsible person, activating an alarm signal, or activating or deactivating equipment. A self-contained gas detection and alarm device is not classified as a gas detection system.~~

...



LABORATORY SUITE. A fire-rated enclosed laboratory area that will provide one or more laboratory spaces, within a Group B educational occupancy, that are permitted to include ancillary uses such as offices, bathrooms and corridors that are contiguous with the laboratory area, and are constructed in accordance with Chapter 38.



...

Group C (CAMPS, ORGANIZED). An organized camp is a site with programs and facilities established for the primary purpose of providing an outdoor group living experience with social, spiritual, educational or recreational objectives, for five days or more during one or more seasons of the year. See California Building Code Section 450, Group C Occupancy.

...

Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

Airport traffic control towers

Ambulatory care facilities serving five or fewer patients (see Section 308.4.2 308.3.3, I-2.1 for facilities serving more than five patients)

...

Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in

one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *International California Fire Code*.
2. ...
- ~~17. Group B higher education laboratory occupancies complying with Section 428 and Chapter 38 of the International Fire Code.~~
- ~~45 17. [SFM] Group L occupancies defined in Section 453.1~~

...

Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which care or supervision is provided to persons who are or are not capable of self-preservation without physical assistance or in which persons are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-2.1, I-3 or I-4. *Restraint shall not be permitted in any building except in Group I-2*

occupancies constructed for such use in accordance with Section 407.1.1 and Group I-3 occupancies constructed for such use, in accordance with Section 408.1.2.

Where occupancies house both ambulatory and non-ambulatory persons, the more restrictive requirements shall apply.

...

Institutional Group I-2. Institutional Group I-2 occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation or classified as non-ambulatory or bedridden. This group shall include, but not be limited to, the following:

Foster care facilities
Detoxification facilities
Hospitals
Nursing homes
Psychiatric hospitals



~~**Occupancy conditions.** Buildings of Group I-2 shall be classified as one of the occupancy conditions specified in Section 308.3.1.1 or 308.3.1.2.~~

~~**Condition 1.** This occupancy condition shall include facilities that provide nursing and medical care but do not provide emergency care, surgery, obstetrics or in-patient stabilization units for psychiatric or detoxification, including but not limited to nursing homes and foster care facilities.~~

~~**Condition 2.** This occupancy condition shall include facilities that provide nursing and medical care and could provide emergency care, surgery, obstetrics or in-patient stabilization units for psychiatric or detoxification, including but not limited to hospitals.~~

Five or fewer persons receiving medical care. A facility with five or fewer persons receiving medical care shall be classified as Group R-3.1 or shall comply with the International California Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 R313 of the International California Residential Code.

...

Five or fewer persons receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having five or fewer persons receiving custodial care shall be classified as a Group R-3.1 occupancy or shall comply with the International California Residential Code.

...

Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-2.1, R-3.1, R-4 or I, including:

Buildings that do not contain more than two dwelling units.

~~Care facilities that provide accommodations for five or fewer persons receiving care~~

Boarding houses (non-transient) with 16 or fewer occupants

Boarding houses (transient) with 10 or fewer occupants

~~Congregate living facilities~~ *Congregate residences* (non-transient) with 16 or fewer occupants.

~~Congregate living facilities~~ *Congregate residences* (transient) with 10 or fewer occupants.

Lodging houses with five or fewer guest rooms

Adult care facilities that provide accommodations for six or fewer clients of any age for less than 24 hours.

Licensing categories that may use this classification include Adult Day Programs.

Alcoholism or drug abuse recovery homes (ambulatory only)

Child care facilities that provide accommodations for six or fewer clients of any age for less than 24 hours. Licensing categories that may use this classification include, but are not limited to:

*Day-Care Center for Mildly Ill Children,
Infant Care Center,
School Age Child Day-Care Center.*

Family Day-Care Homes that provide accommodations for 14 or fewer children, in the provider's own home for less than 24-hours.

~~*Foster family homes (ambulatory only)*~~

Adult care and child care facilities that are within a single-family home are permitted to comply with the California Residential Code.

~~**Care facilities within a dwelling.** Care facilities for five or fewer persons receiving care that are within a~~



~~single-family dwelling are permitted to comply with the International Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 of the International Residential Code.~~

Residential Group R-3.1 This occupancy group may include facilities licensed by a governmental agency for a residentially based 24-hour care facility providing accommodations for six or fewer clients of any age. Clients may be classified as ambulatory, non-ambulatory or bedridden. A Group R-3.1 occupancy shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in 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 may include:

Adult residential facilities

Congregate living health facilities

~~*Foster family homes*~~

~~*Group homes*~~

Intermediate care facilities for the developmentally disabled habilitative

Intermediate care facilities for the developmentally disabled nursing

Nurseries for the full-time care of children under the age of six, but not including "infants" as defined in ~~Section 319~~ Chapter 2

Residential care facilities for the elderly (RCFEs)

Small family homes and residential care facilities for the chronically ill

Exception: Group Homes licensed by the Department of Social Services which provide nonmedical board, room and care for six or fewer ambulatory children or children two years of age or younger, and which do not have any non-ambulatory clients shall not be subject to regulations found in Section 435.

Pursuant to Health and Safety Code Section 13143 with respect to these exempted facilities, no city, county or public district shall adopt or enforce any requirement for the prevention of fire or for the protection of life and property against fire and panic unless the requirement would be applicable to a structure regardless of the special occupancy. Nothing shall restrict the application of state or local housing standards to such facilities if the standards are applicable to residential occupancies and are not based on the use of the structure as a facility for ambulatory children. For the purpose of this exception, ambulatory children does not include relatives of the licensee or the licensee's spouse.

...



Residential Group R-4. Residential Group R-4 occupancy shall include buildings, structures or portions thereof for 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 specified in ~~Section 310.5.1 or 310.5.2.~~ The persons receiving care are capable of self-preservation. This group shall include, but not be limited to, the following:

This occupancy classification may include a maximum six non-ambulatory 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). ~~Group R-4 occupancies shall include the following:~~

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Group homes
Halfway houses
Residential board and care facilities
Social rehabilitation facilities



Assisted living facilities such as:
*Residential care facilities,
Residential care facilities for the elderly (RCFE),
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 this code.

~~**Condition 1.** This occupancy condition shall include buildings in which all persons receiving custodial care, without any assistance, are capable of responding to an emergency situation to complete building evacuation.~~

~~**Condition 2.** This occupancy condition shall include buildings in which there are any persons receiving~~



~~custodial care who require limited verbal or physical assistance while responding to an emergency situation to complete building evacuation.~~

...

RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE). As defined in Health and Safety Code Section 1569.2, shall mean a facility with a housing arrangement chosen voluntarily by persons 60 years of age or over, or their authorized representative, where varying levels and intensities of care and supervision, protective supervision or personal care are provided, based on their varying needs, as determined in order to be admitted and to remain in the facility. Persons under 60 years of age with compatible needs, as determined by the Department of Social Services in regulations, may be allowed to be admitted or retained in a residential-care facility for the elderly.

Pursuant to Health and Safety Code Section 13133, regulations of The State Fire Marshal pertaining to Group R-2.1, ~~Division 2 Occupancies~~ classified as residential facilities (RF) and residential care facilities for the elderly (RCFE) shall apply uniformly throughout the state and no city, county, city and county, including a charter city or charter county, or fire protection district shall adopt or enforce any ordinance or local rule or regulation relating to fire and panic safety which is inconsistent with these regulations. A city, county, city and county, including a charter city or charter county may pursuant to Health and Safety Code Section 13143.5, or a fire protection district may pursuant to Health and Safety Code Section 13869.7, adopt standards more stringent than those adopted by The State Fire Marshal that are reasonably necessary to accommodate local climate, geological, or topographical conditions relating to roof coverings for residential-care facilities for the elderly.

...

SMALL MANAGEMENT YARD. An exterior exercise yard within a Group I-3 prison used for inmate exercise for a maximum of 2 hours per day, constructed in accordance with California Building Code Section 408.15.

...

WILDLAND URBAN INTERFACE AREA (WUI). [SFM] (See California Building Code Chapter 7A, Section 702A for defined term)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government



Code Section 51189, Public Education Code 17074.50

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

[Chapter 6]

[The OSFM proposes to adopt Chapter 6 with the following amendments and California regulations]

(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

...

~~604.1.4.1 1203.1.5.1 High-rise buildings and Applicable Group I-2 occupancies (See California Building Code section 403.1) having occupied floors located more than 75 feet above the lowest floor level having building access. Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 6 hours without being refueled or recharged. The minimum required fuel supply shall be maintained at all times.~~

...

...

[Deleting the California amendment and adopting model code language 1203.2.6]

~~1203.2.6 Gas detection systems Gas detection systems. Emergency power shall be provided for gas detection systems where required by Sections 604.2.8 and 604.2.14. Standby power shall be provided for gas detection systems where required by Section 916.5~~ 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.

...

~~1203.2.10 High-rise buildings and Applicable Group I-2 occupancies (See California Building Code section 403.1) having occupied floors located more than 75 feet above the lowest floor level having building access. Standby power and emergency power shall be provided for high-rise buildings and applicable Group I-2 occupancies (See CBC section 403.1) having occupied floors located more than 75 feet above the lowest level of fire department vehicle access as required in Section 403 of the California Building~~

Withdrawn, per addendum at 1.16.19 Commission meeting.



Code, and shall be in accordance with Section 1203.

[Deleting the California amendments for solar photovoltaic power systems and adopting model code language in chapter 12]

1204.1 General. Solar photovoltaic systems shall be installed in accordance with Sections 1204.2 through 1204.5, and the International California Building Code or International California Residential Code. The electrical portion of solar PV systems shall be installed in accordance with NFPA-70 California Electrical Code.

~~**605.11.1 Access and pathways.** Roof access, pathways, and spacing requirements shall be provided in accordance with California Fire Code Sections 605.11.1 through 605.11.1.3.3. Pathways shall be over areas capable of supporting fire fighters accessing the roof. Pathways shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment.~~

Exceptions:

- ~~1. Detached, non-habitable Group U structures including, but not limited to, detached garages serving Group R-3 buildings, parking shade structures, carports, solar trolleys and similar structures~~
- ~~2. Roof access, pathways and spacing requirements need not be provided where the fire code official has determined that rooftop operations will not be employed.~~

~~**605.11.1.2.1 Pathways to ridge.** A minimum of two 36 in. (914 mm) wide pathways on separate roof planes, from lowest roof edge to ridge, shall be provided on all buildings. At least one pathway shall be provided on the street or driveway side of the roof. For each roof plane with a photovoltaic array, at least one 36 in. (914 mm) wide pathway from lowest roof edge to ridge shall be provided on the same roof plane as the photovoltaic array, or on an adjacent roof plane, or straddling the same and adjacent roof planes.~~

~~**605.11.1.2.2 Setbacks at ridge.** For photovoltaic arrays occupying 33 percent or less of the plan view total roof area, a minimum 18 in. (457 mm) wide setback is required on both sides of a horizontal ridge. For photovoltaic arrays occupying more than 33 percent of the plan view total roof area, a minimum 36 in. (457 mm) wide setback is required on both sides of a horizontal ridge.~~

~~**605.11.1.2.2.1 Alternative setbacks at ridge.** Where an automatic sprinkler system is installed within the dwelling in accordance with NFPA 13D, setbacks at ridge shall conform with one of the following:~~



1. For photovoltaic arrays occupying 66 percent or less of the plan view total roof area, a minimum 18 in. (457 mm) wide setback is required on both sides of a horizontal ridge.
2. For photovoltaic arrays occupying more than 66 percent of the plan view total roof area, a minimum 36 in. (914 mm) wide setback is required on both sides of a horizontal ridge.

~~605.11.1.2.6 Locations of DC conductors. Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.~~

Withdrawn, per
addendum at 1.16.19
Commission meeting.

~~605.11.3 1204.3 Other than Group R-3 buildings. Access to systems for buildings, other than those containing Group R-3 occupancies, shall be provided in accordance with Sections 605.11.3.1 1204.3.1 through 605.11.3.3 1204.3.3.~~

~~Exception Exception: Where it is determined by the fire code official Where it is determined by the fire code official that the roof configuration is similar to that of a Group R-3 occupancy, the fire code official shall be permitted to allow the residential the residential access and ventilation requirements in Section 605.11.1.2 Sections 1204.2.1.1 through 1204.2.1.3 are a suitable alternative.~~

~~605.11.3.1 Perimeter pathways. 1204.3.1 Perimeter pathways. There shall be a minimum 6-foot-wide (1829 mm) clear perimeter around the edges of the roof.~~

~~Exception: Where either axis of the building is 250 feet (76 200 mm) or less, the clear perimeter around the edges of the roof shall be permitted to be reduced to a minimum 4 foot wide (1290 mm).~~

~~605.11.3.2 Interior pathways. Interior pathways shall be provided between array sections to meet the following requirements:~~

1. ~~Pathways shall be provided at intervals no greater than 150 feet (45.7 m) throughout the length and width of the roof.~~
2. ~~A minimum 4 foot (1290 mm) wide pathway in a straight line to roof standpipes or ventilation hatches.~~
3. ~~A minimum 4 foot (1290 mm) wide pathway around roof access hatches with not less than at least one minimum 4 foot (1290 mm) wide pathway to a parapet or roof edge.~~



605.11.3.3 1204.3.3 Smoke ventilation. The solar installation shall be designed to meet the following requirements:

1. ~~Where non gravity-operated smoke and heat vents occur, a pathway not less than 4 feet (1219 mm)~~

~~wide shall be provided bordering all sides.~~ Where non-gravity-operated smoke and heat vents occur, a pathway not less than 4 feet (1219 mm) wide shall be provided bordering all sides.

2. ~~Smoke ventilation options between array sections shall be one of the following;~~
Smoke ventilation options between array sections shall be one of the following:

2.1 ~~A minimum 8 foot wide (2438 mm) pathway.~~ A pathway not less than 8 feet (2438 mm) wide.

2.2 ~~Where~~ Where gravity-operated dropout smoke and heat vents occur, ~~a minimum 4 foot wide (1219 mm) pathway~~ occur, a pathway not less than 4 feet (1219 mm) wide on not fewer than one side.

2.3 ~~A minimum 4 foot wide (1290 mm)~~ pathway not less than 4 feet (1219 mm) wide bordering 4-foot by 8-foot (1219 mm by 2438 mm) venting cutouts every 20 feet (6096 mm) on alternating sides of the pathway.

~~**605.11.1.3.4 Locations of DC conductors.** Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.~~

1204.4 Ground-mounted photovoltaic panel systems panel systems. Ground-mounted photovoltaic ~~panel systems~~ panel systems shall comply with Section 1204.1 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.

...

[Deleting the California amendment and adopting model code language]

With-drawn, per addendum at 1.16.19 Commission meeting.



605.8 Refrigerant detection. Machinery rooms shall ~~be provided with~~ be provided with a refrigerant detector with an audible and ~~visible~~ visible alarm. ~~Where ammonia is used as the refrigerant, detection shall comply with IAR 2.~~ Where ammonia is used as the refrigerant, detection shall comply with IAR 2. For refrigerants other than ammonia, refrigerant detection shall ~~comply with Section 606.8.1~~ comply with Section 605.8.1.

~~**606.8.1 Refrigerants other than ammonia.** A detector, or a sampling tube that draws air to a detector, shall be provided at an approved location where refrigerant from a leak is expected to accumulate. The system shall be designed to initiate audible and visible alarms inside of and outside each entrance to the refrigerating machinery room and transmit a signal to an approved location where the concentration of refrigerant detected exceeds the lesser of the following:~~

~~1. The corresponding TLV-TWA values shown in the California Mechanical Code for the refrigerant classification.~~

~~2. 25 percent of the lower flammable limit (LFL).~~

~~Detection of a refrigerant concentration exceeding 25 percent of the lower flammable limit (LFL), whichever is lower shall stop refrigerant equipment in the machinery room in accordance with Section 606.9.1.~~

...

605.13 Mechanical ventilation exhaust. Exhaust from mechanical ventilation systems serving refrigeration machinery rooms containing flammable, toxic or highly toxic refrigerants, other than ammonia, capable of exceeding 25 percent of the LFL or 50 percent of the IDLH shall be equipped with approved treatment systems to reduce the discharge concentrations to those values or lower.

~~**Exception:** Refrigeration systems containing Group A2L complying with Section 606.17.~~

Exception: Refrigeration systems containing Group A2L complying with Section 605.17.

...

605.16 Electrical equipment. Where refrigerant of Groups A2, A3, B2 and B3, as defined in the ~~International~~ California Mechanical Code, are used, refrigeration machinery rooms shall conform to the Class I, Division 2 hazardous location classification requirements of NFPA-70 California Electrical Code.

Exceptions:

- ~~1.~~ 1. Ammonia machinery rooms that are provided with ventilation in accordance with Section 1106.3 of the International Mechanical Code.



~~2. Machinery rooms for systems containing Group A2L refrigerants that are provided with ventilation in accordance with Section 606.17.~~

2. Machinery rooms for systems containing Group A2L refrigerants that are provided with ventilation in accordance with Section 605.17.

~~**606.17 Group A2L Refrigerants** Mechanical refrigeration systems using Group A2L refrigerants shall also comply with Sections 606.17.1 and 606.17.4.~~

~~**606.17.1 Machinery rooms.** Machinery rooms with systems containing Group A2L refrigerants shall comply with Section 606.17.2 through 606.17.3.~~

~~**Exception:** Machinery rooms conforming to the Class 1, Division 2, hazardous location classification requirements of California Electrical Code.~~

~~**606.17.2 Refrigerant detection system.** The machinery room shall be provided with a refrigerant detection system. The refrigerant detection system shall be in accordance with Section 606.8 and all of the following:~~

- ~~1. The detectors shall activate at or below a refrigerant concentration of 25% of the LFL.~~
- ~~2. Upon activation, the detection system shall activate the emergency ventilation system in Section 606.17.3~~
- ~~3. The detection, signaling and control circuits shall be supervised.~~

~~**606.17.3 Emergency Ventilation System** An emergency ventilation system shall be provided at the minimum exhaust rate specified in ASHRAE 15 or Table 606.17.3. Shut down of the emergency ventilation system shall be by manual means.~~

TABLE 606.17.3

Refrigerant	Q (m ² /sec)	Q (cfm)
R32	15.4	32,600
R143a	13.6	28,700
R444A	6.46	13,700
R444B	10.6	22,400
R446A	7.83	16,600
R446A	23.9	50,700
R447A	23.8	50,400



R451A	7.04	15,000
R451B	7.05	15,000
R1234yf	7.80	16,600
R1234ze(E)	6.92	12,600

~~606.17.4 Emergency Ventilation system discharge. The point of discharge to the atmosphere shall be located outside of the structure at not less than 15 foot (4572 mm) above the adjoining grade level and not less than 20 foot (6096 mm) from any window, ventilation opening or exit.~~

...

~~607.9 606.8.5 Shunt trip. Where elevator hoist-ways or elevator machine rooms containing elevator control equipment are protected with automatic sprinklers, a means installed in accordance with NFPA 72, Section 21.4, Elevator Shutdown, shall be provided to disconnect automatically the main line power supply to the affected elevator prior to the application of water. This means shall not be self-resetting. The activation of sprinklers outside the hoist-way or machine room shall not disconnect the main line power supply.~~

...

[Deleting the California amendment and adopting model code language in chapter 12]

~~SECTION 608 STATIONARY STORAGE BATTERY SYSTEMS~~

~~608.1 Scope. Stationary storage battery systems having capacities exceeding the values shown in Table 608.1 shall comply with Section 608.1.2 through 608.6.6, as applicable.~~

TABLE 608.1
BATTERY STORAGE SYSTEM THRESHOLD QUANTITIES.

BATTERY TECHNOLOGY	CAPACITY ^a
Lead acid, all types	70 KWh (252 Megajoules)
Nickel cadmium (Ni-Cd)	70 KWh (252 Megajoules)
Lithium, all types	20 KWh (72 Megajoules)
Sodium, all types	20 KWh (72 Megajoules) ^c
Flow batteries ^b	20 KWh (72 Megajoules)

Other battery technologies

10 KWh (36 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 (252 Mega joules) for sodium-ion technologies~~



608.1.1 — Permits. ~~Permits shall be obtained for the installation and operation of stationary storage battery systems in accordance with Section 105.7.2.~~

608.1.2 — Construction documents. ~~The following information shall be provided with the permit application:~~

- ~~1. Location and layout diagram of the room in which the stationary storage battery system is to be installed~~
- ~~2. Details on hourly fire-resistant rated assemblies provided~~
- ~~3. Quantities and types of storage batteries and battery systems.~~
- ~~4. Manufacturer's specifications, ratings and listings of storage batteries and battery systems~~
- ~~5. Details on energy management systems~~
- ~~6. Location and content of signage~~
- ~~7. Details on fire suppression, smoke detection and ventilation systems.~~
- ~~8. Rack storage arrangement, including seismic support criteria.~~

608.1.3 — 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. Battery technologies not specifically identified in Table 608.1 are provided.~~
- ~~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.~~
- ~~3. When allowed as a basis for increasing maximum allowable quantities. See 608.3.~~

608.1.3.1 — 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.~~

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- ~~6. Failure of the smoke detection, fire suppression, or gas detection system.~~
- ~~7. Spill neutralization not being provided or failure of the secondary containment system.~~

~~**608.1.3.2 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 or explosions will be contained within unoccupied battery storage rooms for the minimum duration of the fire resistance-rated walls identified in IBC table 500.1.~~
- ~~2. Fires and explosions in battery cabinets in occupied work centers will be detected in time to allow occupants within the room to safely evacuate.~~
- ~~3. Toxic and highly toxic gases released during fires and other fault conditions shall not reach concentrations in excess of IDLH level 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% 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.~~

~~**608.1.3.3 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 608.1, shall be installed, maintained and tested in accordance with nationally recognized standards and specified design parameters.~~

~~**608.1.4 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.~~

~~**608.1.5 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.~~

~~**608.1.6 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 608.2.5 shall not be stored less than 3 feet (915 mm) from battery cabinets.~~

~~**608.1.7 Testing, maintenance and repairs.** 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.~~



608.2 Location and construction. ~~Rooms and areas containing stationary storage battery systems shall be designed, located and constructed in accordance with this section.~~

608.2.1 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 (9 144 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 shall be permitted where approved by the fire code official.~~

608.2.2 Separation. ~~Rooms containing stationary storage battery systems shall be separated from other areas of the building in accordance with Section 500.1 of the California Building Code. Battery systems shall be allowed to be in the same room with the equipment they support.~~

608.2.3 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 Mega joules) each. Each stationary battery array shall be spaced a minimum three 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 Mega joules) 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~~

608.2.4 Separate rooms. ~~Where stationary batteries are installed in a separate equipment room accessible only to authorized personnel, they shall be permitted to be installed on an open rack for ease of maintenance.~~



~~608.2.5 — 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.~~

~~608.2.5.1 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.~~

~~608.2.6 — 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 608.6 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.~~

~~608.2.6.1 — 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 California Electrical Code.~~

~~608.2.6.2 — Cabinet signage. Battery storage cabinets provided in occupied work centers in accordance with Section 608.2.5 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, chemical and hazards, as required by Section 608.6~~

~~608.2.7 — Outdoor installations. Stationary storage battery systems located outdoors shall comply with this Section, in addition to all applicable requirements of Section 608. Installations in outdoor enclosures or containers which 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 three feet (914 mm) from the container walls.~~

~~608.2.7.1 — Separation. Stationary storage battery systems located outdoors shall be separated by a minimum five 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 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.~~

~~**608.2.7.2 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 in no case less than 10 feet (3048 mm).~~

~~**Exception:** The fire code official is authorized to approve smaller 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.~~

~~**608.2.7.3 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.~~

~~**608.2.7.4 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.~~

~~**608.3 Maximum allowable quantities.** Fire areas within buildings containing stationary storage batteries systems exceeding the maximum allowable quantities in Table 608.3 shall comply with all applicable High Hazard 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 608.3 shall be permitted to be treated as incidental use areas and not Group H occupancies based on a hazardous mitigation analysis in accordance with 608.1.3 and large scale fire and fault condition testing conducted or witnessed and reported by an approved testing laboratory.~~

**TABLE 608.3
MAXIMUM ALLOWABLE BATTERY QUANTITIES**

BATTERY TECHNOLOGY	MAXIMUM ALLOWABLE QUANTITIES ^a	GROUP H OCCUPANCY
Lead acid, all types	unlimited	Not Applicable
Nickel cadmium (Ni-Cd),	unlimited	Not Applicable
Lithium, all types	600 KWh	Group H-2
Sodium, all types	600 KWh	Group H-2
Flow batteries ^b	600 KWh	Group H-2



Other battery technologies	200 KWh	Group H-2 ⁶
----------------------------	---------	------------------------

- a. ~~For batteries rated in Amp-Hours, Watt-hours (Wh) shall equal rated battery voltage times the Amp-hour rating divided by 1000~~
- b. ~~Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing electrolyte type technologies~~
- c. ~~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~~

~~**608.3.1 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%, the area shall be treated as a high-hazard Group H occupancy in accordance with Table 608.3.~~

~~**608.4 Storage batteries and equipment.** The design and installation of storage batteries and related equipment shall comply with this sections 608.4.1 through 608.4.8.~~

~~**608.4.1 — Listings.** Storage batteries and battery storage systems shall comply with all of the following:~~

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

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

~~**608.4.2 — Prepackaged and pre-engineered systems.** Prepackaged and pre-engineered stationary storage battery systems shall be installed in accordance with their listing and the manufacturer's instructions.~~

~~**608.4.3 — 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, overvoltage (overcharge) or under voltage (over discharge) are detected.~~

~~**608.4.4 — Battery chargers.** Battery chargers shall be compatible with the battery chemistry and the manufacturer's electrical ratings and charging specifications.~~

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~~Battery chargers shall be listed and labeled in accordance with the UL 1564 or provided as part of a listed pre-engineered or prepackaged stationary storage battery system.~~

~~**608.4.5 — 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.~~

~~**608.4.6 — Safety caps.** Vented batteries shall be provided with flame-arresting safety caps.~~

~~**608.4.7 — Thermal runaway.** Where required by Section 608.6 storage batteries shall be provided with a listed device or other approved method to prevent, detect and control thermal runaway.~~

~~**608.4.8 — 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.~~

~~**608.5 — Suppression and detection systems.** Suppression and detection systems shall be provided in accordance with Sections 608.5.1 through 608.5.5.~~

~~**608.5.1 — Fire suppression 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 suppression system based on full scale 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.~~

~~**608.5.1.1 Alternative suppression 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 alternate fire suppression system based on full scale fire and fault condition testing conducted or witnessed and reported by an approved laboratory.~~

~~**608.5.2 — 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.~~

~~**608.5.3 Ventilation.** Where required by Section 608.6 or Section 608.1.3, ventilation of rooms containing stationary storage battery systems shall be provided in accordance with the California Mechanical Code and the following:~~

- ~~1. The ventilation system shall be designed to limit the maximum concentration of flammable gas to 25% of the lower flammability limit, or for hydrogen 1.0 percent of the total volume of the room; or~~
- ~~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).~~
- ~~3. 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.~~



~~**608.5.3.1 Cabinet ventilation.** Where cabinets located in occupied spaces contain the storage batteries that are required by Section 608.6 or 608.1.3 to be provided with ventilation, the cabinet shall be provided with ventilation in accordance with Section 608.5.3.~~

~~**608.5.3.2 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.~~

~~**608.5.4 Gas detection system.** Where required by Section 608.6 or 608.1.3, rooms containing stationary storage battery systems shall be protected by a continuous 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 (LEL), or where the level of toxic or highly toxic gas exceeds ½ of the IDLH.~~

~~**608.5.4.1 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.~~

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

~~**608.5.5 — Spill control and neutralization.** Where required by Section 608.6, 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.~~

~~**608.6 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.~~

~~**608.6.1 — Lead acid storage batteries.** Stationary battery systems utilizing lead acid storage batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 608.5.3.~~
- ~~2. Spill control and neutralization shall be in accordance with Section 608.5.5.~~
- ~~3. Thermal runaway protection shall be provided for VRLA storage batteries in accordance with Section 608.4.7.~~
- ~~4. The signage in Section 608.2.6 shall also indicate the room contains Lead-Acid batteries.~~

~~**608.6.2 — Nickel cadmium (Ni-Cd) storage batteries.** Stationary battery systems utilizing nickel cadmium (Ni-Cd) storage batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 608.5.3.~~
- ~~2. Spill control and neutralization shall be in accordance with Section 608.5.5.~~
- ~~3. Thermal runaway protection shall be provided for valve-regulated-sealed nickel cadmium storage batteries in accordance with Section 608.4.7.~~
- ~~4. The signage in Section 608.2.6 shall also indicate the room contains nickel cadmium batteries.~~

~~**608.6.3 — Lithium-ion storage batteries.** The signage in Section 608.2.6 shall also indicate the type of lithium batteries contained in the room.~~

~~608.6.4 Sodium beta storage batteries. Stationary battery systems utilizing sodium beta storage batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 608.5.3.~~
- ~~2. The signage in Section 608.2.6 shall also indicate the type of sodium batteries in the room and APPLY NO WATER.~~

~~608.6.5 Flow batteries. Stationary battery systems utilizing flow batteries shall comply with the following:~~

- ~~1. Ventilation shall be provided in accordance with Section 608.5.3.~~
- ~~2. Spill control and neutralization shall be in accordance with Section 608.5.5.~~

~~608.6.6 Other battery technologies. Stationary battery systems utilizing battery technologies other than those described in Sections 608.6.1 through 608.6.5 shall comply with the following:~~

- ~~1. Gas detection systems complying with Section 916 shall be provided in accordance with Section 608.5.4 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 608.5.3.~~
- ~~3. Spill control and neutralization shall be in accordance with Section 608.5.5.~~
- ~~4. In addition to the signage required in Section 608.2.6, the marking shall identify the type of batteries present, describe the potential hazards associated with the battery type, and indicate the room contains energized electrical circuits.~~

~~608.8 Seismic protection. The battery systems shall be seismically braced in accordance with the California Building Code.~~

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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



[Chapter 7]

[The OSFM proposes to adopt Chapter 7 with the following amendments and California regulations]

(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

SECTION 7058 EXTERIOR WALLS



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 9]

[The OSFM proposes to adopt Chapter 9 with the following amendments and California regulations.]

(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

...

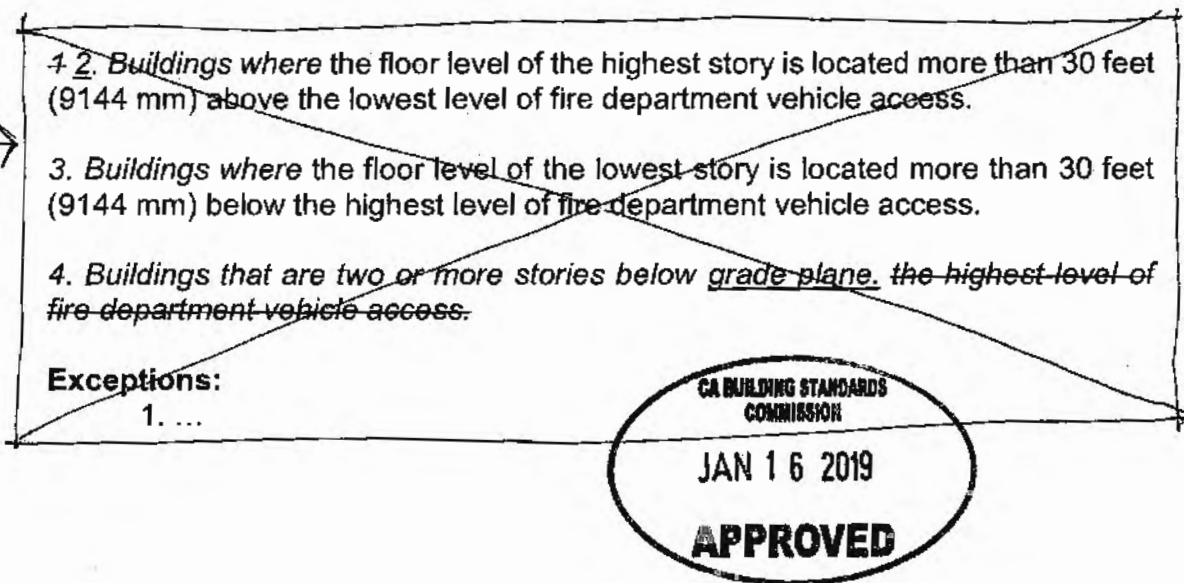
...

905.3.1 Height. ~~In other than Group R-3 and R-3.1 occupancies, class III standpipe systems shall be installed throughout at each floor where any of the following occur:~~

~~2.1. Buildings that are four or more stories in height~~

See pg. 34

Withdrawn, per addendum at
1.16.19 Commission meeting.



904.12 Commercial cooking systems. Commercial cooking equipment that produces grease laden vapors shall be provided with a Type I Hood, in accordance with the California Mechanical Code, and an automatic fire extinguishing system that is listed and labeled for its intended use as follows:

1. Wet chemical extinguishing system, complying with UL 300.
2. Carbon dioxide extinguishing systems.
3. Automatic fire sprinkler systems.

All existing dry chemical and wet chemical extinguishing systems shall comply with UL 300.

Exception:

Public schools kitchens, without deep-fat fryers, shall be upgraded to a UL 300 compliant system during state funded modernization projects that are under the jurisdiction of the Division of the State Architect.

All systems shall be installed in accordance with the California Mechanical Code, appropriate adopted standards, their listing and the manufacturer's installation instructions.

Exception: Factory-built commercial cooking recirculating systems that are tested, listed, labeled and installed in accordance with UL 710B and the California Mechanical Code.

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 ~~I-4~~ R-2.1 occupancies where domestic cooking facilities are installed in accordance with Section 420.8.
2. In Group I-2 and I-2.1, ~~Condition-4~~ occupancies where domestic cooking facilities are installed in accordance with Section 407.2.6.
3. In Group R-2 college dormitories where domestic cooking facilities are installed in accordance with Section 420.10.

...

907.2.5.1 Group H occupancies located ~~above the 10th story on the 11th story and above~~. Manual fire alarm boxes shall be required on each side of the 2-hour fire-smoke barrier and at each exit ~~above the 10th story on the 11th story and above~~.

...

907.10 Smoke alarm maintenance. Smoke alarms shall be tested and maintained in accordance with the manufacturer's instructions. Smoke alarms shall be replaced when they fail to respond to operability tests, ~~or when they exceed 10 years from the date of manufacture~~, unless an earlier replacement is specified in the manufacturer's published instructions.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 10]

1019.3 Occupancies other than Groups I-2, ~~R-2.1~~ I-2.1, and I-3 and R-2.1. In other than Group I-2, ~~I-2.1~~ and I-3 and R-2.1 occupancies, floor openings containing exit access stairways or ramps that do not comply with one of the conditions listed in this section shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

1. Exit access stairways and ramps that serve or atmospherically communicate between only two stories. Such interconnected stories shall not be open to other stories.
2. In Group R-1, R-2, ~~R-2.1~~, or R-3 or R-3.1 occupancies, exit access



stairways and ramps connecting four stories or less serving and contained within an individual dwelling unit or sleeping unit or live/work unit.

3. Exit access stairways serving and contained within a Group R-3 congregate residence or a Group R-4 facility are not required to be enclosed.
4. Exit access stairways and ramps in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, where the area of the vertical opening between stories does not exceed twice the horizontal projected area of the stairway or ramp and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Group B and M occupancies, this provision is limited to openings that do not connect more than four stories.

...

1023.2 Construction. Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 of the International California Building Code or horizontal assemblies constructed in accordance with Section 711 of the International California Building Code, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Interior exit stairways and ramps enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

Exceptions:

1. Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8 of the International California Building Code.
2. Interior exit stairways within an atrium enclosed in accordance with Section 404.6 of the International California Code.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

[Chapter 38]

[Deleting the California amendments and adopting model code language, which has been relocated to Chapter 39]



(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

CHAPTER 38

~~PLANT PROCESSING AND EXTRACTION FACILITIES~~

~~**3801.1 Scope.** Plant processing or extraction facilities shall comply with this chapter and the California Building Code. The extraction process includes the act of extraction of the oils and fats by use of a solvent, desolventizing of the raw material and production of the miscella, distillation of the solvent from the miscella and solvent recovery. The use, storage, transfilling, and handling of hazardous materials in these facilities shall comply with this chapter, other applicable provisions of this code and the California Building Code.~~

~~**3801.2 Existing buildings or facilities.** Existing buildings or facilities used for the processing of plants or where the medium of extraction or solvent is changed shall comply with this chapter.~~

~~**3801.3 Permits.** Permits shall be required as set forth in Section 105.6 and 105.7.~~

SECTION 3802 DEFINITIONS

~~**3802.1 Definitions.** The following terms are defined in Chapter 2:~~

~~DESOLVENTIZING
MISCELLA~~

~~SECTION 3803 PROCESSING AND EXTRACTION~~

~~**3803.1 Construction.** Processing shall be located in a building complying with the California Building Code.~~

~~**3803.2 Prohibited occupancies.** Extraction processes utilizing flammable gasses or flammable cryogenic fluids shall not be located in any building containing a Group A, E, I or R occupancy.~~

~~**3803.3 Location.** The extraction equipment and extraction process utilizing hydrocarbon solvents shall be located in a room or area dedicated to extraction.~~

~~**3803.4 Post-process purification and winterization.** Post-processing and winterization involving the heating or pressurizing of the miscella to other than normal pressure or temperature shall be approved and performed in an appliance listed for such use. Domestic or commercial cooking appliances shall not be used.~~

~~**3803.5 Industrial ovens.** The use of industrial ovens shall comply with Chapter 30.~~



~~**3803.6 Use of flammable and combustible liquids.** The use of flammable and combustible liquids for liquid extraction processes where the liquid is boiled, distilled, or evaporated shall be located within a hazardous exhaust fume hood, rated for exhausting flammable vapors. Electrical equipment used within the hazardous exhaust fume hood shall be rated for use in flammable atmospheres. Heating of flammable or combustible liquids over an open flame is prohibited.~~

~~**Exception:** The use of a heating element not rated for flammable atmospheres approved where documentation from the manufacture or approved testing laboratory indicates is it rated for heating of flammable liquids.~~

~~**3803.7 Liquefied Petroleum Gas** Liquefied petroleum gases shall not be released to the atmosphere.~~

~~**Exception:** LPG gas may be released to the atmosphere in accordance with NFPA 58 Section 7.3.~~

~~**SECTION 3804 SYSTEMS AND EQUIPMENT**~~

~~**3804.1 General requirements.** Systems and equipment used with the processing and extraction of oils and products from plants shall comply with Sections 3804.2 through 3804.4, 5003.2, other applicable provisions of this code, the California Building Code, and the California Mechanical Code.~~

~~**3804.2 Systems and equipment.** Systems or equipment used for the extraction of oils from plant material shall be listed or approved for the specific use. If the system used for extraction of oils and products from plant material is not listed, then the system shall be reviewed by a Registered Design Professional. The Registered Design Professional shall review and consider any information provided by the system's designer or manufacturer. For systems and equipment not listed for the specific use, a technical report in accordance with Section 3804.3 shall be prepared and submitted to the fire code official for review and approval. The firm or individual preparing the technical report shall be approved by the fire code official prior to performing the analysis.~~

~~**3804.3 Technical report.** The technical report which has been reviewed and approved by the fire code official, as required by Section 3804.2 is required prior to the equipment being located or installed at the facility. The report shall be prepared by a Registered Design Professional or other professional approved by the fire code official.~~

~~**3804.3.1 Report Content.** The technical report shall contain all of the following:~~

- ~~1. — Manufacturer information.~~
- ~~2. — Preparer of record on technical report.~~

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- ~~3. Date of review and report revision history.~~
- ~~4. Signature page shall include all of the following:~~
 - ~~4.1 Author of the report~~
 - ~~4.2 Date of report~~
 - ~~4.3 Date and signature of Registered Design professional of record performing the design or peer review.~~
- ~~5. Model number of the item evaluated. If the equipment is provided with a serial number, the serial number shall be included for verification at time of site inspection.~~
- ~~6. Methodology of the design or peer review process used to determine minimum safety requirements. Methodology shall consider the basis of design, and shall include a code analysis and code path to demonstrate the reason as to why specific code or standards are applicable or not.~~
- ~~7. Equipment description. A list of every component and sub-assembly (fittings, hose, quick disconnects, gauges, site glass, gaskets, valves, pumps, vessels, containers, switches, etc.) of the system or equipment, indicating the manufacturer, model number, material, and solvent compatibility. Manufacture' data sheets shall be provided.~~
- ~~8. A general flow schematic or general process flow diagram of the process. Post-processing or winterization may be included in this diagram. All primary components of the process equipment shall be identified and match the equipment list required in Item 7. Operating temperatures, pressures, and solvent state of matter shall be identified in each primary step or component. A piping and instrumentation diagram (PID or P&ID) shall be provided.~~
- ~~9. Analysis of the vessel(s) if pressurized beyond standard atmospheric pressure. Analysis shall include purchased and fabricated components.~~
- ~~10. Structural analysis for the frame system supporting the equipment.~~
- ~~11. Process safety analysis of the extraction system, from the introduction of raw product to the end of the extraction process.~~
- ~~12. Comprehensive process hazard analysis considering failure modes and points of failure throughout the process. The process hazard analysis shall include a review of emergency procedure information provided by the manufacturer of the equipment or process and not that of the facility, building or room.~~
- ~~13. Review of the assembly instructions, operational and maintenance manuals provided by the manufacturer.~~
- ~~14. List of references used in the analysis.~~

~~**3804.4 Site inspection.** Prior to operation of the extraction equipment, where required by the fire code official, the engineer of record or approved professional, as approved in 3805.2 shall inspect the site of the extraction process once equipment has been installed for compliance with the technical report and the building analysis. The engineer of record or approved professional shall provide a report of findings and observations of the site inspection to the fire code official prior to the approval of the extraction process. The field inspection report authored by engineer of record shall~~

~~include the serial number of the equipment used in the process and shall confirm the equipment installed is the same model and type of equipment identified in the technical report.~~

~~SECTION 3805 SAFETY SYSTEMS~~

~~3805.1 Gas detection.~~ ~~For extraction processes utilizing flammable gases as solvents, a continuous gas detection system shall be provided. The gas detection threshold shall be no greater than 25% of the lower flammable limit (LFL) of the materials.~~

~~3805.1.1 System design.~~ ~~The flammable gas detection system shall be listed or approved and shall be calibrated to the types of fuels or gases used for the extraction process. The gas detection system shall be designed to activate when the level of flammable gas exceeds 25 percent of the lower flammable limit (LFL).~~

~~3805.1.2 Gas detection system components.~~ ~~Gas detection system control units shall be listed and labeled in accordance with UL 864 or UL 2017. Gas detectors shall be listed and labeled in accordance with UL 2075 for use with the gases and vapors being detected.~~

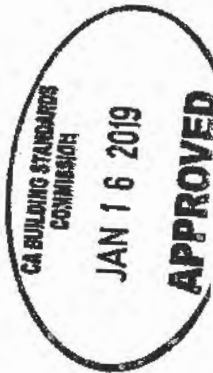
~~3805.1.3 Operation.~~ ~~Activation of the gas detection system shall result in all the following:~~

- ~~1. Initiation of distinct audible and visual alarm signals in the extraction room.~~
- ~~2. Deactivation of all heating systems located in the extraction room.~~
- ~~3. Activation of the mechanical ventilation system, where the system is interlocked with gas detection.~~

~~3805.1.4 Failure of the gas detection system.~~ ~~Failure of the gas detection system shall result in the deactivation of the heating system, activation of the mechanical ventilation system where the system is interlocked with the gas detection system and cause a trouble signal to sound in an approved location.~~

~~3805.1.5 Interlocks.~~ ~~All electrical components within the extraction room shall be interlocked with the gas detection system. Activation of the gas detection system shall disable all light switches and electrical outlets.~~

~~3805.2 Emergency shutoff.~~ ~~Extraction processes utilizing gaseous hydro-carbon based solvents shall be provided with emergency shutoff systems in accordance with Section 5803.1.3.~~



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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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 53]

[The OSFM proposes to adopt Chapter 53 with the following amendments and California regulations]

(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

[Deleting the California amendments for section 5307 and adopting model code language]

~~SECTION 5307~~ **~~COMPRESSED GASES NOT OTHERWISE REGULATED~~**

~~**5307.1 General.** Compressed gases in storage or use not regulated by the material-specific provisions of Chapters 6, 54, 55 and 60 through 67, including asphyxiant, irritant and radioactive gases, shall comply with this section in addition to other requirements of this chapter.~~

~~Areas containing insulated liquid carbon dioxide systems used in beverage dispensing applications shall comply with Section 5307.3. Carbon dioxide enrichment systems shall comply with Section 5307.4. Areas other than those covered by Sections 5307.3 or 5307.4 shall comply with Section 5307.2.~~

~~**5307.3.1 Protection from damage.** Carbon dioxide systems shall be installed so the storage tanks, cylinders, piping and fittings are protected from damage by occupants or equipment during normal facility operations~~

~~**5307.4 Carbon dioxide enrichment systems.** The design, installation and maintenance of carbon dioxide enrichment systems with more than 100 pounds of carbon dioxide, and carbon dioxide enrichment systems with any quantity of carbon dioxide having a remote fill connection, shall comply with Sections 5307.4.1 through 5307.4.8.~~



5307.4.1 Documentation. ~~The following information shall be provided with the application for permit:~~

- ~~1. Total aggregate quantity of liquid CO₂ in pounds or cubic feet at normal temperature and pressure.~~
- ~~2. Location and total volume of the room where the carbon dioxide enrichment operation will be conducted. Identify whether the room is at grade or below grade.~~
- ~~3. Location of containers relative to equipment, building openings and means of egress.~~
- ~~4. Manufacturer's specifications and pressure rating, including cut sheets, of all piping and tubing to be used.~~
- ~~5. A piping and instrumentation diagram that shows piping support and remote fill connections.~~
- ~~6. Details of container venting, including but not limited to vent line size, material and termination location.~~
- ~~7. Alarm and detection system and equipment, if applicable.~~
- ~~8. Seismic support for containers.~~

5307.4.2 Equipment. ~~Pressure relief, vent piping, fill indicators, fill connections, vent terminations, piping system, and the storage, use, and handling of the carbon dioxide shall be in accordance with Chapter 53 and NFPA 55.~~

5307.4.3 Gas detection system. ~~A gas detection system shall be provided in the room or indoor area in which the carbon dioxide enrichment process is located, in the room or indoor area in which the container systems are located, and in other areas where carbon dioxide is expected to accumulate. Carbon dioxide sensors shall be provided within 12 inches (305 mm) of the floor in the area where the gas is expected to accumulate or leaks are most likely to occur. The system shall be designed as follows:~~

- ~~1. Activate a low-level alarm upon detection of a carbon dioxide concentration of 5,000 ppm (9,000 mg/m³).~~
- ~~2. Activate a high-level alarm upon detection of a carbon dioxide concentration of 30,000 ppm (54,000 mg/m³).~~

5307.3.4 Gas detection system. ~~A continuous gas detection system shall be provided in the room or indoor area in which the carbon dioxide enrichment process is located, in the room or indoor area in which the container systems are located, and in areas where the heavier than air gas can congregate. Carbon dioxide sensors shall be provided within 12 inches (305 mm) of the floor in the area where the gas is most likely to accumulate or leaks are most likely to occur. The system shall be designed to detect and notify at a low-level alarm and high-level alarm.~~

- ~~1. The threshold for activation of the low-level alarm shall not exceed a carbon dioxide concentration of 5,000 ppm (9,000 mg/m³) Time Weighted Average (TWA) over 8 hours.~~
- ~~2. The threshold for activation of the high-level alarm shall not exceed a carbon dioxide concentration of 30,000 ppm (54,000 mg/m³). When carbon dioxide is~~

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~~detected at the high level alarm, the system shall activate an audible and visible alarm in an approved location.~~

5307.4.3.1 System Activation. ~~Activation of the low level gas detection system alarm shall automatically:~~

- ~~1. Stop the flow of carbon dioxide to the piping system.~~
- ~~2. Activate the mechanical exhaust ventilation system.~~
- ~~3. Activate an audible and visible supervisory alarm signal at an approved location within the building.~~

~~Activation of the high level gas detection system alarm shall automatically:~~

- ~~1. Stop the flow of carbon dioxide to the piping system.~~
- ~~2. Activate the mechanical exhaust ventilation system.~~
- ~~3. Activate an audible and visible evacuation alarm both inside and outside of the carbon dioxide enrichment area, and the area in which the carbon dioxide containers are located.~~

5307.4.4 Pressurization and ventilation. ~~Rooms or indoor areas in which carbon dioxide enrichment is provided shall be maintained at a negative pressure in relation to the surrounding areas in the building. A mechanical ventilation system shall be provided in accordance with the California Mechanical Code that complies with all of the following:~~

- ~~1. Mechanical ventilation in the room or area shall be at a rate of not less than 1 cubic foot per minute per square foot.~~
- ~~2. When activated by the gas detection system the mechanical ventilation system shall remain on until manually reset.~~
- ~~3. The exhaust system intakes shall be taken from points within 12 inches of the floor.~~
- ~~4. The ventilation system piping shall terminate outdoors in an approved location.~~

5307.4.5 Signage. ~~Hazard identification signs shall be posted at the entrance to the room and indoor areas where the carbon dioxide enrichment process is located, and at the entrance to the room or indoor where the carbon dioxide containers are located. The sign shall be a minimum 8 in. (200 mm) wide and 6 in. (150 mm) high and indicate:~~

~~CAUTION CARBON DIOXIDE GAS~~

~~Ventilate the area before entering.~~

~~A high carbon dioxide (CO₂) gas concentration~~

~~in this area can cause asphyxiation.~~

5307.4.6 Seismic and structural design. ~~Carbon dioxide system containers and piping 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.~~

5307.4.7 Container refilling. ~~Carbon dioxide containers located indoors shall not be refilled unless filled from a remote connection located outdoors.~~



~~**5307.5 Required protection.** Where carbon dioxide storage tanks, cylinders, piping and equipment are located indoors, rooms or areas containing carbon dioxide storage tanks, cylinders, piping and fittings and other areas where a leak of carbon dioxide can collect shall be provided with either ventilation in accordance with Section 5307.5.1 or a gas detection system in accordance with Section 5307.5.2.~~

~~**5307.5.1 Ventilation.** Indoor storage and use areas and storage buildings shall be provided with ventilation in accordance with the requirements of Section 5004.3. Where mechanical ventilation is provided, the systems shall be operational during such time as the building or space is occupied.~~

~~**Exception:** A gas detection system complying with Section 5307.4.3 shall be permitted in lieu of mechanical ventilation.~~

~~**5307.5.2 Gas detection system.** A gas detection system complying with Section 916 shall be provided to monitor areas where carbon dioxide can accumulate. The system shall be designed to initiate a local audible and visible alarm in the room or area in which the sensor is installed when the level of carbon dioxide exceeds 5,000 parts per million (9,000 mg/m).~~

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 57]

[The OSFM proposes to adopt Chapter 57 with the following amendments and California regulations]

(Note: See Part 2 of this document for existing California amendments brought forward from the 2016 California Fire Code for adoption into the 2019 California Fire Code without change.)

[Deleting the California amendment and adopting model code language]

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~~**SECTION 5707 ON-DEMAND MOBILE FUELING OPERATIONS**~~

5707.1 General. ~~On-demand mobile fueling operations that dispense Class I, II, and III liquids into the fuel tanks of motor vehicles shall comply with Sections 5707.1 through 5707.6.3.~~

Exception: ~~Fueling from an approved portable container in cases of an emergency or for personal use.~~

5707.1.1 Approval required. ~~Mobile fueling operations shall not be conducted without first obtaining a permit and approval from the fire code official. Mobile fueling operations shall occur only at approved locations.~~

5707.2 Mobile fueling vehicle. ~~An on-demand mobile fueling vehicle shall be one of the following:~~

1. ~~A vehicle that has chassis-mounted tanks or containers where the aggregate cargo capacity does not exceed 1200 gallons (4592 L). A mobile fueling vehicle with a mounted tank in excess of 110 gallons (415 L) shall comply with the requirements of Section 5706.6, Section 5707, and NFPA 385.~~

2. ~~A vehicle that carries a maximum of 60 gallons (227 L) of motor fuel in metal safety cans listed in accordance with UL 30 or other approved metal containers each not to exceed 5 gallons (19 L) in capacity. Containers shall be secured to the mobile fueling vehicle except when in use.~~

~~The mobile fueling vehicle shall comply with the requirements of all local, state and federal requirements. The mobile fueling vehicle and its equipment shall be maintained in good repair.~~

5707.3 Required documents. ~~Documents developed to comply with Sections 5707.3.1 through 5707.3.3 shall be updated as necessary by the owner of the mobile fueling operation and shall be maintained in compliance with Section 107.3.~~

5707.3.1 Safety and emergency response plan. ~~Mobile fueling operators shall have an approved written safety and emergency response plan that establishes policies and procedures for fire safety, spill prevention and control, personnel training and compliance with other applicable requirements of this code.~~

5707.3.2 Training records. ~~Mobile fueling vehicles shall be operated only by designated personnel who are trained on proper fueling procedures and the safety and emergency response plan. Training records of operators shall be maintained.~~

5707.3.3 Site plan. ~~Where required by the fire code official, a site plan shall be developed for each location at which mobile fueling occurs. The site plan shall be in sufficient detail to indicate: all buildings, structures, lot lines, property lines, and appurtenances on-site and their use or function; all uses adjacent to the lot lines of the site; fueling locations, the locations of all storm drain openings, and adjacent waterways~~





~~or wetlands; information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and the scale of the site plan.~~

~~**5707.4 Mobile fueling areas.** Mobile fueling shall not occur on public streets, public ways, or inside buildings. Fueling on the roof level of parking structures or other buildings is prohibited.~~

~~**5707.4.1 Separation.** Mobile fueling shall not take place within 25 feet (7620 mm) of buildings, property lines, or combustible storage.~~

~~**Exception:** The fire code official shall be authorized to decrease the separation distance for dispensing from metal safety cans or other approved metal containers in accordance with Section 5707.2. When dispensing operations occur within 15 feet (4572 mm) of a storm drain, an approved storm drain cover or an approved equivalent method that will prevent any fuel from reaching the drain shall be used.~~

~~**5707.4.2 Sources of ignition.** Smoking, open flames, and other sources of ignition shall be prohibited within 25 feet (7620 mm) of fuel dispensing activities. Signs prohibiting smoking or open flames within 25 feet (7620 mm) of the vehicle or the point of fueling shall be prominently posted on the mobile fueling vehicle. The engines of vehicles being fueled shall be shut off during fueling.~~

~~**5707.5 Equipment.** Mobile fueling equipment shall comply with Sections 5707.5.1 through 5707.5.4.~~

~~**5707.5.1 Dispensing hoses and nozzles.** Where equipped, the dispensing hose shall not exceed 50 feet (15 240 mm) in length. The dispensing nozzles and hoses shall be of an approved and listed type.~~

~~**5707.5.2 Fuel limit.** Mobile fueling vehicles shall be equipped with a fuel limit switch set to a maximum of 30 gallons (116 L) and a nozzle or other approved device that, when activated, immediately causes flow of fuel from the mobile fueling vehicle to cease.~~

~~**5707.5.3 Fire extinguisher.** An approved portable fire extinguisher complying with Section 906 with a minimum rating of 40-B:C shall be provided on the mobile fueling vehicle with signage clearly indicating its location.~~

~~**5707.5.4 Spill kit.** Mobile fueling vehicles shall contain a minimum 5 gallon (19 L) spill kit of an approved type.~~

~~**5707.6 Operations.** Mobile fueling vehicles shall be constantly attended during fueling operations with brakes set and warning lights in operation. Mobile fueling vehicles shall not obstruct emergency vehicle access roads.~~

~~**5707.6.1 Dispensing hose.** Where equipped, mobile fueling vehicles shall be positioned in a~~

~~manner to preclude traffic from driving over the dispensing hose. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the mobile fueling vehicle.~~

~~**5707.6.2 Drip control.** Operators shall place a drip pan or an absorbent pillow under the nozzle to catch drips and under each fuel fill opening prior to and during dispensing operations.~~

~~**5707.6.3 Spill reporting.** Spills shall be reported in accordance with Section 5003.3.1.~~

[Appendix Chapter 4]

Appendix Chapter 4



...

435.3.3 Limitations seven or more clients. Group R-4 occupancies where non-ambulatory clients are housed above the first story and there is more than 3,000 square feet (279 m²) of floor area above the first story or housing not more than 16 clients above the first story shall be constructed of not less than one-hour fire-resistance-rated construction throughout.

435.3.4 Ambulatory and Non-ambulatory elderly clients. Group R-4 occupancies housing non-ambulatory elderly clients shall be of not less than one-hour fire-resistance-rated construction throughout.

...

435.8.7 Floor separation. Group R-3.1 occupancies ~~with non-ambulatory clients housed above the first floor~~ shall be provided with a ~~non-fire~~ fire resistance constructed floor separation at stairs which will prevent smoke migration between floors. Such floor separation shall have equivalent construction of 0.5-inch (12.7 mm) gypsum wallboard on one side of wall framing.

Exceptions:

1. Occupancies with at least one exterior exit from floors occupied by clients.
2. Occupancies provided with automatic fire sprinkler systems complying with Chapter 9.

...

SECTION 437

**~~SPECIAL PROVISIONS FOR LICENSED 24-HOUR
CARE FACILITIES IN GROUPS I-1, R-3.1, AND R-4~~**

~~437.1 Operators Statement.~~ ~~Every person, firm or corporation maintaining or operating any Group I or R-2.1, R-3.1 or R-4 Occupancy shall provide an operators statement in accordance with Section 13132 of the Health and Safety Code which reads as follows:~~

~~"13132. Every person, firm or corporation maintaining or operating any facility for the care of the mentally handicapped shall file a statement with the fire authority having jurisdiction within five days of the admission or readmission of a patient stating that such patient is an ambulatory or a non-ambulatory person and enumerating the reasons for such classification. Such a statement shall also be filed for each existing patient within 30 days of the effective date of this section. Any statement required to be filed pursuant to this section shall be certified as to its correctness by the person attending such patient. It shall be unlawful for any person, firm, or corporation required to file a statement pursuant to this section to include false statements therein. Any such act shall be in violation of this section and subject to the provisions of Section 13112."~~

...

455.8 Exiting. See Section ~~4015.7~~ 1006.2.2.7.



[Appendix O]

[Move the current California amendments to a new Appendix Letter O]

**APPENDIX ~~N-O~~
TEMPORARY HAUNTED HOUSES,
GHOST WALKS AND SIMILAR AMUSEMENT USES**

Item 2. Carbon Monoxide

...

[915.1]

915.1 General. Carbon monoxide detection shall be installed in new buildings in accordance with Sections 915.1.1 through 915.7. Carbon monoxide detection shall be installed in existing buildings in accordance with *this section* and Chapter 11 of the ~~International~~ California Fire Code.

JAN 16 2019

APPROVED

Pursuant to Health and Safety Code Section 17926, carbon monoxide detection shall be installed in all existing Group R buildings as required in this section.

...
[915.2.3]

915.2.3 Group E occupancies. Carbon monoxide detectors shall be installed in classrooms in Group E occupancies where classrooms include any of the conditions identified in Sections 915.1.2 through 915.1.6. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

Exception: Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 30 or less.

...
[915.4.2]

915.4.2 Listings. Residential Carbon monoxide alarms shall be listed in accordance with UL 2034.

...
[1103.9]

1103.9 Carbon monoxide alarms. Carbon monoxide alarms shall be installed in existing dwelling units and sleeping units where those units include any of the conditions identified in Sections 915.1.2 through 915.1.6. The carbon monoxide alarms shall be installed in the locations specified in Section 915.2 and the installation shall be in accordance with Section 915.4.

Exceptions:

- ~~1. Carbon monoxide alarms are permitted to be solely battery operated where the code that was in effect at the time of construction did not require carbon monoxide detection to be provided.~~
- ~~2. Carbon monoxide alarms are permitted to be solely battery operated in dwelling units that are not served from a commercial power source.~~
3. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms.

Withdrawn, per addendum at
1.16-19 Commission meeting.



[1103.9.1]

1103.9.1 Carbon monoxide detection in existing Group E buildings. For the purposes of carbon monoxide detection, an existing Group E is a building constructed before January 1, 2017. When an existing Group E occupancies has a fossil, fuel burning furnace located inside the building the school is encouraged to install carbon monoxide detection in accordance with the California Existing Building Code.

No person shall install, market, distribute, offer for sale, or sell any carbon monoxide device in the State of California unless the device and instructions have been approved and listed by the Office of the State Fire Marshal.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 3. Tanks in Underground Areas Only

...

[5703.6.2.2]

5703.6.2.2 Below-grade or underground piping systems connected to a tank in an underground area. Below-grade or underground piping systems that are connected to a tank in an underground area shall have secondary containment. The building, room or area in which the flammable or combustible liquid is stored or located may be used as secondary containment if it meets the containment and drainage methods as described in Section 5004.2.2.1.

All portions of below-grade and underground piping systems shall be monitored for leaks by one of the following methods:

1. A listed or approved leak detection system that either activates an audible and visual alarm or stops the flow of product when a leak is detected.
2. Direct visual inspection conducted monthly by designated personnel.
3. Indirect visual inspection conducted monthly through the use of, but not limited to, mirrors, cameras or video equipment.
4. If the above methods cannot be met, an alternative means shall be provided in accordance with Section 1.11.2.4.

Exceptions: The provisions of Section 5703.6.2.2 shall not apply to the following piping systems:

1. Piping systems connected to a tank in an underground area that is used solely in connection with a fire pump or emergency system, legally required standby system, or optional standby system as specified in Health and Safety Code Section 25270.2(o)(1)(C)(iii).
2. Piping systems connected to a tank in an underground area that contains petroleum to be used or previously used as a lubricant or coolant in a motor engine or transmission or oil-filled operational equipment or oil-filled manufacturing equipment, as described in Health and Safety Code Section 25270.2(o)(1)(C)(i).
3. Piping systems connected to a petroleum hazardous waste tank in an underground area that complies with the hazardous waste tank standards pursuant to the California Code of Regulations, Title 22, Chapter 15, Article 10 (commencing with Section 66265.190), and the facility has been issued a unified program facility permit pursuant to Health and Safety Code Section 25404.2 for generation, treatment, accumulation, or storage of hazardous waste, as described in Health and Safety Code Section 25270.2(o)(1)(C)(ii).



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, 25270.4.1(a)
Reference(s): Health and Safety Code Section 25270.2(o)



Item 4. WITHDRAWN

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 5. L- Occupancy Work Group

[202 LABORATORY SUITE]

202

LABORATORY SUITE. [SFM] *A laboratory suite is a Group L Occupancy space within a building or structure, which may include multiple laboratories, offices, storage, equipment rooms or similar support functions, where the aggregate quantities of hazardous materials stored and used do not exceed the quantities set forth in the California Building Code Table 453.7.3.1 (see the California Building Code Section 453).*

[202 Uses other than Group H]

Uses other than Group H

~~17. Group B higher education laboratory occupancies complying with Section 428 of the International Building Code and Chapter 38 of this code. [SFM] Group L occupancies defined in Section 453.4~~

[903.2.16]

903.2.16 Group L occupancies. *An automatic sprinkler system shall be installed*

~~throughout buildings housing Group L occupancies. Sprinkler systems design for research laboratories and similar areas of a Group L occupancy shall be designed for the square footage area of the L Occupancy based on an area of sprinkler operation of 2,500 square feet (232 m²) and design density of 0.20 gpm/sf. not be less than that required for Ordinary Hazard Group 2 with a design area of not less than 3,000 square feet (279 m²).~~

~~In mixed occupancies, portions of floors or buildings not classified as with Group L occupancies, but not classified as Group L, shall be provided with sprinkler protection system per NFPA 13, designed of not less than that required for Ordinary Hazard Group 1 with a design area of not less than 3,000 square feet (279 m²).~~

...

[903.2.16.1]



903.2.16.1 Group L occupancies located above the 10th story on the 11th story and above. ~~The automatic sprinkler system shall be designed and zoned to provide separate indication upon water-flow for each side of the 2-hour fire-smoke barrier above the 10th story on the 11th story and above.~~

...

[903.2.5.4]

903.2.5.4 Group H occupancies located above the 10th story on the 11th story and above. ~~The fire sprinkler system shall be designed and zoned to provide separate indication upon water-flow for each side of the 2-hour fire-smoke barrier above the 10th story on the 11th story and above.~~

...

[907.2.28]

907.2.28 Group L. ~~A manual fire alarm system shall be installed throughout buildings containing having~~ Group L occupancies.

~~When Group L occupancies are located in mixed use buildings, at least one manual fire alarm box shall be located within the Group L occupancy.~~

...



[907.2.28.1]

907.2.28.1 *Group L occupancies located ~~above the 10th story~~ on the 11th story and above. Manual fire alarm boxes shall be required on each side of the 2-hour fire-smoke barrier and at each exit ~~above the 10th story~~ on the 11th story and above.*

...

[907.6.4]

907.6.4 Zones. *Fire alarm systems shall be divided into zones where required by this section. For the purposes of annunciation and notification, zoning shall be in accordance with the following:*

- 1. Where the fire-protective signaling, system serves more than one building, each building shall be considered as a separate zone.*
- 2. Each floor of a building shall be considered as a separate zone.*
- 3. Each section of floor of a building that is separated by fire walls or by horizontal exits shall be considered as a separate zone.*
- 4. Each zone shall not exceed 22,500 square feet (2090 m²). The length of any zone shall not exceed 300 feet (91 440 mm) in any direction.*

Exception: Automatic sprinkler system zones shall not exceed the area permitted by NFPA 13.

- 5. For Group I-3 occupancies each cell complex shall be considered a separate zone.*
- 6. For Group H and L occupancies ~~above the 10th story~~ on the 11th story and above, each side of the 2-hour fire-smoke barrier shall be considered a separate zone.*
- 7. Annunciation shall be further divided into zones where deemed necessary by the enforcing agency.*

...

[TABLE 1004.5]

TABLE 1004.5
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

Laboratory	50 net
Educational (K-12)	100 net
Laboratories, non-educational	200 gross
Laboratory suite ^b	



[1006.2.1]

1006.2.1

SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

<u>L</u>	See Section 453.6.1	<u>NP</u>	<u>NP</u>	<u>NP</u>
----------	---------------------	-----------	-----------	-----------

[TABLE 1006.3.3(2)]

TABLE 1006.3.3(2)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES ^e

STORY	OCCUPANCY	MAXIMUM OCCUPANT LOAD PER STORY	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)
First story above or below grade plane	A, B ^b , E F ^b , M, U	49	75
	H-2, H-3	3	25
	H-4, H-5, I, R-1, R-2 ^{a, c}	10	75
	S ^{b, d}	29	75
Second story above grade plane	B, F, M, S ^d	29	75
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

a. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1030.

b. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum exit access travel distance of 100 feet.

c. This table is used for R-2 occupancies consisting of sleeping units. For R-2 occupancies consisting of dwelling units, use Table 1006.3.3(1).

d. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet.

e. For L Occupancies see Section 453.6.1.



...
[TABLE 5003.1.1(1)]

TABLE 5003.1.1(1)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS
MATERIALS POSING A PHYSICAL HAZARD
(footnote in the table)

...
d. [SFM] In other than Group L occupancies, maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively. For Group L Occupancies, refer to California Building Code Table 453.7.2.1 for approved cabinets.

[TABLE 5003.1.1(2)]

TABLE 5003.1.1(2)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS
MATERIALS POSING A PHYSICAL HAZARD
(footnote in the table)

...
d. [SFM] In other than Group L occupancies, maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively. For Group L Occupancies, refer to California Building Code Table 453.7.2.1 for approved cabinets.



Item 6. Higher Education Laboratories

[The chapter 38, Higher Education Laboratories, is to be removed in its entirety]

[Also, the related section to be changed:]

[202 Definitions]

...
~~**HIGHER EDUCATION LABORATORY** Laboratories in Group B occupancies used for educational purposes above the 12th grade. Storage, use and handling of chemicals in such laboratories shall be limited to purposes related to testing, analysis, teaching, research or developmental activities on a nonproduction basis.~~

...
~~**LABORATORY SUITE.** A fire-rated enclosed laboratory area that will provide one or more laboratory spaces, within a Group B educational occupancy, that are permitted to include ancillary uses such as offices, bathrooms, and corridors that are contiguous with the laboratory area, and are constructed in accordance with section 3804.~~

[Uses other than Group H]

Uses other than Group H.

...
~~17. Group B higher education laboratory occupancies complying with Section 428 of the International Building Code and Chapter 38 of this code. [SFM] Group L occupancies defined in Section 453.4~~

[5003.8.3]

5003.8.3 Control areas. *Control areas* shall comply with Sections 5003.8.3.1 through 5003.8.3.5.

Exception: Higher education laboratories in accordance with Chapter 38 and Section 427 of the *International Building Code*.

[2702.2.17]

...
~~**2702.2.17 Laboratory suites.** Higher education laboratory suites shall be provided with emergency or standby power in accordance with Section 3804.11.6.~~



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 7 Gaseous H2 Mobile Fueling

[Table of Contents]

[Add new section in the Table of Contents of Chapter 58 as follows:]

CHAPTER 58 FLAMMABLE GASES AND FLAMMABLE CRYOGENIC FLUIDS **..... 531**

Section

5801 General	531
5802 Definitions	531
5803 General Requirements	531
5804 Storage	532
5805 Use	532
5806 Flammable Cryogenic Fluids	532
5807 Metal Hydride Storage Systems	533
5808 Hydrogen Fuel Gas Rooms	534
<u>5809 Mobile Fueling of Hydrogen-Fueled Vehicles</u>	<u>535</u>

[105.6.17.1]

[Add new required operational permits sub-section 105.6.17.1 Mobile fueling of hydrogen-fueled vehicles:]

105.6.17.1 Mobile fueling of hydrogen-fueled vehicles. An operational permit is required:

1. To engage in the mobile dispensing of gaseous hydrogen as a fuel into the fuel tanks of motor vehicles.



2. Where required by the fire code official, to utilize a site for the dispensing of gaseous hydrogen as a fuel from tank vehicles into the fuel tanks of motor vehicles.

Exception: In cases of an emergency, a site permit is not required.

...

[Section 202]

[Add new definition to Section 202 General Definitions as follows:]

HYDROGEN-FUELED VEHICLES. Hydrogen-fueled vehicles are motor vehicles having compressed hydrogen fuel storage tanks on-board and using hydrogen fuel directly or indirectly for the motor vehicle propulsion. Hydrogen-fueled vehicles include fuel cell electric vehicles, battery electric vehicles with fuel cell range extender and internal combustion engine vehicles.

...

[Modify the definition of Mobile Fueling in Section 202 General Definitions as follows:]

MOBILE FUELING. The operation of dispensing liquid and gaseous fuels from tank vehicles into the fuel tanks of motor vehicles. Mobile fueling may also be known by the terms "Mobile fleet fueling," and for conventional liquid fuels as "Wet fueling" and "Wet hosing."

...

ROADSIDE HYDROGEN SERVICE VEHICLES. Approved vehicles used for dispensing of compressed gaseous hydrogen at partial pressure into the fuel tanks of hydrogen-fueled vehicles from on-board hydrogen supply tanks.

...

[5801.1]

[Add new text to Section 58 as follows:]

5801.1 Scope. The storage and use of flammable gases and flammable cryogenic fluids shall be in accordance with this chapter, NFPA 2 and NFPA 55. Compressed gases shall also comply with Chapter 53 and cryogenic fluids shall also comply with Chapter 55. Flammable cryogenic fluids shall comply with Section 5806. Hydrogen motor fuel-dispensing stations and repair garages and their associated above-ground hydrogen storage systems shall also be designed,

constructed and maintained in accordance with Chapter 23 and NFPA 2. Mobile fueling of hydrogen-fueled vehicles shall comply with Section 5809.

Exceptions:

1. Gases used as refrigerants in refrigeration systems (see Section 605).
2. Liquefied petroleum gases and natural gases regulated by Chapter 61.
3. Fuel-gas systems and appliances regulated under the International Fuel Gas Code California Mechanical and the California Plumbing Code other than gaseous hydrogen systems and appliances.
4. Pyrophoric gases in accordance with Chapter 64.



[5809- New Section]

[Add new Section 5809 as follows:]

SECTION 5809

MOBILE GASEOUS FUELING OF HYDROGEN FUELED VEHICLES

5809.1 General. Mobile fueling of gaseous hydrogen into the fuel tanks of hydrogen-fueled vehicles shall comply with Sections 5809.1 through 5809.6. Mobile fueling of liquid hydrogen is prohibited.

5809.1.1 Approval required. Mobile hydrogen fueling operations shall not be conducted without first obtaining a permit and approval from the fire code official. Mobile hydrogen fueling operations shall occur only at approved locations within the jurisdiction.

5809.2 Roadside service vehicles. Roadside hydrogen service vehicles shall comply with the following:

1. Roadside hydrogen service vehicles and hydrogen supply tanks shall comply with U.S. DOT requirements for the transportation of hydrogen gas.
2. Individual hydrogen fuel supply tanks installed on roadside hydrogen service vehicles shall have a maximum individual fuel capacity of 1,270 cubic feet (3 kg) of hydrogen.



3. The maximum aggregate amount of all hydrogen fuel in the supply tanks of roadside hydrogen service vehicles shall not exceed 4,233 cubic feet (10 kg) of hydrogen.
4. The roadside hydrogen service vehicle shall comply with all local, state and federal requirements.
5. The vehicle and its equipment shall be maintained in good repair.

5809.3 Required Documents. Documents developed to comply with Sections 5809.3.1 through 5809.3.4 shall be submitted to the fire code official prior to approval of the permit application to conduct mobile gaseous hydrogen fueling operations. The required documents shall be maintained and updated when necessary by the permittee. Any modifications to an approved plan shall be submitted as needed and made available to the fire code official for review and approval.

5809.3.1. Safety and emergency response plan. The owner of a mobile hydrogen fueling operation shall develop a written safety and emergency response plan that:

1. Establishes policies and procedures for fire safety, hydrogen leak prevention and control, personnel training and compliance with other applicable requirements of this code; and
2. Demonstrates readiness to respond to a hydrogen leak and carry out appropriate mitigation measures.

5809.3.2. Standard operating procedures. The owner of a mobile hydrogen fueling operation shall develop a written fueling standard operating procedure (SOP) that:

1. Clearly and unambiguously describes the sequence of steps that a roadside gaseous hydrogen service vehicle operator needs to take to ensure safety of gaseous hydrogen fueling and compliance with the fueling protocol requirements;
2. Establishes a fueling protocol that is consistent with applicable requirements of a recognized national standard such as SAE J2601. Compliance with these requirements shall be demonstrated by a valid test record from an independent third party such as a recognized hydrogen-fueled vehicle OEM (Original Equipment Manufacturer).

5809.3.3 Training records. Persons performing dispensing operations shall be



qualified to deliver and dispense gaseous hydrogen fuels and shall be trained in these standards that are being created, the equipment manufacturer's training and the appropriate mitigating actions in the event of a fire or a hydrogen leak prior to beginning the dispensing operations. Re-training shall be performed periodically, but no less frequent than annually. Training records shall be maintained by the dispensing company and made available to the fire code official upon request.

5809.3.4 Site plan. Where required by the fire code official for other than emergency roadside service, a site plan shall be developed for each location at which mobile gaseous hydrogen fueling occurs. The site plan shall be in sufficient detail to indicate: all buildings, structures, lot lines, property lines and appurtenances on site and their use and function, and the scale of the site plan.

5809.4 Mobile hydrogen fueling areas. Areas where mobile hydrogen fueling is allowed shall comply with Sections 5809.4.1 through 5809.4.3.

5809.4.1 Prohibited locations. Mobile hydrogen fueling shall not occur on public streets, public ways or inside buildings. Fueling on the roof level of parking structures or other buildings is prohibited.

Exception: Fueling hydrogen-fueled vehicles on a public street during a roadside emergency.

5809.4.2 Separation. The point of connection between the roadside hydrogen service vehicle and the hydrogen-fuel vehicle shall not be less than 15 feet (4572 mm) from buildings, property lines or combustible storage.

5809.4.3 Sources of ignition. Smoking, open flames, and other sources of ignition, including un-rated electrical equipment, shall be prohibited within 25 feet (7620 mm) of fuel dispensing activities. Signs prohibiting smoking or open flames within 25 feet (7620 mm) of the vehicle or the point of fueling shall be prominently posted on the mobile fueling vehicle. The engines of vehicles being fueled shall be shut off during fueling.

5809.5 Equipment. Mobile hydrogen fueling equipment shall comply with Sections 5809.5.1 through 5809.5.4.

5809.5.1 Listed equipment. Roadside hydrogen service vehicle fuel dispensing equipment and appurtenances shall be listed or approved by a recognized third party for its intended use.

5809.5.2 Dispensing hose. The dispensing hose shall be equipped with a breakaway coupling installed within 3 feet (1 m) from the dispensing nozzle.

5809.5.3. Hose reel. The dispensing hose shall be properly placed on an



approved reel or in an approved compartment before moving the roadside hydrogen service vehicle.

5809.5.4 Pressure limit. Only dispensing of compressed gaseous hydrogen at partial pressure into the fuel tanks of hydrogen-fueled vehicles from on-board hydrogen supply tanks is allowed.

5809.6 Operations. Mobile hydrogen fueling operations shall comply with Sections 5809.6.1 through 5809.6.6.

5809.6.1 Attendance. Roadside hydrogen service vehicles shall be constantly attended during fueling operations.

5809.6.2 Bonding cable. A bonding cable shall be securely connected between the mobile fueling vehicle and the fueled vehicle prior to the start of the dispensing operation.

5809.6.3 Positioning of fueling vehicle. Roadside hydrogen service vehicles shall be positioned with respect to vehicles being fueled to prevent traffic from driving over the delivery hose and between the transport vehicle and motor vehicle being fueled.

5809.6.4 Brakes. During fueling operations, mobile fueling vehicles brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.

5809.6.5 Fire extinguisher. A portable fire extinguisher with a minimum rating of 40: BC shall be provided on the mobile, roadside service hydrogen fueling vehicle with signage clearly indicating its location.

5809.6.6 Emergency communication device. Operators of mobile, roadside service hydrogen fueling vehicles shall have in their possession at all times an emergency communication device to notify the proper authorities in the event of an emergency during fueling.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 8. I-3 Occupancy



[804.3.3.1]

~~803.3.3.1 Pill test. In all occupancies, new floor covering materials shall comply with the requirements of the DOC FF-1 "pill test" (CPSC 16 CFR Part 1630) or of ASTM D2859.~~

804.3.3.1 Test requirement. *In all occupancies, interior floor finish and interior floor covering materials shall comply with the requirements of ASTM Standard E 648, and having a specific optical density smoke rating not to exceed 450 per ASTM E662. For Group I-3 occupancies and Group I-2 areas where patients are restrained, see Section 804.3.3.3.*

[804.3.3.2]

804.3.3.2 Minimum critical radiant flux. In all occupancies, interior floor finish and floor covering materials in enclosures for stairways and ramps, exit passageways, corridors and rooms or spaces not separated from corridors by partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux. The minimum critical radiant flux shall be not less than Class I in Groups I-2, I-3 areas where restraint is not used and R-2.1 and not less than Class II in Groups A, B, E, H, I-2.1, I-4, M, R-1, R-2, R-2.2 and S.

Exception: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, Class II materials are permitted in any area where Class I materials are required, and materials complying with ASTM Standard E648, and having a specific optical density smoke rating not to exceed 450 per ASTM E662 are permitted in any area where Class II materials are required.

For Group I-3 areas occupied by inmates or Group I-2 areas where patients are restrained, see Section 804.4.3.

[804.3.3.3]

804.3.3.3 Group I-2 and Group I-3 floor surfaces. *Interior floor finish and floor coverings occupied by inmates or patients whose personal liberties are restrained shall be noncombustible.*

Carpet or other floor covering materials may be used in areas protected by an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1. Carpet or other floor coverings shall comply with the requirements of ASTM Standard E648; the minimum critical radiant flux shall be not less than Class I and the specific optical density smoke rating shall not exceed 450 per ASTM E662. Carpeting and carpet padding shall be tested as a unit in accordance with floor covering radiant panel test meeting class 1 and has a critical radiant flux limit of not less than 0.45 watt per centimeter square. The carpeting and padding shall be identified by a hang-tag or other suitable method as to manufacturer and style and shall indicate the classification of the material based on the limits set forth above.

...

[905.3.10]



905.3.10 Group 1-3. A Housing units Pod within cell complexes Housing Units where 50 or more inmates are restrained, shall be provided with Class I wet standpipes. In addition, Class I wet standpipes shall be located so that it will not be necessary to extend hose lines through interlocking security doors and any doors in smoke-barrier walls, horizontal fire walls or fire barrier walls. Standpipes located in ~~cell complexes~~ Housing Units may be placed in secured pipe chases.

...

[Table 1004.5- WITHDRAWN]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 9. Table 1004.5 -WITHDRAWN

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, 13110, 13114, 13143,

13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50
Reference(s): Health and Safety Code Sections 13143, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178 and 51179, Public Resources Code Sections 4201 through 4204.

Item 10. Stairway Capacity

...

[1005.3.1]



1005.3.1 Stairways. The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.3 inch (7.6 mm) per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story.

Exceptions:

1. For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.
2. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1029.6.2 indicated for stepped aisles for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.
3. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1029.6.3 indicated for stepped aisles for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.
4. *For Group H-1, H-2, H-3 and H-4 occupancies the total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by 0.7 inches (7.62 mm) per occupant.*

~~5. For rooms or spaces used for assembly purposes without smoke protection see Section 1029.~~

[1005.3.2]

1005.3.2 Other egress components. The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

Exceptions:

1. For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.
2. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1029.6.2 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.
3. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1029.6.3 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.
4. *For Group H-1, H-2, H-3 and H-4 occupancies the total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by 0.4 inches (5.08 111mm) per occupant.*
- ~~5. Means of egress complying with Section 1029.~~



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Code Sections 4201 through 4204.

Item 11. Class A Wiring in High-rise buildings

...

[907.6.1.1]



907.6.1.1 High-rise buildings. Wiring for fire alarm network communication circuits between multiple-control units signaling line circuits, initiating circuits and notification circuits in high-rise buildings shall be in accordance with the following:

1. Class A or Class X installed in accordance with NFPA 72.

Exception: ~~Initiating circuits which serve only a single initiating device.~~

2. Installed in E-enclosed in continuous metallic raceways in accordance with the California Electrical Code.

Exception: ~~Metallic cable (MC) shall be permitted for fire alarm notification circuits where continuous metallic raceways are not required for survivability.~~

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 12. NFPA 13 Waterflow test

[Chapter 80 NFPA 13 section 23.2.1.1]

[Revise Section 23.2.1.1 as follows:]

23.2.1.1* Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than ~~42~~ 6 months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 13. OSHPD I-2 and I-2.1

**CHAPTER 2
DEFINITIONS**



[CARE SUITE]

...

CARE SUITE. In Group I-2 or I-2.1 occupancies, a group of treatment rooms, care recipient sleeping rooms and the support rooms or spaces and circulation space within the suite where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.4.

...

[NON-PATIENT-CARE SUITE]

NON-PATIENT-CARE SUITE. *In Group I-2 or I-2.1 occupancies, a group of rooms or spaces within a suite for use as administrative, business and professional offices.*

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



[907.5.1]

907.5.1 Pre-signal feature. A pre-signal feature shall not be installed unless *approved by the fire code official*. Where a pre-signal feature is provided, a signal shall be annunciated at a constantly attended location *approved by the fire code official*, so that occupant notification can be activated in the event of fire or other emergency.

Exception: A pre-signal feature shall not be permitted to be installed in a Group I-2, I-2.1 or R-2.1 occupancy.

[907.5.2.2]

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving *approved* information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings *and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access*, the system shall operate on at least the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. *Interior exit stairways.*
3. Each floor.
4. *Areas of refuge as defined in Chapter 2.*

~~**Exception:** In Group I-2, I-2.1 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.~~

Exception: In Group I-2 *and I-2.1* occupancies, *where in accordance with Section 907.5.2.5, audible fire alarm notification devices are not provided, upon receipt of an alarm at a constantly attended location, a general occupant notification shall be broadcast over the public-address system.*

[907.5.2.5]

907.5.2.5 Groups I-2 and I-2.1. Audible appliances shall be used in nonpatient areas. Visible appliances are allowed to be used in lieu of audible appliances in patient occupied areas. Audible appliances located in patient areas shall be only chimes or similar sounding appliances for alerting staff.



Where audible fire alarm notification devices are not provided, upon receipt of an alarm at a constantly attended location, a general occupant notification shall be broadcast over the public-address system.

In occupancies housing non-ambulatory persons where restraint is practiced, staff and attendants shall be provided and housed or located in such a manner that such supervisory personnel will also be alerted upon activation of the fire alarm system or any detector required by this section.

[909.5.3]

909.5.3 Opening protection. Openings in *smoke barriers* shall be protected by ~~self-closing devices~~ 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.

[909.5.3.1]

909.5.3.1 Group I-2, I-2.1, R-2.1, and ambulatory care facilities. In Group I-2, I-2.1, R-2.1, and *ambulatory care facilities*, where doors are installed across a corridor, the doors shall be automatic-closing by smoke detection in accordance with Section 716.2.6.5 ~~6~~ and shall have a vision panel with fire-protection-rated glazing materials in fire protection-rated frames, the area of which shall not exceed that tested. In Group I-2, where swinging doors are installed across a corridor, such doors shall be opposite swinging pairs.

CHAPTER 10 MEANS OF EGRESS

...

[1006.2.1]

1006.2.1 Egress based on occupant load and common path of egress travel distance. Two exits or *exit access doorways* from any space shall be provided where the design *occupant load* or the *common path of egress travel distance* exceeds the values listed in Table 1006.2.1. The cumulative *occupant load* from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

Exceptions:

1. The number of exits from foyers, lobbies, vestibules or similar spaces need not be based on cumulative *occupant loads* for areas



discharging through such spaces, but the capacity of the exits from such spaces shall be based on applicable cumulative *occupant loads*.

2. Rooms and care suites in Group I-2 and I-2.1 occupancies complying with Section 407.4.

3. *In detention and correctional facilities and holding cells, such as are found in courthouse buildings, when the occupant load is more than 20 see Section 408.3.11.*

[TABLE 1006.2.1]

TABLE 1006.2.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY
[Table not shown]

Notes:

- a. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2
- b. Group H occupancies equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.
- c. For a room or space used for assembly purposes having fixed seating, see Section 1029.8.
- d. For the travel distance limitations and number of exit and exit access requirements for rooms and spaces in Group I- 2 or I-2.1, see Section 407.4.
- e. The common path of egress travel distance shall only apply in a Group R-3 occupancy located in a mixed occupancy building.
- f. The length of common path of egress travel distance in a Group S-2 open parking garage shall be not more than 100 feet.
- g. For the travel distance limitations in Group R-3 and R-4 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3, see Section 1006.2.2.6.
- h. For holding cells, see Section 408.3.11.



[1008.3.2]

1008.3.2 Buildings. In the event of power supply failure in buildings that require two or more *means of egress*, an emergency electrical system shall automatically illuminate all of the following areas:

1. Interior exit access stairways and ramps.
2. Interior and exterior exit stairways and ramps.
3. Exit passageways.
4. Vestibules and areas on the level of discharge used for exit discharge in accordance with Section 1028.1.
5. Exterior landings as required by Section 1010.1.6 for exit doorways that lead directly to the exit discharge.

6. Group I-2 and I-2.1 exit discharge stairways, ramps, aisles, walkways and escalators leading to a public way or to a safe dispersal area in accordance with Section 1028.5.

...

[1010.1.1.1]

1010.1.1.1 Projections into clear width. There shall not be projections into the required clear opening width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm).

Exceptions:

1. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.
2. In a Group I-2 or I-2.1 occupancy, there shall be no projections into the clear width of doors used for the movement of beds and stretcher patients in the means of egress.

...

[1020.1]

1020.1 Construction. *Corridors* shall be fire-resistance rated in accordance with

Table 1020.1. The *corridor* walls required to be fire-resistance rated shall comply with Section 708 for *fire partitions*.

Exceptions:

1. A fire-resistance rating is not required for *corridors* in an occupancy in Group E where each room that is used for instruction has not less than one door opening directly to the exterior and rooms for assembly purposes have not less than one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a *dwelling unit* or *sleeping unit* in an occupancy in Groups I-4 and R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B that is a space requiring only a single *means of egress* complying with Section 1006.2.
5. Corridors adjacent to the *exterior walls* of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 602 and unprotected openings are permitted by Table 705.8.
6. A fire-resistance rating is not required for corridors within *suites* in a Group I-2 or I-2.1 constructed in accordance with Section 407.4.4.5, or 407.4.4.6 or 407.4.5.



[1024.6]

1024.6 Penetrations. Penetrations into or through an *exit passageway* are prohibited except for the following:

1. Equipment and ductwork necessary for independent ventilation or pressurization.
2. Fire protection systems.
3. Security systems.



4. Two-way communication systems.
5. Electrical raceway for fire department communication.
6. Electrical raceway serving the *exit passageway* and terminating at a steel box not exceeding 16 square inches (0.010 m²).

Such penetrations shall be protected in accordance with Section 714. There shall not be penetrations or communicating openings, whether protected or not, between adjacent *exit passageways*.

Exception: Membrane penetrations shall be permitted on the outside of the *exit passageway*. Such penetrations shall be protected in accordance with Section 714.4.2.

CHAPTER 80 REFERENCED STANDARDS

...

[NFPA 72-2016 23.8.1.2.1.1]

NFPA 72-2016

23.8.1.2.1.1 The positive alarm sequence operation shall comply with the following:

- (1) To initiate the positive alarm sequence operation, the signal from an automatic fire detection device selected for positive alarm sequence operation shall be acknowledged at the fire alarm control unit by trained personnel within 5 seconds of annunciation.
- (2) If the signal is not acknowledged within 15 seconds, notification signals in accordance with the building evacuation or relocation plan and remote signals shall be automatically and immediately activated.
- (3) If the positive alarm sequence operation is initiated in accordance with 23.8.1.2.1.1(1), trained personnel shall have an alarm investigation phase of up to 180 seconds to evaluate the fire condition and reset the system.
- (4) If the system is not reset during the alarm investigation phase, notification signals in accordance with the building evacuation or relocation plan and remote signals shall be automatically and immediately activated.
- (5) If a second automatic fire detector selected for positive alarm sequence is actuated during the alarm investigation phase, notification signals in accordance

with the building evacuation or relocation plan and remote signals shall be automatically and immediately activated.

(6) *If any other fire alarm initiating device is actuated, notification signals in accordance with the building evacuation or relocation plan and remote signals shall be automatically and immediately activated.

(7) Operation of a patient room smoke detector in Group I-2, and R-2.1 occupancies shall not include a positive alarm sequence feature.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 14. R-2.1 Emergency Escape and Rescue Openings

...

[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 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.

Basements and sleeping rooms below the fourth story above grade plane shall have not fewer than one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:





1. In Groups R-1 and R-2 occupancies constructed of Type I, Type IIA, Type IIIA or Type IV construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

2. Group R-2.1 Occupancies, meeting the requirements for delayed egress in accordance with Section 1010.1.9.8 may have operable windows that are breakable in sleeping rooms permanently restricted to a maximum of 4-inch open position.

4.3. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.

24. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.

35. Basements without habitable spaces and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have emergency escape and rescue openings.

46. Within individual dwelling and sleeping units in Groups R-2 and R-3, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:

4.46.1. One means of egress and one emergency escape and rescue opening.

4.26.2. Two means of egress.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

Item 15. R-2.2 Based on SB112

[Chapter 2 Definitions:]



Community Correctional Reentry Centers - California Department of Corrections and Rehabilitation (CDCR) - community-located facilities that provide housing and transitional rehabilitative or community-based programing services for ambulatory inmates. CDCR Program services assist with substance use disorder treatment, employment, education, family reunification, and social support. Program participants remain under the jurisdiction of CDCR, are monitored by CDCR staff and supervised by CDCR approved/contracted program providers 24/7. The facilities include residential living, food services, administrative and program functional spaces in a non-licensed 24 hr. facility.

[Residential Group R-2.2]

Residential Group R-2.2 (CDCR Only). Residential occupancies operated by CDCR in a community located facility that provides housing and community based program services for non-transient ambulatory participants in a non-licensed facility with 24/7 supervision **Community Correctional Reentry Centers.**

[Residential Group R-3]

Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-2.1, R-2.2, R-3.1, R-4 or I, including:

[804.3.3.2]

804.3.3.2 Minimum critical radiant flux. In all occupancies, interior floor finish and floor covering materials in enclosures for stairways and ramps, exit passageways, corridors and rooms or spaces not separated from corridors by partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux. The minimum critical radiant flux shall be not less



than Class I in Groups I-2, I-3 areas where restraint is not used and R-2.1 and not less than Class II in Groups A, B, E, H, I-2.1, I-4, M, R-1, R-2, R-2.2 and S.

Exception: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, Class II materials are permitted in any area where Class I materials are required, and materials complying with ASTM Standard E648, and having a specific optical density smoke rating not to exceed 450 per ASTM E662 are permitted in any area where Class II materials are required.

For Group I-3 areas occupied by inmates or Group I-2 areas where patients are restrained, see Section 804.4.3.

...

[906.1]

906.1 Where required. Portable fire extinguishers shall be installed in all of the following locations:

1. In Group A, B, E, F, H, I, L, M, R-1, R-2, R-2.1, R-2.2, R-3.1, R-4 and S occupancies.

...

[907.2.9]

907.2.9 Group R-2, and R-2.1 and R-2.2. Fire alarm systems and smoke alarms shall be installed in Group R-2 and R-2.1 occupancies as required in Sections 907.2.9.1 through 907.2.9.34.1. Group R-2.2 shall be equipped throughout with an automatic fire alarm system and shall have a manual fire alarm pull station at the 24-hour staff watch office.

...

[907.2.10.2]

907.2.10.2 Groups R-2, R-2.1, R-2.2, R-3, R-3.1 and R-4 and I-4. Single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-2.1, R-2.2, R-3, R-3.1 and R-4 and I-4 regardless of occupant load at all of the following locations:

...

...

[907.2.12.1.2- WITHDRAWN]

[907.5.2.3.3- WITHDRAWN]



[1005.7.1- WITHDRAWN]

[TABLE 1006.2.1]

**TABLE 1006.2.1
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

OCCUPANCY	MAXIMUM OCCUPANT LOAD OF SPACE	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)		
		Without Sprinkler System (feet)		With Sprinkler System (feet)
		Occupant Load		
		OL ≤ 30	OL > 30	
A ^c , E, M	49	75	75	75 ^a
B	49	100	75	100 ^a
F	49	75	75	100 ^a
H-1, H-2, H-3	3	NP	NP	25 ^b
H-4, H-5	10	NP	NP	75 ^b
I-1, I-2 ^d , I-2.1, I-4	10	NP	NP	75 ^a
I-3	10	NP	NP	100 ^a
R-1	10	NP	NP	75 ^a
R-2	20	NP	NP	125 ^a
R-2.1	10	NP	NP	75 ^a
R-2.2	20	NP	NP	125 ^a
R-3 ^e , R-3.1 ^e	20	NP	NP	125 ^{a, g}
R-4 ^e	20	NP	NP	125 ^{a, g}
S ^f	29	100	75	100 ^a
U	49	100	75	75 ^a
L	See CBC Section 453.6.1			



[TABLE 1006.3.3(2)]

TABLE 1006.3.3(2)

STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM OCCUPANT LOAD PER STORY	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)
First story above or below grade plane	A, B ^b , E F ^b , M, U	49	75
	H-2, H-3	3	25
	H-4, H-5, I, R-1, R-2 ^{a, c} , <u>R-2.2</u>	10	75
	S ^{b, d}	29	75
Second story above grade plane	B, F, M, S ^d	29	75
Third story above grade plane and higher	NP	NA	NA

...

[1008.2- WITHDRAWN]

...

[1010.1.2- WITHDRAWN]

...

[1011.11- WITHDRAWN]

...

[1019.3]

1019.3 Occupancies other than Groups I-2, I-2.1, and I-3 and R-2.1. In other than Group I-2, I-2.1 and I-3 and R-2.1 occupancies, floor openings containing exit access stairways or ramps that do not comply with one of the conditions listed in this section shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

1. Exit access stairways and ramps that serve or atmospherically communicate between only two stories. Such interconnected stories shall not be open to other stories.

2. In Group R-1, R-2, R-2.1, R-2.2, or R-3 or R-3.1 occupancies, exit

access stairways and ramps connecting four stories or less serving and contained within an individual dwelling unit or sleeping unit or live/work unit.

...

[1020.4]

1020.4 Dead ends. Where more than one exit or exit access, doorway is required, the exit access shall be arranged such that dead-end corridors do not exceed 20 feet (6096 mm) in length.

Exceptions:

1. In Group I-3, Condition 2, 3 or 4, occupancies, the dead end in a corridor shall not exceed 50 feet (15 240 mm).
2. In occupancies in Groups B, E, F, I-4, M, R-1, R-2, R-2.1, R-2.2, S and U, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the length of the dead-end corridors shall not exceed 50 feet (15 240 mm).
3. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

...

[1027.6-WITHDRAWN]



[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 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.

Basements and sleeping rooms below the fourth story above grade plane shall have not fewer than one exterior emergency escape and rescue

opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

1. In Groups R-1 and R-2 occupancies constructed of Type I, Type IIA, Type IIIA or Type IV construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

2. Group R-2.1 Occupancies, meeting the requirements for delayed egress in accordance with Section 1010.1.9.8 may have operable windows that are breakable in sleeping rooms permanently restricted to a maximum of 4-inch open position.

43. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.

24. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.

35. Basements without habitable spaces and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have emergency escape and rescue openings.

46. Within individual dwelling and sleeping units in Groups R-2 and R-3, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:

4.16.1. One means of egress and one emergency escape and rescue opening.

4.26.2. Two means of egress.



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7. In Group R-2.2 occupancies a certified fire escape is acceptable as a secondary means of egress for existing buildings for this section of the code.

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

****PART 2****

[Chapter 1]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 1 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 2]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 2 without modification.]



(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 3]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 3 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 4]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 4 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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



[Chapter 5]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 5 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 6]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 6 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 7]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 7 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50



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

[Chapter 8]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 8 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 9]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 9 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 10]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 10 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 11]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 10 without modification.]

(Note: See Part 1 of this document for California amendments with editorial updates and errata for adoption into the 2019 California Fire Code.)

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 12]

[The OSFM is proposing to adopt Chapter 12]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 20]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 20 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 21]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 21 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 22]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 21 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 23]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 23 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 24]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 24 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 25]

[The OSFM proposes to not adopt Chapter 25]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 26]

[The OSFM proposes to not adopt Chapter 25]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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



[Chapter 27]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 27 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 28]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 28 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 29]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 29 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 30]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 30 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 31]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 31 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 32]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 32 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 33]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 33 without modification.]





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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 34]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 34 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 35]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 35 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 36]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 36 without modification.]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 37]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 37 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 38]

[The OSFM proposes to not adopt Chapter 38]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 39]

[The OSFM is proposing to adopt Chapter 39]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50



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

[Chapter 48]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 48 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 49]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 49 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 50]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 50 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13211, 18949.2, 25500 through

25545, Government Code Sections 51176, 51177, 51178 and 51179, Public Resources Code Sections 4201 through 4204.

[Chapter 51]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 51 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 53]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 53 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 54]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 54 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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





[Chapter 55]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 55 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 56]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 56 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 57]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 57 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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



[Chapter 58]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 58 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 59]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 59 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 60]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 60 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 61]



[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 61 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 62]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 62 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 63]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 63 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 64]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 64 without modification.]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 65]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 65 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 66]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 66 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 67]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 67 without modification.]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Chapter 80]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter 80 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix 4]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter Appendix 4 without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix A]

[The OSFM proposes to not adopt Appendix A]

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, 13114, 13143, 13143.2,



13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix B]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter Appendix B without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix BB]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter Appendix BB without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix C]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter Appendix C without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix CC]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter Appendix CC without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix D]

[The OSFM proposes to not adopt Appendix D]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix E]

[The OSFM proposes to not adopt Appendix E]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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



[Appendix F]

[The OSFM proposes to not adopt Appendix F]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix G]

[The OSFM proposes to not adopt Appendix G]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix H]

[The OSFM is maintaining the adoption of those existing California amendments or building standards in Chapter Appendix H without modification.]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix I]

[The OSFM proposes to not adopt Appendix I]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix J]

[The OSFM proposes to not adopt Appendix J]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix K]

[The OSFM proposes to not adopt Appendix K]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix L]

[The OSFM proposes to not adopt Appendix L]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government

Code Section 51189, Public Education Code 17074.50

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

[Appendix M]

[The OSFM proposes to not adopt Appendix M]



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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix N]

[The OSFM proposes to not adopt Appendix N this is a new chapter in the International Fire Code. Move the California amendments currently in Appendix N to Appendix O]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

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

[Appendix O]

[The OSFM proposes to not adopt Appendix O. Move the California amendments currently in Appendix N to Appendix O]

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, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

Reference(s): Health and Safety Code Sections 13143, 13211, 18949.2, 25500 through

25545, Government Code Sections 51176, 51177, 51178 and 51179, Public Resources
Code Sections 4201 through 4204.

