EXPRESS TERMS

FOR

PROPOSED BUILDING STANDARDS

OF THE

OFFICE OF THE STATE FIRE MARSHAL (SFM)

REGARDING THE ADOPTION BY REFERENCE OF THE

2009 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC)

WITH AMENDMENTS INTO THE 2010 CALIFORNIA BUILDING CODE (CBC)

CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 2

The Office of the State Fire Marshal (SFM) proposes to adopt the 2009 edition of the International Building Code (IBC) into the 2010 edition of the California Building Code (CBC). SFM further proposes to:

- Repeal the adoption by reference of the 2006 International Building Code and incorporate and adopt by reference in its place the 2009 International Building Code for application and effectiveness in the 2010 California Building Code.
- Repeal certain amendments to the 2006 International Building Code and/or California Building Standards not addressed by the model code that are no longer necessary.
- Adopt new building standards or necessary amendments to the 2009 International Building Code that address inadequacies of the 2009 International Building Code as they pertain to California laws.
- Bring forward previously existing California building standards or amendments, which represent no change in their effect from the 2007 California Building Standards Code.
- Codify non-substantive editorial and formatting amendments from the format based upon the 2006 International Building Code to the format of the 2009 International Building Code.

Legend for Express Terms:

1. **Existing California regulations or amendments brought forward with modification***: All such language appears in Italics, modified language is* *underlined.*

2. **IBC language with new California amendment:** IBC language is shown in normal Arial 9-point. California amendments to IBC text appear *underlined and in italics.*

3. **New California regulation or amendment:** *California language appears underlined and in Italics.*

4. **Repealed Text:** Shown as ~~*Strikeout*~~.

5. **Existing California amendments brought forward that remove IBC language: Shown as ~~Strikeout~~.**

6. **New California amendments that remove IBC language**: Shown as ~~Strikeout~~.

7. **Notation**: Authority and Reference citations are provided at the end of each chapter.

[1. The SFM proposes to adopt specific Sections of Chapter 1, Division I with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

~~(CALIFORNIA) CHAPTER 1~~
~~GENERAL CODE PROVISIONS~~

CHAPTER 1

PART 1 – SCOPE AND APPLICATION

DIVISION I
CALIFORNIA ADMINISTRATION

SECTION ~~10~~.1
GENERAL

~~101.1~~1.1.1 Title. *These regulations shall be known as the California Building Code, may be cited as such and will be referred to herein as "this code." The California Building Code is Part 2 of ~~12~~twelve parts of the official compilation and publication of the adoption 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 ~~2006~~ 2009 International Building Code of the International Code Council with necessary California amendments.*

~~101.2~~1.1.2 Purpose. *The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.*

~~101.3~~1.1.3 Scope. *The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout the State of California.*

~~101.3.1~~1.1.3.1 Nonstate-regulated buildings, structures and applications. *Except as modified by local ordinance pursuant to Section ~~101.8~~1.1.8, the following standards in the California Code of Regulations, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and ~~10~~11 shall apply to all occupancies and applications not regulated by a state agency.*

~~101.3.2~~1.1.3.2 State-regulated buildings, structures and applications. *The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions shall apply to the following buildings, structures, and applications regulated by state agencies as referenced in the Matrix Adoption Tables and as specified in Sections ~~102~~1.2 through ~~114~~1.14, except where modified by local ordinance pursuant to Section ~~101.8~~1.1.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.*

Note: *See Preface to distinguish the model code provisions from the California provisions.*

1. *State-owned buildings, including buildings constructed by the Trustees of the California State University, and to the extent permitted by California laws, buildings designed and constructed by the Regents of the University of California, and regulated by the Building Standards Commission. See Section ~~102~~1.2 for additional scope provisions.*
2. *Local detention facilities regulated by the Corrections Standards Authority. See Section ~~103~~1.3 for additional scope provisions.*
3. *Barbering, cosmetology or electrolysis establishments, acupuncture offices, pharmacies, veterinary facilities and structural pest control locations regulated by the Department of Consumer Affairs. See Section ~~104~~1.4 for*

additional scope provisions.

4. *Energy efficiency standards regulated by the California Energy Commission. See Section ~~105~~1.5 for additional scope provisions.*
5. *Dairies and places of meat inspection regulated by the Department of Food and Agriculture. See Section ~~106~~1.6 for additional scope provisions.*
6. *Organized camps, laboratory animal quarters, public swimming pools, radiation protection, commissaries serving mobile food preparation vehicles and wild animal quarantine facilities regulated by the Department of Public Health ~~Services~~. See Section ~~107~~1.7 for additional scope provisions.*
7. *Hotels, motels, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities. See Section ~~108.2.1.1~~1.8.2.1.1 for additional scope provisions.*
8. *Accommodations for persons with disabilities in buildings containing newly constructed covered multifamily dwellings, new common use spaces serving existing covered multifamily dwellings, additions to existing buildings where the addition alone meets the definition of a ~~covered multifamily dwelling,~~ "COVERED MULTIFAMILY DWELLING," and common-use spaces serving covered multifamily dwellings which are regulated by the Department of Housing and Community Development. See Section ~~108.3.1.2~~1.8.2.1.2 for additional scope provisions.*
9. *Permanent buildings and permanent accessory buildings or structures constructed within mobilehome parks and special occupancy parks regulated by the Department of Housing and Community Development. See Section ~~108.2.1.3~~1.8.2.1.3 for additional scope provisions.*
10. *Accommodations for persons with disabilities regulated by the Division of the State Architect. See Section ~~109.1~~1.9.1 for additional scope provisions.*
11. *Public elementary and secondary schools, community college buildings and state-owned or state-leased essential service buildings regulated by the Division of the State Architect. See Section ~~109.2~~1.9.2 for additional scope provisions.*
12. *Qualified historical buildings and structures and their associated sites regulated by the State Historical Building Safety Board with the Division of the State Architect. See Section ~~109.3~~1.9.3 for additional scope provisions.*
13. *General acute care hospitals, acute psychiatric hospitals, skilled nursing and/or intermediate care facilities, clinics licensed by the Department of Public Health and correctional treatment centers regulated by the Office of Statewide Health Planning and Development. See Section ~~110~~1.10 for additional scope provisions.*
14. *Applications regulated by the Office of the State Fire Marshal include, but are not limited to, the following in accordance with Section ~~111~~1.11:*
    - *14.1. Buildings or structures used or intended for use as an:*
        - *~~14.1.~~1. Asylum, jail, prison.*
        - *~~14.1.~~2. Mental hospital, hospital, home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity.*
        - *~~14.1.~~3. Theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.*
        - *~~14.1.4~~. Small family day care homes, large family day care homes, residential facilities and residential facilities for the elderly, residential care facilities.*
        - *~~14.1.~~5. State institutions or other state-owned or state-occupied buildings.*
        - *~~14.1.~~6. High rise structures.*
        - *~~14.1.~~7. Motion picture production studios.*
        - *~~14.1.~~8. Organized camps.*
        - *~~14.1.~~9. Residential structures.*
    - *14.2. Tents, awnings or other fabric enclosures used in connection with any occupancy.*
    - *14.3. Fire alarm devices, equipment and systems in connection with any occupancy .*
    - *14.4. Hazardous materials, flammable and combustible liquids.*
    - *14.5. Public school automatic fire detection, alarm and sprinkler systems.*
    - *14.6. Wildland-urban interface fire areas.*

15. *Public libraries constructed and renovated using funds from the California Library Construction and Renovation Bond Act of 1988 and regulated by the State Librarian. See Section ~~112~~1.12 for additional scope provisions.*
16. *Graywater systems regulated by the Department of Water Resources. See Section ~~113~~1.13 for additional scope provisions.*
17. *For applications listed in Section ~~109.1~~1.9.1 regulated by the Division of the State Architect—Access Compliance, outdoor environments and uses shall be classified according to accessibility uses described in Chapters 11A, 11B and 11C.*
18. *Marine Oil Terminals regulated by the California State Lands Commission. See Section ~~114~~1.14 for additional scope provisions.*

~~101.4~~1.1.4 Appendices. *Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section ~~18938 (b)~~ 18901 et. seq. for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section ~~118~~1.1.8 of this code.*

~~101.5~~1.1.5 Referenced codes. *The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized architectural or engineering practices shall be employed. The National Fire Codes, standards, and the Fire Protection Handbook of the National Fire Protection Association are permitted to be used as authoritative guides in determining recognized fire prevention engineering practices.*

~~101.6~~1.1.6 Nonbuilding standards, orders and regulations. *Requirements contained in the International Building Code, or in any other referenced standard, code or document, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code. For nonbuilding standards, orders and regulations, see other titles of the California Code of Regulations.*

~~101.7~~1.1.7 Order of precedence and use.

~~101.7.~~ 1.1.7.1 Differences. *In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern.*

~~101.7.2~~1.1.7.2 Specific provisions. *Where a specific provision varies from a general provision, the specific provision shall apply.*

~~101.7.3~~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.*

~~101.8~~1.1.8 City, county or city and county amendments, additions or deletions. *The provisions of this code do not limit the authority of city, county or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section ~~101.8.1~~1.1.8.1. The effective date of amendments, additions or deletions to this code of ~~cities, counties or city and counties~~ a city, county or a city and county filed pursuant to Section ~~101.8.1~~1.1.8.1 shall be the date filed. However, in no case shall the amendments, additions or deletions to this code be effective any sooner than the effective date of this code.*

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

~~101.8.1~~1.1.8.1 Findings and filings.

1. *The city, county or city and county shall make express findings for each amendment, addition or deletion based upon climatic, topographical or geological conditions.*

Exception: *Hazardous building ordinances and programs mitigating unreinforced masonry buildings.*

2. *The city, county or city and county shall file the amendments, additions or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments shall file the amendments, additions or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.*
3. *Findings prepared by fire protection districts shall be ratified by the local city, county or city and county and filed with the California Department of Housing and Community Development, Division of Codes and Standards, P.O. Box 1407, Sacramento, CA 95812-1407 or ~~at~~ 1800 3rd Street, Room 260, Sacramento, CA ~~95814~~95811.*

***~~101.9~~1.1.9* Effective date of this code.** *Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.*

***~~101.10~~1.1.10* Availability of codes.** *At least one ~~entire~~complete copy each of Titles 8, 19, 20, 24 and 25 with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. Each state department concerned and each city, county or city and county shall have an up-to-date copy of the code available for public inspection. See Health and Safety Code Section 18942(d)(1) and (2).*

***~~101.11~~1.1.11* Format.** *This part fundamentally adopts the International Building Code by reference on a chapter-by-chapter basis. Such adoption is reflected in the Matrix Adoption Table of each chapter of this part. When the Matrix Adoption Tables make no reference to a specific chapter of the International Building Code such chapter of the International Building Code is not adopted as a portion of this code.*

***~~101.12~~1.1.12* Validity.** *If any chapter, section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.*

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[1.1. The SFM is proposing to maintain the adoption of those existing California provisions contained Sections 1.11 through 1.11.10 as shown below with modification.]

SECTION ~~111~~1.11
OFFICE OF THE STATE FIRE MARSHAL

***~~111.11~~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, mental hospital, hospital, sanitarium, home for the aged, children's nursery, children's home, school or any similar occupancy of any capacity.*

Authority cited—*Health and Safety Code Section 13143.*
Reference—*Health and Safety Code Section 13143.*

Assembly or similar place of assemblage. *Any theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.*

Authority cited—*Health and Safety Code Section 13143.*
Reference—*Health and Safety Code Section 13143.*

Small family day care homes.

Authority cited—*Health and Safety Code Sections 1597.45, 1597.54, 13143 and 17921.*
Reference - *Health and Safety Code Section 13143.*

Large family day care homes.

Authority cited—*Health and Safety Code Sections 1597.46, 1597.54 and 17921.*
Reference - *Health and Safety Code Section 13143.*

Residential facilities and residential facilities for the elderly.

Authority cited—*Health and Safety Code Section 13133.*
Reference—*Health and Safety Code Section 13143.*

Any state institution or other state-owned or state-occupied building.

Authority cited—*Health and Safety Code Section 13108.*
Reference—*Health and Safety Code Section 13143.*

High-rise structures.

Authority cited—*Health and Safety Code Section 13211.*
Reference—*Health and Safety Code Section 13143.*

Motion picture production studios.

Authority cited—*Health and Safety Code Section 13143.1.*
Reference—*Health and Safety Code Section 13143.*

Organized camps.

Authority cited—*Health and Safety Code Section 18897.3.*
Reference—*Health and Safety Code Section 13143.*

Residential. *All hotels, motels, lodging houses, apartment houses and dwellings, including congregate residences and buildings and structures accessory thereto. Multiple-story structures existing on January 1, 1975, let for human habitation, including and limited to, hotels, motels and apartment houses, less than 75 feet (22 860 mm) above the lowest floor level having building access, wherein rooms used for sleeping are let above the ground floor.*

Authority cited—*Health and Safety Code Sections 13143.2 and 17921.*
Reference—*Health and Safety Code Section 13143.*

Residential care facilities. *Certified family care homes, out-of-home placement facilities, halfway houses, drug and/or alcohol rehabilitation facilities and any building or structure used or intended for use as a home or institution for the housing of any person of any age when such person is referred to or placed within such home or institution for protective social care and supervision services by any governmental agency.*

Authority cited—*Health and Safety Code Section 13143.6.*
Reference—*Health and Safety Code Section 13143.*

Tents, awnings or other fabric enclosures used in connection with any occupancy.

Authority cited—*Health and Safety Code Section 13116.*
Reference—*Health and Safety Code Section 13143.*
~~***Enforcing agency—****Pursuant to Section 13146, Health and Safety Code.*~~

Fire alarm devices, equipment and systems in connection with any occupancy.

Authority cited—*Health and Safety Code Section 13114.*
Reference—*Health and Safety Code Section 13143.*

Hazardous materials.

Authority cited—*Health and Safety Code Section 13143.9.*
Reference—*Health and Safety Code Section 13143.*

Flammable and combustible liquids.

Authority cited—*Health and Safety Code Section 13143.6.*
Reference—*Health and Safety Code Section 13143.*

Public School Automatic Fire Detection, Alarm and Sprinkler Systems.

Authority cited—*Health and Safety Code Section 13143 and California Education Code Article 7.5, Sections 17074.50, 17074.52 and 17074.54.*
Reference—*Government Code Section 11152.5, Health and Safety Code Section 13143 and California Education Code Chapter 12.5, Leroy F. Greene School Facilities Act of 1998, Article 1.*

Wildland-Urban Interface Fire Area.

Authority cited—*Health and Safety Code Sections 13143, 13108.5(a) and 18949.2(b) and (c) and Government Code Section 51189.*
Reference—*Health and Safety Code Sections 13143, Government Code Sections 51176, 51177, 51178 and 51179 and Public Resources Code Sections 4201 through 4204.*

~~111.2~~1.11.2 Duties and powers of the enforcing agency.

~~111.2.1~~1.11.2.1 Enforcement.

~~111.2.1.1~~1.11.2.1.1 *The responsibility for enforcement of building standards adopted by the State Fire Marshal and published in the California Building Standards Code relating to fire and panic safety and other regulations of the ~~Office of the~~ State Fire Marshal shall except as provided in Section 1.11.2.1.2 be as follows:*

1. *The city, county or city and county with jurisdiction in the area affected by the standard or regulation shall delegate the enforcement of the building standards relating to fire and panic safety and other regulations of the State Fire Marshal as they relate to Group ~~R, Division 3 dwellings~~ R-3 occupancies, as described in Section 310.1 of Part 2 of the California Building Standards Code, to either of the following:*

    1.1. *The chief of the fire authority of the city, county or city and county, or an authorized representative.*
    1.2. *The chief building official of the city, county or city and county, or an authorized representative.*

2. *The chief of any city or county fire department or of any fire protection district, and authorized representatives,*

shall enforce within the jurisdiction the building standards and other regulations of the State Fire Marshal, except those described in Item 1 or 4.

3. *The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in areas outside of corporate cities and districts providing fire protection services.*
4. *The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in corporate cities and districts providing fire protection services on request of the chief fire official or the governing body.*
5. *Any fee charged pursuant to the enforcement authority of this section shall not exceed the estimated reasonable cost of providing the service for which the fee is charged pursuant to Section 66014 of the Government Code.*

~~111.2.1.2~~1.11.2.1.2 *Pursuant to Health and Safety Code Section 13108, and except as otherwise provided in this section, building standards adopted by the State Fire Marshal published in the California Building Standards Code relating to fire and panic safety shall be enforced by the State Fire Marshal in all state-owned buildings, state-occupied buildings, and state institutions throughout the state. ~~upon~~Upon the written request of the chief fire official of any city, county or fire protection district, the State Fire Marshal may authorize such chief fire official and his or her authorized representatives, in their geographical area of responsibility, to make fire prevention inspections of state-owned or state-occupied buildings, other than state institutions, for the purpose of enforcing the regulations relating to fire and panic safety adopted by the State Fire Marshal pursuant to this section and building standards relating to fire and panic safety published in the California Building Standards Code. Authorization from the State Fire Marshal shall be limited to those fire departments or fire districts which maintain a fire prevention bureau staffed by paid personnel.*

Pursuant to Health and Safety Code Section 13108, any requirement or order made by any chief fire official who is authorized by the State Fire Marshal to make fire prevention inspections of state-owned or state-occupied buildings, other than state institutions, may be appealed to the State Fire Marshal. The State Fire Marshal shall, upon receiving an appeal and subject to the provisions of Chapter 5 (commencing with Section 18945) of Part 2.5 of Division 13 of the Health and Safety Code, determine if the requirement or order made is reasonably consistent with the fire and panic safety regulations adopted by the ~~Office of the~~ State Fire Marshal and building standards relating to fire and panic safety published in the California Building Code.

Any person may request a code interpretation from the State Fire Marshal relative to the intent of any regulation or provision adopted by the State Fire Marshal. When the request relates to a specific project, occupancy or building, the State Fire Marshal shall review the issue with the appropriate local enforcing agency prior to rendering such code interpretation.

~~111.2.1.3~~1.11.2.1.3 *Pursuant to Health and Safety Code Section 13112, any person who violates any order, rule or regulation of the State Fire Marshal is guilty of a misdemeanor punishable by a fine of not less than $100.00 or more than $500.00, or by imprisonment for not less than six months, or by both. A person is guilty of a separate offense each day during which he or she commits, continues or permits a violation of any provision of, or any order, rule or regulation of, the State Fire Marshal as contained in this code.*

Any inspection authority who, in the exercise of his or her authority as a deputy State Fire Marshal, causes any legal complaints to be filed or any arrest to be made shall notify the State Fire Marshal immediately following such action.

***~~111.2.2~~1.11.2.2* Right of entry.** *The fire chief of any city, county or fire protection district, or such person's authorized representative, may enter any state institution or any other state-owned or state-occupied building for the purpose of preparing a fire suppression preplanning program or for the purpose of investigating any fire in a state-occupied building.*

The State Fire Marshal, his or her deputies or salaried assistants, the chief of any city or county fire department or fire protection district and his or her authorized representatives may enter any building or premises not used for dwelling purposes at any reasonable hour for the purpose of enforcing this chapter. The owner, lessee, manager or operator of any such building or premises shall permit the State Fire Marshal, his or her deputies or salaried assistants and the chief of any city or county fire department or fire protection district and his or her authorized representatives to enter and inspect them at the time and for the purpose stated in this section.

***~~111.2.3~~1.11.2.3* More restrictive fire and panic safety building standards.**

~~111.2.3.1~~1.11.2.3.1 *Any fire protection district organized pursuant to Health and Safety Code Part 2.7 (commencing with Section 13800) of Division 12 may adopt building standards relating to fire and panic safety that are more stringent than those building standards adopted by the State Fire Marshal and contained in the California Building Standards Code. For these purposes, the district board shall be deemed a legislative body and the district shall be deemed a local agency. Any changes or modifications that are more stringent than the requirements published in the California Building Standards Code relating to fire and panic safety shall be subject to Section ~~101.8.1~~1.1.8.1.*

~~111.2.3.2~~1.11.2.3.2 *Any fire protection district that proposes to adopt an ordinance pursuant to this section shall, not less than 30 days prior to noticing a proposed ordinance for public hearing, provide a copy of that ordinance, together with the adopted findings made pursuant to Section ~~111.2.3.1~~1.11.2.3.1, to the city, county or city and county where the ordinance will apply. The city, county or city and county may provide the district with written comments, which shall become part of the fire protection district's public hearing record.*

~~111.2.3.3~~1.11.2.3.3 *The fire protection district shall transmit the adopted ordinance to the city, county or city and county where the ordinance will apply. The legislative body of the city, county or city and county may ratify, modify or deny an adopted ordinance and transmit its determination to the district within 15 days of the determination. Any modification or denial of an adopted ordinance shall include a written statement describing the reasons for any modifications or denial. No ordinance adopted by the district shall be effective until ratification by the city, county or city and county where the ordinance will apply. Upon ratification of an adopted ordinance, the city, county or city and county shall file a copy of the findings of the district, and any findings of the city, county or city and county, together with the adopted ordinance expressly marked and identified to which each finding refers, in accordance with Section ~~101.8.1.3~~1.1.8.1(3).*

***~~111.2.4~~1.11.2.4* Request for alternate means of protection.** *Requests for approval to use an alternative material, assembly or materials, equipment, method of construction, method of installation of equipment or means of protection shall be made in writing to the enforcing agency by the owner or the owner's authorized representative and shall be accompanied by a full statement of the conditions. Sufficient evidence or proof shall be submitted to substantiate any claim that may be made regarding its conformance. The enforcing agency may require tests and the submission of a test report from an approved testing organization as set forth in Title 19, California Code of Regulation, to substantiate the equivalency of the proposed alternative means of protection.*

When a request for alternate means of protection involves hazardous materials, the authority having jurisdiction may consider implementation of the findings and recommendations identified in a Risk Management Plan (RMP) developed in accordance with Title 19, Division 2, Chapter 4.5, Article 3.

Approval of a request for use of an alternative material, assembly of materials, equipment, method of construction, method of installation of equipment or means of protection made pursuant to these provisions shall be limited to the particular case covered by request and shall not be construed as establishing any precedent for any future request.

***~~111.2.5~~1.11.2.5* Appeals.** *When a request for an alternate means of protection has been denied by the enforcing agency, the applicant may file a written appeal to the State Fire Marshal for consideration of the applicant's proposal. In considering such appeal, the State Fire Marshal may seek the advice of the State Board of Fire Services. The State Fire Marshal shall, after considering all of the facts presented, including any recommendations of the State Board of Fire Services, determine if the proposal is for the purposes intended, at least equivalent to that specified in these regulations in quality, strength, effectiveness, fire resistance, durability and safety, and shall transmit such findings and any recommendations to the applicant and to the enforcing agency.*

***~~111.3~~1.11.3* Construction documents.**

***~~111.3.1~~1.11.3.1* Public schools.** *Plans and specifications for the construction, alteration or addition to any building owned, leased or rented by any public school district shall be submitted to the Division of the State Architect~~, Office of Regulation Services for review and approval~~.*

~~***Exception:*** *Upon the annual submission of a written request by the chief of any city, county or city and county fire department or fire protection district to the Division of the State Architect, Office of Regulation Services, approvals required by this subsection shall be obtained from the appropriate chief or his or her authorized representative. In such instances plans and specifications may be submitted to the State Fire Marshal for relay to the appropriate local authority or may be submitted directly to such local authority.*~~

~~***111.3.2***~~***1.11.3.2*** ***Movable walls and partitions.*** *Plans or diagrams shall be submitted to the enforcing agency for approval before the installation of, or rearrangement of, any movable wall or partition in any occupancy. Approval shall be granted only if there is no increase in the fire hazard.*

~~***111.3.3***~~***1.11.3.3*** ***New construction high-rise buildings.***

1. *Complete plans or specifications, or both, shall be prepared covering all work required to comply with new construction high-rise buildings. Such plans and specifications shall be submitted to the enforcing agency having jurisdiction.*

2. *All plans and specifications shall be prepared under the responsible charge of an architect or a civil or structural engineer authorized by law to develop construction plans and specifications, or by both such architect and engineer. Plans and specifications shall be prepared by an engineer duly qualified in that branch of engineering necessary to perform such services. Administration of the work of construction shall be under the charge of the responsible architect or engineer except that where plans and specifications involve alterations or repairs, such work of construction may be administered by an engineer duly qualified to perform such services and holding a valid certificate under Chapter 7 (commencing with Section 65700) of Division 3 of the Business and Professions Code for performance of services in that branch of engineering in which said plans, specifications and estimates and work of construction are applicable.*

This section shall not be construed as preventing the design of fire-extinguishing systems by persons holding a C-16 license issued pursuant to Division 3, Chapter 9, Business and Professions Code. In such instances, however, the responsibility charge of this section shall prevail.

~~***111.3.4***~~***1.11.3.4*** ***Existing high-rise buildings.***

1. *Complete plans or specifications, or both, shall be prepared covering all work required by Section 3412 for existing high-rise buildings. Such plans or specifications shall be submitted to the enforcing agency having jurisdiction.*

2. *When new construction is required to conform with the provisions of these regulations, complete plans or specifications, or both, shall be prepared in accordance with the provisions of this subsection. As used in this section, "new construction" is not intended to include repairs, replacements or minor alterations which do not disrupt or appreciably add to or affect the structural aspects of the building.*

~~***111.3.5***~~***1.11.3.5*** ***Retention of plans.*** *Refer to Building Standards Law, Health and Safety Code Sections 19850 and 19851 for permanent retention of plans.*

~~***111.4***~~***1.11.4*** ***Fees.***

~~***111.4.1***~~***1.11.4.1*** ***Other fees.*** *Pursuant to Health and Safety Code Section 13146.2, a city, county or district which inspects a hotel, motel, lodging house or apartment house may charge and collect a fee for the inspection from the owner of the structure in an amount, as determined by the city, county or district, sufficient to pay its costs of that inspection.*

~~***111.4.2***~~***1.11.4.2*** ***Large family day care.*** *Pursuant to Health and Safety Code Section 1597.46, Large Family Day Care Homes, the local government shall process any required permit as economically as possible, and fees charged for review shall not exceed the costs of the review and permit process.*

~~***111.4.3***~~***1.11.4.3*** ***High-rise.*** *Pursuant to Health and Safety Code Section 13217, High-rise Structure Inspection: Fees*

and costs, a local agency which inspects a high-rise structure pursuant to Health and Safety Code Section 13217 may charge and collect a fee for the inspection from the owner of the high-rise structure in an amount, as determined by the local agency, sufficient to pay its costs of that inspection.

***~~111.4.4~~1.11.4.4* Fire clearance preinspection.** *Pursuant to Health and Safety Code Section 13235, Fire Clearance Preinspection, fee, upon receipt of a request from a prospective licensee of a community care facility, as defined in Section 1502, of a residential care facility for the elderly, as defined in Section 1569.2, or of a child day care facility, as defined in Section 1596.750, the local fire enforcing agency, as defined in Section 13244, or State Fire Marshal, whichever has primary jurisdiction, shall conduct a preinspection of the facility prior to the final fire clearance approval. At the time of the preinspection, the primary fire enforcing agency shall price consultation and interpretation of the fire safety regulations and shall notify the prospective licensee of the facility in writing of the specific fire safety regulations which shall be enforced in order to obtain fire clearance approval. A fee of not more than $50.00 may be charged for the preinspection of a facility with a capacity to serve 25 or fewer persons. A fee of not more than $100.00 may be charged for a preinspection of a facility with a capacity to serve 26 or more persons.*

***~~111.4.5~~1.11.4.5* Care facilities.** *The primary fire enforcing agency shall complete the final fire clearance inspection for a community care facility, residential care facility for the elderly, or child day care facility within 30 days of receipt of the request for the final inspection, or as of the date the prospective facility requests the final prelicensure inspection by the State Department of Social Services, whichever is later.*

Pursuant to Health and Safety Code Section 13235, a preinspection fee of not more than $50.00 may be charged for a facility with a capacity to serve 25 or less clients. A fee of not more than $100.00 may be charged for a preinspection of a facility with a capacity to serve 26 or more clients.

Pursuant to Health and Safety Code Section 13131.5, a reasonable final inspection fee, not to exceed the actual cost of inspection services necessary to complete a final inspection may be charged for occupancies classified as residential care facilities for the elderly (RCFE)

Pursuant to Health and Safety Code Section 1569.84, neither the State Fire Marshal nor any local public entity shall charge any fee for enforcing fire inspection regulations pursuant to state law or regulation or local ordinance, with respect to residential care facilities for the elderly (RCFE) which service six or fewer persons.

***~~111.4.6~~1.11.4.6* Requests of the Office of the State Fire Marshal.** *Whenever a local authority having jurisdiction requests that the State Fire Marshal perform plan review and/or inspection services related to a building permit, the applicable fees for such shall be payable to the Office of the State Fire Marshal.*

***~~111.5~~1.11.5* Inspections.** *Work performed subject to the provisions of this code shall comply with the inspection requirements of ~~Title 24, Part 2, California Building Standards Code, Appendix Chapter 1,~~ Sections 109.1, 109.3, 109.3.4, 109.3.5, 109.3.6, 109.3.8, 109.3.9, 109.3.10 109.5 and 109.6 as adopted by the Office of the State Fire Marshal.*

***~~111.5.1~~1.11.5.1* Existing Group I -1 or R occupancies.** *Licensed 24-hour care in a Group I-1 or R occupancy in existence and originally classified under previously adopted state codes shall be reinspected under the appropriate previous code, provided there is no change in the use or character which would place the facility in a different occupancy group.*

***~~111.6~~1.11.6* Certificate of Occupancy.** *A Certificate of Occupancy shall be issued as specified in ~~Title 24, Part 2, California Building Standards Code, Appendix Chapter 1,~~ Section ~~110~~111.*

Exception: *Group R, Division 3 and Group U occupancies.*

***~~111.7~~1.11.7* Temporary structures and uses.** *See ~~Appendix Chapter 1,~~ Section 107.*

***~~111.8~~1.11.8* Service utilities.** *See ~~Appendix Chapter 1,~~ Section ~~111~~112.*

***~~111.9~~1.11.9* Stop work order.** *See ~~Appendix Chapter 1,~~ Section ~~114~~115.*

~~111.10~~1.11.10 Unsafe buildings, structures and equipment. *See ~~Appendix Chapter 1,~~ Section ~~115~~116.*

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, 17921, 18949.2, Government Code Section 51189
References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

[1.2. The SFM proposes to adopt specific Sections of Chapter 1, Division II with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]
(IBC Chapter 1 Administrative provisions - Sections 101 through 114 relocated to Division II of Chapter 1.)

DIVISION II

~~Appendix Chapter 1 is not adopted by:~~
~~· California Building Standards Commission~~
~~· Housing and Community Development~~
~~· Office of the State Fire Marshal~~
~~Except where specifically indicated by an agency banner or matrix.~~

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[2. The SFM proposes to adopt specific Sections or definitions of Chapter 2 with the following amendments and California regulations, adopt only those Sections or definitions listed the corresponding Matrix Adoption Table.]

CHAPTER 2
DEFINITIONS

Section 202

HIGH-RISE BUILDING. ~~A building with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.~~
~~HIGH-RISE BUILDING. [SFM]~~ *See Section ~~403.1.3~~403.1.1.*

~~PHOTOLUMINESCENT see section 1002.~~

PORTABLE BUILDING. [SFM] *Portable Building is a classroom building or structure of modular design and construction that houses and or serves student, regardless of occupancy classification, from kindergarten through twelfth grade (K-12) and is funded pursuant to the Education Code, commencing with section17070.10 and meets all of the following criteria:*

- *The portable building or structure is designed and constructed to be relocatable and transportable over public*

streets.

- *The portable building or structure is designed and constructed for relocation without detaching the roof or the floor from the building or structure.*
- *The portable building or structure is sited upon a temporary foundation in a manner that is designed to permit easy removal.*
- *The portable building or structure has a floor area of 2,000 square feet or less when measured from the extent of the exterior walls.*
- *The portable building shall be removed within three years of installation or the school administration may request a three year extension pursuant to Education Code section 17074.54 (a) and (b).*

PORTABLE BUILDING, EXEMPTED. [SFM] *A portable building as defined in Section 202 as referenced by California Education Code Section 17074.54, that is certified by the public school administration as being sited on campus for less than three years.*

PROTECTIVE SOCIAL CARE FACILITY. [SFM] *~~Protective Social Care is the housing and care of any person of any age when such person is referred to or placed within such home or facility for care and supervision services by any governmental agency.~~ A facility housing persons, who are referred, placed or caused to be placed in the facility, by any governmental agency and for whom the services, or a portion thereof, are paid for by any governmental agency. These occupancies shall include, but are not limited to, those commonly referred to as "assisted living facilities", "social rehabilitation facilities", "certified family care homes," "out-of-home placement facilities," and "halfway houses."*

~~**RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** See Section 310.2.~~

RESTRAINT. [SFM] *Restraint shall mean the physical retention of a person within a room, cell or cell block by any means, or within the exterior walls of a building by means of locked doors inoperable by the person restrained. Restraint shall also mean the physical binding, strapping or similar restriction of any person in a chair, walker, bed or other contrivance for the purpose of deliberately restricting the free movement of ambulatory persons.*

Restraint shall not be construed to include nonambulatory persons nor shall it include the use of bandage material, strip sheeting or other fabrics or materials (soft ties) used to restrain persons in hospital-type beds or wheelchairs to prevent injury, provided an approved method of quick release is maintained. Facilities employing the use of soft ties, however, shall be classified as a building used to house nonambulatory persons.

Restraint shall not be practiced in licensed facilities classified as Group ~~I-1~~R-2.1, R-3.1 and R-4 occupancies unless constructed as a Group I-3 occupancy. For Group I-3 Occupancies see Section ~~308.2~~ 408.1.1.

~~***SELF-LUMINOUS*** *See section 1002.*~~

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

[3. The SFM proposes to adopt Chapter 3 with the following amendments and California regulations.]

CHAPTER 3
USE AND OCCUPANCY CLASSIFICATIONS

302.1 General. Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508. Where a structure is proposed

for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved.

1. Assembly (see Section 303): Groups A-1, A-2, A-3, A-4 and A-5
2. Business (see Section 304): Group B
3. Educational (see Section 305): Group E
4. Factory and Industrial (see Section 306): Groups F-1 and F-2
5. High Hazard (see Section 307): Groups H-1, H-2, H-3, H-4 and H-5
6. Institutional (see Section 308): Groups I-1, I-2, I-2.1, I-3 and I-4
7. *Laboratory (see Section 202): Group B, unless classified as Group L (See Section 443) or Group H (Section 307).*

~~7~~8. Mercantile (see Section 309): Group M

9. *[SFM] Organized Camps (see Section 440): Group C*
10. *[SFM] Research Laboratories (see Section 443): Group L*

~~8~~*11*. Residential (see Section 310): Groups R-1, R-2, *R-2.1,* R-3, *R-3.1* and R-4

~~9~~ *12*. Storage (see Section 311): Groups S-1 and S-2

~~10~~ *13*. Utility and Miscellaneous (see Section 312): Group U

[SFM] Existing buildings housing existing protective social care homes or facilities established prior to 1972 (see Section 3413).

304.1 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 health care facilities *serving five or fewer patients (see Section 308.3.2 for facilities serving more than five patients)*
Animal hospitals, kennels and pounds
Banks
Barber and beauty shops
Car wash
Civic administration
Clinic—outpatient ~~*[SFM] (not classified as Group I-2.1)*~~
Dry cleaning and laundries: pick-up and delivery stations and self-service
Educational occupancies for students above the 12th grade
Electronic data processing
Laboratories: testing*,* ~~and~~ research *and* ~~*[SFM]*~~ *instruction*.
Motor vehicle showrooms
Post offices
Print shops
Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
Radio and television stations
Telephone exchanges
Training and skill development not within a school or academic program

304.1.1 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

CLINIC–OUTPATIENT. Buildings or portions thereof used to provide medical care on less than a 24-hour basis to individuals who are not *classified as non-ambulatory or bedridden or* rendered incapable of self-preservation by the services provided.

305.2 Day care. The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than ~~five~~ *six* children ~~older than~~ 2~~1/2~~ years of age *and older*, shall be classified as a Group E occupancy.

Exception: [SFM] *A Daycare facility not otherwise classified as an R-3 occupancy, where occupants are not capable of responding to an emergency situation without physical assistance from the staff shall be classified as Group I-4.*

308.2 Group I-1. *Not used. (See Group R-2.1 Section 310.1)* ~~This occupancy shall include buildings, structures or parts thereof housing *clients*, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services.~~

~~*This occupancy may contain more than six non-ambulatory and/or bedridden clients. (See Section 425 Special Provisions For Licensed 24-Hour Care Facilities in a Group I-1, R-3.1, or R-4 Occupancy).* This group shall include, but not be limited to, the following:~~

~~Alcohol and drug centers~~
~~Assisted living facilities~~
~~Congregate care facilities~~
~~Convalescent 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's),*~~
~~*Adult Residential Facilities,*~~
~~*Congregate Living Health facilities,*~~
~~*Group homes,*~~
~~*Residential Care Facilities for the Chronically Ill,*~~
~~*Congregate Living Health Facilities for the Terminally Ill.*~~

~~*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.*~~

~~A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.~~

308.3 Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care for persons who are not capable of self-preservation *or classified as non-ambulatory or bedridden*. This group shall include, but not be limited to, the following:

Child care facilities
Detoxification facilities
Hospitals
Mental hospitals
Nursing homes

~~A facility such as the above with five or fewer persons shall be classified as Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2.~~

308.3.1 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

CHILD CARE FACILITIES. Facilities that provide care on a 24-hour basis to more than ~~five~~ *six* children~~, 21/2 years of age or less~~ *under 2 years of age*.

DETOXIFICATION FACILITIES. Facilities that serve patients who are provided treatment for substance abuse on a 24-hour basis and who are incapable of self-preservation *or classified as non-ambulatory or bedridden* or who are harmful to themselves or others.

HOSPITALS AND MENTAL HOSPITALS. Buildings or portions thereof used on a 24-hour basis for the medical, psychiatric, obstetrical or surgical treatment of inpatients who are incapable of self-preservation *or classified as non-ambulatory or bedridden*.

NURSING HOMES . Nursing homes are long-term care facilities on a 24-hour basis, including both intermediate care facilities and skilled nursing facilities, serving more than ~~five~~ *six* persons and any of the persons are incapable of self-preservation *or classified as non-ambulatory or bedridden*.

308.3.2 Group I-2.1 Ambulatory health care facility. *A healthcare facility that receives persons for outpatient medical care that may render the patient incapable of unassisted self-preservation and where each tenant space accommodates more than five such patients.*

308.4 Group I-3. This occupancy shall include buildings *or portions of buildings* and structures that are inhabited by ~~more than five~~ *one or more* persons who are under restraint ~~or security~~. An I-3 facility is occupied by persons who are ~~generally incapable of self-preservation due to security measures not under the occupants' control~~ *restrained*. This group shall include, but not be limited to, the following:

Correctional centers
Detention centers
Jails
~~Prerelease centers~~
Prisons
Reformatories
Juvenile Halls

Buildings of Group I-3 shall be classified as one of the occupancy conditions indicated in Sections 308.4.1 through 308.4.5 (see Section 408.1).

~~308.4.6 Definitions~~

~~For the purpose of this chapter, certain terms are defined as follows:~~

~~CELL~~ *~~is a housing unit in a detention or correctional facility for the confinement of not more than two inmates or prisoners.~~*
~~CELL COMPLEX~~ *~~is a cluster or group of cells or dormitories in a jail, prison or other detention facility, together with rooms used for accessory purposes, all of which open into the cell complex, and are used for functions such as dining, counseling, exercise, classrooms, sick call, visiting, storage, staff offices, control rooms or similar functions, and interconnecting corridors all within the cell complex.~~*
~~CELL TIERS~~ *~~are cells, dormitories and accessory spaces. Cell tiers are located one level above the other, and do not exceed two levels per floor. A cell tier shall not be considered a story or mezzanine.~~*
~~DAY ROOM~~ *~~is a room which is adjacent to a cell, or cell tier, or dormitory and which is used as a dining, exercise or other activity room for inmates.~~*
~~DORMITORY~~ *~~is an area occupied by no less than three inmates.~~*
~~HOLDING FACILITY~~ *~~means a detention or correctional facility or area where inmates, staff and public are not housed but are restrained.~~*
~~HOUSING UNIT~~ *~~is an area intended to lodge inmates on a 24-hour basis where accommodations are provided for~~*

~~*sleeping.*~~
~~***RESTRAINT** shall mean the physical retention of a person within a room, cell or holding facility by any means, or within a building by means of locked doors.*~~

308.5 Group I-4, day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage or adoption and in a place other than the home of the ~~person~~*client* cared for. A facility such as the above with ~~five~~ *six* or fewer ~~persons~~*clients* shall be classified as a Group R-3 or shall comply with the ~~*International*~~*California Residential Code* ~~in accordance with Section 101.2~~. Places of worship during religious functions are not included.

308.5.1 Adult *day* care facility. A facility that provides accommodations for less than 24 hours for more than ~~five~~ *six* unrelated adults and provides supervision and personal care services shall be classified as Group I-4.

> ~~**Exception:** A facility where occupants are capable of responding to an emergency situation without physical assistance from the staff shall be classified as Group R-3.~~

308.5.2 Child *day* care facility. A facility that provides supervision and personal care on less than a 24-hour basis for more than ~~five~~ *six* children ~~21/2 years of age or less~~ *under 2 years of age* shall be classified as Group I-4.

> **Exception:** A child day care facility that provides care for more than ~~five~~ *six* but no more than 100 children ~~21/2 years of age or less~~ *under 2 years of age*, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.

308.5.2.1 Special provisions. *See Section 442.4 for daycares located above or below the first story.*

SECTION 310
RESIDENTIAL GROUP R

310.1 Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the ~~*International*~~ *California Residential Code* ~~in accordance with Section 101.2~~. Residential occupancies shall include the following:

R-1 Residential Occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
Motels (transient)

Congregate living facilities (transient) *or congregate residences (transient)* with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (not transient)
Convents
Dormitories
Fraternities and sororities
Hotels (non-transient)
Live/work units
Monasteries

Motels (non-transient)
Vacation timeshare properties

Congregate living facilities *or congregate residences* with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

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

This occupancy may contain more than six non-ambulatory and/or bedridden clients. (See Section 425 Special Provisions For Licensed 24-Hour Care Facilities in a Group R-2.1, R-3.1, or R-4 Occupancy). This group shall include, but not be limited to, the following:

Assisted living facilities such as:
Residential Care Facilities,
Residential Care Facilities for the Elderly (RCFE's),
Adult Residential Facilities,
Congregate Living Health facilities,
Group homes,
Residential Care Facilities for the Chronically Ill,
Congregate Living Health Facilities for the Terminally Ill.

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.

R-3 Residential 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.
Adult facilities that provide accommodations for ~~five~~ *six* or fewer ~~persons~~ *clients* of any age for less than 24-hours. *Licensing categories that may use this classification include, but are not limited to: Adult Day~~-care Facilities, Adult Day-support Center~~ Programs.*
Child care facilities that provide accommodations for ~~five~~ *six* or fewer ~~persons~~ *clients* of any age for less than 24-hours. *Licensing categories that may use this classification include, but are not limited to: ~~Family Day-care Homes,~~ Day-care Center for Mildly Ill Children, Infant Care Center and 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.
Congregate living facilities *or congregate residences* with 16 or fewer persons.

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

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, nonambulatory 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 425 Special Provisions For Licensed 24-Hour Care Facilities in a Group ~~I-1~~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 310
Residential Care Facilities for the Elderly
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 nonambulatory clients shall not be subject to regulations found in Section 425.*

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.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than ~~five~~ *six* ~~but not more than 16~~ *ambulatory* ~~occupants~~ *clients*, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the ~~*International*~~ *California Residential Code* provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.8.

This occupancy classification may include a maximum six nonambulatory or bedridden clients (see Section 425 Special Provisions for Licensed 24-Hour Care Facilities in a Group ~~I-1~~R-2.1, R-3.1, or R-4 Occupancy). Group R-4 occupancies shall include the following:

Assisted living facilities such as:
Residential care facilities,
Residential Care Facilities for the Elderly (RCFE's),
Adult Residential Facilities,
Congregate Living Health facilities,
Group homes.

Social rehabilitation facilities such as:
Halfway houses,
Community Correctional Centers,
Community Correction Reentry Centers,
Community Treatment Programs,
Work Furlough Programs,
Alcoholism or drug abuse recovery or treatment facilities.

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

DAY-CARE HOME, FAMILY. *A home that regularly provides care, protection, and supervision for 14 or fewer children, in the provider's own home, for periods of less than 24 hours per day, while the parents or guardians are away, and is either a large family day-care home or a small family day-care home.*

INFANT, *for the purpose of these regulations, shall mean any child who because of age only, is unable to walk and requires the aid of another person to evacuate the building. In no case shall the term "infant" mean a child* ~~*beyond two*~~

~~years of age~~ *2 years of age or older*.

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

[4. The SFM proposes to adopt Chapter 4 with the following amendments and California regulations.]

CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 403
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*

403.1 Applicability. ~~The provisions of this section shall apply *to new Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access and new high-rise* buildings. High-rise~~ *New high-rise* buildings *and new Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access* shall comply Sections 403.2 through 403.6.

Exception: The provisions of Sections 403.2 through 403.6 shall not apply to the following buildings and structures:
1. Airport traffic control towers in accordance with Section 412.3.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with a Group A-5 occupancy in accordance with Section 303.1.
4. Special industrial occupancies in accordance with Section 503.1.1.
~~5. Buildings with a Group H-1, H-2 or H-3 occupancy in accordance with Section 415.~~
6. Buildings such as power plants, lookout towers, steeples, grain houses and similar structures with noncontinuous human occupancy, when so determined by the enforcing agency.

For existing high-rise buildings, see Section ~~3412~~3414 and for existing Group R occupancies and see Section ~~3411.13~~3413.13.

For the purpose of this section, in determining the level from which the highest occupied floor is to be measured, the enforcing agency should exercise reasonable judgment, including consideration of overall accessibility to the building by fire department personnel and vehicular equipment. When a building is located on sloping terrain and there is building access on more than one level, the enforcing agency may select the level that provides the most logical and adequate fire department access.

403.2.1 Reduction in fire-resistance rating. The fire-resistance-rating reductions listed in Sections 403.2.1.1 and 403.2.1.2 shall be allowed in buildings that have sprinkler control valves equipped with supervisory initiating devices and water-flow initiating devices for each floor.

Exception: *Buildings, or portions of buildings, classified as a Group H-1, H-2 or H-3 occupancy.*

403.2.1.1 Type of construction. The following reductions in the minimum fire-resistance rating of the building elements in Table 601 shall be permitted as follows:

1. For buildings not greater than 420 feet (128 000 mm) in building height, the fire-resistance rating of the building elements in Type IA construction shall be permitted to be reduced to the minimum fire-resistance ratings for the building elements in Type IB.

Exception: The required fire-resistance rating of ~~columns supporting floors~~ *the Structural Frame* shall not be permitted to be reduced.

2. In other than Groups F-1, M and S-1 occupancies, the fire-resistance rating of the building elements in Type IB construction shall be permitted to be reduced to the fire-resistance ratings in Type IIA.

Exception: *The required fire-resistance rating of the Structural Frame shall not be ~~allowed~~permitted to be reduced.*

3. The building height and building area limitations of a building containing building elements with reduced fire-resistance rating shall be permitted to be the same as the building without such reductions.

[F] 403.3 Automatic sprinkler system. Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 903.3.5.2. *A sprinkler water-flow alarm-initiating device and a control valve with a supervisory signal-initiating device shall be provided at the lateral connection to the riser for each floor.*

Exception: An automatic sprinkler system shall not be required in ~~spaces or areas of:~~
~~1.~~ Open parking garages in accordance with Section 406.3.
~~2. Telecommunications equipment buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic fire detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 712, or both.~~

~~**403.4.6 Smoke removal.** To facilitate smoke removal in post fire salvage and overhaul operations, buildings and structures shall be equipped with natural or mechanical ventilation for removal of products of combustion in accordance with one of the following:~~
~~1. Easily identifiable, manually operable windows or panels shall be distributed around the perimeter of each floor at not more than 50-foot (15 240 mm) intervals. The area of operable windows or panels shall not be less than 40 square feet (3.7 m2) per 50 linear feet (15 240 mm) of perimeter.~~

~~**Exceptions:**~~
~~1. In Group R-1 occupancies, each sleeping unit or suite having an exterior wall shall be permitted to be provided with 2 square feet (0.19 m2) of venting area in lieu of the area specified in Item 1.~~
~~2. Windows shall be permitted to be fixed provided that glazing can be cleared by fire fighters.~~

~~2. Mechanical air handling equipment providing one exhaust air change every 15 minutes for the area involved. Return and exhaust air shall be moved directly to the outside without recirculation to other portions of the building.~~
~~3. Any other approved design that will produce equivalent results.~~

[F] 403.4.8.1 Emergency power loads. The following are classified as emergency power loads:

1. Exit signs and means of egress illumination required by Chapter 10;
2. Elevator car lighting;
3. Emergency voice/alarm communications systems;
4. Automatic fire detection systems;
5. Fire alarm systems; ~~*and*~~ and
~~*6. Fire pumps.*~~
6. Electrically powered fire pumps.

403.6 Elevators. Elevator installation and operation in high-rise buildings shall comply with Chapter 30 and Sections 403.6.1 and 403.6.2.

Enclosed elevator lobbies shall be provided in accordance with Section ~~707.14.1~~ 708.14.1. Exceptions 3, 5, 6, and 8 shall only be permitted where approved by the Fire Chief in accordance with Section 1.11.2.1.1 or in accordance with 1.11.2.1.2 for all state-owned buildings, state-occupied buildings, and state institutions throughout the state

404.6 Enclosure of atriums. Atrium spaces shall be separated from adjacent spaces by a 1-hour fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 712, or both.

Exceptions:

1. A glass wall forming a smoke partition where automatic sprinklers are spaced 6 feet (1829 mm) or less along both sides of the separation wall, or on the room side only if there is not a walkway on the atrium side, and between 4 inches and 12 inches (102mmand 305 mm) away from the glass and designed so that the entire surface of the glass is wet upon activation of the

sprinkler system without obstruction. The glass shall be installed in a gasketed frame so that the framing system deflects without breaking (loading) the glass before the sprinkler system operates.

2. A glass-block wall assembly in accordance with Section 2110 and having a 3/4-hour fire protection rating.
3. *In other than Group I and R-2.1 occupancies, ~~T~~*the adjacent spaces of any three floors of the atrium shall not be required to be separated from the atrium where such spaces are included in the design of the smoke control system.

~~404.9~~ 404.10 Group I and R-2.1 occupancy means of egress. *Required means of egress from sleeping rooms in Group I and R-2.1 occupancies shall not pass through the atrium.*

407.2.2 Nurses' stations. Spaces for doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to the corridor, when such spaces are constructed as required for corridors~~ *and the smoke compartment is provided with an automatic fire sprinkler system throughout complying with Section 903.3.1.1. A minimum of one smoke detector interconnected to the facility fire alarm system shall be installed directly above the nurses' station*~~. *Nurses' stations in new and existing facilities, see the California Code of Regulations, Title 19, Division 1, Chapter 1, Subchapter 1, Article 3, Section 3.11(d) for storage and equipment requirements.*

408.1.1 Definition. The following word and term shall, for the purposes of this chapter and as used elsewhere in this code, have the meaning shown herein.

~~**CELL.** A room within a housing unit in a detention or correctional facility used to confine of inmates or prisoners.~~
CELL *is a housing unit in a detention or correctional facility for the confinement of not more than two inmates or prisoners.*

CELL COMPLEX *is a cluster or group of cells or dormitories in a jail, prison or other detention facility, together with rooms used for accessory purposes, all of which open into the cell complex, and are used for functions such as dining, counseling, exercise, classrooms, sick call, visiting, storage, staff offices, control rooms or similar functions, and interconnecting corridors all within the cell complex.*

~~**CELL TIER.** Levels of cells vertically stacked above one another within a housing unit.~~
CELL TIERS *are cells, dormitories and accessory spaces. Cell tiers are located one level above the other, and do not exceed two levels per floor. A cell tier shall not be considered a story or mezzanine.*

CENTRAL CONTROL BUILDING *is a secure building within a prison that monitor fire, life safety systems, communication systems, security systems, and exterior lighting systems where security operations necessitate the remote locking of required means of egress or at the door with a key to maintain a high security area.*

DAY ROOM *is a room which is adjacent to a cell, or cell tier, or dormitory and which is used as a dining, exercise or other activity room for inmates.*

DORMITORY *is an area occupied by no less than three inmates.*

HOLDING FACILITY *means a detention or correctional facility or area where inmates, staff and public are not housed but are restrained.*

~~**HOUSING UNIT.** A dormitory or a group of cells with a common dayroom in Group I-3.~~
HOUSING UNIT *is an area intended to lodge inmates on a 24-hour basis where accommodations are provided for sleeping.*

RESTRAINT *shall mean the physical retention of a person within a room, cell or holding facility by any means, or within a building by means of locked doors.*

SALLYPORT. A security vestibule with two or more doors or gates where the intended purpose is to prevent continuous and unobstructed passage by allowing the release of only one door or gate at a time.

SMALL MANAGEMENT YARD. *A 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 408.1.2.3.*

408.3.6.5 *Fenced enclosures utilized for Central Control Buildings not normally occupied and not accessed by inmates or the general public are permitted to have only one exit from the fenced enclosure. These fenced enclosures shall only be occupied during emergency response conditions by not more than 29 prison staff occupants. Access to the fenced area shall be controlled remotely or at the gate with a key.*

408.5 Protection of vertical openings. Any vertical opening shall be protected by a shaft enclosure in accordance with Section 708, or shall be in accordance with Section 408.5.1.

408.5.1 Floor openings. ~~Openings in floors within a housing unit are permitted without a shaft enclosure, provided all the following conditions are met:~~ *The open space in front of a cell tier and connected chases, not exceeding two tiers in height, shall not be considered a vertical shaft and need not meet the fire-resistive shaft enclosure requirements of Section ~~707~~708.*

~~1. The entire normally occupied areas so inter-connected are open and unobstructed so as to enable observation of the areas by supervisory personnel;~~
~~2. Means of egress capacity is sufficient for all occupants from all interconnected cell tiers and areas;~~
~~3. The height difference between the floor levels of the highest and lowest cell tiers shall not exceed 23 feet (7010 mm); and~~
~~4. Egress from any portion of the cell tier to an exit or exit access door shall not require travel on more than on additional floor level within the housing unit.~~

~~408.14~~ 408.13 Safety padding. *Padding material used on walls, floors and ceilings in Group I and R-2.1 occupancies shall be of an approved type tested in accordance with the procedures established by State Fire Marshal Standard 12-8-100, Room Fire Test for Wall and Ceiling Materials, ~~Part 12, Title 24,~~ California Code of Regulations, Title 24, Part 12.*

408.14 Small management yards.

408.14.1 General. *The provisions of Sections 408.14.1 through 408.14.4 shall apply to Small management yards. Small management yards may be used by a maximum of two occupants and any one time for a maximum of 2 hours per day.*

408.14.2 Construction. *Small management yards shall be constructed in accordance with all of the following:*

1. Constructed of Type IB non-combustible materials.
2. Fence material shall be noncombustible.
3. Have a maximum area of 150 square feet (14 m^2).
4. Yard area covering shall not exceed 75 square feet (7 m^2) or a maximum of 50 percent of the fenced

enclosure.
6. Electrical lighting or devices of any type shall not be permitted within the yard.

Exception: *Low voltage devices dedicated for the operation toilets.*

408.14.3 Fire protection system provisions.

408.14.3.1 Automatic sprinkler systems. *An automatic sprinkler system shall be provided in accordance with 903.1.1*

Exception: *Small management yards where a distance of 10 feet (3048 mm) is maintained from all buildings or structures and 4 feet (1220 mm) is maintained from containment fencing.*

408.14.3.2 Fire alarm systems. *An approved fire alarm system shall be provided in accordance with 907.*

Exception: *Small management yards where a distance of 10 feet (3048 mm) is maintained from all buildings or structures and 4 feet (1220 mm) is maintained from containment fencing.*

408.14.4 Means of egress. *Except as modified or as provided for in this section, the provisions of Section 408.3 and Chapter 10 shall apply. Small management yards shall comply with all of the following:*

1. Staff-controlled manual released locks shall be provided.
2. Staff escorting inmates to and from small management yards shall be equipped with radios and personal alarms to notify central control in case of a fire.
3. The safe dispersal area as defined by 1027.6 shall not be reduced due to placement of these yards.
4. An exit, remote from the main entrance is required in the containment fencing.

408.14.5 Special provisions. *Inmate exercise clothing and toilet paper tissue shall be the only combustibles materials permitted in small management yards.*

[F] 414.5 Inside storage, dispensing, ***handling*** **and use.** The inside storage, dispensing and use of hazardous materials in excess of the maximum allowable quantities per control area of Tables 307.1(1) and 307.1(2) shall be in accordance with Sections 414.5.1 through 414.5.5 of this code and the ~~*International*~~*California Fire Code*.

414.5.7 Hazardous material handling. *The handling of hazardous materials shall be in accordance with California Fire Code Section 2703.10*

415.9 Group H occupancies located above the 10th story.

415.9.1 Fire – smoke barrier. *Any story containing a Group H occupancy above the 10th story shall be subdivided by a fire-smoke barrier constructed as a fire barrier having a fire resistance rating of not less than 2 hours and shall also comply with the smoke barrier requirements of Section 710. The 2-hour fire-smoke barrier shall be in accordance with Sections 415.9.1.1 through 415.9.1.5.*

415.9.1.1 *The 2-hour fire-smoke barrier shall be continuous from exterior wall to exterior wall,*

415.9.1.2 *The fire-smoke barrier shall divide the story so that the square footage on each side of the 2-hour fire-smoke barrier is not less than 30 percent of the total floor area,*

415.9.1.3 *A minimum of one door opening shall be provided the 2-hour fire-smoke barrier for emergency access.*

415.9.1.4 *Each side of the 2-hour fire-smoke barrier shall be designed as a separate smoke zone designed in accordance with Section 909.6.*

415.9.1.5 *The area on each side of the 2-hour fire-smoke barrier shall be served by a minimum of one exit enclosure in accordance with Section 1022.*

415.10 Elevators and elevator lobbies above the 10th story. *Any story containing a Group H occupancy above the 10th story shall be provided with elevators and elevator lobbies accordance with Sections 415.10.1 through 415.10.3.*

415.10.1 *An elevator that serves every story of the building shall be provided on each side of the 2-hour fire-smoke barrier.*

415.10.2 *An elevator lobby shall be provided on each side of the 2-hour fire-smoke barrier at each floor in accordance with Section 708.14.1. Exceptions to 708.14.1 shall not apply.*

415.10.3 *The elevator and its associated elevator lobbies and elevator machine rooms shall be pressurized in accordance with Section 909.6.*

SECTION 420
GROUP ~~I-1,~~ R-1, R-2, *R-2.1,* R-3, *R-3.1, R-4*

420.1 General. Occupancies in Groups ~~I-1,~~ R-1, R-2, *R-2.1,* R-3*, R-3.1 and R-4* shall comply with the provisions of this section and other applicable provisions of this code.

~~419.5~~ 420.5 Licensed 24-Hour Care Facilities in a Group ~~I-1~~R-2.1, R-3.1, or R-4 occupancy. *See Section 425 for Special Provisions for Licensed 24-Hour Care Facilities in a Group ~~I-1~~R-2.1, R-3.1, or R-4 occupancy.*

~~419.6~~ 420.6 Existing Group R Occupancies. *See Chapter 34.*

SECTION 425
SPECIAL PROVISIONS FOR LICENSED 24-HOUR CARE FACILITIES IN A GROUP ~~I-1~~R-2.1, R-3.1, R-4 [SFM]

425.1 Scope*. The provisions of this section shall apply to 24-hour care facilities in a Group ~~I-1~~R-2.1, R-3.1, or R-4 occupancy licensed by a governmental agency.*

425.2 General. *The provisions in this section shall apply in addition to general requirements in this code.*

425.2.1 *Restraint shall not be practiced in a Group ~~I-1~~R-2.1, R-3.1, or R-4 Occupancies.*

> ***Exception:*** *Occupancies which meet all the requirements for a Group I-3 Occupancy.*

425.2.2 *Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to 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.*

> ***Exception:*** *Local regulations relating to roof coverings in facilities licensed as a Residential Care Facility for the Elderly (RCFE) per Health and Safety Code Section 13133.*

425.3 Building Height and Area Provisions.

425.3.1 *Group ~~I-1~~R-2.1, R-3.1, and R-4 shall be constructed in accordance with Table 503.*

425.3.2 Limitations six or less clients. *Group R-3.1 occupancies where clients are housed above the first story, having more than two stories in height or having more than 3,000 square feet (279 m2) of floor area above the first story shall not be of less than one-hour fire-resistance-rated construction throughout.*

In Group R3.1 Occupancies housing a bedridden client, the client sleeping room shall not be located above or below the first story.

> ***Exception:*** *Clients who become bedridden as a result of a temporary illness as defined in Health and Safety Code Sections 1566.45, 1568.0832, and 1569.72. A temporary illness is an illness, which persists for 14 days or less. A bedridden client may be retained in excess of the 14 days upon approval by the Department of Social Services and may continue to be housed on any story in a Group R-3.1 occupancy classified as a licensed residential facility.*

Every licensee admitting or retaining a bedridden resident shall, within 48 hours of the resident's admission or retention in the facility, notify the local fire authority with jurisdiction of the estimated length of time the resident will retain his or her bedridden status in the facility.

425.3.3 Limitations seven or more clients. *Group R-4 occupancies where nonambulatory 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 more than 16 clients above the first story shall be constructed of not less than one-hour fire-resistance-rated construction throughout.*

425.3.4 Nonambulatory elderly clients. *Group R-4 occupancies housing nonambulatory elderly clients shall be of not less than one-hour fire-resistance-rated construction throughout.*

425.4 Type of Construction Provisions.

425.4.1 *Group ~~I-1~~R-2.1, occupancies are not permitted in non-fire-resistance-rated construction, see Health and Safety Code Section 13131.5.*

425.5 Fire-Resistance-Rated Construction Provisions.

425.5.1 Smoke barriers required. *Group ~~I-1~~R-2.1 and R-4 occupancies licensed as a Residential Care Facility (RCF) with individual floor areas over 6000 square feet (557 m^2) per floor, shall be provided with smoke barriers, constructed in accordance with Section ~~709~~710.*

Group ~~I-1~~R-2.1 occupancies housing bedridden clients shall be provided with smoke barriers constructed in accordance with Section ~~709~~710 regardless of the number of clients.

When smoke barriers are required, the area within a smoke compartment shall not exceed 22,500 square feet (2090 m^2) nor shall its travel distance exceed 200 feet (60 960 mm). Such smoke barriers shall divide the floor as equally as possible.

425.5.2 Smoke partitions. *Group ~~I-1~~R-2.1 occupancies where smoke partitions are required, framing shall be covered with noncombustible materials having an approved thermal barrier with an index of not less than 15 in accordance with FM 4880, UL 1040, NFPA 286 or UL 1715.*

425.5.3 Independent egress. *At least two means of egress shall be provided from each smoke compartment created by smoke barriers. Means of egress may pass through adjacent compartments provided it does not return through the smoke compartment from which means of egress originated.*

425.6 Interior Finish Provisions.

425.6.1 Interior wall and ceiling finish. *Group R-3.1 occupancies housing a bedridden client shall comply with Interior Wall and Ceiling Finish requirements specified for Group I-2 occupancies in Table ~~803.5~~803.9.*

425.7 Fire Protection System Provisions.

425.7.1 Automatic sprinkler systems in Group ~~I-1~~R-2.1, R-3.1 and R-4 occupancies. *An automatic sprinkler*

system shall be installed where required in Section 903.

425.7.2 Fire alarm systems in Group ~~I-1~~R-2.1 and R-4 occupancies. *An approved fire alarm system shall be installed where required in Section 907.*

425.7.3 Smoke alarms in Groups ~~I-1~~R-2.1, R-3.1, and R-4 occupancies. *Smoke alarms shall be installed where required in Section ~~907.2.10~~907.2.11.1.*

425.7.4 Hearing impaired. *See Section ~~907.9.1~~907.5.2.3.*

425.8 Means of Egress Provisions.

425.8.1 General. *In addition to the general means of egress requirements of Chapter 10, this section shall apply to Group ~~I-1~~R-2.1, R-3.1, and R-4 occupancies.*

425.8.2 Number of exits.

425.8.2.1 *Group ~~I-1~~R-2.1, R-3.1, and R-4 occupancies shall have a minimum of two exits.*

Exception. *Ancillary use areas or occupancies shall have egress as required by Section ~~1019~~1021.*

425.8.3 Egress arrangements.

425.8.3.1 *Egress through adjoining dwelling units shall not be permitted.*

425.8.3.2 Group R-3.1 occupancies housing nonambulatory clients. *In a Group R-3.1 occupancy, bedrooms used by nonambulatory clients shall have access to at least one of the required exits which shall conform to one of the following:*

1. *Egress through a hallway or area into a bedroom in the immediate area which has an exit directly to the exterior and the corridor/hallway is constructed consistent with the dwelling unit interior walls. The hallway shall be separated from common areas by a solid wood door not less than 1⅜ inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section ~~715.4.7~~715.4.8.*
2. *Egress through a hallway which has an exit directly to the exterior. The hallway shall be separated from the rest of the house by a wall constructed consistent with the dwelling unit interior walls and opening protected by a solid wood door not less than 1⅜ inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section ~~715.4.7~~715.4.8.*
3. *Direct exit from the bedroom to the exterior, such doors shall be of a size as to permit the installation of a door not less than 3 feet (914 mm) in width and not less than 6 feet 8 inches (2032 mm) in height. When installed, doors shall be capable of opening at least 90 degrees and shall be so mounted that the clear width of the exit way is not less than 32 inches (813 mm).*
4. *Egress through an adjoining bedroom which exits to the exterior.*

425.8.3.3 Group R-3.1 occupancies housing only one bedridden clients~~.~~. *In Group R-3.1 occupancies housing a bedridden client and not provided with an approved automatic sprinkler system, all of the following shall apply:*

1. *In Group R-3.1 Occupancies housing a bedridden client, a direct exit to the exterior of the residence shall be provided from the client sleeping room.*
2. *Doors to a bedridden client's sleeping room shall be of a self-closing, positive latching 1-⅜ inch solid wood door. Such doors shall be provided with a gasket so installed as to provide a seal where the door meets the jam on both sides and across the top. Doors shall be maintained self-closing or shall be automatic closing by actuation of a smoke alarm in accordance with Section ~~715.4.7~~715.4.8.*
3. *Group R-3.1 Occupancies housing a bedridden client, shall not have a night latch, dead bolt, security chain or any similar locking device installed on any interior door leading from a bedridden client's sleeping room to any interior area such as a corridor, hallway and or general use areas of the residence in accordance with Chapter*

10.

4. *The exterior exit door to a bedridden client's sleeping room shall be operable from both the interior and exterior of the residence.*
5. *Every required exit doorway from a bedridden client sleeping room shall be of a size as to permit the installation of a door not less than 3 feet (914 mm) in width and not less than 6 feet 8 inches (2032 mm) in height. When installed in exit doorways, exit doors shall be capable of opening at least 90 degrees and shall be so mounted that the clear width of the exit way is not less than 32 inches (813 mm).*

Note: *A sliding glass door can be used as an exterior exit doorway as long as it is operable from the inside and outside and the clear width of the exit way is not less than 32 inches (813mm).*

425.8.3.4 Intervening rooms. *A means of exit shall not pass through more than one intervening room. A means of egress shall not pass through kitchens, storerooms, closets, garages or spaces used for similar purposes.*

Exception: *Kitchens which do not form separate rooms by construction.*

425.8.4 Corridors.

425.8.4.1 *Unless specified by Section 425.8.4, corridors serving Group ~~I-1~~R-2.1 and Group R-4 occupancies shall comply with Section ~~1017.1~~1018.1.*

425.8.4.2 *The minimum clear width of a corridor shall be as follows:*

1. *Group ~~I-1~~R-2.1 occupancies shall have sixty inches (1524 mm) on floors housing nonambulatory clients and forty-four inches (1118 mm) on floors housing only ambulatory clients.*
2. *Group R-4 occupancies shall have forty-four inches (1118 mm) on floors housing clients.*

Exceptions:

1. *Corridors serving an occupant load of 10 or less shall not be less than 36 inches (914 mm) in width.*
2. *Corridors serving ambulatory persons only and having an occupant load of 49 or less shall not be less than 36 inches (914 mm) in width.*
3. *Group ~~R-3.1~~R-4 occupancies shall have thirty-six inches (914 mm) on floors housing clients.*

In Group ~~I-1~~R-2.1 occupancies provided with fire sprinklers throughout and which are required to have rated corridors, door closers need not be installed on doors to client sleeping rooms.

425.8.4.3 *In a Group ~~I-1~~R-2.1 and Group ~~R-3.1~~R-4occupancies having smoke barriers, cross-corridor doors in corridors 6 feet (1829 mm) or less in width shall have, as a minimum, a door 36 inches (914 mm) in width.*

425.8.5 Changes in level. *In Group R-3.1 occupancies housing nonambulatory clients interior changes in level up to 0.25 inch (6 mm) may be vertical and without edge treatment. Changes in level between 0.25 inch (6 mm) and 0.5 inch (12.7 mm) shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50% slope). Changes in level greater than 0.5 inch (12.7 mm) shall be accomplished by means of a ramp.*

425.8.6 Stairways.

425.8.6.1 *Group ~~I-1~~R-2.1 and Group R-4 occupancies housing more than six non-ambulatory clients above the first floor shall be provided with two vertical exit enclosures. Stairway enclosures shall be in compliance with Section 1020. Exceptions to Section 1020 shall not apply in facilities licensed as a 24-hour care facility.*

425.8.6.2 *Group R-3.1 occupancies may continue to use existing stairways (except for winding and spiral stairways which are not permitted as a required means of egress) provided the stairs have a maximum rise of 8 inches (203 mm) with a minimum run of 9 inches (229 mm). The minimum stairway width may be 30 inches (762 mm).*

425.8.7 Floor separation. *Group R-3.1 occupancies shall be provided with a non-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.

425.8.7.1 Doors within floor separations. *Doors within such floor separations shall be tight fitting solid wood at least 1 ⅜ inches (35 mm) in thickness. Door glazing shall not exceed 1296 square inches (32 918 mm^2) with no dimension greater than 54 inches (1372 mm). Such doors shall be positive latching, smoke gasketed and shall be automatic-closing by smoke detection.*

425.8.8 Fences and gates. *Grounds of a Residential Care for the Elderly facility serving Alzheimer clients may be fenced and gates therein equipped with locks, provided safe dispersal areas are located not less than 50 feet (15 240 mm) from the buildings. Dispersal areas shall be sized to provide an area of not less than 3 square feet (0.28 m^2) per occupant. Gates shall not be installed across corridors or passageways leading to such dispersal areas unless they comply with egress requirements.*

425.8.9 Basement exits. *One exit is required to grade level when the basement is accessible to clients.*

425.8.10 Delayed egress locks. *See Section 1008.1.8.6.*

425.9 Request for alternate means of protection for facilities housing bedridden clients*. Request for alternate means of protection shall apply to Sections 425 through 425.9. Request for approval to use an alternative material, assembly or materials, equipment, method of construction, method of installation of equipment, or means of protection shall be made in writing to the local fire authority having jurisdiction by the facility, client or the client's authorized representative. Sufficient evidence shall be submitted to substantiate the need for an alternate means of protection.*

The facility, client or the client's representative or the local fire authority having jurisdiction may request a written opinion from the State Fire Marshal concerning the interpretation of the regulations promulgated by the State Fire Marshal for a particular factual dispute. The State Fire Marshal shall issue the written opinion within 45 days following the request.

Approval of a request for use of an alternative material, assembly or materials, equipment, method of construction, method of installation of equipment, or means of protection made pursuant to this section shall be limited to Group R, 3.1Occupancies housing a bedridden client.

Approvals made by the local fire authority having jurisdiction and the written opinion by the State Fire Marshal shall be applicable only to the requesting facility and shall not be construed as establishing any precedent for any future request by that facility or any other facility.

425.10 Temporarily bedridden clients. *Clients who become temporarily bedridden as defined in Health and Safety Code Section 1569.72, as enforced by the Department of Social Services, may continue to be housed on any story in Group ~~I-1~~R-2.1, R-3.1, or R-4 occupancies classified as Residential Care Facilities for the Elderly (RCFE). Every Residential Care Facility for the Elderly (RCFE) admitting or retaining a bedridden resident shall, within 48 hours of the resident's admission or retention in the facility, notify the local fire authority with jurisdiction of the estimated length of time the resident will retain his or her bedridden status in the facility.*

SECTION 426
GROUP I-4 [SFM]

426.1 Group I-4 special provisions. *Rooms classified as Group I-4 shall not be located above or below the first story.*

Exceptions:
1.Basements or stories having floor levels located within 4 feet (1219 mm), measured vertically, from adjacent

ground level at the level of exit discharge, provided the basement or story has exterior exit doors at that level.

2. *In buildings equipped with an automatic sprinkler system throughout, rooms used for kindergarten, first- and second-grade children or for day-care purposes may be located on the second story, provided there are at least two exterior exit doors, or other egress systems complying with CBC 1017 with two exits, for the exclusive use of such occupants. Egress systems for the exclusive use of such occupants shall be maintained until exit discharge at grade is attained.*
3. *Group I-4 childcare facilities may be located above the first story in buildings of Type I construction and in Types II-A, and III-A construction, subject to the limitation of Section 503 when:*

   3.1. Group I-4 childcare facilities with children under the age of seven or containing more than 12 children per story shall not be located above the fourth floor; and

   3.2. The entire story in which the Group I-4 childcare facility is located is equipped with an approved manual fire alarm and smoke-detection system. (See the Fire Code.) Actuation of an initiating device shall sound an audible alarm throughout the entire story. When a building fire alarm system is required by other provisions of this code or the Fire Code, the alarm system shall be connected to the building alarm system. An approved alarm signal shall sound at an approved location in the Group I-4 childcare facility to indicate a fire alarm or sprinkler flow condition in other portions of the building; and

   3.3 Group I-4 childcare facilities, if more than 1,000 square feet (92.9 m2) in area, is divided into at least two compartments of approximately the same size by a smoke barrier with door openings protected by smoke- and draft-control assemblies having a fire-protection rating of not less than 20 minutes. Smoke barriers shall have a fire-resistive rating of not less than one hour. In addition to the requirements of Section 508.3.3, occupancy separations between Group I-4 childcare and other occupancies shall be constructed as smoke barriers. Door openings in the smoke barrier shall be tightfittinq, with gaskets installed as required by Section ~~709~~710, and shall be automatic closing by actuation of the automatic sprinklers, fire alarm or smoke-detection system.

   3.4. Each compartment formed by the smoke barrier has not less than two exits or exit access doors, one of which is permitted to pass through the adjoining compartment; and

   3.5 Where two or more ~~means of~~ exits or exit access are required at ~~leased~~least one shall not share a common path of travel.

   3.6. The building is equipped with an automatic sprinkler system throughout.

SECTION 432
COMBUSTION ENGINES AND GAS TURBINES [SFM]

432.2.2.1 Interior openings. *In other than buildings housing Group I and R-2.1 occupancies, interior openings shall be allowed in buildings protected by an automatic fire sprinkler system throughout.*

SECTION 440
GROUP C [SFM]

440.6.1 Area, height and type of construction. *Buildings and structures, or portions thereof, shall not exceed the limits of area, height and type of construction specified in these regulations for a Group ~~I-1~~R-2.1 occupancy. Such buildings and structures shall not be of less than one-hour fire-resistive construction throughout.*

440.6.2 Location on Property. *The fire-resistive protection of exterior walls and openings, as determined by location on property, shall be in accordance with the provisions of these regulations for a Group ~~I-1~~R-2.1 occupancy.*

SECTION 442
GROUP E [SFM]

442.2 Separate means of egress systems required*. Every room with an occupant load of 300 or more shall have one of its exits or exit-access doorways lead directly into a separate means of egress system that consists of not less than two paths of exit travel which are separated by a smoke barrier in accordance with Section 710 in such a manner to provide an atmospheric separation that precludes contamination of both paths of exit travel by the same fire. Not more than two required exits or exit-access doorways shall enter into the same means of egress system.*

442.4 Special provisions. *Rooms ~~in Group E day care,~~ used by kindergarten, first-, or second-grade pupils, and Group E day care, shall not be located above or below the first story.*

Exceptions:

1. *Kindergarten, first-, or second-grade pupils, or day care may be located in ~~b~~Basements or stories having floor levels located within 4 feet (1219 mm), measured vertically, from the adjacent ground level at the level of exit discharge, provided the basement or story has exterior exit doors at that level.*
2. *In buildings equipped with an automatic sprinkler system throughout, rooms used for kindergarten, first- and second-grade children or for day care purposes may be located on the second story, provided there are at least two exterior exit doors, or other egress systems complying with Section 1017 with two exits, for the exclusive use of such occupants. Egress systems for the exclusive use of such occupants shall be maintained until exit discharge at grade is attained.*
3. *Group E day care facilities may be located above the first story in buildings of Type I-A, Type I-B, Type II-A and Ill-A construction, subject to the limitation of Section 503 when:*

   3.1. Facilities with children under the age of seven or containing more than 12 children per story shall not be located above the fourth floor; and

   3.2. The entire story in which the day care facility is located is equipped with an approved manual fire alarm and smoke-detection system. Actuation of an initiating device shall sound an audible alarm throughout the entire story.

   When a building fire alarm system is required by other provisions of this code, the alarm system shall be interconnected and sound the daycare fire alarm system; and

   3.3. The day care facility, if more than 1,000 square feet (92.9 m2) in area, is divided into at least two compartments of approximately the same size by a smoke barrier in accordance with Section ~~709~~710. In addition to the requirements of Section 508, occupancy separations between daycare and other occupancies shall be constructed as smoke barriers. Door openings in the smoke barrier shall be tight fitting, with gaskets installed as required by Section 715.4.3.1 and shall be automatic closing by actuation of the fire sprinklers, fire alarm or smoke detection system; and

   3.4. Each compartment formed by the smoke barrier has not less than two exits or exit-access doors, one of which is permitted to pass through the adjoining compartment, and

   3.5. ~~Where two or more means of exits or exit access are required at leased one shall not share a common path of travel.~~ At least one exit or exit-access door from the day care facility shall be into a separate means of egress with not less than two paths of exit travel, which are separated in such a manner to provide an atmospheric separation.

   3.6. The building is equipped with an automatic sprinkler system throughout.

SECTION 443
GROUP L [SFM]

~~4~~43.4.3 Fire barrier and fire-smoke barrier.

~~443.4.3~~443.4.3.1 Fire barrier. *A fire barrier having a fire resistance rating of not less than ~~two~~2-hours shall divide any ~~floor above the 4th~~ story containing more than one laboratory suite above the 4th story.*

~~443.4.3.1~~443.4.3.1.1 *Fire barriers shall be continuous from exterior wall to exterior wall,*

~~443.4.3.2~~443.4.3.1.2 *The fire barrier shall divide the floor so that the square footage on each side of the 2-hour fire barrier is not less than 30 percent of the total floor area, and*

~~443.4.3.3~~443.4.3.1.3 *The number of laboratory suites on each side of the 2-hour fire barrier shall not be less than 25% of the total number of laboratory suites on the floor.*

443.4.3.2 Fire- smoke barrier. *Any story containing a Group L occupancy above the 10th story shall be subdivided by a fire-smoke barrier constructed as a fire barrier having a fire resistance rating of not less than 2-hours and shall also comply with the smoke barrier requirements of Section 710.*

The 2-hour fire- smoke barrier shall be in accordance with Sections 443.4.3 through 443.4.3.2.3.

443.4.3.2.1 *A minimum of one door opening shall be provided in the 2-hour fire-smoke barrier for emergency access.*

443.4.3.2.2 *Each side of the 2-hour fire- smoke barrier shall be designed as a separate smoke zone designed in accordance with Section 909.6.*

443.4.3.2.3 *The area on each side of the 2-hour fire- smoke barrier shall be served by a minimum of one exit enclosure in accordance with Section 1022.*

TABLE 443.7.3.1
HAZARDOUS MATERIALS QUANTITY PER LABORATORY SUITE

~~STORY~~		~~PERCENTAGE OF THE MAXIMUM ALLOWBALE QUANTITY PER LABORATORY SUITE[a, b]~~
~~Above grade plane~~	~~7 and above~~	~~50~~
	~~4, 5 and 6~~	~~75~~
	~~1, 2 and 3~~	~~100~~
~~Below grade plane~~	~~1~~	~~100[c]~~
	~~2~~	~~75[d]~~
	~~3 and below~~	~~0~~

STORY		PERCENTAGE OF MAXIMUM ALLOWABLE QUANTITY PER LABORATORY SUITE[a, b]	Number of Lab Suites per floor based on Construction Type				
			Type IA	Type IB	Type IIA, IIIA, IV	Type IIB, IIIB, VA	Type VB
Above grade plane	Above 20	0	NP	NP	NP	NP	NP
	15 to 20	25	4	NP	NP	NP	NP
	11 ,12, 13, 14	50	8	NP	NP	NP	NP
	7, 8, 9, 10	50	16	NP	NP	NP	NP
	6	75	20	20	NP	NP	NP
	4, 5	75	20	20	20	NP	NP
	3	100	UL	UL	UL	UL	NP
	1, 2	100	UL	UL	UL	UL	UL
Below grade plane	1	75 [c]	10	10	10	10	10
	2	50 [d]	5	5	5	5	5
	3 and below	0	NP	NP	NP	NP	NP

NP= Not permitted UL = Unlimited

a. *Percentages shall be of the maximum allowable quantity per laboratory suite shown in Tables 307.1(1) and 307.1(2). Allowable hazardous material increases for buildings equipped throughout with an automatic sprinkler system shall not be applicable to Group L Occupancies.*
b. *When an individual laboratory suite occupies more than one story, the more restrictive percentage of the maximum allowable quantity per laboratory suite shall apply.*
c. *The total aggregate ~~quanity~~quantity of flammable liquids on the first story below grade shall be limited to the maximum total aggregate quantity for Group B occupancy control area~~s~~.*
d. *The total aggregate ~~quanity~~quantity of flammable liquids on the second story level below grade shall be limited to a maximum total aggregate quantity for Group B occupancy control area~~s~~.*

443.7.4 Handling and transportation*. The handling and transportation of hazardous materials shall be in accordance with Section 2703 of the California Fire Code.*

443.7.5 Transportation of hazardous materials above the 10th story*. Transportation of hazardous materials above the 10th story shall be limited to 5 percent of the maximum allowable quantities of Tables 307.1 (1) and 307.1(2.) Quantities are permitted to be increase 100 percent in buildings with an approved automatic sprinkler system in accordance with 903.3.1.1. Materials where footnote G of Table 307.1(1) applies shall not be increased.*

~~443.8~~. Elevators and elevator lobbies above the 10th story. *Any story containing a Group L occupancy above the 10th story shall be provided with elevators and elevator lobbies accordance with Sections 443.8.1 through 443.8.3.*

~~443.8~~.1 *An elevator that serves every story of the building shall be provided on each side of the 2-hour fire-smoke barrier.*

~~443.8~~.2 *An elevator lobby shall be provided on each side of the 2-hour fire-smoke barrier at each floor in accordance with Section 708.14.1. Exceptions to 708.14.1 shall not apply.*

~~443.8~~.3 *The elevator and its associated elevator lobbies and elevator machine rooms shall be pressurized in accordance with Section 909.6.*

~~443.8~~443.9 Existing Group L (Formerly Group H-8) occupancies, additions, alterations, or repairs. *See ~~s~~Section ~~3414~~3416.*

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

[5. The SFM proposes to adopt Chapter 5 with the following amendments and California regulations.]

CHAPTER 5
GENERAL BUILDING HEIGHTS AND AREAS

TABLE 503
ALLOWABLE HEIGHT AND BUILDING AREAS[a]
Height limitations shown as stories and feet above grade plane.
Area limitations as determined by the definition of "Area, building," per story

		TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
GROUP	HGT(feet) HGT(S)	UL	160	65	55	65	55	65	50	40
A-1	S	UL	5	3	2	3	2	3	2	1
	A	UL	UL	15,500	8,500	14,000	8,500	15,000	11,500	5,500
A-2	S	UL	11	3	2	3	2	3	2	1
	A	UL	UL	15,500	9,500	14,000	9,500	15,000	11,500	6,000
A-3	S	UL	11	3	2	3	2	3	2	1
	A	UL	UL	15,500	9,500	14,000	9,500	15,000	11,500	6,000
A-4	S	UL	11	3	2	3	2	3	2	1
	A	UL	UL	15,500	9,500	14,000	9,500	15,000	11,500	6,000
A-5	S	UL	UL	UL	UL	UL	UL	UL	UL	UL
	A	UL	UL	UL	UL	UL	UL	UL	UL	UL
B	S	UL	11	5	3	5	3	5	3	2
	A	UL	UL	37,500	23,000	28,500	19,000	36,000	18,000	9,000
E	S	UL	5	3	2	3	2	3	1	1
	A	UL	UL	26,500	14,500	23,500	14,500	25,500	18,500	9,500
F-1	S	UL	11	4	2	3	2	4	2	1

	A	UL	UL	25,000	15,500	19,000	12,000	33,500	14,000	8,500
F -2	S	UL	11	5	3	4	3	5	3	2
	A	UL	UL	37,500	23,000	28,500	18,000	50,500	21,000	13,000
H-1	S	1	1	1	1	1	1	1	1	NP
	A	21,000	16,500	11,000	7,000	9,500	7,000	10,500	7,500	NP
H -2[d]	S	~~UL~~*20*	3	2	1	2	1	2	1	1
	A	21,000	16,500	11,000	7,000	9,500	7,000	10,500	7,500	3,000
H-3[d]	S	~~UL~~*20*	6	4	2	4	2	4	2	1
	A	UL	60,000	26,500	14,000	17,500	13,000	25,500	10,000	5,000
H-4	S	~~UL~~*20*	7	5	3	5	3	5	3	2
	A	UL	UL	37,500	17,500	28,500	17,500	36,000	18,000	6,500
H-5	S	4	4	3	3	3	3	3	3	2
	A	UL	UL	37,500	23,000	28,500	19,000	36,000	18,000	9,000
~~I-1~~	~~S~~	~~UL~~	~~5~~	~~2~~	~~*NP*~~	~~2~~	~~*NP*~~	~~*NP*~~	~~2~~	~~*NP*~~
	~~A~~	~~UL~~	~~55,000~~	~~19,000~~	~~*NP*~~	~~16,500~~	~~*NP*~~	~~*NP*~~	~~10,500~~	~~*NP*~~
I-2/*I-2.1*[f]	S	UL	4	2	1	1	NP	1	1	NP
	A	UL	UL	15,000	11,000	12,000	NP	12,000	9,500	NP
I-3[e]	S	UL	~~4~~ *2*	~~2~~ *NP*	~~1~~ *NP*	~~2~~ *NP*	~~1~~ *NP*	~~2~~ *NP*	~~2~~ *NP*	~~1~~ *NP*
	A	UL	~~UL~~ *15,100*	~~15,000~~ *NP*	~~10,000~~ *NP*	~~10,500~~ *NP*	~~7,500~~ *NP*	~~12,000~~ *NP*	~~7,500~~ *NP*	~~5,000~~ *NP*
I-4	S	UL	5	3	2	3	2	3	1	1
	A	UL	60,500	26,500	13,000	23,500	13,000	25,500	18,500	9,000
L	*S*	~~*UL*~~*20*	*6*	*5*	*3*	*5*	*3*	*5*	*3*	*2*
	A	*UL*	*60,000*	*37,500*	*17,500*	*28,500*	*17,500*	*36,000*	*18,000*	*6,500*
M	S	UL	11	4	2	4	2	4	3	1
	A	UL	UL	21,500	12,500	18,500	12,500	20,500	14,000	9,000
R-1	S	UL	11	4	4	4	4	4	3	2
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
R -2	S	UL	11	4	4	4	4	4	3	2
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
R-2.1	*S*	*UL*	~~*5*~~*6*[h]	~~*2*~~*3*[g]	*NP*	~~*2*~~*3*[g]	*NP*	*NP*	~~*2*~~*3*[g]	*NP*
	A	*UL*	*55,000*	*19,000*	*NP*	*16,500*	*NP*	*NP*	*10,500*	*NP*
R-3/*R-3.1*	S	UL	11	4	4	4	4	4	3	3
	A	UL	UL	UL	UL	UL	UL	UL	UL	UL
R-4	S	UL	11[h]	4[g]	4[i]	4[g]	4[i]	4[i]	3[g]	2[i]
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
S-1	S	UL	11	4	2	3	2	4	3	1
	A	UL	48,000	26,000	17,500	26,000	17,500	25,500	14,000	9,000
S -2[b, c]	S	UL	11	5	3	4	3	5	4	2
	A	UL	79,000	39,000	26,000	39,000	26,000	38,500	21,000	13,500
U[c]	S	UL	5	4	2	3	2	4	2	1
	A	UL	35,500	19,000	8,500	14,000	8,500	18,000	9,000	5,500

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m^2.

A = building area per story, S = stories above grade plane, UL = Unlimited, NP = Not permitted.

a. See the following sections for general exceptions to Table 503:

1. Section 504.2, Allowable height increase due to automatic sprinkler system installation.
2. Section 506.2, Allowable area increase due to street frontage.
3. Section 506.3, Allowable area increase due to automatic sprinkler system installation.
4. Section 507, Unlimited area buildings.

b. For open parking structures, see Section 406.3.

c. For private garages, see Section 406.1.

d. See Section 415.5 for limitations.

e. [SFM] See Section 408.1.1 for specific exceptions for one-story Type IIA, Type IIIA or Type VA construction.

f. Restraint shall not be permitted in any building except in Group I-3 occupancies constructed for such use (see Section ~~308.2~~ 408.1.2).

g. Nonambulatory persons shall be limited to the first 2 stories.

h. Nonambulatory persons shall be limited to the first 5 stories.

i. Nonambulatory elderly clients are not permitted in buildings of these types of construction. See Section 425.3.3 and 425.3.4.

504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. ~~These~~ I~~i~~ncreases are permitted in addition to the area increase in accordance with Sections 506.2~~ and 506.3~~. *In other than ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, these increases are permitted in addition to the area increase in accordance with Section 506.3.* For Group R-*2* buildings *of Type VA construction* equipped throughout with an approved automatic sprinkler system in accordance with Section~~ 903.3.1.2~~ *903.3.1.1*, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18 288 mm) or four stories, respectively*, these increases are permitted in addition to the area increase in accordance with Section 506.3*.

Exceptions:

1. Buildings, or portions of buildings, classified as a Group I-2 occupancy of Type IIB, III, IV or V construction.
2. Buildings, or portions of buildings, classified as a Group H-1, H-2, H-3 or H-5 occupancy.
3. Fire-resistance rating substitution in accordance with Table 601, Note d.
4. *[SFM] ~~Fire areas with an occupancy in~~ Buildings, or portions of buildings, classified as a Group L occupancy.*
5. *[SFM] ~~Fire areas with an occupancy in~~ Buildings, or portions of buildings, classified as a Licensed Group ~~I-1~~R-2.1 ~~and~~ or R-4 occupancy.*

506.3 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the building area limitation in Table 503 is permitted to be increased by an additional 200 percent (*Is* = 2) for buildings with more than one story above grade plane and an additional 300 percent (*Is* = 3) for buildings with no more than one story above grade plane. ~~These~~ *In other than ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, these* increases are permitted in addition to the height and story increases in accordance with Section 504.2. *For Group R-2 buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, these increases are permitted in addition to the height increase in accordance with Section 504.2.*

Exception: The building area limitation increases shall not be permitted for the following conditions:

1. The automatic sprinkler system increase shall not apply to buildings with an occupancy in Group H-1.
2. The automatic sprinkler system increase shall not apply to the floor area of an occupancy in Group H-2 or H-3. For mixed-use buildings containing such occupancies, the allowable area shall be calculated in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.
3. Fire-resistance rating substitution in accordance with Table 601, Note d.
4. *[SFM] The automatic sprinkler system increase shall not apply to buildings with an occupancy in Group L ~~occupancies~~.*

506.4.1 Area determination. ~~The~~ *In other than ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, the* total allowable building area of a single occupancy building with more than one story above grade plane shall be determined by multiplying the allowable building area per story (Aa), as determined in Section 506.1, by the number of stories above grade plane as listed below:

1. For buildings with two stories above grade plane, multiply by 2;

2. For buildings with three or more stories above grade plane, multiply by 3; and
3. No story shall exceed the allowable building area per story (Aa), as determined in Section 506.1, for the occupancies on that story.

Exceptions:
~~1.~~ Unlimited area buildings in accordance with Section 507.
~~2. The maximum area of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2 shall be determined by multiplying the allowable area per story (Aa), as determined in Section 506.1, by the number of stories above grade plane.~~

For ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, the ~~maximum area of a building with more than one story above grade plane shall be determined by multiplying the allowable area of the first~~ total allowable building area of a single occupancy building with more than one story above grade plane shall be determined by multiplying the allowable building area per story (Aa), as determined in Section 506.1, by the number of stories above grade plane as listed below:

1. *For buildings with two or more stories above grade plane, multiply by 2;*
2. *No story shall exceed the allowable building area per story (A~~a~~a), as determined in Section 506.1, for the occupancies on that story.*

Exception: *Unlimited area buildings in accordance with Section 507.*

506.5.2 More than one story above grade plane. For buildings with more than one story above grade plane and containing mixed occupancies, each story shall individually comply with the applicable requirements of Section 508.1.

For *other than ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal,* buildings with more than three stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories based on the applicable provisions of Section 508.1 shall not exceed 3.

For ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, buildings with more than ~~three~~two stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories based on the applicable provisions of Section 508.1 shall not exceed 2.

508.2.4 Separation of occupancies. No separation is required between accessory occupancies or the main occupancy.

Exceptions:
1. Groups H-2, H-3, H-4 ~~and~~ H-5, *I-2, I-2.1 ~~and~~ I-3 and L* occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Incidental accessory occupancies required to be separated or protected by Section 508.2.5.
3. Groups ~~I-1,~~ R-1, R-2, *R-2.1* and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from accessory occupancies contiguous to them per the requirements of Section 420.

TABLE 508.2.5 INCIDENTAL ACCESSORY OCCUPANCIES

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system [a]
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system [a]

Refrigerant machinery rooms	1 hour or provide automatic sprinkler system [a]
Hydrogen cut-off rooms, not classified as Group H	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in Group ~~E or~~ I-2 *and I-2.1* occupancies	1 hour or provide automatic fire-extinguishing system [a]
[SFM] Rooms or areas with special hazards such as laboratories, vocational shops and other such areas not classified as Group H, located in Group E occupancies where hazardous materials in ~~exempt amounts~~ quantities not exceeding the maximum allowable quantity are used or stored.	*1 hour*
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system [a]
Storage rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system [a]
~~Group I-3 cells equipped with padded surfaces~~	~~1 hour~~
Group I-2 *and I-2.1* waste and linen collection rooms	1 hour [a]
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system [a]
Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility standby power, emergency power or uninterrupted power supplies	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.[a]
Rooms containing fire pumps in non-high-rise buildings	2 hours; or 1 hour and provide automatic sprinkler system throughout the building
Rooms containing fire pumps in high-rise buildings	2 hours

For SI: 1 square foot = 0.0929 m2, 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L

a. [SFM] Fire barrier protection and automatic sprinkler protection required throughout the fire area in I-2 and I-2.1 occupancies as indicated.

508.3.3 Separation. No separation is required between nonseparated occupancies.

Exceptions:

1. Groups H-2, H-3, H-4 ~~and~~ H-5*, I-2, I-2.1 I-3* ~~or~~*and L* occupancies shall be separated from all other occupancies in accordance with Section 508.4.

2. Groups ~~I-1,~~ R-1, R-2*, R-2.1* and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from other occupancies contiguous to them in accordance with the requirements of Section 420.

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

OCCUPANCY	A[d], E		~~I-1, I-3,~~ I-4, *R-2.1*		I-2, *I-2.1*		*I-3*		R-*1, R-2, R-3, R-3.1, R-4*		F-2, S-2[b], U		B, F-1[g], M, S-1		*L*		H-1		H-2		H-3, H-4, H-5	
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	*S*	*NS*	S	NS	S	NS	S	NS
A[d], E	N	N	~~1~~*2*	2	2	NP	*2*	*NP*	1	2	N	1	1	2	*2*	*NP*	NP	NP	3	4	2	3[a]
~~I-1, I-3,~~ I-4, *R-2.1*	—	—	~~N~~*1*[e]	~~N~~*NP*	2	NP	*2*	*NP*	1	NP	~~1~~*2*	2	~~1~~*2*[f]	2	*2*	*NP*	NP	NP	~~3~~ *4*	NP	~~2~~ *4*	NP
I-2, *I-2.1*	—	—	—	—	N	~~N~~*NP*	*2*	*NP*	2	NP	2	NP	2[f]	NP	*2*	*NP*	NP	NP	*4*	NP	*4*	NP
I-3	—	—	—	—	—	—	*N*	*NP*	*2*	*NP*	*2*	*2*	*2*	*2*	*2*	*NP*	*NP*	*NP*	*4*	*NP*	*4*	*NP*
R-*1, R-2, R-3, R-3.1, R-4*	—	—	—	—	—	—	—	—	N	N	1[c]	2[c]	1	2	*4*	*NP*	NP	NP	3	NP	2	NP
F-2, S-2[b], U	—	—	—	—	—	—	—	—	—	—	N	N	1	2	*1*	*NP*	NP	NP	3	4	2	3[a]
B, F-1, M, S-1	—	—	—	—	—	—	—	—	—	—	—	—	N	N	*1*	*NP*	NP	NP	2	3	1	2[a]
L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1*	*NP*	*NP*	*NP*	*2*	*NP*	*1*	*NP*
H-1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	NP	NP	NP	NP
H-2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	1	NP
H-3, H-4, H-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1[e, f]	NP
~~*L*~~	~~*2*~~	~~*NP*~~	~~*2*~~	~~*NP*~~	~~*2*~~	~~*NP*~~			~~*4*~~	~~*NP*~~	~~*1*~~	~~*NP*~~	~~*1*~~	~~*NP*~~			~~*NP*~~	~~*NP*~~	~~*2*~~	~~*NP*~~	~~*1*~~	~~*NP*~~

For SI: 1 square foot = 0.0929 m^2.
S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
N = No separation requirement.
NP = Not permitted.
a. For Group H-5 occupancies, see Section 903.2.5.2.
b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but to not less than one hour.
c. See Section 406.1.4.
d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
e. Separation is not required between occupancies of the same classification.
f. For H-5 occupancies, see Section 415.8.2.2.
~~f~~*g. [SFM]* ~~*For*~~ *Group I and F1 occupancies and Group R-2.1 and F-1 occupancies shall have a 3 hour separation.*

509.2 Horizontal building separation allowance. A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction where all of the following conditions are met:

1. The buildings are separated with a horizontal assembly having a minimum 3-hour fire-resistance rating.
2. The building below the horizontal assembly is no more than one story above grade plane.
3. The building below the horizontal assembly is of Type IA construction.
4. Shaft, stairway, ramp and escalator enclosures through the horizontal assembly shall have not less than a 2-hour fire-resistance rating with opening protectives in accordance with Section 715.4.

   Exception: Where the enclosure walls below the horizontal assembly have not less than a 3-hour fire-resistance rating with opening protectives in accordance with Section 715.4, the enclosure walls extending above the horizontal assembly shall be permitted to have a 1-hour fire-resistance rating, provided:

   1. The building above the horizontal assembly is not required to be of Type I construction;
   2. The enclosure connects less than four stories; and
   3. The enclosure opening protectives above the horizontal assembly have a minimum 1-hour fire protection rating.
5. The building or buildings above the horizontal assembly shall be permitted to have multiple Group A occupancy uses, each with an occupant load of less than 300, or Group B, ~~I-1,~~ M, R or S occupancies.
6. The building below the horizontal assembly shall be protected throughout by an approved automatic sprinkler system in accordance with Section 903.3.1.1, and shall be permitted to be any of the following occupancies:

   6.1. Group S-2 parking garage used for the parking and storage of private motor vehicles;
   6.2. Multiple Group A, each with an occupant load of less than 300;
   6.3. Group B;
   6.4. Group M;
   6.5. Group R; and
   6.6. Uses incidental to the operation of the building (including entry lobbies, mechanical rooms, storage areas and similar uses).

7. The maximum building height in feet shall not exceed the limits set forth in Section 503 for the building having the smaller allowable height as measured from the grade plane.

~~509.9~~ 509.10 Group ~~I or~~ R. [SFM] *Buildings housing protective social-care homes or in occupancies housing inmates who are not restrained need not be of one-hour fire- resistive construction when not more than two stories in height. In no case shall individual floor areas exceed 3,000 square feet (279m^2). The fire-resistive protection of the exterior walls shall not be less than one hour where such walls are located within 5 feet (1524 mm) of the property line. Openings within such walls are not permitted. Openings in exterior non-rated walls need not be protected.*

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

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

CHAPTER 6
TYPES OF CONSTRUCTION

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (hours)

BUILDING ELEMENT	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A[d]	B	A[d]	B	HT	A[d]	B
Primary structural frame[g] (see Section 202)	3[a]	2[a]	1	0	1	0	HT	1	0
Bearing walls Exterior[f, g] Interior	 3 3[a]	 2 2[a]	 1 1	 0 0	 2 1	 2 0	 2 1/HT	 1 1	 0 0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior[e]	0	0	0	0	0	0	See Section 602.4.6	0	0
Floor construction and secondary members (see Section 202)	2	2	1	0	1	0	HT	1	0
Roof construction and secondary members (see Section 202)	11/2[b]	1[b, c]	1[b, c]	0[c]	1[b, c]	0	HT	1[b, c]	0

For SI: 1 foot = 304.8 mm.

a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.

b.*1*. Except in ~~*high-rise buildings,*~~ Group *A, E*, F-1, H, *I, L*, M, *R-1, R-2, R-2.1* and S-1 *occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal,* fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

b.2 For ~~high-rise buildings,~~ Group A, E, I, L, R-1, ~~and~~ R-2, and R-2.1 occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, fire protection of members other than the structural frame shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

b.3. One-story portions of Group A and E assembly occupancies the roof-framing system of Type II A or Type III A construction may be of unprotected construction when such roof-framing system is open to the assembly area and does not contain concealed spaces.

c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.

d. An approved automatic sprinkler system in accordance with Section 903.3.1.1 shall be allowed to be substituted for 1-hour fire-resistance-rated construction, provided such system is not otherwise required by other provisions of the code or used for an allowable area increase in accordance with Section 506.3 or an allowable height increase in accordance with Section 504.2. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted.

e. Not less than the fire-resistance rating required by other sections of this code.

f. Not less than the fire-resistance rating based on fire separation distance (see Table 602).

g. Not less than the fire-resistance rating as referenced in Section 704.10.

TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE[a,e]

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H[f], *L*	OCCUPANCY GROUP F-1, M, S-1	OCCUPANCY GROUP A, B, E, F-2, I, R[~~f~~h], S-2[g], U[b,~~f~~h]

X < 5[c]	All	3	2	1
5 ≤ X < 10	IA Others	3 2	2 1	1 1
10 ≤ X < 30	IA, IB IIB, VB Others	2 1 1	1 0 1	1[d] 0 1[d]
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.

b. For special requirements for Group U occupancies see Section 406.1.2

c. See Section 705.1.1 for party walls.

d. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.

e. The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.

f. For special requirements for Group H occupancies, see Section 415.3.

g. For special requirements for Group S aircraft hangars, see Section 412.4.1.

~~f~~h. Group R-3 and Group U occupancies when used as accessory to Group R-3 occupancies, shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet or more; or when equipped throughout with an automatic residential fire sprinkler system installed in accordance with Section 903.3 the fire-resistance rating shall not be required where the fire separation distance is 3 feet or more.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2

References: Health and Safety Code Sections 13143, 13211, 18949.2

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

CHAPTER 7
FIRE-RESISTANCE-RATED CONSTRUCTION

702.1 Definitions. The following words and terms shall, for the purposes of this chapter, and as used elsewhere in this code, have the meanings shown herein.

FIRE-SMOKE BARRIER. *A fire-resistance-rated wall assembly of materials designed to restrict the spread of fire in which continuity is maintained in accordance with Section 707 and that is designed and constructed to restrict the movement of smoke in accordance with Section 710.*

705.2.3 Combustible projections. Combustible projections located where openings are not permitted, or where protection of openings is required shall be of at least 1-hour fire-resistance-rated construction, Type IV construction, fire-retardant-treated wood or as required by Section 1406.3.

> **Exception:** Type *VB* construction shall be allowed for *combustible projections in* R-3 occupancies *with a fire separation distance greater than or equal to 2 feet.*

705.5 Fire-resistance ratings. *For other than ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal,* ~~E~~exterior walls shall be fire-resistance rated in accordance with Tables 601 and 602 and this section. The required fire-resistance rating of exterior walls with a fire separation distance of greater than 10 feet (3048 mm) shall be rated for

exposure to fire from the inside. The required fire-resistance rating of exterior walls a fire separation distance of less than or equal to 10 feet (3048 mm) shall be rated for exposure to fire from both sides.

For ~~high-rise buildings,~~ Group A, E, H, I, L, and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, exterior walls shall be fire-resistance rated in accordance with Tables 601 and 602 and this section. The required fire-resistance rating of exterior walls shall be rated for exposure to fire from both sides.

705.8.5 Vertical separation of openings. Openings in exterior walls in adjacent stories shall be separated vertically to protect against fire spread on the exterior of the buildings where the openings are within 5 feet (1524 mm) of each other horizontally and the opening in the lower story is not a protected opening with a fire protection rating of not less than ¾ hour. Such openings shall be separated vertically at least 3 feet (914 mm) by spandrel girders, exterior walls or other similar assemblies that have a fire-resistance rating of at least 1 hour or by flame barriers that extend horizontally at least 30 inches (762 mm) beyond the exterior wall. Flame barriers shall also have a fire-resistance rating of at least 1 hour. The unexposed surface temperature limitations specified in ASTM E 119 or UL 263 shall not apply to the flame barriers or vertical separation unless otherwise required by the provisions of this code.

Exceptions:

1. This section shall not apply to buildings that are three stories or less above grade plane.
2. This section shall not apply to buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1~~or 903.3.1.2~~.
3. Open parking garages.

TABLE 706.4
FIRE WALL FIRE-RESISTANCE RATINGS

GROUP	FIRE RESISTANCE RATING (hours)
A, B, E, H-4, I, R-1, R-2, *R-2.1,* U, *L*	3[a]
F-1, H-3[b], H-5, M, S-1	3
H-1,H-2	4[b]
F-2, S-2, R-3, R-4	2

a. In Type II or V construction, walls shall be permitted to have a 2-hour fire-resistance rating.
b. For Group H-1, H-2 or H-3 buildings, also see Sections 415.4 and 415.5.

708.14.1 Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than *two stories in ~~high-rise buildings,~~ Group A, E, H, I, L, R-1, ~~and~~ R-2 and R-2.1 occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, and more than* three stories *for all other occupancies*. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by fire partitions. In addition to the requirements in Section 709 for fire partitions, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 715.4.3 as required for corridor walls and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 716.5.4.1. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code.

Exceptions:

1. Enclosed elevator lobbies are not required at the street floor, provided the entire street floor is equipped with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Elevators not required to be located in a shaft in accordance with Section 708.2 are not required to have enclosed elevator lobbies.
3. *~~[SFM] In other than high-rise buildings,~~* Enclosed elevator lobbies are not required *w*here additional doors are provided at the hoistway opening in accordance with Section 3002.6. Such doors shall be tested in accordance with UL 1784 without an artificial bottom seal.
4. Enclosed elevator lobbies are not required where the building is protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. This exception shall not apply to the following:

   4.1. ~~Group I-2 occupancies,~~ *Group A occupancies;*

4.2. ~~Group I-3 occupancies, and~~ *Group E occupancies;*
4.3. Group H occupancies;
4.4. Group I occupancies;
4.5. Group L occupancies;
4.6. Group R-1, ~~and~~ R-2 and R-2.1 occupancies; and ~~Other applications listed in Section 111 regulated by the Office of the State Fire Marshal~~
~~4.3.~~ *4.7.* High-rise buildings.

5. *~~[SFM] In other than high-rise buildings, smoke~~*Smoke partitions shall be permitted in lieu of fire partitions to separate the elevator lobby at each floor where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition to the requirements in Section 711 for smoke partitions, doors protecting openings in the smoke partitions shall also comply with Sections 711.5.2, 711.5.3, and 715.4.8 and duct penetrations of the smoke partitions shall be protected as required for corridors in accordance with Section 716.5.4.1.
6. *[SFM] When approved, in other than Group I-2 occupancies* ~~E~~enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 708.14.2.
7. Enclosed elevator lobbies are not required where the elevator serves only open parking garages in accordance with Section 406.3.
~~7.~~8. [SFM] ~~In other than high-rise buildings, enclosed~~Enclosed elevator lobbies are not required where the hoistway door has a fire-protection rating as required by Section ~~711.4~~708.7 and the hoistway door opening is also protected by a listed and labeled smoke containment system complying with ICC ES AC 77.

See Section 403.6 for additional requirements for high-rise buildings.

709.1 General. The following wall assemblies shall comply with this section.

1. Walls separating *dwelling units* in the same building as required by Section 420.2.
2. Walls separating *sleeping units* in the same building as required by Section 420.2.
3. Walls separating tenant spaces in *covered mall buildings* as required by Section 402.7.2.
4. Corridor walls as required by Section 1018.1.
5. Elevator lobby separation as required by Section 708.14.1.
~~7.~~6. Walls separating enclosed tenant spaces in high-rise buildings and in buildings of Types I, IIA, IIIA, IV, or VA construction of Group A, E, H, ~~and~~ I, L, and R-2.1 occupancies and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal.

709.4 Continuity. Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistance-rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto. If the partitions are not continuous to the sheathing, deck or slab, and where constructed of combustible construction, the space between the ceiling and the sheathing, deck or slab above shall be fireblocked or draftstopped in accordance with Sections 717.2 and 717.3 at the partition line. The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for walls separating tenant spaces in covered mall buildings, walls separating dwelling units, walls separating sleeping units and corridor walls in buildings of Type IIB, IIIB and VB construction.

Exceptions:
1. The wall need not be extended into the crawl space below where the floor above the crawl space has a minimum 1-hour fire-resistance rating.
2. Where the room-side fire-resistance-rated membrane of the corridor is carried through to the underside of the floor or roof sheathing, deck or slab of a fire-resistance-rated floor or roof above, the ceiling of the corridor shall be permitted to be protected by the use of ceiling materials as required for a 1-hour fire-resistance-rated floor or roof system.
3. Where the corridor ceiling is constructed as required for the corridor walls, the walls shall be permitted to terminate at the upper membrane of such ceiling assembly.
4. The fire partitions separating tenant spaces in a covered mall building, complying with Section 402.7.2, are not required to extend beyond the underside of a ceiling that is not part of a fire-resistance-rated assembly. A wall is not required in attic or ceiling spaces above tenant separation walls.

5. Fireblocking or draftstopping is not required at the partition line in Group R-2 buildings that do not exceed four stories above grade plane, provided the attic space is subdivided by draftstopping into areas not exceeding 3,000 square feet (279 m2) or above every two dwelling units, whichever is smaller.
6. Fire blocking or draft stopping is not required at the partition line in buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1 or 903.3.1.2, provided that automatic sprinklers are installed in *all* combustible floor/ceiling and roof/ceiling spaces.

710.5 Openings. Openings in a smoke barrier shall be protected in accordance with Section 715.

Exceptions:

1. In Group I-2, where doors are installed across corridors, a pair of opposite-swinging doors without a center mullion shall be installed having vision panels with fire-protection-rated glazing materials in fire-protection-rated frames ~~*or horizontal sliding doors that comply with section 1008.1.3.3 shall be installed. Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door in a smoke barrier*~~, the area of which shall not exceed that tested. The doors shall be close fitting within operational tolerances, and shall not have undercuts in excess of 3/4-inch, louvers or grilles. The ~~*Swinging*~~ doors shall have head and jamb stops, astragals or rabbets at meeting edges and ~~*Doors installed across corridors*~~ shall be automatic closing by smoke detection in accordance with Section 715.4.8.3. Where permitted by the door manufacturer's listing, positive-latching devices are not required. ~~*Doors installed across corridors shall comply with Section 1008.1.1.*~~
2. In Group I-2, horizontal sliding doors installed in accordance with Section 1008.1.4.3 and protected in accordance with Section 715.

711.2 Materials. The walls shall be of materials permitted by the building type of construction. *In Group I-2 and I-2.1, smoke partitions shall have framing covered with noncombustible materials having an approved thermal barrier with an index of not less than 15 in accordance with FM 4880, UL 1040, NFPA 286 or UL 1715.*

711.7 Ducts and air transfer openings. The space around a duct penetrating a smoke partition shall be filled with an approved material to limit the free passage of smoke. Air transfer openings in smoke partitions shall be provided with a smoke damper complying with Section 716.3.2.2. *For ~~high-rise buildings,~~ Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, duct openings in smoke partitions shall also be provided with a smoke damper complying with Section 716.3.2.2.*

Exceptions:

1. Where the installation of a smoke damper will interfere with the operation of a required smoke control system in accordance with Section 909, approved alternative protection shall be utilized.
2. [SFM] Smoke dampers are not required in corridor penetrations where the duct is constructed of steel not less than 0.019-inch (0.40 mm) in thickness and there are no openings serving the corridor.

715.4.3 Door assemblies in corridors and smoke barriers. Fire door assemblies required to have a minimum fire protection rating of 20 minutes where located in corridor walls or smoke-barrier walls having a fire-resistance rating in accordance with Table 715.4 shall be tested in accordance with NFPA 252 or UL 10C without the hose stream test.

Exceptions:

1. Viewports that require a hole not larger than 1 inch (25 mm) in diameter through the door, have at least a 0.25-inch-thick (6.4 mm) glass disc and the holder is of metal that will not melt out where subject to temperatures of 1,700°F (927°C).
2. Corridor door assemblies in occupancies of Group I-2 shall be in accordance with Section 407.3.1.
3. Unprotected openings shall be permitted for corridors in multi theater complexes where each motion picture auditorium has at least one-half of its required exit or exit access doorways opening directly to the exterior or into an exit passageway.
4. Horizontal sliding doors in smoke barriers that comply with Sections 408.3 and 408.8.4 in occupancies in Group I-3.

~~4.~~5. Cell or room doors including cell or room doors with integral side-lites that are part of the door assembly in Group I-3 occupancies which open into a required exit corridor within a cell complex.

715.4.4 Doors in exit enclosures and exit passageways. Fire door assemblies in exit enclosures and exit passageways shall have a maximum transmitted temperature end point of not more than 450°F (250° C) above ambient at the end of 30 minutes of standard fire test exposure.

Exception: The maximum transmitted temperature rise is not required in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 ~~or 903.3.1.2~~.

715.4.4.1 Glazing in doors. Fire-protection-rated glazing in excess of 100 square inches (0.065 m2) shall be permitted in fire door assemblies when tested as components of the door assemblies and not as glass lights, and shall have a maximum transmitted temperature rise of 450ºF (250ºC) in accordance with Section 715.4.4.

Exception: The maximum transmitted temperature rise is not required in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 ~~or 903.3.1.2~~.

716.5.2 Fire barriers. *In other than ~~high-rise buildings,~~ Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal.* Ducts and air transfer openings of fire barriers shall be protected with approved fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate exit enclosures and exit passageways except as permitted by Sections 1022.4 and 1023.6, respectively.

Exception: Fire dampers are not required at penetrations of fire barriers where any of the following apply:

1. Penetrations are tested in accordance with ASTM E119 as part of the fire-resistance rated assembly.
2. Ducts are used as part of an approved smoke control system in accordance with Section 909 and where the use of a fire damper would interfere with the operation of a smoke control system.
3. Such walls are penetrated by ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, are in areas of other than Group Hand are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 ~~or 903.3.1.2~~. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

[SFM] For ~~high-rise buildings,~~ Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, ducts and air transfer openings of fire barriers shall be protected with approved fire and smoke dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate exit enclosures and exit passageways except as permitted by Sections ~~1020.1.2~~ 1022.4 and ~~1021.5~~ 1023.6, respectively.

Exceptions:

1. *Fire dampers are not required at penetrations of fire barriers where penetrations are tested in accordance with ASTM E119 as part of the fire-resistance rated assembly.*
2. *Fire and smoke dampers are not required where ducts are used as part of an approved smoke control system in accordance with Section 909 and where the use of a fire or smoke damper would interfere with the operation of a smoke control system.*

716.5.4 Fire partitions. *In other than Group A, E, I and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal,* ~~D~~ducts and air transfer openings that penetrate fire partitions shall be protected with listed fire dampers installed in accordance with their listing.

Exceptions: In ~~*other than high-rise building and in*~~ occupancies other than Group ~~*A, E,*~~ H *and L,* ~~*I and R and other applications listed in Section 111 regulated by the Office of the State Fire Marshal,*~~ fire dampers are not required where any of the following apply:

1. Corridor walls in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a through penetration in accordance with Section 713.

2. Tenant partitions in *covered mall buildings* where the walls are not required by provisions elsewhere in the code to extend to the underside of the floor or roof sheathing, slab or deck above.
3. The duct system is constructed of approved materials in accordance with the ~~*International*~~ *California Mechanical Code* and the duct penetrating the wall complies with all of the following requirements:

   3.1 The duct shall not exceed 100 square inches ($0.6m^2$).
   3.2 The duct shall be constructed of steel a minimum of 0.0217 inch (0.55 mm) in thickness.
   3.3 The duct shall not have openings that communicate the corridor with adjacent spaces or rooms.
   3.4 The duct shall be installed above a ceiling.
   3.5 The duct shall not terminate at a wall register in the fire-resistance rated wall.
   3.6 A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and for all four sides of the sleeve with minimum 1½-inch by 1½-inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The annular space between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.

For Group A, E, I and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, ducts and air transfer openings that penetrate fire partitions shall be protected with listed fire dampers installed in accordance with their listings.

Exceptions:

1. Fire dampers are not required in corridor penetrations where the duct is constructed of steel not less than 0.019 inch (0.48mm) in thickness, protected as a through penetration in accordance with Section 713 and there are no openings serving the corridor.
2. Fire dampers are not required where the duct system is constructed of approved materials in accordance with the California Mechanical Code and the duct penetrating the wall complies with all of the following requirements:

   2.1 For other than corridors in Group I-2 occupancies the duct shall not exceed 100 square inches ($0.6m^2$).
   2.2 The duct shall be constructed of steel a minimum of 0.0217 inch (0.55 mm) in thickness.
   2.3 The duct shall not have openings that communicate the corridor with adjacent spaces or rooms.
   2.4 The duct shall be installed above a ceiling.
   2.5 The duct shall not terminate at a wall register in the fire-resistance rated wall.
   2.6 The duct shall be protected as a through penetration in accordance with Section 713 or shall comply with the all of the following:

      1 A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening.
      2 The sleeve shall be secured to both sides of the wall and for all four sides of the sleeve with minimum 1½-inch by 1½-inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles.
      3 The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws.
      4 The annular space between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.

716.5.4.1 Corridors. *In other than ~~high-rise buildings,~~ Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section ~~1111~~.11 regulated by the Office of the State Fire Marshal, ~~A~~a* listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a corridor enclosure required to have smoke and draft doors in accordance with Section 715.4.3.

Exceptions:

1. Smoke damper are not required where the building is equipped throughout with an approved smoke control system in accordance with Section 909, and smoke dampers are not necessary for the operation and control of the system.
2. Smoke damper are not required in corridor penetrations where the duct is constructed of steel not less than 0.019 inch (0.48mm) in thickness and there are no openings serving the corridor.

[SFM] For ~~high-rise buildings,~~ Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, a listed smoke damper designed to resist the passage of smoke shall also be provided at each point a duct or air transfer opening penetrates a fire-resistance rated corridor enclosure required to have smoke and draft doors in accordance with Section 715.4.3.

Exceptions:

1. *Smoke dampers are not required where ducts are used as part of an approved mechanical smoke control system designed in accordance with Section 909 and where the smoke damper will interfere with the operation of the smoke control system.*
2. *Smoke damper are not required in corridor penetrations where the duct is constructed of steel not less than 0.019 inch (0.48mm) in thickness and there are no openings serving the corridor.*

717.3.3 Other groups. In other groups, draftstopping shall be installed so that horizontal floor areas do not exceed 1,000 square feet (93 m^2).

Exceptions:

1. *In other than ~~high-rise buildings,~~ Group A, E, H, I ~~and~~ L and R-2.1occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, ~~D~~*draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. *In ~~high-rise buildings,~~ Group A, E, H, I and L occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, where an automatic sprinkler system in accordance with Section 903.3.1.1 is installed, the area between draft stops may be 3,000 square feet (279 m^2)and the greatest horizontal dimension may be 100 feet (30 480 mm).*

717.4.3 Other groups. Draftstopping shall be installed in attics and concealed roof spaces, such that any horizontal area does not exceed 3,000 square feet (279 m^2).

Exceptions:

1. *In other than ~~high-rise buildings,~~ Group A, E, H, I and L and R-2.1 occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, ~~D~~*draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. *In ~~high-rise buildings,~~ Group A, E, H, I ~~and~~ L and R-2.1 occupancies, high-rise buildings, and other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, where an automatic sprinkler system in accordance with Section 903.3.1.1 is installed, the area between draft stops may be 9,000 square feet (836 m^2)and the greatest horizontal dimension may be 100 feet (30 480 mm).*

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

[8. The SFM proposes to maintain the adoption of Chapter 7A with the following modifications.]

CHAPTER 7A
MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE [SFM]

SECTION 701A
SCOPE, PURPOSE AND APPLICATION

701A.1 Scope. *This chapter applies to building materials, systems and or assemblies used in the exterior design and*

construction of new buildings located within a Wildland-Urban Interface Fire Area as defined in Section 702A.

701A.2 Purpose. *The purpose of this Chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flame or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.*

701A.3. Application. *New buildings located in any Fire Hazard Severity Zone ~~within State Responsibility Areas~~ or any Wildland-Urban Interface Fire Area designated by the enforcing agency ~~for which an application for a building permit is submitted on or after December 1, 2005, shall comply with the following Sections:~~ constructed after the application date shall comply with the provisions of this chapter.*

Exceptions:

1. Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, when located at least 30 feet from an applicable building.
2. Buildings of an accessory character classified as Group U occupancy of any size located least 50 feet from an applicable building.
3. Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code (see also Appendix C – Group U Agricultural Buildings), when located at least 50 feet from an applicable building.
4. Additions to and remodels of buildings originally constructed prior to the applicable application date.

~~1. 704A.1 – Roofing~~
~~2. 704A.2 – Attic Ventilation~~

701A.3.1 ~~Alternates for materials, design, tests, and methods of construction. The enforcing agency is permitted to modify the provisions of this chapter for site specific conditions in accordance with Appendix Chapter 1, Section 104.10. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 47.~~ ***Application date and where required****. New buildings for which an application for a building permit is submitted on or after July 1, 2008 located in any Fire Hazard Severity Zone or Wildland Interface Fire Area shall comply with all sections of this chapter, including all of the following areas:*

1. All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Area (SRA) including:

1.1. Moderate Fire Hazard Severity Zones
1.2. High Fire Hazard Severity Zones
1.3. Very-High Fire Hazard Severity Zones

2. Land designated as Very-High Fire Hazard Severity Zone by cities and other local agencies.
3. Land designated as Wildland Interface Fire Area by cities and other local agencies.

Exceptions:

1. New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.
2. New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland Interface Fire Area designated by cities and other local agencies for which an application for a building permit is submitted on or after December 1, 2005 but prior to July 1, 2008, shall only comply with the following sections of this chapter:

2.1. Section 705A – Roofing
2.2. Section 706A – Attic Ventilation

~~701A.3.2 New Buildings Located in Any Fire Hazard Severity Zone.~~ *~~New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any~~*

~~*Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.*~~

~~***701A.3.2.1***~~ ***701A.4*** **Inspection and certification.** *Building permit applications and final completion approvals for buildings within the scope and application of this chapter shall comply with the following:*

~~***701A.3.2.2***~~ *1. Building permit issuance. The local building official shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter. Issuance of a building permit by the local building official for the proposed building shall be considered as complying with this section.*

~~***701A.3.2.3***~~ *2. Building permit final. The local building official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter. Issuance of a certificate of occupancy by the local building official for the proposed building shall be considered as complying with this section.*

~~***701A.3.2.4***~~ ***701A.5 Vegetation management compliance.*** *Prior to building permit final approval, the property shall be in compliance with the vegetation ~~clearance~~ management requirements prescribed in California Fire Code Section 4906, including California Public Resources Code 4291 ~~and~~ or California Government Code Section 51182. Acceptable methods of compliance inspection and documentation shall be determined by the enforcing agency and may include any of the following:*

1. Local, state, or federal fire authority or designee authorized to enforce vegetation management requirements.
2. Enforcing agency
3. Third party inspection and certification authorized to enforce vegetation management requirements.
4. Property owner certification authorized by the enforcing agency.

SECTION 702A
DEFINITIONS

For the purposes of this chapter, certain terms are defined below:

CDF DIRECTOR *means the Director of the California Department of Forestry and Fire Protection.*

EXTERIOR COVERING*. The exposed siding or cladding material applied to the exterior side of an exterior wall, roof eave soffit, floor projection, or exposed underfloor framing.*

FIRE PROTECTION PLAN *is a document prepared for a specific project or development proposed for a Wildland-Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.*

The Fire Protection Plan shall be in accordance with this chapter and the California Fire Code, Chapter ~~47~~49. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted. Only locally adopted ordinances that have been filed with the California Building Standards Commission or the Department of Housing and Community Development in accordance with Section ~~101.8~~1.1.8 shall apply.

FIRE HAZARD SEVERITY ZONES *are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code Sections 51175 through 51189. See California Fire Code Article 86.*

The California Code of Regulations, Title 14, Section 1280 entitles the maps of these geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

HEAVY TIMBER. *A type of construction classification specified in Section 602. For use in this Chapter, Heavy Timber shall be sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches (102*

mm). Heavy Timber walls or floors shall be sawn or glue-laminated planks splined, tongue-and-grove, or set close together and well spiked.

IGNITION-RESISTANT MATERIAL *~~is any product which, when tested in accordance with ASTM E84 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. In addition, the flame front shall not progress more than 10½ feet (3200 mm) beyond the centerline of the burner at any time during the test.~~*

~~Materials shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D2898 and ASTM D3201. All materials shall bear identification showing the fire performance rating thereof. That identification shall be issued by ICC-ES/ICBO-ES or a testing facility recognized by the State Fire Marshal having a service for inspection of materials at the factory.~~

~~Fire-Retardant-Treated Wood or noncombustible materials as defined in section 202shall satisfy the intent of this section.~~

~~The enforcing agency may use other definitions of ignition-resistant material that reflect wildfire exposure to building materials and/or their materials performance in resisting ignition.~~ A type of building material that resists ignition or sustained flaming combustion sufficiently so as to reduce losses from wildland-urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in Section 703A and SFM Standard 12-7A-5, Ignition-Resistant Material.

LOCAL AGENCY VERY HIGH FIRE HAZARD SEVERITY ZONE *means an area designated by a local agency upon the recommendation of the CDF Director pursuant to Government Code Sections 51177(c), 51178 and 5118 that is not a state responsibility area and where a local agency, city, county, city and county, or district is responsible for fire protection.*

LOG WALL CONSTRUCTION. *A type of construction in which exterior walls are constructed of solid wood members and where the smallest horizontal dimension of each solid wood member is at least 6 inches (152 mm).*

RAFTER TAIL. *The portion of roof rafter framing in a sloping roof assembly that projects beyond and overhangs an exterior wall.*

ROOF EAVE. *The lower portion of a sloping roof assembly that projects beyond and overhangs an exterior wall at the lower end of the rafter tails. Roof eaves may be either "open" or "enclosed." Open Roof Eaves have exposed rafter tails and an unenclosed space on the underside of the roof deck. Enclosed Roof Eaves have a boxed-in Roof Eave Soffit with a horizontal underside or sloping rafter tails with an exterior covering applied to the underside of the rafter tails.*

ROOF EAVE SOFFIT*. An enclosed boxed-in soffit under a roof eave with exterior covering material applied to the soffit framing creating a horizontal surface on the exposed underside..*

STATE RESPONSIBILITY AREA *means lands that are classified by the Board of Forestry pursuant to Public Resources Code Section 4125 where the financial responsibility of preventing and suppressing forest fires is primarily the responsibility of the state.*

WILDFIRE *is any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources as defined in Public Resources Code Sections 4103 and 4104.*

WILDFIRE EXPOSURE *is one or a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment.*

WILDLAND-URBAN INTERFACE FIRE AREA *is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires..*

SECTION 703A
STANDARDS OF QUALITY

703A.1 General. *Building ~~M~~material, systems, assemblies and methods of construction used ~~shall be in accordance with this Chapter.~~ in this Chapter shall be in accordance with Section 703A.*

703A.2 Qualification by Testing. *Material and material assemblies tested in accordance with the requirements of Section 703A shall be accepted for use when the results and conditions of those tests are met. ~~Testing shall be performed by a testing agency~~ Product evaluation testing of material and material assemblies shall be approved or listed by the State Fire Marshal, or identified in a current report issued by an approved agency ~~by an ICC-ES/ICBO-ES report~~.*

703A.3 ~~Standards of Quality~~.Approved agency. *Product evaluation testing shall be performed by an approved agency as defined in Section 1702. The scope of accreditation for the approved agency shall include building product compliance with code. ~~The State Fire Marshal standards listed below and as referenced in this Chapter are located in the California Referenced Standards Code, Part 12 and Chapter 35 of this code.~~*

*~~**SFM 12-7A-1,** Exterior Wall Siding and Sheathing~~*
*~~**SFM 12-7A-2,** Exterior Window~~*
*~~**SFM 12-7A-3,** Under Eave~~*
*~~**SFM 12-7A-4,** Decking~~*

703A.4 Labeling. *Material and material assemblies tested in accordance with the requirements of section 703A shall bear an identification label showing the fire test results. That identification label shall be issued by a testing and/or inspecting agency approved by the State Fire Marshal.*

1. Identification mark of the approved testing and/or inspecting agency.
2. Contact and identification information of the manufacturer.
3. Model number or identification of the product or material.
4. Pre-test weathering specified in this chapter.
5. Compliance standard as described under Section 703A.7.

703A.5 Weathering and surface treatment protection.

703A.5.1 General. *Material and material assemblies tested in accordance with the requirements of Section 703A shall maintain their fire test performance under conditions of use when installed in accordance with the manufacturers instructions.*

703A.5.2 Weathering. *Fire-retardant-treated wood and Fire-retardant-treated wood shingles and shakes shall meet the fire test performance requirements of this Chapter after being subjected to the weathering conditions contained in the following standards, as applicable to the materials and the conditions of use.*

703A.5.2.1 Fire-retardant-treated wood. *Fire-retardant-treated wood shall be tested in accordance with ASTM D 2898, "Standard Practice for Accelerated Weathering of Fire-Retardant Treated Wood for Fire Testing (Method A)" and the requirements of section 2303.2.*

703A.5.2.2 Fire-retardant-treated wood shingles and shakes. *Fire-retardant-treated wood shingles and shakes shall be approved and listed by the State Fire Marshal in accordance with Section 208(c), Title 19 California Code of Regulations.*

703A.5.3 Surface treatment protection. *The use of paints, coatings, stains, or other surface treatments are not an approved method of protection as required in this Chapter.*

703A.6 Alternates for materials, design, tests, and methods of construction. *The enforcing agency is permitted to modify the provisions of this chapter for site-specific conditions in accordance with Section 1.11.2.4. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 49.*

703A.7 Standards of quality. *The State Fire Marshal standards for exterior wildfire exposure protection listed below*

and as referenced in this chapter are located in the California Referenced Standards Code, Part 12 and Chapter 35 of this code.

SFM Standard 12-7A-1, *Exterior Wall Siding and Sheathing. A fire resistance test standard consisting of a 150 kW intensity direct flame exposure for a 10 minutes duration.*

SFM Standard 12-7A-2, *Exterior Windows. A fire resistance test standard consisting of a 150 kW intensity direct flame exposure for a 8 minutes duration.*

SFM Standard 12-7A-3, *~~Under Soffit~~. Horizontal Projection Underside A fire resistance test standard consisting of a 300 kW intensity direct flame exposure for a 10 minute duration.*

SFM Standard 12-7A- 4*, Decking. A two-part test consisting of a heat release rate (Part A) deck assembly combustion test with an under deck exposure of 80 kW intensity direct flame for a 3 minute duration, and a (Part B) sustained deck assembly combustion test consisting of a deck upper surface burning ember exposure with a 12 mph wind for 40 minutes using a 2.2lb (1kg) burning "Class A" size 12"x12"x2.25" (300mmx300mmx57mm) roof test brand.*

SFM Standard 12-7A-4A, *Decking Alternate Method A. A heat release rate deck assembly combustion test with an under deck exposure of 80 kW intensity direct flame for a 3 minute duration,*

SFM Standard 12-7A-5, *Ignition-resistant Material. A generic building material surface burning flame spread test standard consisting of an extended 30 minute ASTM E84 or UL 723 test method as is used for Fire-Retardant-Treated wood.*

~~SECTION - 704A~~

~~MATERIALS, SYSTEMS AND METHODS OF CONSTRUCTION SECTION 704A.1- ROOFS~~

~~704A.1 Roofing~~

~~704A.1.1 General.~~ *~~Roofs shall comply with the requirements of Chapter 7A and Chapter 15. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.~~*

~~704A.1.2 Roof coverings.~~ *~~Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be firestopped with approved materials or have one layer of 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D 3909 installed over the combustible decking.~~*

~~704A.1.3 Roof valleys.~~ *~~When provided, valley flashings shall be not less than 0.019 inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide (914 mm) underlayment consisting of one layer of 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D 3909 running the full length of the valley.~~*

~~704A.1.5 Roof Gutters.~~ *~~Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.~~*

~~704A.2 Attic ventilation.~~

~~704A.2.1 General.~~ *~~When required by Chapter 15, roof and attic vents shall resist the intrusion of flame and embers into the attic area of the structure, or shall be protected by corrosion-resistant, noncombustible wire mesh with openings a minimum of 1/8 inch (3.2 mm) and shall not exceed 1/4 inch (6 mm) or its equivalent.~~*

~~704A.2.2 Eave or Cornice Vents.~~ *~~Vents shall not be installed in eaves and cornices.~~*

~~Exception:~~ *~~Eave and cornice vents may be used provided they resist the intrusion of flame and burning embers into the attic area of the structure.~~*

~~704A.2.3 Eave Protection.~~ *~~Eaves and soffits shall meet the requirements of SFM 12-7A-3 or shall be protected by ignition-resistant materials or noncombustible construction on the exposed underside.~~*

~~704A.3 Exterior walls~~

~~***704A.3.1 General.*** *Exterior walls shall be approved non-combustible or ignition resistant material, heavy timber, or log wall construction or shall provide protection from the intrusion of flames and embers in accordance with standard SFM 12-7A-1.*~~

~~***704A.3.1.1 Exterior wall coverings.*** *Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2 inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.*~~

~~***704A.3.2 Exterior Wall Openings.*** *Exterior wall openings shall be in accordance with this section.*~~

~~***704A.3.2.1 Exterior Wall Vents.*** *Unless otherwise prohibited by other provisions of this code, vent openings in exterior walls shall resist the intrusion of flame and embers into the structure or vents shall be screened with a corrosion resistant, non-combustible wire mesh with ¼ inch (6 mm) openings or its equivalent.*~~

~~***704A.3.2.2 Exterior glazing and window walls.*** *Exterior windows, window walls, glazed doors, and glazed openings within exterior doors shall be insulating-glass units with a minimum of one tempered pane, or glass block units, or have a fire-resistance rating of not less than 20 minutes, when tested according to NFPA 257, or in accordance with section 715, or conform to the performance requirements of SFM 12-7A-2.*~~

~~***704A.3.2.3 Exterior door assemblies.*** *Exterior door assemblies shall conform to the performance requirements of standard SFM 12-7A-1 or shall be of approved noncombustible construction, or solid core wood having stiles and rails not less than 13/8 inches thick with interior field panel thickness no less than 11/4 inches thick, or shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252, or in accordance with section 715.*~~

~~***Exception:*** *Noncombustible or exterior fire retardant treated wood vehicle access doors are not required to comply with this chapter.*~~

~~***704A.4 Decking, floors and underfloor protection***~~

~~***704A.4.1 Decking.***~~

~~***704A.4.1.1 Decking Surfaces.*** *Decking, surfaces, stair treads, risers, and landings of decks, porches, & balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure shall comply with one of the following methods:*~~

~~*1. Shall be constructed of Ignition Resistant Materials and pass the performance requirements of SFM 12-7A-4, Parts A and B.*~~
~~*2. Shall be constructed with heavy timber, exterior fire retardant treated wood or approved non-combustible materials.*~~
~~*3. Shall pass the performance requirements of SFM 12-7A-4, Part A, 12-7A-4.7.5.1 only with a net peak heat release rate of 25kW/sq ft for a 40 minute observation period and:*~~
~~*a. Decking surface material shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM E 84 and;*~~
~~*b. The exterior wall covering to which it the deck is attached and within 10 (3048 mm) feet of the deck shall be constructed of approved noncombustible or ignition resistant material.*~~

~~***Exception:*** *Walls are not required to comply with this sub-section if the decking surface material conforms to ASTM E 84 Class B flame spread.*~~

~~*The use of paints, coatings, stains, or other surface treatments are not an approved method of protection as required in this Chapter.*~~

~~***704A.4.2 Underfloor and Appendages Protection***~~

~~***704A4.2.1 Underside of Appendages and Floor Projections.*** *The underside of cantilevered and overhanging appendages and floor projections shall maintain the ignition resistant integrity of exterior walls, or the projection shall be*~~

~~*enclosed to the grade.*~~

~~***704A.4.2. Unenclosed Underfloor Protection.*** *Buildings shall have all underfloor areas enclosed to the grade with exterior walls in accordance with section 704A.3.*~~

> ~~***Exception:*** *The complete enclosure of under floor areas may be omitted where the underside of all exposed floors, exposed structural columns, beams and supporting walls are protected as required with exterior ignition-resistant material construction or be heavy timber.*~~

SECTION 704A
IGNITION-RESISTANT CONSTRUCTION

704A.1 General. *The materials prescribed herein for ignition resistance shall conform to the requirements of this chapter.*

704A.2 Ignition-Resistant Material. *Ignition-resistant material shall be determined in accordance with the test procedures set forth in SFM Standard 12-7A-5 "Ignition-Resistant Material" or in accordance with this section.*

704A.3 Alternative methods for determining Ignition-resistant material. *Any one of the following shall be accepted as meeting the definition of ignition-resistant material:*

1. *Noncombustible material. Material that complies with the definition for noncombustible materials in section 202*
2. *Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use that complies with the requirements of section 2303.2.*
3. *Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in section 1505.6 and listed by State Fire Marshal for use as "Class B" roof covering, shall be accepted as an Ignition-resistant wall covering material when installed over solid sheathing.*

SECTION 705A
~~***ANCILLARY BUILDINGS AND STRUCTURES***~~
ROOFING

705A.1 ~~***Ancillary Buildings and Structures.*** *When required by the enforcing agency ancillary buildings and structures and detached accessory structures shall comply with the provisions of this Chapter.*~~ ***General.*** *Roofs shall comply with the requirements of Chapter 7A and Chapter 15. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.*

705A.2 Roof coverings. *Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be firestopped with approved materials or have one layer of minimum 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D 3909 installed over the combustible decking.*

705A.3 Roof valleys. *Where valley flashing is installed, the flashing shall be not less than 0.019-inch (0.48 mm) No. 26 gage galvanized sheet corrosion-resistant metal installed over not less than one layer of minimum 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D 3909, at least 36-inch –wide (914 mm) running the full length of the valley.*

705A.4 Roof Gutters. *Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.*

SECTION 706A
VENTS

706A.1 General. *Where provided, ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation shall be in accordance with Section 1203 and Sections 706A.1 through 706A.3 to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.*

706A.2 Requirements. *Ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation openings shall be fully covered with metal wire mesh, vents, other materials, or other devices that meet the following requirements:*

1. *The dimensions of the openings therein shall be a minimum of 1/16th inch (1.6 mm) and shall not exceed 1/8th inch (3.2mm).*
2. *The materials used shall be noncombustible.*

   Exception: *Vents located under the roof covering, along the ridge of roofs, with the exposed surface of the vent covered by noncombustible wire mesh, may be of combustible materials.*

3. *The materials used shall be corrosion resistant.*

706A.3 Ventilation openings on the Underside of Eaves and Cornices: *Vents shall not be installed on the underside of eaves and cornices.*

Exceptions:

1. *The enforcing agency may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.*
2. *Vents complying with the requirements of Section 706A.2 may be installed on the underside of eaves and cornices in accordance with either one of the following conditions:*
   - *2.1. The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or,*
   - *2.2. The exterior wall covering and exposed underside of the eave are of noncombustible material, or ignition-resistant-materials as determined in accordance with SFM Standard 12-7A-5 Ignition-Resistant Material and the vent is located more than 12 feet from the ground or walking surface of a deck, porch, patio, or similar surface.*

SECTION 707A
EXTERIOR COVERING

707A.1 Scope*. The provisions of this section shall govern the materials and construction methods used to resist building ignition and/or safeguard against the intrusion of flames resulting from small ember and short-term direct flame contact exposure.*

707A.2. General. *The following exterior covering materials and/or assemblies shall comply with this section:*

1. *Exterior wall covering material.*
2. *Exterior wall assembly.*
3. *Exterior exposed underside of roof eave overhangs,*
4. *Exterior exposed underside of roof eave soffits.*
5. *Exposed underside of exterior porch ceilings.*
6. *Exterior exposed underside of floor projections.*
7. *Exterior underfloor areas.*

Exceptions:

1. *Exterior wall architectural trim, embellishments, fascias, and gutters.*
2. *Roof or wall top cornice projections and similar assemblies.*
3. *Roof assembly projections over gable end walls..*
4. *Solid wood rafter tails and solid wood blocking installed between rafters having minimum dimension 2 inch (50.8 mm) nominal.*
5. *Deck walking surfaces shall comply with Section 709A.4 only.*

707A.3. Exterior Walls. *The exterior wall covering or wall assembly shall comply with one of the following requirements:*

1. Non-combustible material.
2. Ignition-resistant material.
3. Heavy timber exterior wall assembly.
4. Log wall construction assembly.
5. Wall assemblies that meet the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1.

***Exception**: Any of the following shall be deemed to meet the assembly performance criteria and intent of this section:*
1. One layer of 5/8-inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
2. The exterior portion of a 1-hour fire resistive exterior wall assembly designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.

***707A.3.1 Extent of exterior wall covering.** Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2 inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.*

***707A.4 Open roof eaves.** The exposed roof deck on the underside of unenclosed roof eaves shall consist of one of the following:*
1. Non-combustible material.
2. Ignition-resistant material.
3. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside exterior of the roof deck.
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the roof deck designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.

***Exceptions**: The following materials do not require protection:*
1. Solid wood rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2 inch (50.8 mm).
2. Solid wood blocking installed between rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2 inch (50.8 mm).
3. Gable end overhangs and roof assembly projections beyond an exterior wall other than at the lower end of the rafter tails.
4. Fascia and other architectural trim boards.

***707A.5 Enclosed roof eaves and roof eave soffits.** The exposed underside of enclosed roof eaves having either a boxed-in roof eave soffit with a horizontal underside, or sloping rafter tails with an exterior covering applied to the underside of the rafter tails, shall be protected by one of the following:*

1. Non-combustible material.
2. Ignition-resistant material.
3. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the rafter tails or soffit..
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the rafter tails or soffit including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
3. Boxed-in roof eave soffit assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

***Exceptions**: The following materials do not require protection:*
1. Gable end overhangs and roof assembly projections beyond an exterior wall other than at the lower end of the rafter tails.

2. Fascia and other architectural trim boards.

707A.6 Exterior porch ceilings. *The exposed underside of exterior porch ceilings shall be protected by one of the following:*

1. Non-combustible material.
2. Ignition-resistant material.
3. One layer of 5/8-inch Type X gypsum sheathing applied behind the exterior covering on the underside of the ceiling.
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the ceiling assembly including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
5. Porch ceiling assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

Exception*: Architectural trim boards.*

707A.7 Floor Projections. *The exposed underside of a cantilevered floor projection where a floor assembly extends over an exterior wall shall be protected by one of the following:*

1. Non-combustible material.
2. Ignition-resistant material.
3. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection.
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the floor projection including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
5. The underside of a floor projection assembly that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

Exception*: Architectural trim boards.*

707A.8. Underfloor Protection. *The underfloor area of elevated or overhanging buildings shall be enclosed to grade in accordance with the requirements of this chapter or the underside of the exposed underfloor shall consist of one of the following:*

1. Non-combustible material.
2. Ignition-resistant material.
3. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection.
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the floor including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
5. The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

Exception*: Heavy timber structural columns and beams do not require protection.*

707A.8 Underside of Appendages*. When required by the enforcing agency the underside of overhanging appendages shall be enclosed to grade in accordance with the requirements of this chapter or the underside of the exposed underfloor shall consist of one of the following:*

1. Non-combustible material.
2. Ignition-resistant material.
3. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection.
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the floor including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance

Design Manual.

5. *The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.*

***Exception**: Heavy timber structural columns and beams do not require protection*

SECTION 708A
EXTERIOR WINDOWS AND DOORS

708A.1 General

708A.2 Exterior glazing. *The following exterior glazing materials and/or assemblies shall comply with this section:*

1. *Exterior windows.*
2. *Exterior glazed doors.*
3. *Glazed openings within exterior doors.*
4. *Glazed openings within exterior garage doors.*
5. *Exterior structural glass veneer.*

708A.2.1 Exterior windows and exterior glazed door assembly requirements. *Exterior windows and exterior glazed door assemblies shall comply with one of the following requirements:*

1. *Be constructed of multi-pane glazing with a minimum of one tempered pane meeting the requirements of Section 2406 Safety Glazing, or*
2. *Be constructed of glass block units, or*
3. *Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257, or*
5. *Be tested to meet the performance requirements of SFM Standard 12-7A-2.*

708A.2.2 Structural glass veneer. *The wall assembly behind structural glass veneer shall comply with Section 707A.3.*

708A.3 Exterior doors. *Exterior doors shall comply with one of the following:*

1. *The exterior surface or cladding shall be of noncombustible or Ignition-resistant material, or*
2. *Shall be constructed of solid core wood that comply with the following requirements:*

    2.1. Stiles and rails shall not be less than 1 3/8 inches thick
    2.2. Raised panels shall not be less than 1 1/4 inches thick, except for the exterior perimeter of the raised panel that may taper to a tongue not less than 3/8 inch thick.

3. *Shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252.*
4. *Shall be tested to meet the performance requirements of SFM Standard 12-7A-1.*

708A.3.1 Exterior door glazing. *Glazing in exterior doors shall comply with Section 708A.2.1.*

SECTION 709A
DECKING

709A.1 General *The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section.*

709A.2 Where required. *The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section when any portion of such surface is within 10 feet (3048 mm) of the building.*

709A.3 Decking Surfaces. *The walking surface material of decks, porches, balconies and stairs shall be constructed with one of the following materials:*

1. Ignition-resistant material that complies with the performance requirements of both SFM Standard 12-7A-4 and SFM Standard 12-7A-5.
2. Exterior fire retardant treated wood
3. Noncombustible material.
4. Any material that complies with the performance requirements of SFM Standard 12-7A-4A when attached exterior wall covering is also either noncombustible or ignition-resistant material.

Exception: *Wall material may be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E-84 with a Class B flame spread rating.*

SECTION 710A
ACCESSORY STRUCTURES

710A.1 General. *Accessory and miscellaneous structures, other than buildings covered by Section 701A.3, which pose a significant exterior exposure hazard to applicable buildings during wildfires shall be constructed to conform to the ignition resistance requirements of this section.*

710A.2 Applicability. *The provisions of this section shall apply to trellises, arbors, patio covers, carports, gazebos, and similar structures of an accessory or miscellaneous character.*

Exceptions.
1. Decks shall comply with the requirements of Section 709A.
2. Awnings and canopies shall comply with the requirements of Section 3105.

710A.3 Where Required. *Accessory structures shall comply with the requirements of this section.*

710A.3.1 *Attached accessory structures shall comply with the requirements of this section.*

710A.3.2 *When required by the enforcing agency, detached accessory structures within 50 feet of an applicable building shall comply with the requirements of this section.*

710A.4. Requirements. *When required by the enforcing agency accessory structures shall be constructed of noncombustible or ignition-resistant materials.*

Notation:
Authority: Health and Safety Code Sections 13108, 13108.5, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189
References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

[9. The SFM proposes to adopt Chapter 8 with the following amendments and California regulations.]

CHAPTER 8
INTERIOR FINISHES

TABLE 803.9
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY[k]

GROUP	SPRINKLERED[l]	NONSPRINKLERED

	Exit enclosures and exit passageways[a, b]	Corridors	Rooms and enclosed spaces[c]	Exit enclosures and exit passageways[a, b]	Corridors	Rooms and enclosed spaces[c]
A-1 & A-2	B	B	C	A	A[d]	B[e]
A-3[f], A-4, A-5	B	B	C	A	A[d]	C
B, E, M, R-1	B	C	C	A	B	C
R-4	B	C	C	A	B	B
B	C	C	C	B	C	C
H, *L*	B	B	C[g]	A	A	B
~~I-1~~	~~B~~	~~C~~	~~C~~	~~A~~	~~B~~	~~B~~
I-2, *I-2.1*	B	B	B[h, i]	A	A	B
I-3	A	A[j]	~~C~~ *B*	~~A~~ *NP*	~~A~~ *NP*	~~B~~ *NP*
I-4	B	B	B[h, i]	A	A	B
R-2	C	C	C	B	B	C
R-2.1	*B*	*C*	*C*	*A*	*B*	*B*
R-3, *R-3.1*	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No restrictions			No restrictions		

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929m2.

NP = Not permitted [SFM]

a. Class C interior finish materials shall be permitted for wainscotting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.11.1.

b. In exit enclosures of buildings less than three stories above grade plane of other than Group I-3, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted.

c. Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered enclosing spaces and the rooms or spaces on both sides shall be considered one. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.

d. Lobby areas in Group A-1, A-2 and A-3 occupancies shall not be less than Class B materials.

e. Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.

f. For places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.

g. Class B material is required where the building exceeds two stories.

h. Class C interior finish materials shall be permitted in administrative spaces.

i. Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.

j. Class B materials shall be permitted as wainscotting extending not more than 48 inches above the finished floor in corridors.

k. Finish materials as provided for in other sections of this code.

l. Applies when the exit enclosures, exit passageways, corridors or rooms and enclosed spaces are protected by an sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

~~*m. [SFM] Not Permitted for Group I-3*~~

804.4.1 Minimum critical radiant flux. Interior floor finish and floor covering materials in exit enclosures, exit passageways and corridors shall not be less than Class I in Groups ~~I-1,~~ I-2 and ~~I-3~~ *R-2.1* and not less than Class II in Groups A, B, E, H, I-4, *L,* M, R-1, R-2 and S. In all areas, floor covering materials shall comply with ~~the DOCFF-1 "pill~~

~~test" (CPSC 16 CFR, Part 1630)~~. *ASTM Standard E 648, and having a ~~smoke density rating of less than 450 per ASTM Standard E 84~~Specific Optical Density smoke rating not to exceed 450 per ASTM E 662*.

Exception: Where a building *other than a Group I-3* 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 the DOC FF-1 "pill test" (CPSC 16 CFR, Part 1630)~~ *ASTM Standard E 648, and having a ~~smoke density rating of less than 450 per ASTM Standard E 84~~Specific Optical Density smoke rating not to exceed 450 per ASTM E 662* are permitted in any area where Class II materials are required.

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

Exception: *Noncombustible floor finish and floor coverings in areas where restraint is not used may have carpet or other floor covering materials applied in areas protected by an automatic sprinkler system and meeting ASTM Standard E 648, and having a ~~smoke density rating of less than 450 per ASTM Standard E 84~~Specific Optical Density smoke rating not to exceed 450 per ASTM E 662.. The carpeting and carpet padding shall be tested as a unit in accordance with floor Covering Radiant Panel Test meeting Class I 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.*

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

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

CHAPTER 9
FIRE PROTECTION SYSTEMS

901.2 Fire protection systems. Fire protection systems shall be installed, repaired, operated and maintained in accordance with this code and the ~~*International*~~ *California Fire Code*.

Any fire protection system for which an exception or reduction to the provisions of this code has been granted shall be considered to be a required system.

> **Exception:** Any fire protection system or portion thereof not required by this code shall be permitted to be installed for partial or complete protection provided that such system meets the requirements of this code.

901.3 Modifications. No person shall remove or modify any fire protection system installed or maintained under the provisions of this code or the ~~*International*~~ *California Fire Code* without approval by the building official.

901.5 Acceptance tests. Fire protection systems shall be tested in accordance with the requirements of this code and the ~~*International*~~ *California Fire Code*. When required, the tests shall be conducted in the presence of the building official. Tests required by this code, the ~~*International*~~ *California Fire Code* and the standards listed in this code shall be conducted at the expense of the owner or the owner's representative. It shall be unlawful to occupy portions of a structure until the required fire protection systems within that portion of the structure have been tested and approved.

901.6.2 Fire alarm systems. Fire alarm systems required by the provisions of Section 907.2 of this code and Sections 907.2 and 907.3 of the ~~*International*~~ *California Fire Code* shall be monitored by an approved supervising station in accordance with Section 907.6.5.

Exceptions:

1. Single- and multiple-station smoke alarms required by Section 907.2.11.
2. ~~Smoke detectors in~~ Group I-3 occupancies *shall be monitored in accordance with Section 907.2.6.3.4.*
3. Supervisory service is not required for automatic sprinkler systems in one- and two-family dwellings.

902.1 Definitions.

FIRE APPLIANCE. [SFM] *The apparatus or equipment provided or installed for use in the event of an emergency.*

[F] 903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

~~**Exceptions:**~~

~~*1.* Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 712, or both.~~

~~*2. Automatic fire sprinkler protection for Fixed Guideway Transit Systems shall be as per Section 903.2.17.*~~

[F] 903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464.5m2).
2. The fire area has an occupant load of 100 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. *The structure exceeds 5,000 square feet (465 m2), contains more than one fire area containing a Group A-2 occupancy, and is separated into two or more buildings by fire walls of less than four hour fire resistance rating without openings.*

[F] 903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m2).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. *The structure exceeds 12,000 square feet (1155 m2), contains more than one fire area containing exhibition and display rooms, and is separated into two or more buildings by fire walls of less than four hour fire resistance rating without openings.*

[F] 903.2.3 Group E. *Except as provided for in Sections ~~903.2.2.1~~903.2.3.1 for a new public school campus ~~and 907.2.3.6.1 (fire alarm and detection) for modernization of an existing public school campus building(s)~~,* an automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m2) in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

   Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

3. *[SFM] In rooms or areas with special hazards such as laboratories, vocational shops and other such areas where hazardous materials in ~~exempt amounts~~ quantities not exceeding the maximum allowable quantity are used or stored.*

4. Throughout any Group E structure greater than ~~20,000 square feet (1155 m2)~~ 12,000 square feet (1115 m2) in area, which contains more than one fire area, and which is separated into two or more buildings by fire walls of less than four hour fire resistance rating without openings.

~~903.2.2.1~~ 903.2.3.1 Public Schools—Automatic Sprinkler System Requirements.

~~903.2.2.1.1~~ 903.2.3.1.1 New Public School Campus. *~~A State Fire Marshal~~ An approved automatic sprinkler system shall be provided ~~on~~ in all buildings of a new public school campus as defined in Section 202 regardless of occupancy classification. ~~as and maintained in accordance with this code and Chapter 45. See Section 907.2.3.6 for automatic detection system requirements and creates a "ceiling plenum" spaces~~.*

Exceptions:

1. Exempted portable buildings.
2. Ticket booths and athletic field storage buildings that are less than 500 square feet in floor area and located a minimum of 100 feet from all other buildings.
3. Shade or lunch shelters that are incapable of trapping heat, smoke or other by-products of combustion and located a minimum of 20 feet from all other buildings.
4. Shade or lunch shelters that are constructed of non-combustible materials and located a minimum of 20 feet from all other buildings.

903.2.3.1.1.1 *~~In buildings provided with~~ ~~an approved automatic fire s~~Sprinklers ~~system~~ shall be installed in spaces where the ceiling creates a "ceiling-plenum" or a space above the ceiling is utilized for non-environmental air ~~, automatic sprinklers shall be installed to protect such spaces of buildings. that house and or serve students from kindergarten through twelfth grade (K-12) and are sited on a new public school, campus. as defined in section 202.]~~*

~~903.2.2.1.2~~ 903.2.3.1.2 Permanent Portable Buildings. *A portable building that is used to serve or house students and is certified, as a permanent building on a new public school campus by the public school administration shall comply with the requirements of Section ~~903.2.2.1.1~~903.2.3.1.1.*

~~903.2.2.1.3~~ 903.2.3.1.3 Fire-Resistive Substitution for New Campus. *A new public school campus as defined in Section 202 shall be entitled to include in the design and construction documents all of the applicable fire-resistive construction substitutions as permitted by this code.*

[F] 903.2.4.1 Woodworking operations. An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,500 square feet (232m2) in area which generate finely divided combustible waste or use finely divided combustible materials. *[SFM] A fire wall of less than four-hour fire-resistance rating, or any fire wall with openings, shall not be used to establish separate fire areas without openings.*

903.2.5.4 Group H occupancies located above the 10th story. *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.*

[F] 903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions: *~~An automatic sprinkler system installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed in Group I-1 facilities.~~*

1. Those areas exempted by Section 407.5 of the California Building Code.
~~2. When not used in accordance with Section 504.2 or 506.3 an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group I-1 occupancies.~~
~~3 Pursuant to Health and Safety Code Section 13113, Group I-1 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children shall have an automatic fire alarm system activated by approved smoke detectors.~~
~~4.~~2. Pursuant to Health and Safety Code Section 13113 (d), Group ~~I-1~~ I-2 occupancies, or any alterations thereto, located in Type IA construction in existence on March 4, 1972.

~~*An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group I-1.*~~

903.2.6.1 Group I-2. *In an existing, unsprinklered Group I-2, nurses' station open to fire-resistive exit access corridors shall be protected by an automatic sprinkler system located directly above the nurses' station. It shall be permitted to connect the automatic sprinkler system to the domestic water service.*

~~***903.2.5.1***~~ ***903.2.6.2*** ***Group I-3. [SFM]*** *Every building, or portion thereof, where inmates are restrained shall be protected by an automatic sprinkler system conforming to NFPA 13. The main sprinkler control valve or valves and all other control valves in the system shall be locked in the open position and electrically supervised so that at least an audible and visual alarm will sound at a constantly attended location when valves are closed. The sprinkler branch piping serving cells may be embedded in the concrete construction.*

Exception: *Sprinklers are not required in cells housing two or fewer inmates and the building shall be considered sprinklered throughout when all the following criteria are met:*

1. *Automatic fire sprinklers shall be mounted outside the cell a minimum of 6 feet (1829 mm) on center and 12 inches (305 mm) from the wall with quick response sprinkler heads. Where spacing permits, the head shall be centered over the cell door opening.*
2. *The maximum amount of combustibles, excluding linen and clothing, shall be maintained at three pounds per inmate.*
3. *For local detention facilities, each individual housing cell shall be provided with a two-way inmate or sound-actuated audio monitoring system for communication directly to the control station serving the cell(s).*
4. *The provisions of the exception in Section 804.4.2 shall not apply.*

[F] 903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. Where a Group M fire area exceeds 12,000 square feet (1115 m2);
2. Where a Group M fire area is located more than three stories above grade plane; or
3. Where the combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m2). ; or
4. Where a Group M occupancy is used for the display and sale of upholstered furniture.

~~*4.*~~*5. [SFM] The structure exceeds 24,000 square feet (465 m2), contains more than one fire area containing a Group M occupancies, and is separated into two or more buildings by fire walls of less than four hour fire resistance rating without openings.*

[F] 903.2.7.1 High-piled storage. An automatic sprinkler system shall be provided in accordance with the ~~*International*~~ *California Fire Code* in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

[F] 903.2.8 Group R An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exceptions:

~~*1. Detached one- and two-family dwellings and multiple single-family dwellings (town houses) not more than three stories above grade plane in height with a separate means of egress, unless specifically required by other sections of this Code or classified as Group R-4.*~~

~~*2. Group U private garages accessory to a Group R-3 occupancy.*~~

~~*3.*~~*1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor, and not housing clients above the second floor.*

~~*4.*~~*2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 425.8.3.3.*

~~*5.*~~*3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have*

an automatic fire alarm system activated by approved smoke detectors.

~~6.~~4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

When not used in accordance with Section 504.2 or 506.3 an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group R-2.1 occupancies.

An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.

[F] 903.2.10 Group S-2 enclosed parking garages. An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.4 as follows:

1. Where the *fire area* of the enclosed parking garage exceeds 12,000 square feet (1115 m2); or
2. Where the enclosed parking garage is located beneath other groups.

~~**Exception:** Enclosed parking garages located beneath Group R-3 occupancies.~~

[F] 903.2.11.4 Ducts conveying hazardous exhausts. Where required by the ~~*International*~~ *California Mechanical Code*, automatic sprinklers shall be provided in ducts conveying hazardous exhaust, or flammable or combustible materials.

Exception: Ducts in which the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

[F] TABLE 903.2.11.6
ADDITIONAL REQUIRED SUPPRESSION SYSTEMS

SECTION	SUBJECT
914.2.1	Covered malls
914.3.1	High rise buildings
402.8	Covered malls
403.2, 403.3	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*
404.3	Atriums
405.3	Underground structures
407.5	Group I-2
410.6	Stages
411.4	Special amusement buildings
412.2.5, 412.2.6	Aircraft hangars
415.6.2.4	Group H-2
416.4	Flammable finishes
417.4	Drying rooms
507	Unlimited area buildings
508.2.5	Incidental use areas
1025.6.2.3	Smoke-protected assembly seating
430	*Horse Racing Stables*

431	*Pet Kennels*
439	*Public Libraries*
~~IFC~~ *CFC*	Sprinkler system requirements as set forth in Section 903.2.13 of the ~~*International*~~ *California Fire Code*

For SI: 1 cubic foot = 0.023 m^3.

[F] 903.2.12 During construction. Automatic sprinkler systems required during construction, alteration and demolition operations shall be provided in accordance with the ~~*International*~~ *California Fire Code.*

903.2.13 Reserved.

[F] ***903.2.14 Motion picture and television production studio sound stages, approved production facilities and production locations. [SFM]***

[F] ***903.2.14.1 Existing sound stages and approved production facilities.*** *All existing sound stages and approved production facilities equipped with an automatic fire sprinkler system shall be maintained in accordance with the provisions of California Fire Code Chapter 9.*

[F] ***903.2.14.2 New sound stages.*** *All new sound stages shall be equipped with an approved automatic fire sprinkler system. The system shall be installed in accordance with the provisions of the California Fire Code Chapter 9 and shall meet the minimum design requirements of an Extra Hazard, Group 2 system.*

[F] ***903.2.15 Automatic sprinkler system – existing high-rise buildings. [SFM]*** *See Section ~~3412.27~~3414.27.*

903.2.15.1 Existing Group R-1 and R-2 high-rise buildings fire-extinguishing systems. [SFM] *See Section ~~3411.13.3.3~~3413.13.3.3.*

[F]*903.2.16 Group L occupancies. [SFM]* *An automatic sprinkler system shall be installed throughout buildings housing Group L Occupancies. Sprinkler system design for research laboratories and similar areas of a Group L Occupancy shall not be less than that required for Ordinary Hazard Group 2 with a design area of not less than 3,000 square feet (279 m^2).*

In mixed occupancies, portions of floors or buildings not classified as Group L Occupancies shall be provided with sprinkler protection 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 m^2).

903.2.16.1 Group L occupancies located above the 10th story. *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.*

903.2.17 Fixed guideway transit systems. [SFM]

903.2.17.1 Automatic sprinkler system. *An automatic sprinkler system shall be installed in all stations of fixed guideway transit systems.*

Exceptions: *1. Guideways when the closest sprinkler heads to the guideway are within 3 feet (914mm) of the edge, over the platform, and spaced 6 feet (1829 mm) on center parallel to the guideway.*
2. Station agent booths not exceeding 150 square feet (13.9 m2) in area, when provided with an approved smoke detector connected to the building fire alarm system.
3. Power substations.
4. Machinery rooms, electrical rooms and train control rooms protected by an approved automatic fixed fire-extinguishing system.
5. Open stations.
6. Station platform areas open to three or more sides.

903.2.17.2 Station guideway deluge system. *Underground stations and stations in open cuts with walls 5 feet (1524 mm) above he top of the running rail and with a raised platform shall be provided with an under-vehicle guideway manually activated deluge sprinkler system. In open cut stations, such system shall be provided in guideways which are situated between a raised platform edge and a retaining wall.*

903.2.17.2.1 *Systems shall be provided along the entire length of track at each station platform.*

903.2.17.2.2 *Deluge nozzles with caps shall be located in the approximate center of track with spacing designed to completely wet the undersides of the vehicle at the applied density.*

903.2.17.2.3 *System density shall be a minimum of 0.19 gallon per minute (gpm) per square foot (0.72 L/m per m2) for the design area. When more than one zone is provided, two adjacent zones are required to be considered operating for calculating purposes.*

903.2.17.2.4 *Deluge systems shall be directly connected to a water supply capable of supplying the required flow rate for a minimum 30-minute duration.*

903.2.17.2.5 *Controls or manually operable valves shall be in a location acceptable to the Fire Code Official. All deluge systems shall be monitored by the station fire alarm system.*

903.2.17.2.6 *Each valve shall be monitored by a separate circuit. The alarm panel shall be located in an area normally occupied by station personnel or signals shall be transmitted to the operations control center (OCC).*

903.2.18 Group U private garages and carports accessory to Group R-3 occupancies. *Carports with habitable space above and attached garages, accessory to Group R-3 occupancies, shall be protected by residential fire sprinklers in accordance with this Section. Residential fire sprinklers shall be connected to, and installed in accordance with, an automatic residential fire sprinkler system that complies with Section R313 of the California Residential Code or with NFPA 13D. Fire sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a minimum density of 0.05 gpm/ft^2 (2.04 mm/min) over the area of the garage and/or carport, but not to exceed two sprinklers for hydraulic calculation purposes. Garage doors shall not be considered obstructions with respect to sprinkler placement.*

> ***Exception:*** *An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing carports and/or garages that do not have an automatic residential fire sprinkler system installed in accordance with this Section.*

[F] 903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an *automatic sprinkler system* in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Section 903.3.1.1.1.

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

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. ~~Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.~~
4. ~~Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
5~~3~~. Fire service access elevator machine rooms and machinery spaces.
4. *Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, and associated electrical power distribution equipment, provided those spaces or areas are equipped throughout*

with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 712, or both.

[F] 903.3.1.2 NFPA 13R sprinkler systems. Where allowed in buildings of Group R, up to and including four stories in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R *as amended in Chapter 35*.

[F] 903.3.2 Quick-response and residential sprinklers. Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing patient sleeping units in Group I-2 in accordance with this code.
2. Dwelling units, and sleeping units in Group R ~~and I-1~~ occupancies.
3. Light-hazard occupancies as defined in NFPA 13.

[F] 903.3.5 Water supplies. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with ~~the requirements of this section and the *International Plumbing Code*~~*Health and Safety Code 13114.7.*

[F] 903.3.5.2 Secondary water supply. A secondary on-site water supply ~~equal to the hydraulically calculated sprinkler demand, including the hose stream requirement~~ shall be provided for 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* in Seismic Design Category C, D, E or F as determined by this code. The secondary water supply shall *have a usable capacity of not less than the hydraulically calculated sprinkler demand plus 100 GPM for the inside hose stream allowance, for* ~~have~~ a duration of not less than 30 minutes *or* as determined by the *sprinkler system design occupancy* hazard classification in accordance with NFPA 13*, whichever is greater. The Class I standpipe system demand shall not be required to be included in the secondary on-site water supply calculations. In no case shall the secondary on-site water supply be less than 15,000 gallons.*

Exception: Existing buildings.

903.3.7 Fire department connections. *The location of fire department connections shall be approved by the fire code official.*

903.3.8 Floor control valves. *Floor control valves and waterflow detection assemblies shall be installed at each floor where any of the following occur:*

1. Buildings where the floor level of the highest story is located more than 30 feet above the lowest level of fire department vehicle access.
2. Buildings that are four or more stories in height.
3. Buildings that are two or more stories below the highest level of fire department vehicle access.

Exception: *Group R-3 and R-3.1 occupancies floor control valves and waterflow detection assemblies shall not be required.*

[F] 903.4.2 Alarms. *One exterior* ~~Approved~~ *approved* audible device~~s~~ shall be connected to every automatic sprinkler system *in an approved location*. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. ~~Alarm devices shall be provided on the exterior of the building in an approved location.~~ Where a *building* fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. *Visible alarm notification appliances shall not be required except when required by section 907.*

[F] 903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor 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.

[F] 903.5 Testing and maintenance. Sprinkler systems shall be tested and maintained in accordance with the ~~*International*~~ *California Fire Code*

[F] 904.2.1 Commercial hood and duct systems. Each required commercial kitchen exhaust hood and duct system required by the ~~*International*~~ *California Fire Code* or the ~~*International*~~ *California Mechanical Code* to have a Type I hood shall be protected with an approved automatic fire-extinguishing system installed in accordance with this code.

[F] 904.3.1 Electrical wiring. Electrical wiring shall be in accordance with this code or the ~~*NFPA 70*~~ *California Electrical Code.*

[F] 904.5 Wet-chemical systems. Wet-chemical extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with ~~*Title 19,*~~ *California Code of Regulations, Title 19, Division 1, Chapter 5 and* NFPA 17A and their listing.

[F] 904.6 Dry-chemical systems. Dry-chemical extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with ~~*Title 19,*~~ *California Code of Regulations, Title 19, Division 1, Chapter 5 and* NFPA 17 and their listing.

[F] 904.7 Foam systems. Foam-extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with ~~*Title 19,*~~ *California Code of Regulations, Title 19, Division 1, Chapter 5,* NFPA 11 and NFPA 16 and their listing.

[F] 904.8 Carbon dioxide systems. Carbon dioxide extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with ~~*Title 19,*~~ *California Code of Regulations, Title 19, Division 1, Chapter 5 and* NFPA 12 and their listing.

[F] 904.9 Halon systems. Halogenated extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with ~~*Title 19,*~~ *California Code of Regulations, Title 19, Division 1, Chapter 5 and* NFPA 12A and their listing.

[F] 904.10 Clean-agent systems. Clean-agent fire-extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with ~~*Title 19,*~~ *California Code of Regulations, Title 19, Division 1, Chapter 5 and* NFPA 2001 and their listing.

[F] 904.11 Commercial cooking systems. ~~*The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Preengineered automatic dry- and wet-chemical extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. Other types of automatic fire-extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Automatic fire-extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:*~~

~~1. Carbon dioxide extinguishing systems, NFPA 12.~~
~~2. Automatic sprinkler systems, NFPA 13.~~
~~3. Foam-water sprinkler system or foam-water spray systems, NFPA 16.~~
~~4. Dry-chemical extinguishing systems, NFPA 17.~~
~~5. Wet-chemical extinguishing systems, NFPA 17A~~

Commercial cooking equipment that produce 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, ~~no later than the second required servicing of the system following the effective date of this section,~~

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 manufacturers' installation instructions.

Exception: Factory-built commercial cooking recirculating systems that are tested*, listed, labeled and installed* in accordance with UL 710B.~~ and listed, labeled and installed in accordance with Section 304.1 of the *International Mechanical Code*.~~

[F] 905.1 General. Standpipe systems shall be provided in new buildings and structures in accordance with this section. Fire hose threads used in connection with standpipe systems shall be approved and shall be compatible with fire department hose threads. The location of fire department hose connections shall be approved. In buildings used for high-piled combustible storage, fire protection shall be in accordance with the ~~*International*~~ *California Fire Code*.

[F] 905.3 Required installations. Standpipe systems shall be installed where required by Sections 905.3.1 through ~~905.3.7*10.1*~~905.3.*10.1* and in the locations indicated in Sections 905.4, 905.5 and 905.6. Standpipe systems are allowed to be combined with automatic sprinkler systems.

Exception: Standpipe systems are not required in Group R-3 occupancies.

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

1. B~~b~~uildings where the floor level of the highest story is located more than 30 feet (9144mm) above the lowest level of fire department vehicle access~~,~~*.* ~~or~~
2. Buildings that are four or more stories in height.
3. Buildings where the floor level of the lowest story is located more than 30 feet (9144mm) below the highest level of fire department vehicle access.
4. Buildings that are two or more stories below the highest level of fire department vehicle access.

Exceptions:
1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Class I manual standpipes are allowed in open parking garages where the highest floor is locaged not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.
3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5
4. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.
5. In determining the lowest level of fire department vehicle access, it shall not be required to consider:

   5.1 Recessed loading docks for four vehicles or less; and
   5.2 Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

[F] 905.3.6 Helistops and heliports. Buildings with a helistop or heliport that are equipped with a standpipe shall extend the standpipe to the roof level on which the helistop or heliport is located in accordance with Section 1107.5 of the ~~*International*~~ *California Fire Code*.

[F] ***905.3.8 Smokeproof enclosures.*** *For smokeproof enclosures see Section 909.20.~~2.3.~~*

[F] ***905.3.9 Group I-3.*** *Housing units within cell complexes 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 may be placed in secured pipe chases.*

[F] ***905.3.10 Fixed Guideway Transit Systems,*** *Underground stations shall be provided with a class III standpipe system designed to comply with the following:*

1. *Automatically supply 65 pounds per square inch (psi) for each outlet.*
2. *Supply a 250 gpm (946 L/m) flow to each of the two most remote 2½ inch (64 mm) outlets when pressurized through the fire department connection(s).*

[F] ***905.3.10.1*** *All other stations shall be provided with a class I manual wet standpipe system; a manual dry class I standpipe system may be allowed in areas subject to freezing.*

Exception: *Open at-grade stations with unrestricted fire department access need not be provided with a standpipe system.*

[F] 905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required *stairway*, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise *approved* by the fire code official. *See Section 909.20.3.2 for additional provisions in smokeproof enclosures.*
2. On each side of the wall adjacent to the *exit* opening of a *horizontal exit*.

   Exception: Where floor areas adjacent to a horizontal exit are reachable from the exit stairway hose connection by ~~a 30-foot hose stream from~~ a nozzle attached to 100 feet of hose *as measured along the path of travel,* a hose connection shall not be required at the horizontal exit.

3. In every *exit* passageway, at the entrance from the *exit* passageway to other areas of a building.

   Exception: Where floor areas adjacent to an *exit* passageway are reachable from *exit stairway* hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the *exit* passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an *exit* passageway or *exit corridor* to the mall.
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a hose connection located either on the roof or at the highest landing of a *stairway* with *stair* access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.
6. Where the most remote portion of a nonsprinklered floor or story is more than 150 (45 720 mm) feet from a hose connection or the most remote portion of a sprinklered floor or story is more than ~~200 (60 960mm)~~ *150 (45 720 mm)* feet from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations. *The distances from a hose connection shall be measured along the path of travel,*

[F] 905.5 Location of Class II standpipe hose connections. Class II standpipe hose connections shall be accessible and shall be located so that all portions of the building are within 30 feet (9144 mm) of a *listed variable stream fog* nozzle attached to 100 feet (30 480 mm) of hose.

[F] 906.1 Where required. Portable fire extinguishers shall be installed in the following locations.

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

~~**Exception:** In new and existing Group A, B and E occupancies equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.~~

2. Within 30 feet (9144 mm) of commercial cooking equipment.
3. In areas where flammable or combustible liquids are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 1415.1 of the ~~*International*~~ *California Fire Code*.
5. Where required by the ~~*International*~~ *California Fire Code* sections indicated in Table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.
7. *Large and small family day-care homes shall be equipped with a portable fire extinguisher having a minimum 2A10BC rating.*
8. *Where required by California Code of Regulations, Title 19, Division 1.*

906.2 General requirements. Portable fire extinguishers shall be selected, installed and maintained in accordance with this section and ~~NFPA 10~~ *California Code of Regulations, Title 19, Division 1, Chapter 3*.

Exceptions:

1. The travel distance to reach an extinguisher shall not apply to the spectator seating portions of Group A-5 occupancies.
2. Thirty-day inspections shall not be required ~~and maintenance shall be allowed to be once every three years~~ for ~~dry chemical or halogenated agent~~ portable fire extinguishers that are supervised by a listed and approved electronic monitoring device, provided that all of the following conditions are met:

   2.1. Electronic monitoring shall confirm that extinguishers are properly positioned, properly charged and unobstructed.
   2.2. Loss of power or circuit continuity to the electronic monitoring device shall initiate a trouble signal.
   2.3. The extinguishers shall be installed inside of a building or cabinet in a noncorrosive environment.
   2.4. Electronic monitoring devices and supervisory circuits shall be tested ~~every three years~~ when extinguisher maintenance is performed.
   2.5. A written log of required hydrostatic test dates for extinguishers shall be maintained by the owner to verify that hydrostatic tests are conducted at the frequency required by ~~NFPA 10~~ *California Code of Regulations, Title 19, Division 1, Chapter 3*.

3. In Group I-3, portable fire extinguishers shall be permitted to be located at staff locations.

[F] TABLE 906.3(1)
FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS

	LIGHT (Low) HAZARD OCCUPANCY	**ORDINARY (Moderate) HAZARD OCCUPANCY**	**EXTRA (High) HAZARD OCCUPANCY**
Minimum Rated Single Extinguisher	2-Ac	2-A	4-Aa
Maximum Floor Area Per Unit of A	3,000 square feet	1,500 square feet	1,000 square feet

Maximum Floor Area For Extinguisher b Maximum Travel	11,250 square feet 75 feet	11,250 square feet 75 feet	11,250 square feet 75 feet

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929m2, 1 gallon = 3.785 L.
a. Two 21/2-gallon water-type extinguishers shall be deemed the equivalent of one 4-A rated extinguisher.
b. ~~Annex E.3.3 of NFPA10 provides more details~~ *California Code of Regulations, Title 19, Division 1, Chapter 3* concerning application of the maximum floor area criteria.
c. Two water-type extinguishers each with a 1-A rating shall be deemed the equivalent of one 2-A rated extinguisher for Light (Low) Hazard Occupancies.

[F] 906.3.2 Class B fire hazards. Portable fire extinguishers for occupancies involving flammable or combustible liquids with depths of less than or equal to 0.25-inch (6.35 mm) shall be selected and placed in accordance with Table 906.3(2).

Portable fire extinguishers for occupancies involving flammable or combustible liquids with a depth of greater than 0.25-inch (6.35 mm) shall be selected and placed in accordance with ~~*NFPA 10*~~*California Code of Regulations, Title 19, Division 1, Chapter 3*.

[F] TABLE 906.3(2)
FLAMMABLE OR COMBUSTIBLE LIQUIDS WITH DEPTHS OF LESS THAN OR EQUAL TO 0.25-INCH

TYPE OF HAZARD	BASIC MINIMUM EXTINGUISHER RATING	MAXIMUM TRAVEL DISTANCE TO EXTINGUISHERS (feet)
Light (Low)	5-B 10-B	30 50
Ordinary (Moderate)	10-B 20-B	30 50
Extra (High)	40-B 80-B	30 50

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.
Note. For requirements on water-soluble flammable liquids and alternative sizing criteria, see ~~Section 5.5 of NFPA 10~~*California Code of Regulations, Title 19, Division 1, Chapter 3*.

[F] 906.3.4 Class D fire hazards. Portable fire extinguishers for occupancies involving combustible metals shall be selected and placed in accordance with ~~*NFPA 10*~~*California Code of Regulations, Title 19, Division 1, Chapter 3*.

[F] 907.1.2 Fire alarm shop drawings. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation, and shall include, but not be limited to, all of the following:

1. A floor plan that indicates the use of all rooms.
2. Locations of alarm-initiating devices.
3. Locations of alarm notification appliances, including candela ratings for visible alarm notification appliances.
4. Location of fire alarm control unit, transponders and notification power supplies.
5. Annunciators.
6. Power connection.
7. Battery calculations.

8. Conductor type and sizes.
9. Voltage drop calculations.
10. Manufacturers' data sheets indicating model numbers and listing information for equipment, devices and materials.
11. Details of ceiling height and construction.
12. The interface of fire safety control functions.
13. Classification of the supervising station.
14. *All plans and shop drawings shall use the symbols identified in NFPA 170, Standard for Fire Safety and Emergency Symbols.*

Exception: *Other symbols are allowed where approved by the enforcing agency*

[F] 907.1.3 Equipment. Systems and components shall be *California State Fire Marshal* listed and approved *in accordance with California Code of Regulations, Title 19, Division 1* for the purpose for which they are installed.

[F] ~~907.1.3~~ 907.1.4 Fire-walls and Fire barrier walls. *For the purpose of Section 907 fire walls and fire barrier walls shall not define separate buildings.*

[F~~907.1.4~~ 907.1.5 Fire alarm use *A fire alarm system shall not be used for any purpose other than fire warning or mass notification ~~unless approved by the enforcing agency~~ and where permitted by NFPA 72.*

[F] 907.2 Where required—new buildings and structures. An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.

A minimum of one manual fire alarm box shall be provided in an *approved* location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or water-flow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, *or automatic fire alarm systems* a single fire alarm box shall be installed *at a location approved by the enforcing agency*.

Exceptions:
1. The manual fire alarm box is not required for fire alarm ~~systems~~ *control units* dedicated to elevator recall control, ~~and~~ supervisory service *and fire sprinkler monitoring*.
2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is accessible to the public.
3. *The manual fire alarm box is not required to be installed when approved by the fire code official.*

~~*A minimum of one fire alarm box shall be installed for each fire alarm system at a location approved by the enforcing agency.*~~

~~***Exception:*** *Fire alarm systems dedicated to elevator recall control, supervisory service and fire sprinkler monitoring only.*~~

~~*Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.*~~

~~***Exception:*** *Where not required to be installed by the local enforcing agency.*~~

[F] 907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group A occupancies having an *occupant load* of 300 or more.

Portions of buildings that contain a Group E occupancies occupied for assembly purposes *with an occupant load of less than 1000* shall be provided with a fire alarm system as required for the Group E occupancy.

~~907.2.3.2 School Fire Alarms.~~ *~~Except as provided in Section 907.3 every~~ Every Group A building used for educational purposes~~, regardless of occupancy classification~~ shall be provided with ~~an approved~~ a manual or automatic fire alarm system. This provision shall apply to, but shall not necessarily be limited to, every ~~elementary school, high school,~~ community college and university.*

Exception: *Privately owned trade or vocational schools or any firm or company which provides educational facilities and instructions for its employees.*

[F] 907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more. Activation of the fire alarm in Group A occupancies with an occupant load of 1,000 or more shall initiate a signal using an emergency voice/alarm communications system in accordance with 907.6.2.2. *Group A occupancies with an occupant load of 10,000 or more, see Section ~~907.2.1.3~~ 907.2.1.2.*

Exception: Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed 3 minutes, for the sole purpose of allowing a live voice announcement from an approved, constantly attended location.

[F] ~~907.2.1.3~~ 907.2.1.2 *Public address system.* *Pursuant to Health and Safety Code Section 13108.9, for all buildings or structures constructed on or after July 1, 1991, which are intended for public assemblies of 10,000 or more persons a public address system with an emergency backup power system shall be required.*

~~*Existing buildings or structures intended for public assemblies of 10,000 or more persons, which, on or after January 1, 1991 have or subsequently have installed a public address system, shall have an emergency backup power system for the public address system.*~~

[F] 907.2.2 Group B. A manual fire alarm system shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B occupant load of all floors is 500 or more.
2. The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.
3. The Group B fire area contains a Group B ambulatory health care facility.
4. *Group B occupancies containing educational facilities, see Section 907.2.2.2.*

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

~~907.2.3.2 School Fire Alarms.~~ *~~Except as provided in Section 907.3 every~~* ***907.2.2.2 Group B Educational facilities.*** *Every Group B building used for educational purposes~~, regardless of occupancy classification~~ shall be provided with ~~an approved~~ a manual or automatic fire alarm system. This provision shall apply to, but shall not necessarily be limited to, every ~~elementary school, high school,~~ community college and university.*

Exception: *Privately owned trade or vocational schools or any firm or company which provides educational facilities and instructions for its employees.*

[F] 907.2.3 Group E. A manual *and automatic* fire alarm system shall be installed in Group E Occupancies~~.~~ *with an occupant load of 50 or more persons or containing more than one classroom or one or more rooms used for day care purposes, in accordance with this Section.*

~~When~~*Where* automatic sprinkler systems or ~~smoke~~*automatic* detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:
~~1. Group E occupancies with an occupant load of less than 50~~
~~2.. Manual fire alarm boxes are not required in Group E occupancies where all the following apply:~~
~~2.1. Interior corridors are protected by smoke detectors.~~

~~2.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.~~

~~2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.~~

~~2.4. The capability to activate the evacuation signal from a central point is provided.~~

~~2.5. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the fire code official.~~

1. Manual fire alarm boxes shall not be required in Group E occupancies where an approved automatic fire alarm system installed in accordance with this Section, and manual activation is provided from a normally occupied location.

~~3.~~*2.* Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the *occupant* notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

907.2.3.1 System connection. *~~When~~Where more than one fire alarm control unit is used at the school campus, they shall be interconnected and shall operate all notification appliances.*

Exception: *Interconnection of fire alarm control units is not required when all the following are provided:*

1. Buildings that are separated a minimum of 20 feet (6096 mm) and in accordance with the California Building Code; and

2. There is a method of two way communication between each classroom and the school administrative office approved by the fire enforcing agency~~.~~; and

3. A method of manual activation of each fire alarm system is provided.

907.2.3.2 ~~School Fire Alarms~~ Assemblies located within a Group E occupancy. *Assembly occupancies with an occupant load of less than 1000 and located within a Group E occupancy campus or building shall be provided with a fire alarm system as required for the Group E occupancy.*

~~Except as provided in Section 907.3 2. eEvery building used for educational purposes, regardless of occupancy classification shall be provided with an approved fire alarm system. This provision shall apply to, but shall not necessarily be limited to, every elementary school, high school, community college and university.~~

~~Exception:~~ *~~Privately owned trade or vocational schools or any firm or company which provides educational facilities and instructions for its employees.~~*

907.2.3.3 Notification. *~~The system notification shall be consistent with the requirements for audible and visible notification requirements of Section 907.~~6 and ~~NFPA 72 as amended in Chapter 35~~ 45. ~~Audible notification shall comply with the American National Standards Institute (ANSI) S3.41 Emergency Evacuation Signal. An audible alarm notification appliance shall be mounted on the exterior of buildings to alert occupants in and around the playground area~~. The fire alarm system notification shall comply with the requirements of Section 907.6.*

907.2.3.4 Annunciation. *Annunciation of the fire alarm system shall comply with the requirements of Section ~~907.9.1~~907.6.3.1.*

907.2.3.5 Monitoring. *School fire alarm systems shall be monitored in accordance with 907.6.5.2.*

907.2.3.6 ~~Public Schools smoke detectors~~. Automatic fire alarm system. *Automatic detection shall be provided in accordance with this section.*

907.2.3.6.1 Automatic ~~detection~~ fire alarm system. *~~Smoke detectors shall be used as the primary method of automatic alarm initiation except in areas where the environment or ambient conditions exceed smoke detector installation guidelines; another method of automatic detection shall be used. In areas containing sprinklers, heat detectors may be omitted. Smoke detectors shall be designed, installed and maintained in accordance with Section 907 and NFPA 72 as amended in Chapter 45.~~*

~~*Smoke detectors shall be located at the ceiling of every room and area, and in "ceiling-plenums" utilized for environmental air. In buildings provided with an approved automatic fire sprinkler system where the ceiling creates a "ceiling-plenum" or a space above the ceiling for non-environmental air, automatic sprinklers shall be installed to protect such spaces of buildings. that house and or serve students from kindergarten through twelfth grade (K-12) and are sited on a new public school, campus as defined in section 202.*~~
~~*Where the ceiling is attached directly to the underside of the roof structure, automatic smoke detectors shall be installed on the ceiling only. Smoke detectors shall be located at the ceiling of every room and area, and in "ceiling-plenums" utilized for environmental air.*~~

Smoke detectors shall be installed at the ceiling of every room and in "ceiling-plenums" utilized for environmental air. Where the ceiling is attached directly to the underside of the roof structure, smoke detectors shall be installed on the ceiling only.

> ***Exception:*** *Where the environment or ambient conditions exceed smoke detector installation guidelines; heat detectors or fire sprinklers shall be used.*

907.2.3.6.2 *Heat detectors shall be installed in combustible spaces where sprinklers or smoke detectors are not installed.*

907.2.3.7 Public School~~ – Automatic Fire Alarm System Requirements.~~

907.2.3.7.1 New Public School Campus. ~~*On or after July 1, 2002, a State Fire Marshal approved and listed*~~ *An automatic fire alarm system shall be provided in all new public school campus as defined in Section 202 regardless of occupancy classification.* ~~*The approved fire alarm system shall be both automatic and manual and maintained in accordance with Section 907 and Article Chapter 45. At least one manual box shall be installed for the purpose of manually initiating the fire alarm system.*~~

907.2.3.7.2 Modernization Project. ~~*A State Fire Marshal approved and listed*~~ *An automatic fire alarm system shall be provided in all modernization projects as defined in Section 202.* ~~*The approved fire alarm system shall be both automatic and manual. and maintained in accordance with Section 907 and Article Chapter 45. When the requirements of this section are met, manual fire alarm boxes are not required throughout the modernization project. At least one manual box shall be installed for the purpose of manually initiating the fire alarm system.*~~

~~***907.2.3.8 Portable Buildings – Automatic Fire Alarm System Requirements***~~

~~***907.2.3.8.1***~~ ***907.2.3.7.3 Permanent-Portable Buildings.*** ~~*A portable building that is used to serve or house students from kindergarten through twelfth grade (K-12) and is certified as a permanent building on a new public school campus by the public school administration shall comply with the requirements of Section 907.2.3.7.1.*~~ *An automatic fire alarm system shall be provided in all new public school Permanent-Portable Buildings.*

> ***Exception:*** *Exempted Portable Buildings*

~~***907.2.3.8.2***~~ ***907.2.3.7.4. Permanent-Portable Building Modernization Project.*** ~~*A permanent-portable building to undergo modernization efforts, and is used to serve or house students from kindergarten through twelfth grade (K-12) that is certified as a permanent building by the public school administration shall comply with the requirements of Section 907.2.3.7.2.*~~ *An automatic fire alarm system shall be provided in permanent-portable buildings which* ~~*to*~~ *undergo a modernization project.*

> ***Exception:*** *Exempted Portable Buildings.*

907.2.3.7.5. Daycare, Group E or Group I-4 located on a public school campus. *An automatic fire alarm system shall be provided in all buildings used as or contain a Group E or Group I-4 daycare.*

~~***907.2.3.8.3 Exempted Portable Building.*** *A portable building as defined in Section 202 that is certified by the public school administration as being sited on campus for less than three years is not required to install an automatic fire*~~

~~*detection system. or automatic sprinkler system.*~~

907.2.3.8 Private Schools. *An automatic fire alarm system shall be provided in new buildings of private schools.*

> ***Exception:*** *Automatic detection devices are not required where an approved automatic sprinkler system is installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.*

907.2.3.9 Daycare, Group E.

907.2.3.9.1 *An automatic fire alarm system shall be provided in all buildings used as or containing a Group E daycare.*

> ***Exception:*** *Automatic detection devices are not required where an approved automatic sprinkler system is installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.*

907.2.3.9.2 *Smoke detectors shall be installed in every room used for sleeping or napping.*

[F] 907.2.5 Group H. A manual fire alarm system that activates the occupant notification system shall be installed in Group H-5 occupancies and in occupancies used for the manufacture of organic coatings. An automatic smoke detection system that activates the occupant notification system shall be installed for highly toxic gases, organic peroxides and oxidizers in accordance with Chapters 37, 39 and 40, respectively, of the ~~*International*~~ *California Fire Code*.

[F] 907.2.6 Group I. A manual fire alarm system that activates the occupant notification system shall be installed in Group I occupancies. An automatic smoke detection system that activates the occupant notification system shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2 and 907.2.6.3.3.

Exceptions:

1. ~~Manual fire alarm boxes in resident or patient sleeping areas of Group I-1 and I-2 occupancies shall not be required at exits if located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.4.2 are not exceeded.~~ *Large family day care.*
2. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is approved by the fire code official.

907.2.5.1 Group H occupancies located above the 10th story. *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.*

[F] 907.2.6.1 Group I-1. ~~An automatic smoke detection system shall be installed in corridors, waiting areas open to corridors and habitable spaces other than sleeping units and kitchens. The system shall be activated in accordance with Section 907.5.~~ *Reserved.*

~~**Exceptions:**~~
~~1. Smoke detection in habitable spaces is not required where the facility is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.~~
~~2. Smoke detection is not required for exterior balconies.~~

[F] 907.2.6.2 Group I-2 and *Group I-2.1* ~~An automatic smoke detection system shall be installed in corridors in nursing homes (both intermediate care and skilled nursing facilities), detoxification facilities and spaces permitted to be open to the corridors by Section 407.2. The system shall be activated in accordance with Section 907.5. Hospitals shall be equipped with smoke detection as required in Section 407.~~

~~**Exceptions:**~~

1. ~~Corridor smoke detection is not required in smoke compartments that contain patient sleeping units where such units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual~~

~~display on the *corridor* side of each patient *sleeping unit* and shall provide an audible and visual alarm at the nursing station attending each unit.~~

~~2. Corridor smoke detection is not required in smoke compartments that contain patient sleeping units where patient *sleeping unit* doors are equipped with automatic door closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.~~

~~*An approved manual and automatic fire alarm system shall be provided for Group I-2 and I-2.1 occupancies. Audible appliances shall be used in non-patient areas. Visible appliances may be used in lieu of audible appliances in patient-occupied areas. Audible appliances placed in patient areas shall be only chimes or similar sounding appliances for alerting staff. An automatic smoke detection system shall be provided.*~~

~~***Exceptions:***~~

~~*1. Heat detectors may be used in closets, unusable space under floor areas, storage rooms, bathrooms, attics, kitchens, laundry rooms and rooms of similar use.*~~

~~*2. When an entire facility is used for the housing of persons, none of whom are physically or mentally handicapped or non-ambulatory, and are between the ages of 18 and 64, the buildings or structures comprising such facility shall be exempt from the provisions of this subsection relating to the installation of an automatic fire alarm 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 any detector required by this section.*~~

~~*Automatic closing doors shall comply with Section 715.4.7.3*~~*715.4.8.3*~~.~~

A manual and automatic fire alarm system shall be installed in Group I-2 and I-2.1 occupancies. Where automatic fire suppression systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exception: *Where an entire facility is used for the housing of persons, none of whom are physically or mentally handicapped or non-ambulatory, and are between the ages of 18 and 64, the buildings or structures comprising such facility shall be exempt from the provisions of this subsection relating to the installation of an automatic fire alarm system.*

907.2.6.2.1 ***Notification.*** *The fire alarm notification system shall be in accordance with Section 907.6.2.5.*

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

1. In patient and client sleeping rooms. Actuation of such detectors shall cause a visual display on the corridor side of the room in which the detector is located and shall cause an audible and visual alarm at the respective nurses' station. A nurse call system listed for this function is an acceptable of providing the audible and visual alarm at the respective nurses' station and corridor room display. Operation of the smoke detector shall not include any alarm verification feature.

Exception: *In patient and client rooms equipped with existing automatic door closers having integral smoke detector, the integral detector is allowed to substitute for the room smoke detector, provided it meets all the required alerting functions.*

2. Group I-2 nurses' stations. A minimum of one (1) smoke detector shall be installed at the nurses' station and centrally located.

3. In waiting areas and corridors onto which they open, in the same smoke compartment, in accordance with Section 407.2.1.

~~**[F] 907.2.6.2.1** *Smoke detectors shall be installed in patient and client sleeping rooms. Actuation of such detectors shall cause a visual display on the corridor side of the room in which the detector is located and shall cause an audible and visual alarm at the respective nurses' station. A nurse call system listed for this function is an acceptable*~~

~~*method of providing the audible and visual alarm at the respective nurses station.*~~

> ~~***Exception:*** *In rooms equipped with existing automatic door closers having integral smoke detector, the integral detector may substitute for the room smoke detector, provided it meets all the required alerting function.*~~

~~*Operation of the smoke detector shall not include any alarm verification feature.*~~

[F] 907.2.6.3.3 Automatic smoke detection system. An automatic smoke detection system shall be installed throughout resident housing areas, including sleeping units and contiguous day rooms, group activity spaces and other common spaces normally accessible to ~~residents~~ *inmates*.

Exceptions:

1. Other approved smoke detection ~~providing equivalent protection including, but not limited to, placing detectors in exhaust ducts from cells or behind protective guards listed for the purpose are allowed when necessary to prevent damage or tampering.~~ *arrangements may be used to prevent damage or tampering or for other purposes provided the function of detecting any fire is fulfilled and the location of the detectors is such that the speed of detection will be equivalent to that provided by the spacing and location required in accordance with NFPA 72 as referenced in Chapter 35. This may include the location of detectors in return air ducts from cells, behind grilles or in other locations. Spot type, combination duct and open area smoke detectors may be used when located not more than 14 inches (356mm) from the return air grill. For initiation and annunciation purposes, these detectors may be combined in groups of four. The fire code official having jurisdiction, however, must approve the proposed equivalent performance of the design.*

~~2. Sleeping units in Use Conditions 2 and 3 as described in Section 308.~~

~~3. Smoke detectors are not required in sleeping units with four or fewer occupants in smoke compartments that are equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.~~

2. For Department of Corrections, prison cell or cell complex automatic smoke detection system shall not be required when all of the following conditions are met:

1. All rooms, including the inmate cells are provided with an automatic sprinkler system in accordance with 903.3.1.1.

2. Building is continuously staffed by a correctional officer at all times.

3. The exception to 903.2.6.2 shall not apply.

907.2.6.3.4 System annunciation *A staff alerting fire alarm shall sound at all staff control stations on the floor of activation and an audible and visual signal shall be indicated on an annunciator at the facility control center upon activation of any automatic extinguishing system, automatic detection system, or any smoke detector or manual actuating or initiating device. In addition, where there are staff-control stations on the floor, an audible, visual and manual alarm shall be located in each staff control station.*

Fire and trouble signals of fire alarm systems and sprinkler water-flow and supervisory signals of extinguishing systems shall be annunciated in an area designated as the facility control center which shall be constantly attended by staff personnel. All such signals shall produce both an audible signal and visual display at the facility control center indicating the building, floor zone or other designated area from which the signal originated in accordance with Section ~~907.8~~907.6.3.

All local detention facilities within the scope of Section 6031.4 of the Penal Code shall have a automatic smoke detection system. A manual fire alarm-initiating device shall be installed in all guard control stations and shall be capable of alerting personnel in a central control point to the presence of fire or smoke within the facility.

907.2.6.4. Large family day-care. *Every large family day-care home shall be provided with at least one manual device at a location approved by the authority having jurisdiction. Such device shall actuate a fire alarm signal, which shall be audible throughout the facility at a minimum level of 15 db above ambient noise level. These devices need not be interconnected to any other fire alarm device, have a control panel or be electrically supervised or provided with emergency power. Such device or devices shall be attached to the structure and may be of any type acceptable to the enforcing agency, provided that such devices are distinctive in tone and are audible throughout the structure.*

[F] 907.2.8 Group R-1~~*and Group R-4*~~. Fire alarm systems and smoke alarms shall be installed in Group R-1~~*and*~~

~~*Group R-4*~~ occupancies as required in Sections 907.2.8.1 through 907.2.8.3.

~~***907.2.8.4 Fire alarm systems in Group R-4 occupancies.*** *An approved manual and automatic fire alarm system shall be installed in Group R-4 occupancies.*~~

~~***Exceptions:***~~

~~*1. Protective social care occupancies housing persons none of whom are physically or mentally handicapped or nonambulatory and which provide supervisory services such as alcoholism or drug abuse recovery or treatment facilities., halfway houses operated by the California Department of Corrections, and similar facilities and are provided with a manual fire alarm box which will actuate a distinctive fire alarm signal that can be heard throughout the facility.*~~

~~*2 Protective social care facilities provided with an automatic sprinkler system which complies with Chapter 9 and are provided with a manual fire alarm box which will actuate a distinctive fire alarm signal that can be heard throughout the facility.*~~

[F] 907.2.9 Group R-2 *and R-2.1*. 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 and ~~907.9.2~~*907.9.3*.

[F] 907.2.9.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies where:

1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge;
2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit; or
3. The building contains more than 16 dwelling units or sleeping units.
4. *Congregate living facilities or congregate residences with more than 16 occupants.*

Exceptions:

1. A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, exit court or yard.
2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler waterflow.
3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1026.6, Exception 4.

[F] ~~*907.2.6.1.1*~~ *907.2.9.3* *Licensed Group ~~I-1~~R-2.1* occupancies. *Licensed Group ~~I-1~~R-2.1 occupancies housing more than six non-ambulatory, elderly clients shall be provided with an approved manual and automatic fire alarm system.*

Exceptions: *Buildings housing non-ambulatory clients on the first story only and which are protected throughout by the following:*

1. An approved and supervised automatic sprinkler system, as specified in Sections 903.3.1.1 or 903.3.1.2, which upon activation will initiate the fire alarm system to notify all occupants.
2. A manual fire alarm system.
3. Smoke alarms required by Section ~~907.2.10~~907.2.11.

[F] 907.2.11 Single- and multiple-station smoke alarms. Listed single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with Sections 907.2.11.1 through 907.2.11.4 and NFPA 72.

Exception: *For Group R occupancies. A fire alarm system with smoke detectors located in accordance with this*

section may be installed in lieu of smoke alarms. Upon actuation of the detector, only those notification appliances in the dwelling unit or guest room where the detector is actuated shall activate.

[F] 907.2.11.1 Group R-1. Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:

1. In sleeping areas.
2. In every room in the path of the means of egress from the sleeping area to the door leading from the sleeping unit.
3. In each story within the sleeping unit, including basements. For sleeping units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

~~*4. In enclosed common stairwells of multiple-dwelling complexes.*~~

[F] 907.2.11.2 Groups R-2, *R-2.1,* R-3, *R-3.1*~~,~~ *and* R-4 ~~and I-1~~. Single- or multiple-station smoke alarms shall be installed and maintained in Groups R-2, *R-2.1,* R-3, *R-3.1*~~,~~ *and* R-4 ~~and I-1~~ regardless of occupant load at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

~~*4. In enclosed common stairwells of apartment complexes and other multiple-dwelling complexes.*~~

~~*5.*~~ *In a Group R-3.1 occupancies, in addition to the above, smoke alarms shall be provided throughout the habitable areas of the dwelling unit except kitchens.*

~~***907.2.10.1.4***~~ ***907.2.11.2.1 Group I-4 Occupancies.*** *Large family day-care homes shall be equipped with State Fire Marshal approved and listed single station residential type smoke alarms.*

~~***907.2.10.1.5***~~ ***907.2.11.2.2 Group R-3.1*** *In all facilities housing a bedridden client, smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall be electrically interconnected so as to cause all smoke alarms to sound a distinctive alarm signal upon actuation of any single smoke alarm. Such alarm signal shall be audible throughout the facility at a minimal level of 15 db above ambient noise level. These devices need not be interconnected to any other fire alarm device, have a control panel, or be electrically supervised or provided with emergency power.*

[F] 907.2.11.3 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit in Group R-2, R-3, *R-3.1,* or R-4, or within an individual dwelling unit or sleeping unit in Group R-1, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

[F] 907.2.11.4 Power source. In new construction *and in newly classified Group R-3.1 Occupancies,* required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exception: Smoke alarms are not required to be equipped with battery backup in Group R-1 where they are connected to an emergency electrical system.

~~***907.2.10.5***~~ ***907.2.11.5 Existing Group R-3 Occupancies.*** *See the California Residential Code or Chapter 46 of the California Fire Code.*

~~***907.2.10.5.1*** *Existing Buildings housing Group R-3 Occupancies established prior to the effective date of these regulations may have their use continued if they conform or are made to conform to provisions of these regulations to the extent that reasonable and adequate life safety against the hazards of fire, panic and explosion is substantially provided. Additional means of egress, the installation of automatic sprinkler systems, automatic fire alarm system or other life safety measures, may be required to provide reasonable and adequate safety.*~~

~~***Note:*** *It is the intent of this sections that every existing occupancy need not mandatorily conform with the requirements for new construction. Reasonable judgment in the application of requirements must be exercised by the enforcing agency.*~~

~~***907.2.10.5.1.2*** *For purposes of clarification, Health and Safety Code section 13113.7 is repeated.*~~
~~*(a) Except as otherwise provided in this section, a smoke detector, approved and listed by the State Fire Marshal pursuant to Section 13114, shall be installed, in accordance with the manufacturer's instructions in each dwelling intended for human occupancy within the earliest applicable time period as follows:*~~
~~*(1) For all dwelling units intended for human occupancy, upon the owner's application on or after January 1, 1985, for a permit for alterations, repairs, or additions, exceeding one thousand dollars ($1,000).*~~
~~*(2) For all other dwelling units intended for human occupancy on or after January 1, 1987.*~~
~~*However, if any local rule, regulation, or ordinance, adopted prior to the compliance dates specified in paragraphs (1) and (2) requires installation in a dwelling unit intended for human occupancy of smoke detector, which receive their power from the electrical system of the building and requires compliance with the local rule, regulation, or ordinance at a date subsequent to the dates specified in this section, the compliance date specified in the rule, regulation, or ordinance shall, but only with respect to the dwelling units specified in this section, take precedence over the dates specified in this section.*~~
~~*The State Fire Marshal may adopt regulations exempting dwellings intended for human occupancy with fire sprinkler systems from the provisions of this section, if he or she determines that a smoke detector is not reasonably necessary for fire safety in the occupancy.*~~
~~*Unless prohibited by local rules, regulations, or ordinances, a battery-operated smoke detector which otherwise meets the standards adopted pursuant to Section 13114 for smoke detectors , satisfies the requirements of this section.*~~
~~*(b) "Dwelling units intended for human occupancy," as used in this section, includes a duplex, lodging house, apartment complex, hotel, motel, condominium, stock cooperative, time-share project, or dwelling unit of a multiple-unit dwelling complex. For the purpose of this part, "dwelling units intended for human occupancy" does not include manufactured homes as defined in Section 18007, mobile homes as defined in Section 18008, and commercial coaches as defined in 18001.8.*~~
~~*(c) The owner of each dwelling unit subject to this section shall supply and install smoke detectors required by this section in the locations and in the manner set forth in the manufacturer's instructions, as approved by the State Fire Marshal's regulations. In the case of apartment complexes and other multiple-dwelling complexes, a smoke detector shall be installed in the common stairwells. All fire alarm warning systems supplemental to the smoke detector shall also be listed by the State Fire Marshal.*~~
~~*(d) A high rise structure, as defined in subdivision (b) of Section 13210 and regulated by Chapter 3 (commencing with Section 13210), and which is used for purposes other than as dwelling units intended for human occupancy, is exempt from the requirements of this section.*~~
~~*(e) The owner shall be responsible for testing and maintaining detectors in hotels, motels, lodging houses, and common stairwells of apartment complexes and other multiple dwelling complexes.*~~
~~*An owner or the owner's agent may enter any dwelling unit, efficiency dwelling unit, guest room, and suite owned by the owner for the purpose of installing, repairing, testing, and maintaining single station smoke detectors required by this section. Except in cases of emergency, the owner or owner's agent shall give the tenants of each such unit, room, or suite reasonable notice in writing of the intention to enter and shall enter only during normal business hours. Twenty-four hours shall be presumed to be reasonable notice in absence of evidence to the contrary.*~~
~~*The smoke detector shall be operable at the time that the tenant takes possession. The apartment complex tenant shall be responsible for notifying the manager or owner if the tenant becomes aware of an inoperable smoke detector within his or her unit. The owner or authorized agent shall correct any reported deficiencies in the smoke detector and shall not be in violation of this section for a deficient smoke detector when he or she has not received notice of the deficiency.*~~
~~*(f) A violation of this section is an infraction punishable by a maximum fine of two hundred dollars ($200) for each offense.*~~

~~(g) This section shall not affect any rights which the parties may have under any other provision of law because of the presence or absence of a smoke detector .~~
~~(h) This section shall not apply to the installation of smoke detectors in single-family dwellings or factory-built housing which is regulated by Section 13113.8, as added by Assembly Bill No. 2285 of the 1983-84 Regular Session.~~

~~**907.2.10.5.3** For purposes of clarification, Health and Safety Code section 13113.8 is repeated.~~
~~(a) On and after January 1, 1986, every single-family dwelling and factory-built housing, as defined in Section 19971, which is sold shall have an operable smoke detector. The detector shall be approved and listed by the State Fire Marshal and installed in accordance with the State Fire Marshal's regulations. Unless prohibited by local rules, regulations, or ordinances, a battery-operated smoke detector shall be deemed to satisfy the requirements of this section.~~
~~(b) On and after January 1, 1986, the transferor of any real property containing a single-family dwelling, as described in subdivision (a), whether the transfer is made by sale, exchange, or real property sales contract, as defined in Section 2985 of the Civil Code, shall deliver to the transferee a written statement indicating that the transferor is in compliance with this section. The disclosure statement shall be either included in the receipt for deposit in a real estate transaction, an addendum attached thereto, or a separate document.~~
~~(c) The transferor shall deliver the statement referred to in subdivision (b) as soon as practicable before the transfer of title in the case of a sale or exchange, or prior to execution of the contract where the transfer is by a real property sales contract, as defined in Section 2985. or purposes of this subdivision, "delivery" means delivery in person or by mail to the transferee or transferor, or to any person authorized to act for him or her in the transaction, or to additional transferees who have requested delivery from the transferor in writing. Delivery to the spouse of a transferee or transferor shall be deemed delivery to a transferee or transferor, unless the contract states otherwise.~~
~~(d) This section does not apply to any of the following:~~
~~(1) Transfers which are required to be preceded by the furnishing to a prospective transferee~~
~~of a copy of a public report pursuant to Section 11018.1 of the Business and Professions Code.~~
~~(2) Transfers pursuant to court order, including, but not limited to, transfers ordered by a probate court in the administration of an estate, transfers pursuant to a writ of execution, transfers by a trustee in bankruptcy, transfers by eminent domain, or transfers resulting from a decree for specific performance.~~
~~(3) Transfers to a mortgagee by a mortgagor in default, transfers to a beneficiary of a deed of trust by a trustor in default, transfers by any foreclosure sale after default, transfers by any foreclosure sale after default in an obligation secured by a mortgage, or transfers by a sale under a power of sale after a default in an obligation secured by a deed of trust or secured by any other instrument containing a power of sale.~~
~~(4) Transfers by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust.~~
~~(5) Transfers from one co-owner to one or more co-owners.~~
~~(6) Transfers made to a spouse, or to a person or persons in the lineal line of consanguinity of one or more of the transferors.~~
~~(7) Transfers between spouses resulting from a decree of dissolution of a marriage, from a decree of legal separation, or from a property settlement agreement incidental to either of those decrees.~~
~~(8) Transfers by the Controller in the course of administering the Unclaimed Property Law provided for in Chapter 7 (commencing with Section 1500) of Title 10 of Part 3 of the Code of Civil Procedure.~~
~~(9) Transfers under the provisions of Chapter 7 (commencing with Section 3691) or Chapter 8 (commencing with Section 3771) of Part 6 of Division 1 of the Revenue and Taxation Code.~~
~~(e) No liability shall arise, nor any action be brought or maintained against, any agent of any party to a transfer of title, including any person or entity acting in the capacity of an escrow, for any error, inaccuracy, or omission relating to the disclosure required to be made by a transferor pursuant to this section.~~
~~However, this subdivision does not apply to a licensee, as defined in Section 10011 of the Business and Professions Code, where the licensee participates in the making of the disclosure required to be made pursuant to this section with actual knowledge of the falsity of the disclosure.~~
~~(f) Except as otherwise provided in this section, this section shall not be deemed to create or imply a duty upon a licensee, as defined in Section 10011 of the Business and Professions Code, or upon any agent of any party to a transfer of title, including any person or entity acting in the capacity of an escrow, to monitor or ensure compliance with this section.~~
~~(g) No transfer of title shall be invalidated on the basis of a failure to comply with this section, and the exclusive remedy for the failure to comply with this section is an award of actual damages not to exceed one hundred dollars ($100), exclusive of any court costs and attorney's fees.~~

~~*(h) Local ordinances requiring smoke detectors in single-family dwellings may be enacted or amended. However, the ordinances shall satisfy the minimum requirements of this section.*~~
~~*(i) For the purposes of this section, "single-family dwelling" does not include a manufactured home as defined in Section 18007, a mobile home as defined in Section 18008, or a commercial coach as defined in Section 18001.8.*~~
~~*(j) This section shall not apply to the installation of smoke detectors in dwellings intended for human occupancy, as defined in and regulated by Section 13113.7 of the Health and Safety Code, as added by Senate Bill No. 1448 in the 1983-84 Regular Session.*~~

[F] 907.2.13 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*****.** *High-rise* ~~B~~*b*uildings ~~with a floor used for human occupancy located more than 75 feet (22 860 mm) above the lowest level of fire department building access~~ *and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access* shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:
1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
~~5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.~~
~~6~~5. In Group ~~I-1 and~~ I-2 *and R-2.1* occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system.

[F] 907.2.13.1 Automatic smoke detection. Automatic smoke detection in high-rise buildings shall be in accordance with Sections 907.2.13.1.1 and 907.2.13.1.2.

[F] 907.2.13.2 Fire department communication system. Where a wired communication system is approved in lieu of a radio coverage system in accordance with Section 510 of the ~~*International*~~ *California Fire Code*, the wired fire department communication system shall be designed and installed in accordance with NFPA 72 and shall operate between a fire command center complying with Section 911, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside enclosed exit stairways. The fire department communication device shall be provided at each floor level within the enclosed exit stairway.

[F] ~~***907.2.12.1.1 Smoke Detection.***~~ **907.2.13.1.1 Area smoke detection.** Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall operate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. Smoke detectors shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room which is not provided with sprinkler protection.
2. In each elevator machine room and in elevator lobbies.

[F] ~~***907.2.12.1.2 Duct smoke detection.***~~ **907.2.13.1.2 Duct smoke detection.** *Smoke detectors listed for use in air duct systems shall be provided in accordance with this section and the California Mechanical Code. The activation of any detector required by this section shall initiate a visible and audible supervisory signal at a constantly attended location.* ~~*Duct smoke detectors shall be located as follows*~~ Duct smoke detectors complying with Section 907.3.1 shall be located as follows:

1. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m3/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.
2. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m3/s) and serving not more than 10 air-inlet openings.

[F] 907.2.15 High-piled combustible storage areas. An automatic smoke detection system shall be installed throughout high-piled combustible storage areas where required by Section 2306.5 of the ~~*International*~~ *California Fire Code*.

[F] 907.2.16 Aerosol storage uses. Aerosol storage rooms and general-purpose warehouses containing aerosols shall be provided with an approved manual fire alarm system where required by the ~~*International*~~ *California Fire Code*.

907.2.24 Motion Picture and Television Production Studio Sound Stages and Approved Production Facilities

907.2.24.1 Sound Stages -Solid-ceiling Sets and Platforms. *Where required by Chapter 48 of the California Fire Code, ~~A~~all interior solid-ceiling sets over 600 square feet (55.7 m^2) in area, and platforms (when provided) over 600 square feet (55.7 m^2) in area and which exceed 3 feet (914 mm) in height shall be protected by ~~one of the following: 1. A~~ an approved ~~and listed~~ heat detector system. Heat detectors shall be spaced 30 feet (9144 mm) on center or as required by the manufacturer's installation instructions. The fire alarm system ~~Detectors~~ shall be connected to an approved ~~and listed central, proprietary or remote~~ supervising station ~~service~~ in accordance with Section 907.6.5 or a local alarm which will give an audible signal at a constantly attended location. ~~Such system shall be installed in accordance with this chapter.~~*
~~*2. The ceiling shall be positioned to allow for the operation of the building's automatic fire sprinkler system after rehearsal, videotaping, filming, or broadcasting of programs has been completed for the day.*~~
~~*3. An approved fire watch.*~~
~~*4. Special hazards shall be reviewed by the enforcing agency (see additional fire protection systems, Section 901.4.3.).*~~

907.2.24.2 Production Locations -Solid-Ceiling Sets and Platforms. *Where required by Chapter 48 of the California Fire Code ~~In~~in buildings with existing fire protection systems and where production intends to construct solid-ceiling sets over 600 square feet (55.7 m^2) in area, and platforms over 600 square feet (55.7 m^2) in area and which exceed 3 feet (914 mm) in height shall be protected by one of the following:*

1. *An approved ~~and listed~~ heat detector system. Heat detectors shall be spaced 30 feet (9144 mm) on center or as required by the manufacturer's installation instructions. The fire alarm system ~~Detectors~~ shall be connected to an approved ~~and listed central, proprietary or remote~~ supervising station ~~service~~ in accordance with Section 907.6.5 or a local alarm which will give an audible signal at a constantly attended location. ~~Such system shall be installed in accordance with this chapter.~~*
~~*2. The ceiling shall be positioned to allow for the operation of the building's automatic fire sprinkler system after rehearsal, videotaping, filming, or broadcasting of programs has been completed for the day.*~~
~~*3. An approved fire watch.*~~
~~*4. Special hazards shall be reviewed by the enforcing agency (see additional fire protection systems, Section 901.4.3.).*~~

907.2.24.3 Fire alarm control units. *Fire alarm control units shall be California State Fire Marshal listed and shall be utilized in accordance with their listing. Control units ~~may~~ are permitted to be temporarily supported by sets, platforms or pedestals.*

907.2.24.4 Heat Detectors.

907.2.24.4.1 *Heat detection required by this section shall be defined as a portable system as it is intended to be reinstalled when platforms or sets are changed.*

907.2.24.4.2 *Heat detectors shall be secured to standard outlet boxes ~~which may~~ and are allowed to be temporarily supported by sets, platforms or pedestals.*

907.2.24.4.3 *Heat detectors shall be provided for solid-ceiling sets and platforms where required by Section ~~4605.3~~4805.3 and ~~4611.1~~4811.14.*

907.2.25 Group C Occupancies (Organized Camps).

907.2.25.1 General. *Every building and structure used or intended for sleeping purposes shall be provided with an automatic smoke-detection system.*

Exceptions:

1. Buildings and structures in existence and in operation prior to January 1, 1985.

2. Tents, tent structures and buildings and structures that do not exceed 25 ft (7620mm) in any lateral dimensions and where such building or structure is not more than one story.

907.2.25.2 Camp Fire Alarm. *Every organized camp shall provide and maintain ~~a device~~ audible appliances, or devices suitable for sounding a fire alarm. Such ~~device~~ audible appliances or devices may be of any type acceptable to the enforcing agency provided they are distinctive in tone from all other signaling devices or systems and shall be audible throughout the camp premises. When an automatic fire alarm system is provided, as required by Section 440.6.6 of the California Building Code, all ~~and signaling devices~~ audible appliances required by this section shall be of the same type as that used in the automatic system.*

907.2.26 Fixed Guideway Transits Systems Fire Alarm and Communication Systems.

907.2.26.1 General. *Every fixed guideway transit station shall be provided with an approved ~~fire alarm~~ emergency voice/alarm communication system in accordance with NFPA 72. The ~~alarm and~~ emergency voice/alarm communication system~~s shall be proprietary~~, designed and installed so that damage to any one speaker will not render any paging zone of the system inoperative.*

Exception: *Open stations*

~~*The voice alarm and public address system may be a combined system. When approved by the fire department, a communications system may be combined with the voice alarm system and the public address system. Such combined systems shall meet the requirements of the California Electric Code*~~.

907.2.26.2 System components. *Each station fire alarm system shall consist of:*

1. Fire alarm control unit at a location as permitted by the enforcing agency.

2. An alarm annunciator(s). The annunciator(s) shall be located at a point acceptable to the enforcing agency. The annunciator(s) shall indicate the type of device and general location of alarm. All alarm, supervisory and trouble signals shall be transmitted to the local annunciator(s) and the ~~OCC~~ operations control center.

3. Manual fire alarm boxes shall be provided throughout passenger platforms and stations.

Exception: *~~Voice alarm~~ Two-way emergency communication reporting devices (emergency telephones) ~~may~~ are allowed to be used in lieu of manual fire alarm boxes as permitted by the enforcing agency. Such devices shall provide two-way communication between the ~~OCC.~~operations control center and each device. Such devices shall be located as required for manual fire alarm boxes, and shall be distinctly identified by signs, coloring, or other means acceptable to the enforcing agency.*

4. Automatic smoke detectors in all ancillary spaces.

Exceptions:

1. Ancillary spaces protected by an approved fixed automatic extinguishing system; or

2. Ancillary spaces protected by quick-response sprinklers.

5. Automatic control of exiting components.

907.2.26.3 ~~Combined~~ Emergency voice/ alarm communication ~~public address~~ system. *Each station shall be provided with a ~~one-way paging~~ an emergency voice/alarm communication system ~~(s)~~ capable of transmitting voice , ~~tape~~ recorded or electronically generated textual messages to all areas of the station. The system(s) shall be configured such that the messages can be initiated from either the Emergency Management Panel (EMP) or the ~~OCC~~ operations control center.*

907.2.26.4 Emergency telephones. *A dedicated two-way emergency communication phone system designed and installed in accordance with NFPA 72 shall be provided in all underground stations to facilitate direct communications for emergency response between remote locations and the EMP.*

907.2.26.4.1 *~~The~~ ~~r~~Remote emergency phones shall be located at ends of station platforms, each hose outlet connection and station valve rooms.*

907.2.26.4.2 *Provisions shall be made in the design of this two-way emergency communication phone system for extensions of the system to the next passenger station or guideway portal.*

907.2.27 Winery Caves. *An approved manual fire alarm system conforming to the provisions of Section 907.2~~.1~~ shall be provided in all Type 3 winery caves.*

907.2.28 Group L. *A manual fire alarm system shall be installed throughout buildings containing Group L occupancy. When Group L occupancies are located in mixed use buildings, at least one manual fire alarm ~~pull~~ shall be located in the Group L occupancy.*

907.2.28.1 Group L occupancies located above the 10 story. *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.*

[F] 907.3 Fire safety functions. Automatic fire detectors utilized for the purpose of performing fire safety functions shall be connected to the building's fire alarm control unit where a fire alarm system is ~~*required* by Section 907.2~~ *installed*. Detectors shall, upon actuation, perform the intended function and activate the alarm notification appliances or activate a visible and audible supervisory signal at a constantly attended location. In buildings not equipped with a fire alarm system, the automatic fire detector shall be powered by normal electrical service and, upon actuation, perform the intended function. The detectors shall be located in accordance with NFPA 72.

[F] 907.3.1 Duct smoke detectors. ~~*Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct.*~~ Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control ~~*panel*~~ *unit* when a fire alarm system is ~~required by Section 907.2~~ *installed*. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location ~~*and shall perform the intended fire safety function in accordance with this code and the*~~ and shall perform the intended fire safety function in accordance with this code and the *California Mechanical Code*. Duct smoke detectors shall not be used as a substitute for required open-area detection.

Exceptions:

1. The supervisory signal at a constantly attended location is not required where duct smoke detectors activate the building's alarm notification appliances.
2. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

[F] 907.3.2 Delayed egress locks. Where delayed egress locks or *devices* are installed on means of egress doors in accordance with Section 1008.1.9.7 an automatic smoke ~~or heat~~ detection system shall be installed as required by ~~*that*~~ this section *and Section ~~1008.1.8.6~~ 1008.1.9.7*.

~~***907.2.15.1.***~~ ***907.3.2.1*** *In other than Group I, ~~Occupancies~~ R-2.1 and Group R-4 ~~O~~occupancies for single-story buildings smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces. For multiple-story buildings smoke detectors shall be installed throughout all occupied areas and mechanical/electrical spaces for the story where delayed egress devices are installed. Additional detectors are required on adjacent stories where occupants of those stories utilize the same means of egress.*

~~***907.2.15.2***~~ ***907.3.2.2 For Group I and R-2.1 occupancies.*** *Smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces of smoke-compartments where delayed egress devices are*

installed. Additional detectors are required in adjacent smoke-compartments where occupants of those compartments utilize the same means of egress.

~~907.2.15.3~~ 907.3.2.3 For Group R-4 *Occupancies licensed as residential care facilities for the elderly, and housing clients with Alzheimer's disease or dementia residential facilities, smoke detectors shall be installed at ceilings throughout all occupiable rooms and areas and mechanical/electrical rooms and spaces.*

[F] 907.4.2.1 Location. Manual fire alarm boxes shall be located not more than 5 feet (1524 mm) from the entrance to each exit. Additional manual fire alarm boxes shall be located so that travel distance to the nearest box does not exceed 200 feet (60 960 mm).

> ***Exception:*** *When individual dwelling units are served by a single exit stairway, additional boxes at other than the ground floor may be omitted.*

[F] 907.4.1 Protection of fire alarm control unit. In areas that are not continuously occupied, a single smoke detector shall be provided at the location of each fire alarm control unit, notification appliance circuit power extenders and supervising station transmitting equipment.

> **Exceptions:** ~~1.~~ Where ambient conditions prohibit installation of smoke detector, a *heat detector* shall be permitted.
> ~~2. The smoke detector shall not be required where the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.~~

[F] ~~*907.3.6*~~ 907.4.2.5 Protective covers. The fire code official is authorized to require the installation of listed manual fire alarm box protective covers to prevent malicious false alarms or to provide the manual fire alarm box with protection from physical damage. The protective cover shall be transparent or red in color with a transparent face to permit visibility of the manual fire alarm box. Each cover shall include proper operating instructions. A protective cover that emits a local alarm signal shall not be installed unless approved. Protective covers shall not project more than that permitted by Section 1003.3.3. ~~*Each cover shall not exceed a combined projection over 4 inches (102 mm) from the surface of the wall into walks, halls, corridors, passageways or aisles.*~~

~~907.3.5~~ 907.4.2.6 Operation. *Manual fire alarm boxes shall be operable with one hand including boxes with protective covers.*

907.5.2.1 Audible alarms. Audible alarm notification appliances shall be provided and shall sound a distinctive sound that is not to be used for any purpose other than that of a fire alarm.

In ~~g~~Group I-2 occupancies, audible appliances ~~placed~~located in patient areas shall be only chimes or similar sounding ~~devices~~appliances for alerting staff. See Section 907.6.5.

Exception: Visible alarm notification appliances shall be allowed in lieu of audible alarm notification appliances in ~~critical care~~ *patient* areas of Group I-2 occupancies.

907.5.2.1.1 Average sound pressure. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupiable space within the building. The minimum sound pressure levels shall be: 75 dBA in occupancies in Group~~s~~ R ~~and I-1~~; 90 dBA in mechanical equipment rooms and 60 dBA in other occupancies.

~~907.9.2.1~~ 907.5.2.1.3 Audible Alarm Signal. *The audible signal shall be the standard fire alarm evacuation signal, ANSI S3.41 Audible Emergency Evacuation Signal, "three pulse temporal pattern", as described in NFPA 72.*

> ***Exception:*** *The use of the existing evacuation signaling scheme shall be permitted where approved by the enforcing agency.*

907.5.2.2 Emergency voice/alarm communication system. The emergency voice/alarm communication system shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler water flow 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 a minimum of 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. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Section 1002.1.

Exception: In Group ~~I-1 and~~ I-2 *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.

907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through ~~907.5.2.3.4~~ *907.5.2.3.5*.

Exceptions:
1. *In other than Group I-2 and I-2.1,* ~~V~~visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in ~~exits as defined in Section 1002.1~~*enclosed exit stairways, exterior exit stairs, and exterior exit ramps*.
3. Visible alarm notification appliances shall not be required in elevator cars.

907.5.2.3.1 Public and common *use* areas. Visible alarm notification appliances shall be provided in public *use* areas and common *use* areas *,including but not limited to*~~:~~

1. Sanitary facilities including restrooms, bathrooms and shower rooms
2. Corridors
3. Music practice rooms
4. Band rooms
5. Gymnasiums
6. Multipurpose rooms
7. Occupational shops
8. Occupied rooms where ambient noise impairs hearing of the fire alarm
9. Lobbies
10. Meeting rooms
11. Classrooms

[F] 907.5.2.3.3 Groups ~~I-1 and~~ R-1 *and R-2.1*. Group ~~I-1 and~~ R-1 *and R-2.1* dwelling units or sleeping units in accordance with Table 907.5.2.3.3 shall be provided with a visible alarm notification appliance, activated by both the in-room smoke alarm and the building fire alarm system.

[F] TABLE 907.5.2.3.3
VISIBLE ALARMS

NUMBER OF SLEEPING UNITS	SLEEPING ACCOMODATIONS WITH VISIBLE ALARMS
6 to 25	2
26 to 50	4
51 to 75	7

76 to 100	9
101 to 150	12
151 to 200	14
201 to 300	17
301 to 400	20
401 to 500	22
501 to 1,000	5% of total
1,001 and over	50 plus 3 for each 100 over 1,000

[SFM] Also see Chapter 11B Section 1111B.4.5, Table 11B-3, and Table 11B-4.

[F] 907.5.2.3.4 Group R-2. In Group R-2 occupancies required by Section 907 to have a fire alarm system, all dwelling units and sleeping units shall be provided with the capability to support visible alarm notification appliances in accordance with ~~ICC A117.1~~ *NFPA 72.*

[F] ~~907.9.1.5~~ 907.5.2.3.5 Group ~~I-1~~R-2.1, R-3.1 and R-4 *Protective social care facilities which house persons who are hearing impaired, shall be provided with notification appliances for the hearing impaired installed in accordance with NFPA 72 and which shall activated upon initiation of the fire alarm system or the smoke alarms.*

907.5.2.4 Group E Schools. *An audible alarm notification appliance shall be mounted on the exterior of buildings to alert occupants in and around the playground area.*

907.5.2.5 Groups I-2 and 1-2.1. *Audible appliances shall be used in non-patient 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.*

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.

[F] 907.6.1 Wiring. Wiring shall comply with the requirements of ~~NFPA 70~~ *California Electrical Code* and NFPA 72. Wireless protection systems utilizing radio-frequency transmitting devices shall comply with the special requirements for supervision of low-power wireless systems in NFPA 72.

[F] 907.6.3 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 ~~floor shall be zoned separately and a~~ 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, 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.*

~~907.8.1~~ 907.6.3.1 Annunciation. *Alarm, supervisory and trouble signals shall be annunciated in the main control unit*

by means of an audible signal and a visual display in accordance with NFPA 72. Identification of the type of alarm and supervisory initiating devices, such as manual, automatic, sprinkler waterflow, sprinkler valve supervisory, fire-pump supervisory, etc., shall be separately indicated.

Exception: *Group R-3 Occupancies.*

[F] ~~**907.6.3.1**~~ ***907.6.3.1.1*** ~~**Zoning indicator**~~ ***Annunciator*** **Panel.** A ~~zoning indicator~~ *annunciator* panel *complying with* ~~*907.8.1*~~ *907.6.3.1* and the associated controls shall be provided in an *approved remote location where deemed necessary by the Enforcing Agency*. The visual zone indication shall lock in until the system is reset and shall not be canceled by the operation of an audible alarm-silencing switch.

[F] 907.6.3.2 High-rise buildings. In *high-rise* buildings ~~with a floor used for human occupancy that is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle *building* access~~ *and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access*, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes.
4. Other approved types of automatic fire detection devices or suppression systems.

[F] ~~***907.8.4***~~ ***907.6.3.3*** ***Notification Zoning.*** *Upon activation of initiating devices where occupant notification is required for evacuation, all notification zones shall operate simultaneously throughout the building.*

Exceptions:

1. High-rise buildings as permitted in Section 907.2.12.2,
2. Hospitals and convalescent facilities with staff alerting notification appliances or emergency voice / alarm communication, zoning shall be in accordance with the approved fire plan.
3.Detention facilities
4. Upon approval by the fire code official in buildings which are sprinklered throughout, specific notification zoning shall be permitted where the notification zones are separated by a minimum of a 2 hour fire barrier and 2 hour fire-resistive floor assembly. The system shall have the capability to activate all other notification zones by automatic and manual means.
5. Upon approval by the fire code official in buildings which are sprinklered throughout, specific notification zoning shall be permitted where the activated initiating device or fire extinguishing system is separated from any non-active notification zones by a minimum of 300 ft horizontal distance. The system shall have the capability to activate all other notification zones by automatic and manual means.
6. Where a Group H or L occupancy is located above the 10th story, each side of the 2 hr fire-smoke barrier shall be considered a separate zone.

[F] 907.6.5 Monitoring. Fire alarm systems required by this chapter or the ~~*International*~~ *California Fire Code* shall be monitored by an approved supervising station in accordance with NFPA 72 *and this section*.

Exception: Monitoring by a supervising station is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.11.
2. ~~Smoke detectors in~~ Group I-3 occupancies *shall be monitored in accordance with Section 907.2.6.3.*
3. Automatic sprinkler systems in one- and two-family dwellings.

~~***907.2.3.5 Supervising Station***~~ ***907.6.5.2 Group E schools.*** *Fire alarm systems shall transmit the alarm, supervisory and trouble signals to an approved supervising station in accordance with NFPA 72. The supervising station shall be listed as either UUFX (Central Station) or UUJS (remote & proprietary) by the Underwriters Laboratory Inc. (UL) or shall comply with the requirements of standard, FM 3011.*

[F] 907.7 Acceptance tests and completion. Upon completion of the installation, the fire alarm system and all fire alarm components ~~*fire safety function control devices and interfaces, and off-site monitoring equipment*~~ shall be

tested in accordance with NFPA 72

[F] 907.8 Inspection, testing and maintenance. The maintenance and testing schedules and procedures for fire alarm and fire detection systems shall be in accordance with Section 907.9 of the ~~*International*~~ *California* Fire Code.

[F] 908.6 Refrigerant detector. Machinery rooms shall contain a refrigerant detector with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values for the refrigerant classification indicated in the ~~*International*~~ *California Mechanical Code*. Detectors and alarms shall be placed in approved locations.

[F] 909.1 Scope and purpose. This section applies to mechanical or passive smoke control systems when they are required by other provisions of this code. The purpose of this section is to establish minimum requirements for the design, installation and acceptance testing of smoke control systems that are intended to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents, the timely restoration of operations or for assistance in fire suppression or overhaul activities. Smoke control systems regulated by this section serve a different purpose than the smoke- and heat-venting provisions found in Section 910. Mechanical smoke control systems shall not be considered exhaust systems under Chapter 5 of the ~~*International*~~ *California Mechanical Code*.

[F] 909.5.2 Opening protection. Openings in smoke barriers shall be protected by *self-closing devices or* 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 715.4.3.

Exceptions:

1. Passive smoke control systems with automatic-closing devices actuated by spot-type smoke detectors listed for releasing service installed in accordance with Section 907.4. *When used in a Group I-2, such detectors shall activate the fire alarm system.*
2. Fixed openings between smoke zones that are protected utilizing the airflow method *in other than Group I-2.*
3. In Group I-2, where doors are installed across corridors, a pair of opposite-swinging doors without a center mullion *or horizontal sliding doors that comply with Section* ~~*1008.1.3.3*~~*1008.1.4.3 shall be installed.* ~~shall be installed having vision panels with fire-protection-rated glazing materials in fire-protection-rated frames, the area of which shall not exceed that tested.~~ *Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier.* The doors shall be close fitting within operational tolerances, and shall not have undercuts, louvers or grilles. ~~The~~ *Swinging* doors shall have head and jamb stops~~,~~ *and* astragals or rabbets at meeting edges. ~~and~~ *Doors installed across corridors* shall be automatic closing by smoke detection in accordance with *Section* ~~*715.4.7.3*~~*715.4.8.3*. Positive-latching devices are ~~not~~ required. *Doors installed across corridors shall comply with Section 1008.1.1.*
4. Group I-3.
5. Openings between smoke zones with clear ceiling heights of 14 feet (4267 mm) or greater and bank-down capacity of greater than 20 minutes as determined by the design fire size.
6. *In Group I-2, smoke damper activation may be accomplished by a fire alarm control unit provided that an open area smoke detection system is provided within all areas served by an HVAC system.*

[F] 909.10.2 Ducts. Duct materials and joints shall be capable of withstanding the probable temperatures and pressures to which they are exposed as determined in accordance with Section 909.10.1. Ducts shall be constructed and supported in accordance with the ~~*International*~~ *California Mechanical Code*. Ducts shall be leak tested to 1.5 times the maximum design pressure in accordance with nationally accepted practices. Measured leakage shall not exceed 5 percent of design flow. Results of such testing shall be a part of the documentation procedure. Ducts shall be supported directly from fire-resistance-rated structural elements of the building by substantial, noncombustible supports.

Exception: Flexible connections (for the purpose of vibration isolation) complying with the ~~*International*~~ *California Mechanical Code*, that are constructed of approved fire-resistance-rated materials.

909.12 Detection and control systems. Fire detection systems providing control input or output signals to mechanical smoke control systems or elements thereof shall comply with the requirements of Section 907. Such systems shall be equipped with a control unit complying with UL 864 and listed as smoke control equipment.

Control systems for mechanical smoke control systems shall include provisions for verification. Verification shall include positive confirmation of actuation, testing, manual override, the presence of power downstream of all disconnects and, through a preprogrammed weekly test sequence, report abnormal conditions audibly, visually and by printed report.

The status of dampers shall be determined using limit or proximity switches installed at the damper or incorporated into the damper actuator. Where multiple dampers are grouped together in an assembly requiring one or more actuators, each damper shall be independently controlled by a separate actuator and provided with an individual limit or proximity switch, or the dampers shall be linked together by a reliable and durable mechanical means or otherwise by permanent means into one or more groups, with each group provided with a common limit or proximity switch.

The status of fans shall be determined by sensing the air flow downstream of the fans using pressure differential switches or transmitters, or by other means of positive proof of air flow where approved by the enforcing authority.

[F] 909.12.1 Wiring. In addition to meeting requirements of the ~~NFPA 70~~ *California Electrical Code*, all wiring, regardless of voltage, shall be fully enclosed within continuous raceways.

[F] 909.16.1 Smoke control systems. Fans within the building shall be shown on the fire-fighter's control panel. A clear indication of the direction of airflow and the relationship of components shall be displayed. Status indicators shall be provided for all smoke control equipment, annunciated by fan and zone, and by ~~pilot-lamp-type~~ *approved* indicators as follows:

1. Fans, dampers and other operating equipment in their normal status—WHITE.
2. Fans, dampers and other operating equipment in their off or closed status—RED.
3. Fans, dampers and other operating equipment in their on or open status—GREEN.
4. Fans, dampers and other operating equipment in a fault status—YELLOW/AMBER.

[F] 909.16.3 Control action and priorities. The firefighter's control panel actions shall be as follows:

1. ON-OFF and OPEN-CLOSE control actions shall have the highest priority of any control point within the building. Once issued from the fire-fighter's control panel, no automatic or manual control from any other control point within the building shall contradict the control action. Where automatic means are provided to interrupt normal, non-emergency equipment operation or produce a specific result to safeguard the building or equipment (i.e., duct freeze stats, duct smoke detectors, high-temperature cutouts, temperature-actuated linkage and similar devices), such means shall be capable of being overridden by the fire-fighter's control panel. The last control action as indicated by each fire-fighter's control panel switch position shall prevail. In no case shall control actions require the smoke control system to assume more than one configuration at any one time.

   Exception: Power disconnects required by the ~~NFPA 70~~ *California Electrical Code*.

2. Only the AUTO position of each three-position fire-fighter's control panel switch shall allow automatic or manual control action from other control points within the building. The AUTO position shall be the NORMAL, non-emergency, building control position. Where a fire-fighter's control panel is in the AUTO position, the actual status of the device (on, off, open, closed) shall continue to be indicated by the status indicator described above. When directed by an automatic signal to assume an emergency condition, the NORMAL position shall become the emergency condition for that device or group of devices within the zone. In no case shall control actions require the smoke control system to assume more than one configuration at any one time.

909.20 Smokeproof enclosures. Where required by Section 1022.9, a smokeproof enclosure shall be constructed in accordance with this section. A smokeproof enclosure shall consist of an enclosed interior exit stairway that conforms

to Section 1020.1 and an open exterior balcony or ventilated vestibule meeting the requirements of this section. Where access to the roof is required by the ~~*International*~~ *California Fire Code*, such access shall be from the smokeproof enclosure where a smokeproof enclosure is required.

909.20.1 Access. Access to the stair shall be byway of a vestibule or an open exterior balcony. The minimum dimension of the vestibule shall not be less than the ~~required~~ width of the corridor leading to the vestibule *as calculated in accordance with Section 1005.1,* but shall not have a width of less than 44 inches (1118 mm) and shall not have a length of less than 72 inches (1829 mm) in the direction of egress travel.

909.20.2.1 Vestibule doors. *The door assembly from the building into the vestibule shall be a 90-minute fire door assembly complying with Section 715.4.4. The door assembly from the vestibule to the stairway shall not have less than a 20-minute fire protection rating and complying with the requirements for a smoke door assembly in accordance with Section 715.4.3. The door shall be installed in accordance with NFPA-105.*

909.20.2.~~1~~*2* Door closers. Doors in a smokeproof enclosure shall be self- or automatic closing by actuation of a smoke detector in accordance with Section 715.4 and shall be installed at the floor-side entrance to the smokeproof enclosure. The actuation of the smoke detector on any door shall activate the closing devices on all doors in the smokeproof enclosure at all levels. Smoke detectors shall be installed in accordance with Section 907.3.

909.20.2.3 Standpipes. *Fire department standpipe connections and valves serving the floor shall be within the vestibule and located in such a manner so as not to obstruct egress where hose lines are connected and charged.*

909.20.2.4 Pressure differences. *The minimum pressure differences within the vestibule with the doors closed shall be 0.05-inch water gage (12.44 Pa) positive pressure relative to the fire floor and 0.05-inch water gage (12.44 Pa) negative pressure relative to the exit enclosure. No pressure difference is required relative to a nonfire floor.*

909.20.2.5 Relief vent. *A relief vent capable of discharging a minimum of 2,500 cubic feet per minute (1180 L/s) of air at the design pressure difference shall be located in the upper portion of such pressurized exit enclosures.*

> ***Exception:*** *When approved by the enforcing agency, other engineered design methods capable of discharging a minimum of 2,500 cubic feet per minute (1180 L/s) of air at the design pressure difference shall be permitted.*

909.20.~~3~~*4* Natural ventilation alternative. The provisions of Sections 909.20.~~3~~*4.1* ~~through~~ *and* 909.20.~~3.3~~*4.2* shall apply to ventilation of smokeproof enclosures by natural means.

909.20.~~3~~*4*.1 Balcony doors. Where access to the stairway is by way of an open exterior balcony, the door assembly into the enclosure shall be a fire door assembly in accordance with Section 715.4.

~~**909.20.3.2 Vestibule doors.** Where access to the stairway is by way of a vestibule, the door assembly into the vestibule shall be a fire door complying with Section 715.4. The door assembly from the vestibule to the stairway shall have not less than a 20-minute fire protection rating complying with Section 715.4.~~

909.20.~~3.3~~*4.2* Vestibule ventilation. Each vestibule shall have a minimum net area of 16 square feet (1.5 m2) of opening in a wall facing an outer court, yard or public way that is at least 20 feet (6096 mm) in width.

~~**909.20.4 Mechanical ventilation alternative.** The provisions of Sections 909.20.4.1 through 909.20.4.4 shall apply to ventilation of smokeproof enclosures by mechanical means.~~

~~**909.20.4.1 Vestibule doors.** The door assembly from the building into the vestibule shall be a fire door assembly complying with Section 715.4.3. The door assembly from the vestibule to the stairway shall not have less than a 20-minute fire protection rating and meet the requirements for a smoke door assembly in accordance with Section 715.4.3. The door shall be installed in accordance with NFPA 105.~~

~~**909.20.4.2 Vestibule ventilation.** The vestibule shall be supplied with not less than one air change per minute and the exhaust shall not be less than 150 percent of supply. Supply air shall enter and exhaust air shall discharge from the vestibule through separate, tightly constructed ducts used only for that purpose. Supply air shall enter the~~

~~vestibule within 6 inches (152 mm) of the floor level. The top of the exhaust register shall be located at the top of the smoke trap but not more than 6 inches (152 mm) down from the top of the trap, and shall be entirely within the smoke trap area. Doors in the open position shall not obstruct duct openings. Duct openings with controlling dampers are permitted where necessary to meet the design requirements, but dampers are not otherwise required.~~

~~**909.20.4.2.1 Engineered ventilation system.** Where a specially engineered system is used, the system shall exhaust a quantity of air equal to not less than 90 air changes per hour from any vestibule in the emergency operation mode and shall be sized to handle three vestibules simultaneously. Smoke detectors shall be located at the floor side entrance to each vestibule and shall activate the system for the affected vestibule. Smoke detectors shall be installed in accordance with Section 907.10.~~

~~**909.20.4.3 Smoke trap.** The vestibule ceiling shall be at least 20 inches (508 mm) higher than the door opening into the vestibule to serve as a smoke and heat trap and to provide an upward moving air column. The height shall not be decreased unless approved and justified by design and test.~~

~~**909.20.4.4 Stair shaft air movement system.** The stair shaft shall be provided with a dampered relief opening and supplied with sufficient air to maintain a minimum positive pressure of 0.10 inch of water (25 Pa) in the shaft relative to the vestibule with all doors closed.~~

~~**909.20.5 Stair pressurization alternative.** Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the vestibule is not required, provided that interior exit stairways are pressurized to a minimum of 0.15 inch of water (37 Pa) and a maximum of 0.35 inch of water (87 Pa) in the shaft relative to the building measured with all stairway doors closed under maximum anticipated stack pressures.~~

~~**909.20.6**~~***909.20.5*** **Ventilating equipment.** The activation of ventilating equipment required *by* ~~the alternatives in~~ Sections 909.20.~~4~~ *3* ~~and 909.20.5~~ shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure *and upon activation of the automatic controls required by Section 909.12.3.* When the closing device for the stair shaft and vestibule doors is activated by smoke detection or power failure, the mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.10.

~~**909.20.6.1**~~***909.20.5.1*** **Ventilation systems.** Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both.
3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both.

Exceptions:

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.

~~**909.20.6.2**~~***909.20.5.2*** **Standby power.** Mechanical vestibule and stair shaft ventilation systems and automatic fire detection systems shall be powered by an approved standby power system conforming to Section 403.4.7 and Chapter 27.

~~909.20.6.~~*3909.20.5.3* **Acceptance and testing.** Before the mechanical equipment is approved, the system shall be tested in the presence of the building official to confirm that the system is operating in compliance with these requirements.

[F] 910.1 General. Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an approved automatic sprinkler system.
2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, automatic smoke and heat vents shall not be required within these areas. *This exception shall not apply to any state institution or other state-owned or state-occupied buildings or other applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal.*

[F] 910.2.2 High-piled combustible storage. Buildings and portions thereof containing high-piled combustible stock or rack storage in any occupancy group in accordance with Section 413 and the ~~*International*~~ *California Fire Code*.

[F] 910.3.1 Design. Smoke and heat vents shall be listed and labeled to indicate compliance with *FM 4430, ICC ES AC 331, or* UL 793.

[F] 911.1 General. Where required by other sections of this code and in all buildings classified as high-rise buildings by this code *and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access,*, a fire command center for fire department operations shall be provided and shall comply with Sections 911.1.1 through 911.1.5.

[F] 911.1.5 Required features. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking *stairway* doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, *means of egress*, fire protection systems, fire-fighting equipment and fire department access and the location of fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions.
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. Elevator fire recall switch in accordance with ASME A17.1.
17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.

~~*16.*~~ *[SFM] Fire command centers shall not be used for the housing of any boiler, heating unit, generator, combustible storage, or similar hazardous equipment or storage.*

[F] 912.3 Access. Immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other fixed or moveable object. Access to fire department connections shall be approved by the fire chief.

Exceptions:

1. Fences, where provided with an access gate equipped with a sign complying with the legend requirements of Section 912.4 and a means of emergency operation. The gate and the means of emergency operation shall be approved by the fire chief and maintained operational at all times.

~~***Exception:***~~ *2. When acceptable to the fire authority having jurisdiction, fire department connections for Group I-3 detention facilities may be located inside all security walls or fences on the property.*

[F] 912.5 Backflow protection. The potable water supply to automatic sprinkler and standpipe systems shall be protected against backflow as required by the *Health and Safety Code 13114.7* ~~*International Plumbing Code.*~~

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2, Public Education Code 17074.50
References: Health and Safety Code Sections 13143, 13211, 18949.2

[11. The SFM proposes to adopt Chapter 10 with the following amendments and California regulations.]

CHAPTER 10
MEANS OF EGRESS

1002.1 Definitions

~~***PHOTOLUMINESCENT*** *is the property of emitting light as the result of absorption of visible light, which continues for a length time after excitation.*~~

~~***SELF-LUMINOUS*** *means powered continuously by a self-contained power source other than a battery or batteries, such as radioactive tritium gas. A self-luminous sign is independent of external power supplies or other energy for its operation.*~~

1003.2 Ceiling height. The means of egress shall have a ceiling height of not less than 7 feet 6 inches (2286 mm).

Exceptions:

1. Sloped ceilings in accordance with Section 1208.2.
2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
3. Allowable projections in accordance with Section 1003.3.
4. Stair headroom in accordance with Section 1009.3.
5. Door height in accordance with Section 1008.1.1.
6. Ramp headroom in accordance with Section 1010.5.2.
7. The clear height of floor levels in vehicular and pedestrian traffic areas in parking garages in accordance with Section 406.2.2.
8. Areas above and below mezzanine floors in accordance with Section 505.1.

~~*5.*~~ *9. In Group I-2, I-2.1 and I-3 occupancies,* ~~*corridors and exit passageways*~~ *the means of egress shall have a ceiling height of not less than 8 feet (2439mm).*

1003.3.3.1 Horizontal projections for Group I-2 occupancies. *Structural elements, fixtures or furnishings shall not project horizontally from either side more than 1-1/2 inches (38 mm) into the required width of an exit access corridor serving any area caring for one or more nonambulatory or bedridden persons.*

Exceptions:

1. Handrails are permitted to protrude ~~*3.5*~~*31/2 inches (89 mm) from the wall.*
2. Alcohol-based hand-rub dispensers are permitted to protrude 4 inches.

3. Manual fire alarm boxes with a protective cover installed are permitted to protrude 4 inches.

~~**TABLE 1005.1 EGRESS WIDTH PER OCCUPANT SERVED**~~

~~**OCCUPANCY**~~	~~**WITHOUT SPRINKLER SYSTEM**~~		~~**WITH SPRINKLER SYSTEM a**~~	
	~~**Stairways (inches per occupant)**~~	~~**Other egress components (inches per occupant)**~~	~~**Stairways (inches per occupant)**~~	~~**Other egress components (inches per occupant)**~~
~~Hazardous: H-1, H-2, H-3 and H-4~~	~~*NA*~~	~~*NA*~~	~~0.7~~	~~0.4~~

~~*b. See Section 1025*~~

1005.1 Minimum required egress width. The means of egress width shall not be less than required by this section. 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 0.3 inches (7.62 mm) per occupant for stairways and by 0.2 inches (5.08 mm) per occupant for other egress components. The width shall not be less than specified elsewhere in this code. Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity to less than 50 percent of the required capacity. The maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.

Exceptions:

1. Means of egress complying with Section 1028.

2. 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 for stairways and by 0.4 inches (5.08 mm) per occupant for other egress components.

1005.3 Door hardware encroachment. *In other than Group I-2 occupancies,* ~~S~~surface-mounted latch release hardware shall be exempt from inclusion in the 7-inch (178 mm) maximum projection requirement of Section 1005.2 when:

1. The hardware is mounted to the side of the door facing the corridor width when the door is in the open position; and
2. The hardware is mounted not less than 34 inches (865 mm) or more than 48 inches (1220 mm) above the finished floor.

1006.1 Illumination required. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

Exceptions:

1. Occupancies in Group U.
2. Aisle access ways in Group A.
3. Dwelling units and sleeping units in Groups R-1, R-2 and R-3.
4. Sleeping units of Group I*, R-2.1 and R-4* occupancies~~ *and Group R-4*~~.

1008.1.4.4 Access-controlled egress doors. The entrance doors in a means of egress in buildings with an occupancy in Group A, B, ~~E,~~ I-2, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in Groups A, B, ~~E,~~ I-2, M, R-1 and R-2, ~~*that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and an approved automatic smoke detection system installed in accordance with Section 907,*~~ are permitted to be equipped with an approved entrance and egress access control system which shall be installed in accordance with all of the following criteria:

1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to that part of the access control system which locks the doors shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016

mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.

4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. Entrance doors in buildings with an occupancy in Group A, B, ~~E~~ *I-2* or M shall not be secured from the egress side during periods that the building is open to the general public.

1008.1.4.6 Access-controlled elevator lobby egress doors. *When approved by the fire chief, the entrance doors within an elevator lobby in a means of egress of highrise buildings serving offices that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and an approved automatic smoke detection system installed in accordance with Section 907, are permitted to be equipped with an approved entrance and egress access control system which shall be installed in accordance with all of the following criteria:*

1. Locks for the elevator lobby shall be U.L. and California State Fire Marshal listed fail-safe type locking mechanisms. The locking device shall automatically release on activation of any fire alarm device on the floor of alarm (waterflow, smoke detector, manual pull station, etc.) All locking devices shall unlock, but not unlatch, upon activation.

2. A two-way voice communication system, utilizing dedicated lines, shall be provided from each locked elevator lobby to the 24-hour staffed location on site, annunciated as to location. Operating instructions shall be posted above each two-way communication device.

3. Provide an approved momentary mushroom-shaped palm button connected to the doors and installed adjacent to each locked elevator lobby exit door which will release the door locks when operated by an individual in the elevator lobby. The locks shall be reset manually at the door. Mount palm button so that center line is 48 inches above finish door.

Provide a sign stating:

*"*IN CASE OF EMERGENCY, PUSH PALM BUTTON. DOOR WILL UNLOCK AND SECURITY ALARM WILL SOUND.*"*

The sign lettering shall be ¾-inch high letters by 1/8-inch width stroke on a contrasting background.

4. Loss of power to that part of the access control system which locks the doors shall automatically unlock the doors.

1008.1.9.6 ~~**Special locking arrangements in Group I-2.** Approved delayed egress locks shall be permitted in a Group I-2 occupancy where the clinical needs of persons receiving care require such locking. Delayed egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.~~

~~1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.~~

~~2. The doors unlock upon loss of power controlling the lock or lock mechanism.~~

~~3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or other approved location.~~

~~4. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.~~

~~5. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.~~

~~6. Emergency lighting shall be provided at the door.~~

~~**Exception:** Items 1 through 3 shall not apply to doors to areas where persons, because of clinical needs, require restraint or containment as part of the function of a mental hospital.~~

Reserved.

1008.1.9.9 ~~**Locking arrangements in correctional facilities.** In occupancies in Groups A-2, A-3, A-4, B, E, F, I-2, I-3, M and S within correctional and detention facilities, doors in means of egress serving rooms or spaces occupied by persons whose movements are controlled for security reasons shall be permitted to be locked when equipped with egress control devices which shall unlock manually and by at least one of the following means:~~

~~1. Activation of an automatic sprinkler system installed in accordance with Section 903.3.1.1,~~
~~2. Activation of an approved manual alarm box, or~~
~~3. A signal from a constantly attended location.~~
Reserved.

1009.4.2 Riser height and tread depth. Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the leading edges of adjacent treads. Rectangular tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. Winder treads shall have a minimum tread depth of 11 inches (279 mm) measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254 mm) within the clear width of the stair.

Exceptions:
1. Alternating tread devices in accordance with Section 1009.10.
2. Ship ladders in accordance with Section 1009.11.
3. Spiral stairways in accordance with Section 1009.9.
4. Aisle stairs in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1028.11.2.
5. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; the maximum riser height shall be 73/4 inches (197 mm); the minimum tread depth shall be 10 inches (254 mm); the minimum winder tread depth at the walkline shall be 10 inches (254 mm); and the minimum winder tread depth shall be 6 inches (152 mm).A nosing not less than 3/4 inch (19.1 mm) but not more than 11/4 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).
6. See Section 3404.1 for the replacement of existing stairways.
7. In Group I-3 facilities, stairways providing access to guard towers, observation stations and control rooms, not more than 250 square feet (23 m2) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).
8. *[SFM] Stairways providing access to Lifeguard towers not open to the public, not more than 250 square feet (23 m2) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).*

1011.1 Where required. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet (30 480 mm) or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.

Exceptions:
1. Exit signs are not required in rooms or areas that require only one exit or exit access.
2. Main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the building official.
3. Exit signs are not required in occupancies in Group U and individual sleeping units or dwelling units in Group R-1, R-2, ~~or~~ R-3 *or R-3.1*.
4. Exit signs are not required ~~in dayrooms, sleeping rooms or dormitories~~ *where inmates are housed, or held* in occupancies in Group I-3.
5. In occupancies in Groups A-4 and A-5, exit signs are not required on the seating side of vomitories or openings into seating areas where exit signs are provided in the concourse that are readily apparent from the

vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.

1011.3 Tactile exit signs. ~~A tactile sign stating EXIT and complying with ICC A117.1 shall be provided adjacent to each door to an area of refuge, an exterior area for assisted rescue, an exit stairway, an exit ramp, an exit passageway and the exit discharge.~~ *For the purposes of Section 1011.3, the term "tactile exit signs" shall mean those required signs that comply with Section 1117B.5.1 Item 1. Tactile exit signs shall be required at the following locations:*

*1. Each grade-level exterior exit door shall be identified by a tactile exit sign with the word, "*EXIT*".*
2. Each exit door that leads directly to a grade-level exterior exit by means of a stairway or ramp shall be identified by a tactile exit sign with the following words as appropriate:
*A. "*EXIT STAIR DOWN*"*
*B. "*EXIT RAMP DOWN*"*
*C. "*EXIT STAIR UP*"*
*D. "*EXIT RAMP UP*"*
3. Each exit door that leads directly to a grade-level exterior exit by means of an exit enclosure that does not utilize a stair or ramp, or an exit passageway shall be identified by a tactile exit sign with the words, "EXIT ROUTE".
4. Each exit access door from an interior room or area that is required to have a visual exit sign, shall be identified by a tactile exit sign with the words, "EXIT ROUTE".
5. Each exit door through a horizontal exit shall be identified by a tactile exit sign with the words, 'TO EXIT'.

1011.6 Floor-level exit signs. *Where exit signs are required by Chapter 10, additional approved low-level exit signs which are internally or externally illuminated photoluminescent or self-luminous, shall be provided in all interior corridors of Group A, E, I and R-2.1 occupancies and in all interior rated exit corridors serving guest rooms of hotels in Group R, Division 1 occupancies.*

Exceptions:
1. Group A occupancies that are protected throughout by an approved supervised fire sprinkler system.
2. Group E Occupancies where direct exits have been provided from each classroom.
~~2.~~3. Group I and R-2.1 occupancies which are provided with smoke barriers constructed in accordance with Section 407.4
~~3.~~4. Group ~~I, Division 3~~ I-3 occupancies.

The bottom of the sign shall not be less than 6 inches (152 mm) or more than 8 inches (203 mm) above the floor level and shall indicate the path of exit travel. For exit and exit-access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign or marker within 4 inches (102 mm) of the door frame.

Note: *Pursuant to Health and Safety Code Section 13143, this California amendment applies to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.*

1012.8 Projections. On ramps, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of stairways and ramps at each handrail shall not exceed 4.5 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1009.2.

In Group I-2 occupancy ramps required for exit access shall not be less than 8 ft in width and handrails are permitted to protrude 31/2 inches from the wall on both sides. ~~on~~ ~~r~~Ramps used as exits and stairways used for the movement of bed and litter patients, the clear width between handrails shall be 44 inches (1118 mm) minimum.

1013.3 Opening limitations. Required guards shall not have openings which allow passage of a sphere 4 inches (102 mm) in diameter from the walking surface to the required guard height.

Exceptions:

1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), guards shall not have openings which allow passage of a sphere 43/8 inches (111 mm) in diameter.
2. The triangular openings at the open sides of a stair, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches (152 mm) in diameter.
3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall not have openings which allow passage of a sphere 21 inches (533 mm)in diameter.
4. In areas that are not open to the public within occupancies in Group I-3, F, H or S, and for alternating tread devices and ship ladders, guards shall not have openings which allow passage of a sphere 21 inches (533 mm) in diameter.
5. In assembly seating areas, guards at the end of aisles where they terminate at a fascia of boxes, balconies and galleries shall not have openings which allow passage of a sphere 4 inches in diameter (102 mm) up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, guards shall not have openings which allow passage of a sphere 8 inches (203 mm) in diameter.
6. Within individual dwelling units and sleeping units in Group R-2 and R-3 occupancies, guards on the open sides of stairs shall not have openings which allow passage of a sphere 43/8 (111 mm)inches in diameter.
7. *Lifeguard towers not open to the public, guards shall not have openings which allow passage of a sphere 21 inches (533 mm) in diameter.*

1014.2.2 Group I-2. Habitable rooms or suites in Group I-2 occupancies shall have an exit access door leading directly to a corridor.

Exceptions: Rooms with exit doors opening directly to the outside at ground level.

~~*Each suite of rooms shall be separated from the remainder of the building by not less than a one-hour fire barrier.*~~

~~*Egress for portions of the building outside the suite shall not require passage through the suite.*~~

1014.2.2.1 Basement exits. *All rooms below grade shall have not less than one exit access that leads directly to an exterior exit door opening directly to an exit discharge at grade plane or the public way.*

1014.2.7 Separation. Suites in Group I-2 occupancies shall be separated from other portions of the building by ~~a smoke partition~~ *not less than a one-hour fire barrier* complying with Section ~~711~~*707*. ~~*Each suite of rooms shall be separated from the remainder of the building by not less than a one-hour fire barrier.*~~

1014.3 Common path of egress travel. In occupancies other than Groups H-1, H-2 and H-3, the common path of egress travel shall not exceed 75 feet (22 860 mm). In Group H-1, H-2 and H-3 occupancies, the common path of egress travel shall not exceed 25 feet (7620 mm). For common path of egress travel in Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8.

Exceptions:
1. The length of a common path of egress travel in Group B, F and S occupancies shall not be more than 100 feet (30 480 mm), provided that the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Where a tenant space in Group B, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet (30 480 mm).
3. The length of a common path of egress travel in a Group I-3 occupancy shall not be more than 100 feet (30 480 mm).
4. The length of a common path of egress travel in a Group R-2 occupancy shall not be more than 125 feet (38 100 mm), provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
5. *Suites in a Group I-2 occupancy constructed in accordance with 1014.2.3 or 1014.2.4.*

TABLE 1015.1
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

OCCUPANCY	MAXIMUM OCCUPANT LOAD

A, B, E[a], F, M, U	49
H-1, H-2, H-3	3
H-4, H-5, ~~I-1,~~ *I-2.1,* I-3, I-4, R	10
S	29
L	*See Section 443.6.1*

a. Day care maximum occupant load is 10.

TABLE 1016.1
EXIT ACCESS TRAVEL DISTANCE[a]

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)
A, E, F-1, ~~I-1,~~ M, R, S-1	200	250[b]
B	200	300[c]
F-2, S-2, U	300	400[c]
H-1	Not Permitted	75[c]
H-2	Not Permitted	100[c]
H-3	Not Permitted	150[c]
H-4	Not Permitted	175[c]
H-5	Not Permitted	200[c]
I-2, *I-2.1,* I-3[d], I-4	150	200[c]
L	*Not Permitted*	*200[c]*

For SI: 1 foot = 304.8 mm.
a. See the following sections for modifications to exit access travel distance requirements:
Section 402.4: For the distance limitation in malls.
Section 404.9: For the distance limitation through an atrium space.
Section 407.4: For the distance limitation in Group I-2.
Sections 408.6.1 and 408.8.1: For the distance limitations in Group I-3.
Section 411.4:For the distance limitation in Special Amusement Buildings.
Section 1014.2.2:For the distance limitation in Group I-2 Hospital Suites.
Section 1015.4: For the distance limitation in refrigeration machinery rooms.
Section 1015.5:For the distance limitation in refrigerated rooms and spaces.
Section 1021.2: For buildings with one exit.
Section 1028.7: For increased limitation in assembly seating.
Section 1028.7: For increased limitation for assembly open-air seating.
Section 3103.4: For temporary structures.
Section 3104.9: For pedestrian walkways.
b. 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 in accordance with Section 903.3.1.2 are permitted.
c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1
d. Not permitted in non-sprinklered Group I-3 Occupancies.

1018.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1018.1. The corridor walls required to be fire-resistance rated shall comply with Section 709 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 at least one door opening directly to the exterior and rooms for assembly purposes have at least 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 or sleeping unit in an occupancy in Group 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 which is a space requiring only a single means of egress complying with Section 1015.1.
5. *A fire-resistance rating is not required for corridors within suites in a Group I-2 occupancy provided with an automatic sprinkler system throughout and constructed in accordance with 1014.2.3 or 1014.2.4.*

TABLE 1018.1 CORRIDOR FIRE-RESISTANCE RATING

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system[c]
H-1, H-2, H-3*, L*	All	Not Permitted	1
H-4, H-5 *, L*	Greater than 30	Not Permitted	1
A[d], B, ~~E,~~ F, M, S, U	Greater than 30	1	0
R-*1, R-2, R-3, R-3.1, R-4*	Greater than 10	Not Permitted	~~0.5~~ *1*
I-2[a], *I-2.1*, I-4	~~All~~ *Greater than 6*	Not Permitted	~~0~~ *1*
~~I-1,~~ I-3*, R-2.1*	~~All~~ *Greater than 6*	Not Permitted	1[b]
E	*Greater than 10*	*1*	*1*

a. For requirements for occupancies in Group I-2, see Section 407.2 and 407.3.
b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
d. [SFM] See Section ~~1025~~ 1028.

1018.2 Corridor width. The minimum corridor width shall be as determined in Section 1005.1, but not less than 44 inches (1118 mm).

Exceptions:
1. Twenty-four inches (610 mm)—For access to and utilization of electrical, mechanical or plumbing systems or equipment.
2. Thirty-six inches (914 mm)—With a required occupant capacity of less than 50.
3. Thirty-six inches (914 mm)—Within a dwelling unit.
4. Seventy-two inches (1829 mm)—In Group E with a corridor having a required capacity of 100 or more.
5. Seventy-two inches (1829 mm)—In corridors and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be not capable of self-preservation.
6. Ninety-six inches (2438 mm)—In Group I-2 *and I-3 occupancies* in areas where required for bed movement *or corridors in Group I-2 and I-3 occupancies serving any area caring for one or more nonambulatory persons*.

1018.4 Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet (6096 mm) in length.

Exceptions:
1. In occupancies in Group I-3 of Occupancy Condition 2, 3 or 4 (see Section 308.4), the dead end in a corridor shall not exceed 50 feet (15 240 mm).
2. In occupancies in Groups B, E, F, ~~I-1,~~ M, R-1, R-2, *R-2.1,* R-4, 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.

1021.2 Single exits. ~~Only one exit shall be required from Group R-3 occupancy buildings or from stories of other buildings as indicated in Table 1021.2.~~ Occupancies shall be permitted to have a single exit in buildings otherwise required to have more than one exit if the areas served by the single exit do not exceed the limitations of Table

1021.2. Mixed occupancies shall be permitted to be served by single exits provided each individual occupancy complies with the applicable requirements of Table 1021.2 for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. Basements with a single exit shall not be located more than one story below grade plane.

1022.1 Enclosures required. Interior exit stairways and interior exit ramps shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Exit 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 exit enclosure shall include any basements but not any mezzanines. Exit enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours. Exit enclosures shall lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1023, except as permitted in Section 1027.1. An exit enclosure shall not be used for any purpose other than means of egress.

Exceptions:

1. In all occupancies, other than Group H, ~~and~~ I *and R-2.1*occupancies, a stairway is not required to be enclosed when the stairway serves an occupant load of less than 10 and the stairway complies with either Item 1.1 or 1.2. In all cases, the maximum number of connecting open stories shall not exceed two.

   1.1. The stairway is open to not more than one story above its level of exit discharge; or
   1.2. The stairway is open to not more than one story below its level of exit discharge.

2. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside need not be enclosed.
3. Stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
4. Stairways in open parking structures that serve only the parking structure are not required to be enclosed.
5. Stairways in Group I-3 occupancies, as provided for in Section ~~*408.3.6.1*~~ *408.3.8.1* are not required to be enclosed.
6. Means of egress stairways as required by Sections 410.5.3 and 1015.6.1 are not required to be enclosed.
7. Means of egress stairways from balconies, galleries or press boxes as provided for in Section 1028.5.1 are not required to be enclosed.
8. *Fixed guideway transit stations, constructed in accordance with Section 433.*

1022.8 Floor identification signs. A sign shall be provided at each floor landing in exit enclosures connecting more than three stories designating the floor level, the terminus of the top and bottom of the exit enclosure and the identification of the stair or ramp. The signage shall also state the story of, and the direction to, the exit discharge and the availability of roof access from the enclosure for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. ~~Floor level identification signs in tactile characters complying with ICC A117.1 shall be located at each floor level landing adjacent to the door leading from the enclosure into the corridor to identify the floor level.~~

~~1020.1.6.2 Tactile floor designation signs in stairways.~~ *~~When accessibility is required, t~~Tactile floor ~~designation~~ identification signs that comply with 1117B.5.1 Item 1 shall be located at the landing of each floor level, placed adjacent to the door on the latch side, in all enclosed stairways in buildings two or more stories in height to identify the floor level. At the exit discharge level, the sign shall include a raised five pointed star located to the left of the identifying floor level. The outside diameter of the star shall be the same as the height of the raised characters.*

~~1020.1.6.1 - Sign details.~~ *~~The provisions of this section shall apply to signs required by Section 1020.1.6~~*
~~1020.1.6.1.1 Size.~~ *~~Signs shall be a minimum 12 inches (305mm) by 12 inches (305mm).~~*
~~1020.1.6.1.2 Stairway location.~~ *~~The stairway location, such as~~* ~~STAIR NO. 1 *or* WEST STAIR~~*~~, shall be placed at the top of the sign in 1-inch high (25 mm) block lettering with ¼ inch (6 mm) strokes.~~*
~~1020.1.6.1.4 Floor level numbering.~~ *~~The floor level number shall be placed in the middle of the sign in 5-inch-high (127mm) lettering with ¾ inch (19mm) strokes. The mezzanine levels shall have the letter "M" preceding the floor level. Basement levels shall have the letter "B" preceding the floor number.~~*

1022.8.1 Signage requirements. Stairway identification signs shall comply with all of the following requirements:

1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).
2. The letters designating the identification of the stair enclosure*, such as* STAIR NO. 1 *or* WEST STAIR*, shall be placed at the top of the sign and* shall be a minimum of 11/2 inches (38 mm) in height *block lettering with ¼-inch (6-mm) strokes.*
3. The number designating the floor level shall be a minimum of 5 inches (127 mm) in height *with ¾-inch (19mm) strokes* and located in the center of the sign. *The mezzanine levels shall have the letter "M" preceding the floor level. basement levels shall have the letter "B" preceding the floor number.*
4. All other lettering and numbers shall be a minimum of 1 inch (25 mm) in height.

~~***1020.1.6.1.3 Upper terminus.***~~ *5. The stairway's upper terminus, such as* ROOF ACCESS *or* NO ROOF ACCESS*, shall be placed under the stairway identification in 1-inch-high (25 mm) block lettering with ¼-inch (6 mm) strokes.*

~~***1020.1.6.1.5 Lower terminus.***~~ *6. The lower and upper terminus of the stairway shall be placed at the bottom of the sign in 1-inch-high (25 mm) block lettering with ¼-inch (6 mm) strokes.*

~~5.~~*7.* Characters and their background shall have a nonglare finish. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

~~6.~~*8.* When signs required by Section 1022.8 are installed in interior exit enclosures of buildings subject to Section 1024, the signs shall be made of the same materials as required by Section 1024.4.

1026.2 Use in a means of egress. Exterior exit stairways shall not be used as an element of a required means of egress for Group I-2 occupancies. For occupancies in other than Group I-2, exterior exit ramps and stairways shall be permitted as an element of a required means of egress for buildings not exceeding six stories above grade plane or *buildings defined as a high-rise or Group I-2 occupancies* having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

1028.2 Assembly main exit. Group A occupancies and assembly occupancies accessory to Group E occupancies that have an occupant load of greater than 300 shall be provided with a main exit. The main exit shall be of sufficient width to accommodate not less than one-half of the occupant load, but such width shall not be less than the total required width of all means of egress leading to the exit. Where the building is classified as a Group A occupancy, the main exit shall front on at least one street or an unoccupied space of not less than ~~10 feet (3048 mm)~~ *20 feet (6096 mm)* in width that adjoins a street or public way.

Exceptions:

1. In assembly occupancies where there is no well-defined main exit or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that the total width of egress is not less than 100 percent of the required width. *At least one exit shall discharge on a street or an unoccupied space of not less than 20 feet (6096 mm) in width that adjoins a street or public way.*

~~*Group A occupancies that have an occupant load greater than 300 shall be provided with at least 0.20 inch (5.1 mm) total exit width for each occupant served.*~~

~~***Exception:***~~*2. Smoke-protected seating complying with Section* ~~*1025.6.2*~~ *1028.6.2*

1028.3 Assembly other exits. In addition to having access to a main exit, each level in Group A occupancies or assembly occupancies accessory to Group E occupancies having an occupant load greater than 300, shall be provided with additional means of egress that shall provide an egress capacity for at least one-half of the total occupant load served by that level and comply with Section 1015.2. *At least one-half of the additional means of egress required by this section shall be directly to an exit, or through a lobby, that is not used to access the main exit, to an exit, or to a one hour rated corridor to an exit.*

Exceptions:

1. In assembly occupancies where there is no well-defined main exit or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building, provided that the total width of egress is not less than 100 percent of the required width. *At least one exit shall discharge on a street or an unoccupied space of not less than 20 feet (6096 mm) in width that adjoins a street or public way.*

~~*Group A occupancies that have an occupant load greater than 300 shall be provided with at least 0.20 inch (5.1*~~

~~*mm) total exit width for each occupant served.*~~

~~***Exception:***~~*2. Smoke-protected seating complying with Section ~~1025.6.2~~ 1028.6.2*

~~***1025.3.1***~~ ***1028.3.1 Occupant loads less than 300.*** *Group A occupancies or assembly occupancies accessory to Group E occupancies that have an occupant load of 100 or more and less than 300, shall have at least one of the required means of egress directly to an exit, or through a lobby, that is not used to access the other required exit, to an exit, or to a one hour rated corridor to an exit or continuous through a one hour rated lobby to an exit. At least one exit shall discharge on a street or an unoccupied space of not less than 20 feet (6096 mm) in width that adjoins a street or public way.*

1028.6.1 Without smoke protection. The clear width of the means of egress shall provide sufficient capacity in accordance with all of the following, as applicable:

1. At least 0.3 inch (7.6 mm) of width for each occupant served shall be provided on stairs having riser heights 7 inches (178 mm) or less and tread depths 11 inches (279 mm) or greater, measured horizontally between tread nosings.
2. At least 0.005 inch (0.127 mm) of additional stair width for each occupant shall be provided for each 0.10 inch (2.5mm)of riser height above 7 inches (178 mm).
3. Where egress requires stair descent, at least 0.075 inch (1.9 mm) of additional width for each occupant shall be provided on those portions of stair width having no handrail within a horizontal distance of 30 inches (762 mm).
4. Ramped means of egress, where slopes are steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.22 inch (5.6 mm) of clear width for each occupant served. Level or ramped means of egress, here slopes are not steeper than one unit vertical in 12 units horizontal (8-percent slope), shall have at least 0.20 inch (5.1 mm) of clear width for each occupant served.
5. ~~*Group A occupancies that have an occupant load greater than 300 shall be provided with at least 0.20 inch (5.1 mm) total exit width for each occupant served.*~~

1028.10 Clear width of aisle accessways serving seating. Where seating rows have 14 or fewer seats, the minimum clear aisle accessway width shall not be less than 12 inches (305 mm) measured as the clear horizontal distance from the back of the row ahead and the nearest projection of the row behind. Where chairs have automatic or self-rising seats, the measurement shall be made with seats in the raised position. Where any chair in the row does not have an automatic or self-rising seat, the measurements shall be made with the seat in the down position. For seats with folding tablet arms, row spacing shall be determined with the tablet arm in the used position.

~~***Exception :*** *When tablet arm chairs are used, the minimum clear width of 12 inches (305 mm)between rows may be measured with tablet arms in the stored position only where all tablet arms are raised manually in one motion to a vertical position and fall to the stored position by force of gravity.*~~

Exception: For seats with folding tablet arms, row spacing is permitted to be determined with the tablet arm in the stored position where the tablet arm when raised manually to vertical position in one motion automatically returns to the stored position by force of gravity.

1029.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group R ~~and I-1~~ occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency egress 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 other than Group R-3 occupancies, buildings~~ *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~~ or 903.3.1.2~~.
2. ~~In other than Group R-3 occupancies, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to two remote exits in opposite directions.~~
~~3~~*2*. The emergency escape and rescue opening is permitted to open onto a balcony within an atrium in

accordance with the requirements of Section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.

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

~~54~~. High-rise buildings in accordance with Section 403.

~~65~~. 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~~ *provides access* to a public way.

~~76~~. Basements without habitable spaces and having no more than 200 square feet (18.6 m^2) in floor area shall not be required to have emergency escape windows.

Notation:
Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

[12. The SFM proposes to not adopt Chapters 11.]
(Note: This chapter will not be printed in the California Building Code.)

~~CHAPTER 11~~
~~ACCESSIBILITY~~

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[13. The SFM proposes to adopt specific Sections of Chapter 11A with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 11A
HOUSING ACCESSIBILITY

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[14. The SFM proposes to adopt specific Sections of Chapter 11B with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 11B
ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLICLY FUNDED HOUSING

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[15. The SFM proposes to adopt specific Sections of Chapter 12 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 12
INTERIOR ENVIRONMENT

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[16. The SFM proposes to not adopt Chapter 13.]

CHAPTER 13
ENERGY EFFICIENCY

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[17. The SFM proposes to adopt specific Sections of Chapter 14 without amendment, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 14
EXTERIOR WALLS

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[18. The SFM proposes to adopt specific Sections of Chapter 15 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 15
ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72, 1569.78, 11159.2, 13108, 13131.5, 13133, 13143, 13108.5(a), 13210, 13211, 18949.2, Government Code Section 51189.
References: Health and Safety Code Sections 13143, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204.

[19. The SFM proposes to not adopt Chapters 16 through 20.]

CHAPTER 16
STRUCTURAL DESIGN

CHAPTER 17
STRUCTURAL TESTS AND SPECIAL INSPECTIONS

CHAPTER 18
SOILS AND FOUNDATIONS

CHAPTER 19
CONCRETE

CHAPTER 20
ALUMINUM

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[20. The SFM proposes to adopt specific Sections of Chapter 21 without amendment, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 21
MASONRY

Notation:
Authority: Health and Safety Code Sections 13108, 13108.5, 13132.7, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189
References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through

4204

[21. The SFM proposes to adopt specific Sections of Chapter 21A without amendment, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 21*A*
MASONRY

Notation:
Authority: Health and Safety Code Sections 13108, 13108.5, 13132.7, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189
References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

[22. The SFM proposes to not adopt Chapter 22.]

CHAPTER 22
STEEL

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[23. The SFM proposes to adopt specific Sections of Chapter 23 without amendment, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 23
WOOD

Notation:
Authority: Health and Safety Code Sections 13108, 13108.5, 13132.7, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189
References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

[24. The SFM proposes to adopt Chapter 24 without amendment.]

CHAPTER 24

GLASS AND GLAZING

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[25. The SFM proposes to not adopt Chapter 25.]

CHAPTER 25
GYPSUM BOARD AND PLASTER

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[26. The SFM proposes to adopt Chapter 26 without amendment.]

CHAPTER 26
PLASTIC

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[27. The SFM proposes to adopt Chapter 27 with the following amendments and California regulations.]

CHAPTER 27
ELECTRICAL

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

[28. The SFM proposes to adopt Chapter 28 with the following amendments and California regulations.]

CHAPTER 28

MECHANICAL SYSTEMS

Notation:
Authority: Health and Safety Code Sections 13108, 13108.5, 13132.7, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189
References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

[29. The SFM proposes to not adopt Chapter 29.]

CHAPTER 29
PLUMBING SYSTEMS

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[30. The SFM proposes to adopt Chapter 30 with the following amendments and California regulations.]

CHAPTER 30
ELEVATORS AND CONVEYING SYSTEMS

3001.5 Elevators utilized to transport hazardous materials*. Elevators utilized to transport hazardous materials shall also comply with the California Fire Code Section 2703.10.4.*

The following California sections replace the corresponding model code section for applications specified in section ~~111~~1.11 for the Office of the State Fire Marshal.

***3002.4a General* Stretcher Requirements.** *All buildings and structures with one or more passenger service elevators shall be provided with not less than one medical emergency service elevator to all landings meeting the provisions of Section 3002.4a.*

Exceptions:
1. *Elevators in structures used only by maintenance and operating personnel.*
2. *Elevators in jails and penal institutions.*
3. *Elevators in buildings or structures where each landing is at ground level or is accessible at grade level or by a ramp.*
4. *Elevator(s) in two-story buildings or structures equipped with stairs of a configuration that will accommodate the carrying of the gurney or stretcher as permitted by the local jurisdictional authority.*
5. *Elevators in buildings or structures less than four stories in height for which the local jurisdictional authority has granted an exception in the form of a written document.*

3002.4.1a Gurney size. *The medical emergency service elevator shall accommodate the loading and transport of an ambulance gurney or stretcher [maximum size 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners] in the horizontal position.*

3002.4.2a Hoistway doors. *The hoistway landing openings shall be provided with power-operated doors.*

3002.4.3a Elevator entrance openings and car size. *The elevator car shall be of such a size and arrangement to accommodate a 24-inch by 84-inch (610 mm by 2134 mm) ambulance gurney or stretcher with not less than 5-inch (127 mm) radius corners, in the horizontal, open position, shall be provided with a minimum clear distance between walls or between walls and door excluding return panels not less than 80 inches by 54 inches (2032 mm by 1372 mm), and a minimum distance from wall to return panel not less than 51 inches (1295 mm) with a 42-inch (1067mm) side slide door.*

> ***Exception:*** *The elevator car dimensions and/or the clear entrance opening dimensions may be altered where it can be demonstrated to the local jurisdictional authority's satisfaction that the proposed configuration will handle the designated gurney or stretcher with equivalent ease. Documentation from the local authority shall be provided to the Occupational Safety and Health Standards Board.*

3004.1 Vents required. Hoistways of elevators and dumbwaiters penetrating more than three stories shall be provided with a means for venting smoke and hot gases to the outer air in case of fire.

Exceptions:

1. In occupancies of other than Groups R-1, R-2, ~~I-1~~*R-2.1*, I-2 and similar occupancies with overnight sleeping units, venting of hoistways is not required where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Sidewalk elevator hoistways are not required to be vented.
3. Elevators contained within and serving open parking garages only.
4. Elevators within individual residential dwelling units.

3004.3.1 Reduced vent area. Where mechanical ventilation conforming to the ~~*International*~~ *California Mechanical Code* is provided, a reduction in the required vent area is allowed provided that all of the following conditions are met:

1. The occupancy is not in Group R-1, R-2, ~~I-1~~*R-2.1* or I-2 or of a similar occupancy with overnight sleeping quarters.
2. The vents required by Section 3004.2 do not have outside exposure.
3. The hoistway does not extend to the top of the building.
4. The hoistway and machine room exhaust fan is automatically reactivated by thermostatic means.
5. Equivalent venting of the hoistway is accomplished.

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[31. The SFM proposes to adopt specific Sections of Chapter 31 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 31
SPECIAL CONSTRUCTION

3102.3.1 Membrane and interior liner material. Membranes and interior liners shall be either noncombustible as set forth in Section 703.4 or meet the fire propagation performance criteria of NFPA 701 and the manufacturer's test protocol. *All fabrics and all interior decorative fabrics or materials shall be flame resistant in accordance with appropriate standards set forth in CCR, Title 19, Division 1, Chapter 8. Tops and sidewalls shall be made either from fabric which has been flame resistant treated with an approved exterior chemical process by an approved application*

concern, or from inherently flame resistant fabric approved and listed by the State Fire Marshal (see CCR, Title 19, Division 1, Chapter 8).

Exception: Plastic less than 20 mil (0.5 mm)in thickness used in greenhouses, where occupancy by the general public is not authorized, and for aquaculture pond covers is not required to meet the fire propagation performance criteria of NFPA 701.

3105.4 Canopy materials. Canopies shall be constructed of a rigid framework with an approved covering that meets the fire propagation performance criteria of NFPA 701 or has a flame spread index not greater than 25 when tested in accordance with ASTM E 84 or UL 723. *All fabrics and all interior decorative fabrics or materials shall be flame resistant in accordance with appropriate standards set forth in CCR, Title 19, Division 1, Chapter 8. Tops and sidewalls shall be made either from fabric which has been flame resistant treated with an approved exterior chemical process by an approved application concern, or from inherently flame resistant fabric approved and listed by the State Fire Marshal (see CCR, Title 19, Division 1, Chapter 8).*

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[32. The SFM proposes to relocate 3101E.1, 3104E.5 and 3109E to the Title 24, Part 9 California Fire Code and repeal the remaining provisions of Chapter 31E.]

~~CHAPTER 31E~~
~~TENTS AND MEMBRANE STRUCTURES [SFM]~~

[Relocated 3101E.1 to Chapter 24 of the fire code]
~~SECTION 3101E GENERAL PROVISIONS~~

~~3101E.1~~ *~~These building standards govern the use of tents, awnings or other fabric enclosures, including membrane (air-supported and air-inflated) structures and places of assemblage, in or under which 10 or more persons may gather for any lawful purpose.~~*

~~Exceptions:~~
~~1. Tents, awnings or other fabric enclosures used to cover or enclose private swimming pools and similar facilities on the premises of private one- and two-family dwellings.~~
~~2. Tents used to conduct committal services on the ground of a cemetery.~~
~~3. Tents, awnings or other fabric enclosures erected and used within a sound stage, or other similar structural enclosure which is equipped with an overhead automatic sprinkler system.~~
~~4. Tensioned membrane roof materials supported by rigid frames or installed on a mast and cable system provided such structures conform to the requirements of one of the types of construction as described in these regulations.~~
~~5. Fabric structures which are part of mobile homes, recreational vehicles, or commercial coaches governed by the provisions of Division 13, Part 2, Health and Safety Code (Department of Housing and Community Development).~~

~~SECTION 3102E DEFINITIONS~~

~~3102E.1~~ *~~For the purpose of this chapter, certain terms are defined as follows:~~*

~~AIR-INFLATED STRUCTURE.~~ *~~Refer to Chapter 31.~~*

~~AIR-SUPPORTEDSTRUCTURE.~~ *~~Refer to Chapter 31.~~*

~~***CABLE STRUCTURE.*** *Refer to Chapter 31.*~~

~~***CPAI-8*** *is a specification for flame-resistant materials used in camping tent age, promulgated in 1975 by Canvas Products Association International.*~~

~~***FLAME RETARDANTOR FLAME RESISTANT*** *is fabric or material resistant to flame or fire to the extent that it will successfully withstand standard flame-resistance tests adopted and promulgated by the state fire marshal.*~~

~~***FRAME-COVEREDSTRUCTURE.*** *Refer to Chapter 31.*~~

~~***MEMBRANE.*** *Refer to Chapter 31.*~~

~~***NONCOMBUSTIBLE MEMBRANE STRUCTURE.*** *Refer to Chapter 31.*~~

~~***OCCUPANT LOAD*** *shall be as set forth in Chapter 10.*~~

~~***PLACES OF ASSEMBLAGE*** *is any circus, side show, carnival, tent show, theater, skating rink, dance hall or any other exhibition, production, engagement or offering, or other place of assemblage in or under which 10 or more persons may gather for any lawful purpose.*~~

~~***TENT*** *is a shelter, structure or enclosure made of fabric or similar pliable material which derives its support from mechanical means such as poles, ropes, cables, stakes or similar devices.*~~

~~***Assemblage Tent*** *is a tent used or intended for use as a place of assemblage.*~~
~~***Large Tent*** *is a tent designed and intended for any use for occupancy by 10 or more persons.*~~
~~***Small Tent*** *is a tent designed and intended for any use for occupancy by less than 10 persons.*~~

~~***SECTION 3103E TENTS HAVING AN OCCUPANT LOAD OF 10 OR MORE***~~

~~***3103E.1****Tents having an occupant load of 10 or more persons shall conform to the provisions of this chapter.*~~

~~***SECTION 3104E LOCATION OF TENTS***~~

~~***3104E.1*** *Any tent or combination of tents having a floor area of 1,500 square feet (139 m2) or less shall be located not less than 10 feet (3048 mm) from any real property line or building. (See Sections 3104E.4 and 3104E.5 of this section.)*~~

~~***3104E.2*** *Any tent or combination of tents having a floor area in excess of 1,500 square feet (139 m2), but less than 15,000 square feet (1394 m2) shall be located not less than 30 feet (9144 mm) from any real property line or building. (See Sections 3104E.4 and 3104E.5 of this section.)*~~

~~***3104E.3*** *Any tent or combination of tents having a floor area in excess of 15,000 square feet (1394 m2) shall be located not less than 50 feet (15 240 mm) from any real property line or building. (See Sections 3104E.4 and 3104E.5 of this section.)*~~

~~***3104E.4*** *Tents shall be arranged to exit independently of each other. Such tents may, however, be joined together by means of corridors, and such corridors shall be open to the sky. On each side of such corridor and directly opposite each other, there shall be provided openings equivalent to the width of the corridor. These openings shall be equipped with sliding curtains or left entirely open and clear of any obstruction.*~~

[Relocated 3104E.5 to Chapter 24 of the fire code]
~~***3104E.5*** *When approved by the enforcing agency, tents may be located in or on permanent buildings provided such use does not constitute an undue hazard.*~~

~~***3104E.6*** *The enforcing agency may also approve the location of tents closer than that specified in this section if required passageways are provided and, in his or her opinion, adequate safety is afforded.*~~

~~***3104E.7*** *An unobstructed passageway not less than 6 feet (1829 mm) in width and free from guy ropes or other obstructions shall be maintained on all sides of all tents having an area of more than 1,500 square feet (139 m2), but less than 15,000 square feet (1394 m2). If the area of the tent exceeds 15,000 square feet (1394m2), or if the seating capacity exceeds 1,000 persons, the unobstructed passageway shall not be less than 10 feet (3048 mm) in clear width.*~~

~~***SECTION 3105E STRUCTURAL REQUIREMENTS***~~

~~***3105E.1****Tents shall be adequately guyed, supported and braced to withstand a wind pressure or suction of 10 pounds per square foot (0.48 kN/m2). The poles and their sporting guys, stays, stakes, fastenings, and similar supporting members or devices shall be of sufficient strength and attached so as to resist wind pressure of 20 pounds per square foot (0.96 kN/m2) of projected area of the tent. The enforcing authority may require certification of the provisions of this section from a structural, civil or other qualified registered engineer.*~~

~~***SECTION 3106E EXIT REQUIREMENTS***~~

~~***3106E.1*** *Except as provided in this section, the requirements of Chapter 10 shall prevail.*~~

~~***3106E.1 Spacing.*** *Exits shall be spaced at approximately equal intervals around the perimeter of the tent and shall be so located that no point is more than 100 feet (30 480 mm) from an exit.*~~

~~***3106E.2 Number and Width.*** *Exits shall be provided in accordance with Table 31E-A.*~~

~~***3106E.3 Passageways.*** *Smooth surfaced passageways free and clear of any steps or obstruction whatsoever and equal in width to the exits they serve shall be provided from all exits to a public way.*~~

~~***Exception:*** *Tents located in or on permanent buildings may have exits through such buildings provided the building exits are adequate to accommodate the occupant load.*~~

~~***3106E.4 Obstructions.*** *Exits, aisles and passageways shall not be blocked or have their minimum clear width obstructed in any manner by ticket offices, turnstiles, concessions, chairs, equipment, animal chutes, poles or guy ropes, or anything whatsoever, nor shall they be blocked by persons for whom no seats are available.*~~

~~*In occupancies having fixed seating, and on request of the owner or manager, the enforcing agency may permit modifications from the provisions of this code to accommodate seating for handicapped persons using mechanical aids such as, but not limited to, walkers and wheelchairs.*~~

~~***3106E.5 Exit Signs.*** *Exits signs shall be installed in accordance with Chapter 10.*~~

~~***SECTION 3107E HEATING EQUIPMENT***~~

~~***3107E.1*** *All heating equipment installed in tents shall be approved for such use by the enforcing authority. Only comfort heating equipment shall be permitted.*~~

~~***3107E.2*** *All gas-, solid- or liquid-fuel-fired comfort heating equipment shall be vented to the outside air by means of a flue or vent approved for use with the type of equipment used and in such a manner that no portion of the tent is within 12 inches (305mm) of the flue or vent. Vents for solid-fuel-fired heating equipment shall be equipped with spark arresters having openings no larger than 1/4-inch (6.4 mm) wire mesh.*~~

~~***Exception:*** *Approved heaters designed for use without vents may be used in approved locations where otherwise permitted.*~~

~~***3107E.3*** *Comfort heating equipment shall be rigidly supported to prevent overturning and shall be provided with guards to protect against ignition of clothing and other combustible material.*~~

~~***3107E.4*** *Comfort heating equipment shall not be located within 10 feet (3048 mm) of exits, aisles or passageways.*~~

~~***3107E.5*** *All other gas-, solid- or liquid-fuel-fired appliances, including, but not limited to, forges, kitchen ranges and stoves, and water heaters, shall be located not less than 50 feet (15 240 mm) from any tent used as a place of public assemblage.*~~

~~***SECTION 3108E MEMBRANE (AIR-SUPPORTEDAND AIR-INFLATED) STRUCTURES***~~

~~***3108E.1*** *Except as provided in this chapter, membrane structures having an occupant load of 10 or more shall comply with the provisions of Chapter 31.*~~

[Relocated 3109E to Chapter 24 of the fire code]
~~***SECTION 3109E ALTERNATE MEANS OF PROTECTION***~~

~~***3109E.1*** *When approved by the enforcing agency, exceptions to the provisions of these building standards may be permitted, provided alternate means of protection which are at least equal to these regulations in quality, strength, effectiveness, fire resistance, durability and safety are provided.*~~

~~***3109E.2*** *Tents used in labor camps for the housing of employees shall have tight wooden floors raised at least 4 inches (102 mm) above ground level having baseboards on all sides to a height of at least 6 inches (152 mm) or shall have concrete slabs with finished surface at least 4 inches (102mm) above grade having baseboards on all sides to a height of at least 6 inches (152 mm).*~~

~~*Electrical installations serving and installed within tents shall comply with the applicable requirements of the California Electrical Code.*~~

~~*Tents shall not be considered suitable sleeping places when it is found necessary to provide heating facilities in order to maintain a minimum temperature of 60_F (33.3_C) within such tent during the period of occupancy.*~~

~~***Note:*** *See Section 17008 of the Health and Safety Code for definition of .labor camp..*~~

~~***TABLE 31E-A – NUMBER AND WIDTH OF EXITS***~~

~~*CAPACITY OF TENT*~~	~~*MINIMUM NUMBER OF EXITS*~~	~~*WIDTH OF EACH EXIT (feet)*~~	~~*TOTAL OF ALL EXITS (feet)*~~
~~*20 to 49*~~	~~*2*~~	~~*3 (914 mm)*~~	~~*6(1829 mm)*~~
~~*50 to 299*~~	~~*2*~~	~~*4 (1219 mm)*~~	~~*8(2438 mm)*~~
~~*300 to 599*~~	~~*3*~~	~~*5(1524 mm)*~~	~~*15(4572 mm)*~~
~~*600 to 999*~~	~~*4*~~	~~*6(1829 mm)*~~	~~*24(7315 mm)*~~
~~*1000 to 1999*~~	~~*5*~~	~~*8(2438 mm)*~~	~~*40(12 192mm)*~~
~~*2000 or more*~~	~~*6*~~	~~*(1additional foot for each 50 persons)*~~	

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[33. The SFM proposes to adopt Chapter 32 without amendment.]

CHAPTER 32
ENCROACHMENT INTO PUBLIC RIGHT-OF-WAY

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[34. The SFM proposes to adopt Chapter 33 with the following amendments and California regulations.]

CHAPTER 33
SAFEGUARDS DURING CONSTRUCTION

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[35. The SFM proposes to adopt specific Sections of Chapter 34 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

CHAPTER 34
EXISTING STRUCTURES

3401.3 Compliance. Alterations, repairs, additions and changes of occupancy to existing structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy in the ~~*International*~~ *California Fire Code,* ~~*International Fuel Gas Code, International*~~ *California Mechanical Code,* ~~*International*~~ *California Plumbing Code,* ~~*International Property Maintenance Code, International Private Sewage Disposal Code*~~, ~~*International*~~ *California Residential Code* and ~~NFPA 70~~ *California Electrical Code*.

~~3411.3~~3413.3 Stair Construction. *All stairs shall have a minimum run of 9 inches (229 mm) and a maximum rise of 8 inches (203 mm) and a ~~maximum~~ minimum width exclusive of handrails of 30 inches (762 mm). Every stairway shall have at least one handrail. A landing having a minimum horizontal dimension of 30 inches (762 mm) shall be provided at each point of access to the stairway.*

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[36. The SFM proposes to adopt Chapter 35 with the following amendments and California regulations.]

CHAPTER 35
REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the

section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Sections *1.1.5, 1.1.7 and* 102.4.

ASME

American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990

Standard reference number	Title	Referenced in code section number
BPE – 2009	*Bio-processing Equipment Standard*	

ASTM

ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

Standard reference number	Title	Referenced in code section number
E648–04	*Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source*	*804.4.1, 804.4.2*
E662–09	*Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials*	*804.4.1, 804.4.2*

FM

Factory Mutual
Standards Laboratories Department
1151 Boston-Providence Turnpike
Norwood, MA 02062

Standard reference number	Title	Referenced in code section number
3260–00	*Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling.*	
3011–99	*Approval Standard for Central Station Service for Fire Alarm and Protective Equipment Supervision*	
4430–80	*Acceptance Criteria for Smoke and Heat Vents*	*910.3.1*

ICC

International Code Council, Inc.
500 New Jersey Ave, NW 6th Floor
Washington, DC 20001

Standard reference number	Title	Referenced in code section number

~~ICC/ANSI A117.1—03~~ ~~Accessible and Usable Buildings and Facilities . . . . . 406.2.2, 907.5.2.3.4, 1007.9, 1010.1, 1010.6.5, 1010.9, 1011.3, 1022.8, 1101.2, 1102.1, 1104.4, 1106.7, 1107.2, 1108.2.2, 1108.2.3, 1108.4.1.1, 1108.4.1.2, 1108.4.1.4, 1108.4.1.5, 1109.1, 1109.2, 1109.2.1.1, 1109.2.2, 1109.2.3, 1109.3, 1109.4, 1109.8, 1109.13, 2902.4, 3001.3, 3008.13.1, 3008.13.2, 3411.6, 3411.8.2, 3411.8.3, E101.2, E104.2, E104.2.1, E104.3, E104.3.4, E105.1, E105.2.1, E105.2.2, E105.3, E105.4, E105.6, E106.2, E106.3, E106.4, E106.4.9, E106.5, E107.2, E107.3, E108.3, E108.4, E109.2.1, E109.2.2.1, E109.2.2.2, E109.2.2.3, E109.2.3, E109.2.5, E109.2.6, E109.2.8, E110.2, E110.4~~

~~IECC—09~~ ~~International Energy Conservation Code® . . . . . 101.4.6, 1203.3.2, 1301.1.1~~

~~IFC—09~~ ~~International Fire Code®. . . . . 101.4.5, 102.6, 201.3, 307.1, Table 307.1(1), Table 307.1(2), 307.1.1, 307.2, 403.4.4, 404.2, 406.5.1, 406.6.1, 410.3.6, 411.1, 412.1, 412.6.1, 413.1, 414.1.1, 414.1.2, 414.1.2.1, 414.2, 414.2.5, Table 414.2.5(1), Table 414.2.5(2), 414.3, 414.5, 414.5.1, Table 414.5.1, 414.5.2, 414.5.4, 414.5.5, 414.6, 415.1, 415.2, 415.3, 415.3.1, Table 415.3.1, Table 415.3.2, 415.6, 415.6.1, 415.6.1.4, 415.6.2, 415.6.2.3, 415.6.2.5, 415.6.2.7, 415.6.2.8, 415.6.2.9, 415.6.3, 415.6.4, 415.7, 415.8.1, 415.8.2.7, 415.8.5.1, 415.8.7.2, 415.8.9.3, 415.8.10.1, 416.1, 421.1, 421.7, 507.3, 707.1, 901.2, 901.3, 901.5, 901.6.2, 903.2.7.1,Table 903.2.11.6, 903.2.12 903.5, 904.2.1, 905.1, 905.3.6, 906.1, 907.1.8, 907.2.5, 907.2.13.2, 907.2.15, 907.2.16, 907.6.5, 907.8, 909.20, 910.2.2, 1001.3, 1203.4.2, 1203.5, 2702.1, 2702.2.9, 2702.2.11, 2702.2.12, 2702.2.13, 2702.3, 3102.1, 3103.1, 3309.2, 3401.3, 3412.3.2, 3412.6.8.1, 3412.6.14, 3412.6.14.1~~

~~IFGC—09~~ ~~International Fuel Gas Code® . . . . . 101.4.1, 201.3, Table 307.1(1), 415.6.3, 2113.11.1.2, 2113.15, 2801.1, 3401.3, A101.2~~

~~IMC—09~~ ~~International Mechanical Code® . . . . . 101.4.2, 201.3, 307.1, Table 307.1(1), 406.4.2, 406.6.3, 406.6.5, 409.3, 412.6.6, 414.1.2, 414.3, 415.6.1.4, 415.6.2, 415.6.2.8, 415.6.3, 415.6.4, 415.8.11.1, 416.3, 421.5, 603.1, 603.1.1, 603.1.2, 708.2, 716.2.2, 716.5.4, 716.6.1, 716.6.2, 716.6.3, 717.5, 719.1, 719.7, 903.2.11.4, 904.2.1, 904.11, 908.6, 909.1, 909.10.2, 1015.5, 1018.5.1, 1203.1, 1203.2.1, 1203.4.2, 1203.4.2.1, 1203.5, 1209.3, 2304.5, 2801.1, 3004.3.1, 3401.3, 3412.6.7.1, 3412.6.8, 3412.6.8.1, A101.2~~

~~IPC—09~~ ~~International Plumbing Code®. . . . . 101.4.3, 201.3, 415.6.4, 717.5, 903.3.5, 912.5, 1206.3.3, 1503.4, 1805.4.3, 2901.1, Table 2902.1, 3305.1, 3401.3, A101.2~~

~~IPMC—09~~ ~~International Property Maintenance Code® .. . . . . 101.4.4, 102.6, 103.3, 3401.3, 3412.3.2~~

~~IPSDC—09~~ ~~International Private Sewage Disposal Code® . . . . . 101.4.3, 2901.1, 3401.3~~

~~IRC—09~~ ~~International Residential Code® . . . . . 101.2, 308.2, 308.5, 310.1, 2308.1, 3401.3~~

~~IWUIC—09~~ ~~International Wildland-Urban Interface Code™. . . . . Table 1505.1~~

ICC ES AC 331 *Acceptance Criteria for Smoke and Heat Vents……..……..910.3.1*

ICC ES AC77 *Acceptance Criteria for Smoke Containment Systems Used with Fire-resistance-rated Elevator Hoistway Doors and Frames……707.14.1*

Standard reference number	Title	Referenced in code section number
13—~~07~~*10*	Installation of Sprinkler Systems *as amended**	708.2, 903.3.1.1, 903.3.2, 903.3.5.1.1, 903.3.5.2, 904.11, 905.3.4, 907.6.3, 1613.6.3

NFPA 13, Amended Sections as follows:

Revise Section 2.2 and add publications as follows:

2.2 NFPA Publications.

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, ~~2008~~ 2006 California* edition.

Revise Section 8.15.1.2.15 as follows:

8.15.1.2.15 Exterior columns under 10 ft^2 (0.93m2) in *total* area, formed by studs or wood joist, *with no sources of ignition within the column,* supporting exterior canopies that are fully protected with a sprinkler system, shall not require sprinkler protection.

Revise Section 8.15.7.1 as follows:*

8.15.7.1* Unless the requirements of 8.15.7.2 ~~, 8.15.7.3, or 8.15.7.4~~ are met, sprinklers shall be installed under exterior roofs, canopies, porte- cochere, balconies, decks, or similar projections exceeding 4 ft (1.2 m) in width.

Revise Section 8.15.7.2 as follows:*

8.15.7.2* Sprinklers shall be permitted to be omitted where the canopies, roofs, ~~porte-cochere,~~ balconies, decks, or similar projections are constructed with materials that are noncombustible, limited-combustible, or fire retardant treated wood as defined in NFPA 703, *Standard for Fire Retardant–Treated Wood and Fire-Retardant Coatings for Building Materials*.

Delete Section A.8.15.7.2 of Annex

~~A.8.15.7.2 Vehicles that are temporarily parked are not considered storage. Areas located at drive-in bank windows or porte-cocheres at hotels and motels normally do not require sprinklers where there is no occupancy above, where the area is entirely constructed of noncombustible or limited-combustible materials or fire retardant treated lumber, and where the area is not the only means of egress. However, areas under exterior ceilings where the building is sprinklered should be protected due to the occupancy above.~~

Revise Section 8.15.7.3

8.15.7.3 Sprinklers shall be permitted to be omitted from below the canopies, roofs, ~~porte-cochere,~~ balconies, decks, or similar projections are combustible construction, provided the exposed finish material on the roof, *or* canopy~~, or porte-cochere~~ is noncombustible, limited-combustible, or fire retardant treated wood as defined in NFPA 703, *Standard for Fire Retardant–Treated Wood and Fire-Retardant Coatings for Building Materials*, and the roofs, *or* canopis~~, or porte-cochere~~ contains only sprinklered concealed spaces or any of the following unsprinklered combustible concealed spaces:

(1) Combustible concealed spaces filled entirely with noncombustible insulation

(2) Light or ordinary hazard occupancies where noncombustible or limited-combustible ceilings are directly attached to the bottom of solid wood joists so as to create enclosed joist spaces 160 ft^3 (4.5 m^3) or less in volume, including space below insulation that is laid directly on top or within the ceiling joists in an otherwise sprinklered attic *[See 11.2.3.1.4(4)(d)].*

(3) Concealed spaces over isolated small roofs, or canopies~~, or porte-cocheres~~ not exceeding 55 ft^2 (5.1

Delete language to section 8.15.7.4 and reserve section number.

8.15.7.4 ~~Sprinklers shall be permitted to be omitted from exterior exit corridors when the exterior walls of the corridor are at least 50 percent open and when the corridor is entirely of noncombustible construction.~~ .

Revise Annex Section A.8.15.7.5 as follows:
A. 8.15.7.5 ~~Short-term transient storage, such as that for delivered packages, and~~ The presence of planters, newspaper machines and *similar items* ~~so forth~~, should not be considered storage ~~or handling of combustibles~~.

Add new Sections 8.16.1.1.1.4 and 8.16.1.1.1.5 as follows:
8.16.1.1.1.4 Where a system includes floor control valves, a hydraulic design information sign containing information for the floor shall be provided at each floor control valve. A hydraulic design information sign shall be provided for each area calculated. The installing contractor shall identify a hydraulically designed sprinkler system with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion resistant wire, chain, or other approved means. Such signs shall be placed at the alarm valve, dry pipe valve, preaction valve, or deluge valve supplying the corresponding hydraulically designed area.

8.16.1.1.1.5 Control valves, check valves, drain valves, antifreeze valves shall be readily accessible for inspection, testing, and maintenance. Valves located more than 7 feet above the finished floor shall be provided with a means of opening and closing the valve from the floor level.

Revise Section 8.16.1.5.1 as follows:
8.16.1.5.1 ~~Large p~~*P*rivate fire service main systems shall have sectional control~~ling~~ valves at appropriate points in order to permit sectionalizing the system in the event of a break or for the making of repairs or extensions.

Add new Sections 8.16.1.5.1.1, 8.16.1.5.1.2 and 8.16.1.5.1.3 as follows:
8.16.1.5.1.1 Sectional control valves are not required when the fire service main system serves less than six fire appurtenances.

8.16.1.5.1.2 Sectional control valves shall be indicating valves in accordance with Section 6.7.1.3.

8.16.1.5.1.3 Sectional control valves shall be located so that no more than five fire appurtenances are affected by shut-down of any single portion of the fire service main. Each fire hydrant, fire sprinkler system riser, and standpipe riser shall be considered a separate fire appurtenance. In-rack sprinkler systems shall not be considered as a separate appurtenance.

8.16.1.5.1.4 The number of fire appurtenances between sectional control valves is allowed to be modified by the authority having jurisdiction.

Revise Section 8.16.1.5.2 as follows:
8.16.1.5.2 A valve shall be provided on each bank where a main crosses a *body of* water ~~and~~ *or* outside the building foundation(s) where the main or section of main runs under a building.

Add new Section 9.1.3.9.1.1 as follows:
9.1.3.9.1.1 Powder-driven studs used for attaching hangers to the building structure are prohibited in Seismic design Categories C, D, E and F

Add a new sentence to the beginning of Section 9.3.5.8.9 as follows:
9.3.5.8.11 *Where threaded pipe is used for sway bracing, it shall have a wall thickness of not less then Schedule 40.*

Replace Section 9.3.5.9.4 as follows:
Lag screws or power-driven fasteners shall not be used to attach braces to the building structure.

Add language to the beginning of Section 9.3.5.9.6 as follows:
9.3.5.9.6 *Fastening methods other than those identified in 9.3.5.9 and 9.3.7.8* ~~The requirements of 9.3.5.9~~ shall not apply to other fastening methods, which shall be acceptable for use if certified by a registered professional engineer to support the loads determined in accordance with the criteria in 9.3.5.6. Calculations shall be submitted ~~where required by~~ *to* the authority having jurisdiction.

Revise Section 9.3.5.9.7.2 as follows:*
9.3.5.9.7.2* Concrete anchors other than those shown in Figure 9.3.5.9.1 *and identified in 9.3.5.8.10* shall be acceptable

for use where designed in accordance with the requirements of the building code and certified by a registered professional engineer.

Revise Section 9.3.6.1(3) as follows:

9.3.6.1(3) No. 12, 440 lb (200Kg) wire installed at least 45 degrees from the vertical plane and anchored on both sides of the pipe. Powder-driven fasteners for attaching restraint is allowed to be used provided that the restraint component does not support the dead load.*

Revise Section 10.6.5 as follows:

10.6.5 Pipe joints shall not be located under foundation footings. *The pipe under the building or building foundation shall not contain mechanical joints.*

Exceptions:

1.Where allowed in accordance with 10.6.2

2. Alternate designs may be utilized where designed by a registered professional engineer and approved by the enforcing agency.

Revise Section 11.2.3.1.4(4)(i) as follows:

11.2.3.1.4(4)(i) Exterior columns under 10 ft^2 (0.93m2) in *total* area, formed by studs or wood joist, *with no sources of ignition within the column,* supporting exterior canopies that are fully protected with a sprinkler system.

Revise Section 11.2.3.2.3.1 as follows:

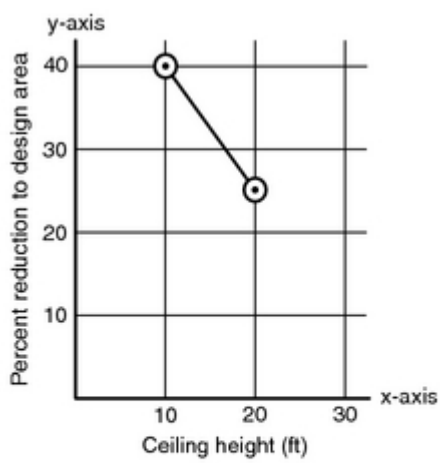
11.2.3.2.3.1 Where listed quick-response sprinklers, excluding ~~including~~ extended coverage quick-response sprinklers, are used throughout a system or portion of a system having the same hydraulic design basis, the system area of operation shall be permitted to be reduced without revising the density as indicated in Figure 11.2.3.2.3.1 when all of the following conditions are satisfied:

(1) Wet pipe system

(2) Light hazard ~~or ordinary hazard~~ occupancy

(3) 20 ft (6.1 m) maximum ceiling height

(4) There are no unprotected ceiling pockets as allowed by 8.6.7 and 8.8.7 exceeding 32 ft^2 (3 m^2)



Note: $y = \frac{-3x}{2} + 55$

For ceiling height ≥ 10 ft and ≤ 20 ft, $y = \frac{-3x}{2} + 55$

For ceiling height < 10 ft, $y = 40$

For ceiling height > 20, $y = 0$

For SI units, 1 ft = 0.31 m.

FIGURE 11.2.3.2.3.1 Design Area Reduction for Quick-Response Sprinklers.

Revise Section 11.2.3.2.3.2 as follows:

11.2.3.2.3.2 The number of sprinklers in the design area shall never be less than ~~five~~ *seven.*

Add Section 24.1(5)

24.1 Approval of Sprinkler Systems and Private Fire Service Mains.

The installing contractor shall do the following:

(1) Notify the authority having jurisdiction and the property owner or property owner's authorized representative of the time and date testing will be performed.

(2) Perform all required testing *(see Section 24.2)*

(3) Complete and sign the appropriate contractor's material and test certificate(s) *(see Figure 24.1)*

(4) Remove all caps and straps prior to placing the sprinkler system in service

(5) Upon system acceptance by the authority having jurisdiction a label prescribed by Title 19 California Code of Regulations, Chapter 5 shall be affixed to each system riser.

Revise Section 24.4(2) and Add Section 24.4(3) as follows:

24.4 Instructions.

The installing contractor shall provide the property owner or the property owner's authorized representative with the following:

(1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed

(2) NFPA 25, *Standard for the Inspection, testing, and maintenance of Water-Based Fire Protection Systems, 2006 California Edition*

(3) Title 19, California Code of Regulations, Chapter 5, "Fire Extinguishing Systems".

Add sentence at the end of Section 24.5.1 as follows:

24.5.1 *"Pipe schedule systems shall be provided with a sign indicating that the system was designed and installed as a pipe schedule system and the hazard classification(s) included in the design."*

Revise Section 24.5.2(3) and Add Sections 24.5.2(7) to (14) as follows:

24.5.2 The sign shall include the following information:

(3) Required flow and ~~residual~~ pressure ~~demand~~ of the system at the base of the riser

(7) Required flow and pressure of the system at the water supply source.

(8) Required flow and pressure of the system at the discharge side of the fire pump where a fire pump is installed.

(9) Type or types and number of sprinklers or nozzles installed including the orifice size, temperature rating, orientation, K-Factor, sprinkler identification number (SIN) for sprinkler heads when applicable, and response type.

(10) The minimum discharge flow rate and pressure required from the hydraulically most demanding sprinkler.

(11) The required pressure settings for pressure reducing valves.

(12) For deluge sprinkler systems, the required flow and pressure at the hydraulically most demanding sprinkler or nozzle.

(13) The protection area per sprinkler based on the hydraulic calculations

(14) The edition of NFPA 13 to which the system was designed and installed.

Revise Section 24.6.1 as follows:

24.6.1 *California Edition* NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*.

13D—~~07~~*10* Standard for the Installation of Sprinkler Systems in One-and Two-Family Dwellings and Manufactured Homes *as amended*……*.903.3.1.3, 903.3.5.1.1

NFPA 13D, Amended Sections as follows:

6.2* Water Supply Sources. *When the requirements of 6.2.2 are met,* ~~T~~*t*he following water supply sources shall be considered to be acceptable by this standard:

(1) A connection to a reliable waterworks system with or without an automatically operated pump

(2) An elevated tank
(3) A pressure tank designed to American Society of Mechanical Engineers (ASME) standards for a pressure vessel with a reliable pressure source
(4) A stored water source with an automatically operated pump
(5) A well with a pump of sufficient capacity and pressure to meet the sprinkler system demand. The stored water requirement of 6.1.2 or 6.1.3 shall be permitted to be a combination of the water in the well (including the refill rate) plus the water in the holding tank if such tank can supply the sprinkler system.

6.2.2 Where a *well,* pump, ~~and~~ tank *or combination thereof* is the source of supply for a fire sprinkler system, ~~but is not a portion of the domestic water system~~ *the water supply shall serve both domestic and fire sprinkler systems, and* the following shall be met:
(1) A test connection shall be provided downstream of the pump that creates a flow of water equal to the smallest sprinkler on the system. The connection shall return water to the tank.
~~(2) Pump motors using ac power shall be connected to a 240 V normal circuit.~~
~~(3)~~*(2)* Any disconnecting means for the pump shall be approved.
~~(4)~~*(3)* A method for refilling the tank shall be piped to the tank.
~~(5)~~*(4)* A method of seeing the water level in the tank shall be provided without having to open the tank.
~~(6)~~*(5)* The pump shall not be permitted to sit directly on the floor.

6.2.2.1 Where a fire sprinkler system is supplied by a stored water source with an automatically operated means of pressurizing the system other than an electric pump, the water supply may serve the sprinkler system only.

6.2.4 Where a water supply serves both domestic and fire sprinkler systems, 5 gpm (19 L/min) shall be added to the sprinkler system demand at the point where the systems are connected, to determine the size of common piping and the size of the total water supply requirements where no provision is made to prevent flow into the domestic water system upon operation of a sprinkler.

8.6.4* Sprinklers shall not be required in *detached* garages, open attached porches, carports *with no habitable space above*, and similar structures.

13R—~~07~~*10* Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height *as amended** 903.3.1.2, 903.3.5.1.1, 903.3.5.1.2, 903.4

NFPA 13R, Amended Sections as follows:

Revise Section 2.2 and add publications as follows:
2.2 NFPA Publications.
NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,* ~~*2008*~~ *2006 California* edition.

Add Section 6.3.5 as follows:
6.3.5 Instructions.
The installing contractor shall provide the property owner or the property owner's authorized representative with the following:
(1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed
(2) NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems 2006 California Edition and Title 19, California Code of Regulations, Chapter 5.
(3) Once the system is accepted by the authority having jurisdiction a label as prescribed by Title 19, California Code of Regulations, Chapter 5, shall be affixed to each system riser.

14—07 Installation of Standpipe and Hose System*, as amended**……905.2, 905.3.4, 905.4.2, 905.8

**NFPA 14, Amended Sections as follows:*

Replace Section 6.3.7.1

6.3.7.1 System water supply valves, isolation control valves, and other valves in fire mains shall be supervised in an approved manner in the open position by one of the following methods:
(1) Where a building has a fire alarm system or a sprinkler monitoring system installed, the valve shall be supervised by:
(a) a central station, proprietary, or remote supervising station, or
(b) a local signaling service that initiates an audible signal at a constantly attended location.
(2) Where a building does not have a fire alarm system or a sprinkler monitoring system installed, the valve shall be supervised by:
(a) Locking the valves in the open position, or
(b) Sealing of valves and a approved weekly recorded inspection where valves are located within fenced enclosures under the control of the owner.

15—01 *Water Spray Fixed Systems for Fire Protection*
22—03 *Water Tanks for Private Fire Protection*
24—~~07~~10 *Installation of Private Fire Service Mains and Their Appurtenances, as amended* ……..*

**NFPA 24, Amended Sections as follows:*

Amend Section 4.2.1
Section 4.2.1. Installation work shall be done by fully experienced and responsible *contractors. Contractors shall be appropriately licensed in the State of California to install private fire service mains and their appurtenances.*

Revise Section 4.2.2 as follows:
4.2.2 *Installation or modification of private fire service mains shall not begin until plans are approved and appropriate permits secured from* the authority having jurisdiction.

Add Section 4.2.2.1 as follows:
4.2.2.1 *As approved by the authority having jurisdiction, emergency repair of existing system may start immediately, with plans being submitted to the authority having jurisdiction within 96 hours from the start of the repair work.*

Revise Section 5.9.1.2 as follows:
Section 5.9.1.2 Fire department connections shall be properly supported *and protected from mechanical damage.*

Revise Section 5.9.5.1 as follows:
5.9.5.1 Fire department connections shall be on the street side of buildings and *as approved by the authority having jurisdiction.*

Revise Section 6..5.1 as follows:
6.5.1 ~~Large p~~*P*rivate fire service main systems shall have sectional control~~ling~~ valves at appropriate points in order to permit sectionalizing the system in the event of a break or for the making of repairs or extensions.

Add Section 6.5.2.1 – 6.5.2.3
6.5.2.1 Sectional control valves are not required when the fire service main system serves less than six fire appurtenances.

6.5.2.2 Sectional control valves shall be indicating valves in accordance with Section 6.7.1.3.

6.5.2.3 Sectional control valves shall be located so that no more than five fire appurtenances are affected by shut-down of any single portion of the fire service main. Each fire hydrant, fire sprinkler system riser, and standpipe riser shall be considered a separate fire appurtenance. In-rack sprinkler systems shall not be considered as a separate appurtenance.

6.5.2.4 The number of fire appurtenances between sectional control valves is allowed to be modified by the authority having jurisdiction.

Revise Section 6.6.2 as follows:
6.6.2 A sectional valve shall be provided at the following locations:
(1) On each bank where a main crosses *a body of* water
(2) Outside the building foundation(s) where a main or a section of a main runs under a building

Revise Section 10.6.5 as follows:
10.6.5 Pipe joints shall not be located under foundation footings. *The pipe under the building or building foundation shall not contain mechanical joints.*

Exceptions:
1.Where allowed in accordance with 10.6.2
2. Alternate designs may be utilized where designed by a registered professional engineer and approved by the enforcing agency.

Revise Section 10.9.1 as follows:
10.9.1 Backfill shall be well tamped in layers or puddle under and around pipes to prevent settlement or lateral movement. Backfill shall consist of clean fill sand or pea gravel to a minimum 6" below and to a minimum of 12" above the pipe *and shall contain no ashes, cinders, refuse, organic matter, or other corrosive materials. Other backfill materials and methods are permitted where designed by a registered professional engineer and approved by the enforcing agency.*

37~~—02~~06	*Installation and Use of Stationary Combustion Engines and Gas Turbines*
~~50—01~~	*~~Bulk Oxygen Systems at Consumer Sites~~*
52—06	*Compressed Natural Gas (CNG) Vehicular Fuel Systems Code*
54~~—05~~09	*National Fuel Gas Code*
~~57—02~~	*~~Liquefied Natural Gas (LNG) Vehicular Fuel Systems Code~~*
72~~—07~~10	National Fire Alarm Code*, as amended** …….....…… .901.6, 903.4.1, 904.3.5, 907.2, 907.2.5, 907.2.11, 907.2.13.2, 907.3, 907.3.3, 907.3.4, 907.5.2.1.2, 907.5.2.2, 907.6, 907.6.1, 907.6.5, 907.7, 907.7.1, 907.7.2, 911.1.5, 3006.5, 3007.6

**NFPA 72, Amended Sections as follows:*

~~4.4.4.3. Transient Protection. To reduce the possibility of damage by induced transients, circuits and equipment shall be property protected in accordance with the requirements of *California* Electrical Code, Article 800.~~

~~4.4.4.4. Wiring. The installation of all wiring, cable and equipment shall be in accordance with *California* Electrical Code, and specifically with Article 760, 770 and 800, where applicable. Optical fiber cables shall be protected against mechanical injury in accordance with Article 760.~~

~~4.4.5 Protection of Fire Alarm Systems~~
~~*Delete Exception No. 2:*~~
~~Exception No. 2: Fully sprinklered buildings shall not require protection in accordance with 4.4.5.~~

~~5.13.4 The operable part of each manual fire alarm box shall be not less than 1.1 m (3 1/2 ft) and not more than *1.22 m (4 ft)* above floor level.~~

~~5.13.8 Additional fire alarm boxes shall be provided so that the travel distance to the nearest fire alarm box shall not be in excess of 61m (200 ft) measured horizontally on the same floor.~~
~~*Exception: When individual dwelling units are served by a single exit stairway, additional boxes at other than the ground floor may be omitted.*~~

~~7.4.1.2. The total sound pressure level produced by combining the ambient sound pressure level with all audible notification appliances operation shall not exceed 120 *110* dBA anywhere in the occupied area.~~

~~7.4.3.1 Audible notification appliances intended for operation in the private mode shall have a sound level of not less than 45 dBA at 10 feet (3m) or more than *120 110* dBA at the minimum hearing distance from the audible appliance.~~

~~7.4.3.2.1. Audible notification appliances intended for operation in the public mode shall have a sound level of not less than 75 dBA at 3 m (10 ft) or more than 120 *110* dBA at the minimum hearing distance from the audible appliance.~~

10.3.1 Equipment constructed and installed in conformity with this Code shall be listed for the purpose for which it is used. *Fire alarm Systems and components shall be California State Fire Marshal approved and listed in accordance with California Code of Regulations, Title 19, Division 1.*

10.3.3 All devices and appliances that receive their power from the initiating device circuit or signaling line circuit of a control unit shall be *California State Fire Marshal* listed for use with the control unit.

10.6.1 *Where approved by the authority having jurisdiction*, ECS priority signals when evaluated by stakeholders through risk analysis in accordance with 24.4.2.2 shall be permitted to take precedence over all other signals.

14.4.7.1 Testing. Household fire alarm systems shall be tested ~~by a qualified service technician~~ in *accordance with the manufacturer's published instructions* ~~at least annually~~ according to the methods of Table 14.4.2.2.

~~5.14~~ 17.15 Fire Extinguisher Monitoring Device. A fire extinguisher monitoring device shall indicate those conditions for a specific fire extinguisher required by *California Code of Regulations, Title 19, Division 1, Chapter 1, Section 574.2 (c) and California Fire Code to a fire alarm control unit.* ~~*or other control unit*~~

~~6.4.2.2.2~~ 23.4.2.2 ~~Exception:~~ (4) Where the vertically run conductors are contained in a 2-hour rated cable assembly, or enclosed (installed) in a 2-hour rated enclosure or a listed circuit integrity (C.I.) cable, which meets or exceeds a 2-hour fire resistive rating.

~~6.8.5.1.2~~ 23.8.5.1.2 ~~*(Manual Fire Alarm Boxes)*~~ Where connected to a supervising station, fire alarm systems employing automatic fire detectors or waterflow detection devices shall include a manual fire alarm box to initiate a signal to the supervising station.

Exception: Fire alarm systems dedicated to elevator recall control, ~~and~~ supervisory service *and fire sprinkler monitoring* ~~*only*~~ ~~as permitted in Section 21.3~~.

~~6.8.5.4.1~~ 23.8.5.4.1 Systems equipped with alarm verification features shall be permitted under the following conditions:
(1) The alarm verification feature is not initially enabled unless conditions or occupant activities that are expected to cause nuisance alarms are anticipated in the area that is protected by the smoke detectors. Enabling of the alarm verification feature shall be protected by password or limited access.
(2) A smoke detector that is continuously subjected to a smoke concentration above alarm threshold does not delay the system functions of Sections ~~4.4.3, 6.8.1.1 or 6.16.2.1 10.6~~ 10.6 through 10.13, 23.8.1.1, or 21.2.1 by more than ~~1 minute~~. *30 seconds*.
(3) Actuation of an alarm-initiating device other than a smoke detector causes the system functions of 4.4.3, 6.8.1.1, or 6.16.2.1 without additional delay.
(4) The current status of the alarm verification feature is shown on the record of completion *(see Figure 4.5.2.1, item 10).*
(5) Operation of a patient room smoke detector in ~~*I-1 and*~~ *I-2 and R-2.1 Occupancies shall not include an alarm verification feature.*

29.3.1 All devices, combinations of devices, and equipment to be installed in conformity with this chapter shall be approved or listed *by the California State Fire Marshal* the for the purposes for which they are intended.

29.5.2.1.1* Smoke and Heat Alarms. Unless exempted by applicable laws, codes, or standards, smoke or heat alarms used to provide a fire-warning function, and when two or more alarms are installed within a dwelling unit, suite of rooms, or similar area, shall be arranged so that the operation of any smoke or heat alarm causes all alarms within these locations to sound.

~~*Exception: The arrangement for all alarms to sound shall not be required for mechanically powered single-station heat alarms.*~~

	~~11.7.2.1~~ 29.7.2.1 *The alarm verification feature shall not be used for household fire warning equipment.*
	~~11.7.5.7.1~~ *29.7.5.7.1 The alarm verification feature shall not be used for household fire warning equipment.*
92A—~~00~~09	*~~Recommended Practice for Smoke-Control Systems~~Standard for Smoke-Control Systems Utilizing Barriers and Pressure Differences*
170—06	*Standard for Fire Safety and Emergency Symbols……907.1.2*
2001 — 08	Clean Agent Fire Extinguishing Systems *as amended**. . . . . .Table 901.6.1, 904.10

**NFPA 2001, Amended Sections as follows:*

4.3.5.1.1 Alarms signals from the fire extinguishing system shall not interfere with the building fire alarm signal.

4.3.5.2.1. The lens on visual appliances shall be "red" in color.
Exception: Other lens colors are permitted where approved by the enforcing agency.

SFM

State of California
Department of Forestry and Fire Protection
Office of the State Fire Marshal
P.O. Box 944246
Sacramento, CA 94246-2460

Standard reference number	Title	Referenced in code section number
SFM 12-3	*Releasing Systems for Security Bars in Dwellings*	
SFM 12-7-3	*Fire-testing Furnaces*	
SFM 12-7A-1	*Exterior Wall Siding and Sheathing*	
SFM 12-7A-2	*Exterior Window*	
SFM 12-7A-3	*Under Eave*	
SFM 12-7A-4	*Decking*	
SFM 12-7A-4A	*Decking Alternate Method A*	
SFM 12-7A-5	*Ignition Resistant Building Material*	
SFM 12-8-100	*Room Fire Tests for Wall and Ceiling Materials*	
SFM 12-10-1	*Power Operated Exit Doors*	
SFM 12-10-2	*Single Point Latching or Locking Devices*	
SFM 12-10-3	*Emergency Exit and Panic Hardware*	

(The Office of the State Fire Marshal standards referred to above are found in the California Code of Regulations, Title 24, Part 12.)

UBC

International Code Council, Inc.
500 New Jersey Avenue, NW 6th Floor
Washington, DC 20001

Standard reference number	Title	Referenced in code section number

UBC Standard 15-2	*Test Standard for determining the Fire Retardancy of Roof-covering Materials……1505.6*
UBC Standard 15-3	*Wood Shakes…… 1505.6*
UBC Standard 15-4	*Wood Shingles…… 1505.6*

UL

Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096

Standard Reference number	Title	Referenced in code section number
13-96	*Power-limited Circuit Cables*	
38-99	*Manually Actuated Signaling Boxes—with Revisions through February 2, 2005 as amended.**	
	**Amend Section 14.1.5 as follows:* *14.1.5 A signaling box having a glass panel, disc, rod or similar part that must be broken to operate it for a signal or for access to its actuating means shall satisfactorily complete five part-breaking operations using the means provided with the box, without jamming of the mechanism or other interference by broken particles. It shall be practicable to remove and replace the broken parts. A signaling box shall not have a glass panel, disc, rod or similar part requiring a striking action by grasping a tool to operate it for a signal. The force required to activate controls shall be no greater than 5 pounds (22 N) of force.* **Add Appendix B chapter to UL 38 (1999) as follows:* *Appendix B,* *14.1.5 Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.*	
193-04	*Alarm Valves for Fire-Protection Service*	
199-95	*Automatic Sprinklers for Fire Protection Service—with Revisions through August 19, 2005*	
217-06	Single and Multiple Station Smoke Alarms……	907.2.11
	~~*Amend Section 34.2.1 as follows:*~~ ~~*Each single-and multiple-station smoke-alarm may be provided with an automatically resettable alarm silencing means that has a fixed or variable time setting which silences the smoke alarm for a maximum of 15 minutes. Alarm silencing shall not disable the smoke alarm. It may reduce the sensitivity to no more than 4 percent obscuration (0.0177 O.D. per foot). Each device shall operate a distinctive audible trouble signal while in the silence mode. This may be done with a short beep similar to the low-battery signal or by visible indication. Following the silenced period, the alarm shall restore automatically to its intended operation. Silencing of one alarm of a multiple-station system shall not prevent an alarm operation from the other alarms in the system. See 34.2.1 and 34.2.2.*~~	
228-97	*Door Closers/Holders, with or without Integral Smoke Detectors—with Revisions through January 26, 2006*	
260-04	*Dry Pipe and Deluge Valves for Fire Protection Service*	
262-04	*Gate Valves for Fire Protection Service*	
268A-98	*Smoke Detectors for Duct Application—with Revisions through October 22, 2003*	
312-04	*Check Valves for Fire-Protection Service*	
346-05	*Waterflow Indicators for Fire Protective Signaling Systems*	
464-03	*Audible Signal Appliances—with Revisions through October 10, 2003*	
497B-04	*Protectors for Data Communication and Fire Alarm Circuits*	
521-99	*Heat Detectors for Fire Protective Signaling Systems—with Revisions through July 20, 2005*	
539-00	*Single- and Multiple-Station Heat Detectors—with Revisions through August 15, 2005*	
632-00	*Electrically Actuated Transmitters*	
753-04	*Alarm Accessories for Automatic Water Supply Valves for Fire Protection Service*	
813-96	*Commercial Audio Equipment—with Revisions through December 7, 1999*	

864-03 *Control Units for Fire Protective Signaling Systems, as amended*—with Revisions through July 14, 2005 . . . . . 909.12*

**Amend No. 55.1 as follows:*

RETARD-RESET-RESTART PERIOD – MAXIMUM 30 SECONDS —No alarm obtained from control unit. Maximum permissible time is 30 seconds.

**Amend Section 55.2.2 as follows:*

Where an alarm verification feature is provided, the maximum retard-reset-restart period before an alarm signal can be confirmed

and indicated at the control unit, including any control unit reset time and the power-up time for the detector to become operational

for alarm, shall not exceed 30 seconds. (The balance of the section text is to remain unchanged).

*Add Section 55.2.9 as follows:

Smoke detectors connected to an alarm verification feature shall not be used as releasing devices.

Exception: Smoke detectors which operate their releasing function immediately upon alarm actuation independent of alarm verification feature.

**Amend Section 89.1.10 as follows:*

The existing text of this section is to remain as printed with one editorial amendment as follows:

THE TOTAL DELAY (CONTROL UNIT PLUS SMOKE DETECTORS) SHALL NOT EXCEED 30 SECONDS.

(The balance of the section text is to remain unchanged).

Notation:

Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

[37. The SFM proposes to not adopt Appendix A and B.]

APPENDIX A
EMPLOYEE QUALIFICATIONS

APPENDIX B
BOARD OF APPEALS

Notation:

Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

[38. The SFM proposes to adopt Appendix C without amendment.]

APPENDIX C
GROUP U – AGRICULTURAL BUILDINGS

Notation:

Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[39. The SFM proposes to not adopt Appendices D through H.]

APPENDIX D
FIRE DISTRICTS

APPENDIX E
SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS

APPENDIX F
RODENT PROOFING

APPENDIX G
FLOOD RESISTANT CONSTRUCTION

APPENDIX H
SIGNS

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[40. The SFM proposes to adopt specific Sections of Appendix I without amendment, adopt only those Sections listed the corresponding Matrix Adoption Table.]

APPENDIX I
PATIO COVERS

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[41. The SFM proposes to not adopt Appendix J.]

APPENDIX J
EXCAVATION AND GRADING

Notation:
Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2
References: Health and Safety Code Sections 13143, 18949.2

[42. The SFM proposes to bring forward previously existing California building standards or amendments, which represent no change in their effect from the 2007 California Building Standards Code. Furthermore, the SFM proposes to codify non-substantive editorial and formatting amendments from the format based upon the 2006 International Building Code to the format of the 2009 International Building Code.]

CHAPTER 2
DEFINITIONS

Section 201

201.3 Terms defined in other codes. Where terms are not defined in this Code and are defined in the ~~*International Fuel Gas Code,*~~ ~~*International*~~ *California Fire Code*, ~~*International*~~ *California Mechanical Code* or ~~*International*~~ *California Plumbing Code,* such terms shall have the meanings ascribed to them as in those codes.

201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

For applications listed in Section ~~111~~1.11regulated by the Office of the State Fire Marshal, where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies. Webster's Third New International Dictionary of the English Language, Unabridged, shall be considered as providing ordinarily accepted meanings.

Section 202

AGED HOME OR INSTITUTION *See Section 310.2.*

BEDRIDDEN PERSON *See Section 310.2.*

BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy.

Note: *Building shall have the same meaning as defined in Health and Safety Code Section 17920 and 18908 for the applications specified in Section ~~111~~1.11.*

CARE AND SUPERVISION *See Section 310.2.* .

CATASTROPHICALLY INJURED *See Section 310.2.* .

CHILD-CARE CENTER. *See Section 310.2.*

CELL (masonry). See Section ~~*308.4.6 and*~~ 2102.1.

CHILD OR CHILDREN *See Section 310.2.*

CHRONICALLY ILL *See Section 310.2.* .

CONGREGATE LIVING HEALTH FACILITY (CLHF) *See Section 310.2.*

CONGREGATE RESIDENCE. *See Section 310.2.*

DAYCARE *See Section 310.2.*

DAY-CARE HOME, LARGE FAMILY *See Section 310.2.*

DAY-CARE HOME, SMALL FAMILY *See Section 310.2.*

DORMITORY. See Section ~~*308.4.6 and*~~ 310.2 *and 408.1.1*

ELECTRIC VEHICLE *See Section 406.7.*

ENFORCING AGENCY. *Enforcing Agency is the designated department or agency as specified by statute or regulation.*

FIRE-RETARDANT TREATED WOOD. [SFM] *See Section 2303.2*

FULL-TIME CARE *See Section 310*

HAZARDOUS SUBSTANCE. [SFM] *Hazardous Substance is a substance which, by reason of being explosive, flammable, toxic, poisonous, corrosive, oxidizing, irritant or otherwise harmful, is likely to cause injury.*

INFANT *See Section 310.2.*

LABORATORY. [SFM] *A room, building or area where the use and storage of hazardous materials are utilized for testing, analysis, instruction, research or developmental activities.*

LABORATORY SUITE. [SFM] *See Section 443.2*

LISTED. Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

For applications listed in Section ~~111~~1.11 regulated by the Office of the State Fire Marshal, "listed" shall also mean equipment or materials accepted by the state fire marshal as conforming to the provisions of the State Fire Marshal's regulations and which are included in a list published by the State Fire Marshal.

LOBBY [SFM] *Lobby is an area not defined as a waiting room at the entrance of a building through which persons must pass.*

MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY. *See Section 310.2.*

MODERNIZATION PROJECT. [SFM] *Modernization Project is any construction effort that has an estimated total cost in excess of $200,000.00 that is in- tended to modify a permanent school building or structure and or the addition of a new school building or structure used to serve or house students from kindergarten through twelfth grade (K-12). Modernization efforts shall apply strictly to a public school that was established prior to July 1, 2002, and is funded pursuant to the Education Code, Section 17074.56, and Education Code commencing with Section 17070.10. Modernization projects that are to be completed in more than one phase may defer the installation of the automatic fire detection and alarm systems until the final phase of the modernization project. Solely for the purposes of Education Code Section 17074.20, routine maintenance and repair work shall not be considered a modernization project.*

MOTION PICTURE AND TELEVISION PRODUCTION STUDIO SOUND STAGES, APPROVED PRODUCTION FACILITIES AND PRODUCTION LOCATIONS. *See Chapter 46, California Fire Code.*

NEW PUBLIC SCHOOL CAMPUS. [SFM] *New public school campus is an educational institution established on or after July 1, 2002 that houses and or serves students from kindergarten through twelfth grade (K-12) and is funded pursuant to the Education Code, commencing with Section 17070.10.*

NONAMBULATORY PERSONS. *See Section 310.2.*

NONCOMBUSTIBLE. [SFM] *Noncombustible as applied to building construction material means a material which, in the form in which it is used, is either one of the following:*

1. *Material of which no part will ignite and burn when subjected to fire. Any material passing ASTM E 136 shall be considered noncombustible.*
2. *Material having a structural base of noncombustible material as defined in Item 1 above, with a surfacing material not over $^{1}/_{8}$ inch (3.2 mm) thick which has a flame-spread index of 50 or less.*

"Noncombustible" does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances or other sources of high temperature shall refer to material conforming to Item 1. No material shall be classed as noncombustible which is subject to increase in combustibility or flame-spread index, beyond the limits herein established, through the effects of age, moisture or other atmospheric condition

ORGANIZED CAMPS. *See Section 440.*

PERMANENT PORTABLE BUILDING. [SFM] *A portable building that is used to serve or house students and is certified as a permanent building on a new public school campus by the public school administration shall comply with the requirements of new campus buildings.*

~~**PERSONAL CARE SERVICE.** See Section 310.2.~~

RESIDENTIAL CARE FACILITY FOR THE CHRONICALLY ILL (RCF/CI) *See Section 310.2.*

RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE) *See Section 310.2.*

RESIDENTIAL FACILITY (RF) *See Section 310.2.*

STATE-OWNED/LEASED BUILDING. [SFM] *State-Owned/Leased Building is a building or portion of a building that is owned, leased or rented by the state. State-leased buildings shall include all required exits to a public way serving such leased area or space. Portions of state- leased buildings that are not leased or rented by the state shall not be included within the scope of this section unless such portions present an exposure hazard to the state-leased area or space.*

TERMINALLY ILL *See Section 310.2.*

WAITING ROOM. [SFM] *Waiting Room is a room or area normally provided with seating and used for persons waiting.*

WINERY CAVES*. See Section 436.*

CHAPTER 3
USE AND OCCUPANCY CLASSIFICATIONS

303.1 Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation,

food or drink consumption; or awaiting transportation *or motion picture and television production studio sound stages, approved production facilities and production locations*.

Exceptions:

1. A building or tenant space used for assembly purposes with an *occupant load* of less than 50 persons shall be classified as a Group B occupancy.
2. A room or space used for assembly purposes with an *occupant load* of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
3. A room or space used for assembly purposes that is less than 750 square feet (70m2) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
4. Assembly areas that are accessory to Group E occupancies are not considered separate occupancies except when applying the assembly occupancy requirements of Chapter 11.
5. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.

Assembly occupancies shall include the following:

A-1 Assembly uses, usually with fixed seating, intended for the production and viewing of the performing arts or motion pictures including, but not limited to:

Motion picture and television production studio sound stages, approved production facilities and production locations. (with live audiences).
Motion picture theaters
Symphony and concert halls
Television and radio studios admitting an audience
Theaters

A-2 Assembly uses intended for food and/or drink consumption including, but not limited to:

Banquet halls
Night clubs
Restaurants
Taverns and bars

A-3 Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including, but not limited to:

Amusement arcades
Art galleries
Bowling alleys
Places of religious worship
Community halls
Courtrooms
Dance halls (not including food or drink consumption)
Exhibition halls
Funeral parlors
Gymnasiums (without spectator seating)
Indoor swimming pools (without spectator seating)
Indoor tennis courts (without spectator seating)
Lecture halls
Libraries
Museums
Waiting areas in transportation terminals
Pool and billiard parlors

A-4 Assembly uses intended for viewing of indoor sporting events and activities with spectator seating including, but

not limited to:

Arenas
Skating rinks
Swimming pools
Tennis courts

A-5 Assembly uses intended for participation in or viewing outdoor activities including, but not limited to:

Amusement park structures
Bleachers
Grandstands
Stadiums

303.2 Fixed guideway transit systems. [SFM] *Fixed guideway transit system buildings shall conform to the requirements of this code for their occupancy classification in addition to the provisions set forth in Section 433.*

303.3 Subterranean spaces for winery facilities in natural or manmade caves. [SFM] *For fire and life safety requirements, see Section 436.*

305.1 Educational Group E. Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by ~~six or~~ more *than six* persons at any one time for educational purposes through the 12th grade. Religious educational rooms and religious auditoriums, which are accessory to churches in accordance with Section 508.3.1 and have occupant loads of less than 100, shall be classified as A-3 occupancies.

Exception: [SFM] *A residence used as a home school for the children who normally reside at the residence. Such residences shall remain classified as Group R-2, or Group R-3 occupancies.*

306.2 Factory Industrial F-1 Moderate-hazard Occupancy.
Factory industrial uses which are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

Aircraft (manufacturing, not to include repair)
Appliances
Athletic equipment
Automobiles and other motor vehicles
Bakeries
Beverages; over 16-percent alcohol content
Bicycles
Boats
Brooms or brushes
Business machines
Cameras and photo equipment
Canvas or similar fabric
Carpets and rugs (includes cleaning)
Construction and agricultural machinery
Disinfectants
Dry cleaning and dyeing
Electric generation plants
Electronics
Engines (including rebuilding)
Food processing
Furniture
Hemp products
Jute products
Laundries

Leather products
Machinery
Metals
Millwork (sash & door)
[SFM] Motion picture and television production studio Sound Stages, Approved Production Facilities and production locations (without live audiences)
~~Motion pictures and television filming (without spectators)~~
Musical instruments
Optical goods
Paper mills or products
Photographic film
Plastic products
Printing or publishing
Recreational vehicles
Refuse incineration
Shoes
Soaps and detergents
Textiles
Tobacco
Trailers
Upholstering
Wood; distillation
Woodworking (cabinet)

[F] 307.1 High-hazard Group H. High-hazard Group H occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in control areas complying with Section 414, based on the maximum allowable quantity limits for control areas set forth in Tables 307.1(1) and 307.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the ~~*International*~~ *California Fire Code*. Hazardous materials stored, or used on top of roofs or canopies shall be classified as outdoor storage or use and shall comply with the ~~*International*~~ *California Fire Code*.

Exceptions: The following shall not be classified as Group H, but shall be classified as the occupancy that they most nearly resemble.

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. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the ~~*International*~~ *California Fire Code*.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers constructed in accordance with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 712, or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterrupted power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the ~~*International*~~ *California Mechanical Code*.
10. Corrosives shall not include personal or household products in their original packaging used in retail display or commonly used building materials.

11. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the ~~*International*~~ *California Fire Code*.
12. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
13. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the ~~*International*~~ *California Fire Code*.

~~*16*~~*14. [SFM] Group L occupancies as defined in section 443.1.*

Table 307.1(1) footnote d
Revise to Table 307.1(1) Footnote d as follows:

d. *[SFM] In other than Group L occupancies,* ~~M~~maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler systems in accordance with Section 903.3.1.1. Where note e also applies, the increase for both notes shall be applied accumulatively.

Table 307.1(2) footnote e
Revise to Table 307.1(2) Footnote d as follows:

e. *[SFM] In other than Group L occupancies,* ~~M~~*m*aximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler systems in accordance with Section 903.3.1.1. Where note e also applies, the increase for both notes shall be applied accumulatively.

307.1.1 Hazardous materials. Hazardous materials in any quantity shall conform to the requirements of this code, including Section 414, and the ~~*International*~~ *California Fire Code*.

308.1 Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people 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-3 or I-4. *Restraint shall not be permitted in any building except in Group I-3 occupancies constructed for such use, see Section* ~~*308.2*~~ *408.1.1.*

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

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

AGED HOME OR INSTITUTION *is a facility used for the housing of persons 65 years of age or older in need of care and supervision. (See definition of "care and supervision")*

BEDRIDDEN PERSON *means a person, requiring assistance in turning and repositioning in bed, or being unable to independently transfer to and from bed, except in facilities with appropriate and sufficient care staff, mechanical devices if necessary, and safety precautions as determined in Title 22 regulations, by the Director of Social Services or his or her designated representative.*

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of persons with developmental disabilities, in consultation with the Director of Developmental Services or his or her designated representative.

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of all other persons with disabilities who are not developmentally disabled.

BOARDING HOUSE. A building arranged or used for lodging for compensation, with or without meals, and not

occupied as a single-family unit.

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

Assistance in dressing, grooming, bathing and other personal hygiene.
Assistance with taking medication.
Central storing and/or distribution of medications.
Arrangement of and assistance with medical and dental care.
Maintenance of house rules for the protection of clients.
Supervision of client schedules and activities.
Maintenance and/or supervision of client cash resources or property.
Monitoring food intake or special diets.
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.

CATASTROPHICALLY INJURED, *as termed, means a person whose origin of disability was acquired through trauma or nondegenerative neurologic illness, for whom it has been determined by the Department of Health Services Certification and Licensing that active rehabilitation would be beneficial.*

CHILD-CARE CENTER *is any facility of any capacity other than a large or small family day-care home as defined in these regulations in which less than 24-hour-per-day nonmedical supervision is provided for children in a group setting.*

CHILD OR CHILDREN *is a person or persons under the age of 18 years.*

CHRONICALLY ILL. *See "Terminally ill."*

CONGREGATE LIVING HEALTH FACILITY (CLHF), *as termed, is a residential home with a capacity of no more than six beds, which provides inpatient care, including the following basic services: medical supervision, 24-hour skilled nursing and supportive care, pharmacy, dietary, social recreational, and at least provides services for persons who are diagnosed with a terminal illness or who are catastrophically and severely disabled.*

CONGREGATE LIVING FACILITIES. A building or part thereof that contains sleeping units where residents share bathroom and/or kitchen facilities.

CONGREGATE RESIDENCE *is any building or portion thereof that contains facilities for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate residence may be a shelter, convent, monastery, dormitory, fraternity or sorority house, but does not include jails, hospitals, nursing homes, hotels or lodging houses.*

DAY CARE *shall, for the purposes of these regulations, mean the care of persons during any period of a 24-hour day where permanent sleeping accommodations are not provided.*

Note: "*Daycare" shall not be construed to preclude the use of cots or mats for napping purposes, provided all employees, attendants and staff personnel are awake and on duty in the area where napping occurs.*

DAY-CARE HOME, LARGE FAMILY. *A provider's own home which is licensed to provide day care for periods less than 24 hours per day for nine to 14 persons, including children under the age of 10 years who reside at the home.*

DAY-CARE HOME, SMALL FAMILY. *A home which provides family day-care to eight or fewer children, including children under the age of 10 years who reside at the home, in the provider's own home, for periods of less than 24 hours per day. Small family day-care homes are exempted from state fire and life safety regulations other than those state and local standards applicable to Group ~~R, division 3~~ R-3 occupancies. (See Health and Safety Code, Section 13143 (b).)*

DORMITORY. A space in a building where group sleeping accommodations are provided in one room, or in a series of closely associated rooms, for persons not members of the same family group, under joint occupancy and single management, as in college dormitories or fraternity houses.

FULL-TIME CARE *shall mean the establishment and routine care of persons on an hourly, daily, weekly, monthly, yearly or permanent basis, whether for 24-hours per day or less, and where sleeping accommodations are provided.*

MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY, *shall mean any retarded person who is unable to evacuate a building unassisted during emergency conditions.*

> ***Note:*** *The determination as to such incapacity shall be made by the Director of the State Department of Public Health or his or her designated representative pursuant to Health and Safety Code Section 13131.3.*

NONAMBULATORY PERSONS *are persons unable to leave a building unassisted under emergency conditions. It includes, but is not limited to, persons who depend on mechanical aids such as crutches, walkers and wheelchairs and any person who is unable to physically and mentally respond to a sensory signal approved by the state fire marshal or an oral instruction relating to fire danger.*

The determination of ambulatory or nonambulatory status of persons with developmental disabilities shall be made by the Director of Social Services or his or her designated representative, in consultation with the director of Developmental Services or his or her designated representative. The determination of ambulatory or nonambulatory status of all other disabled persons placed after January 1, 1984, who are not developmentally disabled shall be made by the Director of Social Services or his or her designated representative.

~~**PERSONAL CARE SERVICE.** The care of residents who do not require chronic or convalescent medical or nursing care. Personal care involves responsibility for the safety of the resident while inside the building.~~

~~**RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** A building or part thereof housing persons, on a 24 hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.~~

RESIDENTIAL CARE FACILITY FOR THE CHRONICALLY ILL (RCF/CI), *as termed, means a housing arrangement with a maximum capacity of 25 residents that provides a range of services to residents who have chronic, life-threatening illnesses.*

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, 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 in consistent 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.

RESIDENTIAL FACILITY (RF), *as defined in Section 1502 of the Health and Safety Code, shall mean any family*

home, group care facility, or similar facility determined by the director of Social Services, for 24-hour nonmedical care of persons in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual. Such facilities include small family homes and social rehabilitation facilities.

Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to Group R 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 in consistent 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.

TERMINALLY ILL, *as termed for an individual, means the individual has a life expectancy of six months or less as stated in writing by his or her attending physician and surgeon.*

TRANSIENT. Occupancy of a dwelling unit or sleeping unit for not more than 30 days.

310.3 Large Family Day-Care Homes. *See Section 445.*

313 Laboratories Group L [SFM]

313.1 Laboratories Group L: [SFM] *Group L occupancy includes the use of a building or structure, or a portion thereof containing one or more laboratory suites as defined in Section 443.*

CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

403.1.1 Definitions. *The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.*

HIGH-RISE BUILDING. *In other than Group I-2 occupancies "high-rise buildings" as used in this Code:*

1. *"Existing high-rise structure" means a high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.*
2. *"High-rise structure" means every building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet above the lowest floor level having building access (see Section 403.1.2), except buildings used as hospitals as defined in Health and Safety Code Section 1250.*
3. *"New high-rise structure" means a high-rise structure, the construction of which is commenced on or after July 1, 1974,*

HIGH-RISE BUILDING ACCESS. *An exterior door opening conforming to all of the following:*

1. *Suitable and available for fire department use.*
2. *Located not more than 2 feet (610 mm) above the adjacent ground level.*
3. *Leading to a space, room or area having foot traffic communication capabilities with the remainder of the building.*
4. *Designed to permit penetration through the use of fire department forcible-entry tools and equipment unless other approved arrangements have been made with the fire authority having jurisdiction.*

NEW HIGH-RISE BUILDING. *A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this section, construction shall be deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this section have been met, the construction of such buildings shall commence on or before January 1, 1976.*

~~403.13~~ 403.4.6 Smoke control.

~~403.13.1~~ 403.4.6.1 Smoke control system. *High-rise buildings shall be provided with a passive or active smoke control system or combination thereof in accordance with Section 909.*

***~~403.13.2~~* 403.5.4 Smokeproof exit enclosures.** *Every exit enclosure in high-rise buildings shall comply with Sections 909.20 and ~~1020.1.7~~1022.9.* Every required exit stairway *in Group I-2 occupancies* serving floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall comply with Section 909.20 and 1022.9.

~~403.15~~ 403.7 Existing high-rise buildings. *For existing high-rise buildings, see Section ~~3412~~3414.*

403.12 Stairway door operation. Stairway doors other than the exit discharge doors shall be permitted to be locked from stairway side. Stairway doors that are locked from the stairway side shall be capable of being unlocked simultaneously without unlatching upon a signal from the fire command center. *Upon failure of electrical power to the locking mechanism the door shall unlock.*

405.1 General. The provisions of this section apply to building spaces having a floor level used for human occupancy more than 30 feet (9144 mm) below the lowest level of exit discharge.

Exceptions:

1. One- and two-family dwellings, sprinklered in accordance with Section 903.3.1.3.
2. Parking garages with automatic sprinkler systems in compliance with Section 405.3.
3. Fixed guideway transit systems.
4. Grandstands, bleachers, stadiums, arenas and similar facilities.
5. Where the lowest story is the only story that would qualify the building as an underground building and has an area not exceeding 1,500 square feet (139 m2) and has an occupant load less than 10.
6. Pumping stations and other similar mechanical spaces intended only for limited periodic use by service or maintenance personnel.

~~6~~7. [SFM] Winery Caves having a floor level used for human occupancy 30 feet (9144 mm) or less below the lowest level of exit discharge.

406.4.2 Ventilation. A mechanical ventilation system shall be provided in accordance with the *~~International~~ California Mechanical Code*.

406.7 Electric Vehicle. [SFM]

406.7.1 Electric Vehicle. *An automotive-type vehicle for highway use, such as passenger automobiles, buses, trucks, vans and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current. For the purpose of this chapter, electric motorcycles and similar type vehicles and off-road self-propelled electric vehicles such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not included*

406.7.2 Charging. *In any building or interior area used for charging electric vehicles, electrical equipment shall be installed in accordance with the California Electrical Code.*

406.7.3 Ventilation. *Mechanical exhaust ventilation, when required by the California Electrical Code shall be provided at a rate as required by Article 625 or as required by Section 1203 of the California Building Code whichever is greater. The ventilation system shall include both the supply and exhaust equipment and shall be permanently installed and located to intake supply air from the outdoors, and vent the exhaust directly to, the outdoors without conducting the exhaust air through other spaces within the building.*

Exception: *Positive pressure ventilation systems shall only be allowed in buildings or areas that have been designed and approved for that application.*

406.7.4 Electrical Interface. *The electrical supply circuit to electrically powered mechanical ventilation equipment*

shall be interlocked with the recharging equipment used to supply the vehicle(s) being charged, and shall remain energized during the entire charging cycle. Electric vehicle recharging equipment shall be marked or labeled in accordance with the California Electrical Code.

Exceptions:

1. *Exhaust ventilation shall not be required in areas with an approved engineered ventilation system, which maintains a hydrogen gas concentration at less than 25 percent of the lower flammability limit.*
2. *Mechanical exhaust ventilation for hydrogen shall not be required where the charging equipment utilized is installed and listed for indoor charging of electric vehicles without ventilation.*

407.1 General. Occupancies in Group I-2 *and I-2.1* shall comply with the provisions of this section and other applicable provisions of this code.

407.2 Corridors. Corridors in occupancies in Group I-2 *and I-2.*1 shall be continuous to the exits and separated from other areas in accordance with Section 407.3 except spaces conforming to Sections 407.2.1 through 407.2.4.

407.2.1 Waiting areas and similar spaces. Waiting areas and similar spaces constructed as required for corridors shall be permitted to be open to a corridor, only where all of the following criteria are met:

1. The spaces are not occupied for patient sleeping units, treatment rooms, hazardous or incidental use areas ~~as defined in Section 508.2~~ *listed in Table 508.2.5.*
2. The open space is protected by an automatic ~~fire~~ *smoke* detection system installed in accordance with Section ~~907~~ *907.2.6.2*
3. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic ~~fire~~ *smoke* detection system installed in accordance with Section ~~907~~*907.2.6.2,* ~~or~~ *and* the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
4. The space is arranged so as not to obstruct access to the required exits.
5. *Each space is located to permit direct visual supervision by the facility staff.*

407.3 Corridor walls. Corridor walls shall be constructed as ~~smoke~~ *fire* partitions in accordance with Section ~~710~~ *708*.

407.3.1 Corridor doors. Corridor doors *in fully sprinklered buildings,* other than those in a wall required to be rated by Section 508.2 or for the enclosure of a vertical opening or an exit, shall not have a required fire protection rating ~~and shall not be required to be equipped with self-closing or automatic-closing devices~~, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to Section 715.4. *In Group I-2 Occupancies, self-closing or automatic-closing devices are not required on corridor doors to patient sleeping rooms, treatment rooms, and offices located in areas specified in Sections 1224 and 1225, excluding offices specified in Sections 1224.21 and 1225.8.*

407.3.1.1 Swing of Corridor Doors. *Corridor doors, other than those equipped with self-closing or automatic-closing devices shall not swing into the required width of corridors*.

407.3.4 Glazing. *In fully sprinklered buildings, fixed fully tempered or laminated glass in wood or metal frames may be used in corridor walls, provided the glazed area does not exceed 25 percent of the areas of the corridor wall of the room. The total area of glass in corridor walls is not limited when the glazing is fixed ¼-inch-thick (6.4mm) wired glass in steel frames and the size of individual glazed panel does not exceed 1,296 square inches (0.836m^2).*

407.4 Smoke barriers. Smoke barriers shall be provided to subdivide every story used by patients for sleeping or treatment and to divide other stories with an occupant load of 50 or more persons, into at least two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m^2) and the travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be in accordance with Section 709 and 909.5.

Exceptions:

1. *This requirement shall not apply to Group I-2.1 less than 10,000 ft^2 (929 m^2).*
2. *An area in an adjoining occupancy shall be permitted to serve as a smoke compartment for a Group I-2.1 facility if the following criteria are met:*

    2.1. The separating wall and both compartments meet the requirements of 407.4.
    2.2. The Group I-2.1 is less than 22,500 ft^2 (2100 m^2).
    2.3. Access from the Group I-2.1 to the other occupancy is unrestricted.

407.4.2 Independent egress. *At least two* means of egress shall be provided from each smoke compartment created by smoke barriers. *Means of egress may pass through adjacent compartments provided it does* not return through the smoke compartment from which means of egress originated.

407.5 Automatic sprinkler system. ~~Smoke compartments containing patient sleeping units shall be equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1. The smoke compartments shall be equipped with approved quick response or residential sprinklers in accordance with Section 903.3.2.~~

Every facility as specified herein wherein more than six clients or patients are housed or cared for on the premises on a 24-hour-per-day-basis shall have installed and maintained in an operable condition in every building or portion thereof where clients or patients are housed, an automatic sprinkler system of a type approved by the state fire marshal. The provisions of this subsection shall apply to every person, firm or corporation establishing, maintaining or operating a hospital, children's home, children's nursery or institution, or a home or institution for the care of aged or persons with dementia or other cognitive impairments, or any institution for persons with mental illness or persons with developmental disabilities and any nursing or convalescent home, and to any state-owned or state-occupied building used for any of the types of facilities specified herein.

Exceptions:

1. *This section shall not apply to homes or institutions for the 24-hour-per-day care of ambulatory children if all of the following conditions are satisfied:*

    1.1 The buildings or portions thereof in which children are housed are not more than two stories in height and are constructed and maintained in accordance with regulations adopted by the state fire marshal.
    1.2 The buildings or portions thereof housing more than six such children shall have installed and maintained in an operable condition therein, a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to invisible particles of combustion other than heat, except that detectors used in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.
    1.3 The building or portions thereof do not house persons with mental illness or children with developmental disabilities.

2. *This section shall not apply to any one-story building or structure of an institution or home for the care of the aged providing 24-hour-per-day care if such building or structure is used or intended to be used for the housing of no more than six ambulatory aged persons. Such buildings or institutions shall have installed and maintained in an operable condition herein a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to either visible or invisible particles of combustion other than heat, except that detectors used in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.*
3. *This section shall not apply to occupancies or any alterations thereto conforming to the construction provisions of this exception which were under construction or in existence on March 4, 1972. "Under construction" as used in this exception shall mean that actual work had been performed on the construction site and shall not be construed to mean that the hospital, home, nursery, institution, sanitarium or any portion thereof, was or is in the planning stage. The provisions of this exception shall apply to those buildings or structures having bearing walls and structural flame protected in accordance with the provisions of Column Type 1A of Table 601.*
4. *In detention facilities where inmates are not restrained*

The provisions of this section shall not apply to any facility used to house six or less persons on the premises.

407.5.1 *When a new addition is to be made to an unsprinklered building or structure as permitted by this subsection, such new addition shall be sprinklered as required by this section and shall be separated from the existing building or structures by not less than a two-hour fire-resistive fire barrier.*

When a sprinkler system is added to an existing unsprinklered building or structure, the sprinklered area(s) shall be separated from the remainder of the building by not less than a one-hour fire-resistive fire barrier.

The provisions of this section do not apply to any facility used to house six or less persons on the premises.

407.7 Automatic fire detection. ~~Corridors in nursing homes (both intermediate care and skilled nursing facilities), detoxification facilities and spaces permitted to be open to the corridors by Section 407.2 shall be equipped with an automatic fire detection system. Hospitals shall be equipped with smoke detection as required in Section 407.2. [F]~~ *See Section 907.2.6.2*

~~**Exceptions:**~~

~~1. Corridor smoke detection is not required where patient sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each patient sleeping unit and an audible and visual alarm at the nursing station attending each unit.~~

~~2. Corridor smoke detection is not required where patient sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.~~.

407.8 Secured yards. Grounds are permitted to be fenced and gates therein are permitted to be equipped with locks, provided that safe dispersal areas having 30 net square feet (2.8 m^2) for bed and litter patients and 6 net square feet (0.56 m^2) for ambulatory patients and other occupants are located between the building and the fence. Such provided safe dispersal areas shall not be located less than 50 feet (15 240 mm) from the building they serve. *Each safe dispersal area shall have a minimum of two exits. The aggregate clear width of exits from a safe dispersal area shall be determined on the basis of not less than one exit unit of 22 inches (559 mm) for each 500 persons to be accommodated, and no exit shall be less than 44 inches (1118 mm) in width. Gates shall not be installed across corridors or passageways leading to such dispersal areas unless they comply with egress requirements. Keys to gate locks shall be provided in accordance with the Fire Code.*

~~407.8~~ 407.10 Special Hazards.

~~407.8.1~~ 407.10.1 *Storage and handling of flammable, combustible liquids and hazardous materials shall be in accordance with the California Fire Code.*

~~407.8.2~~ 407.10.2 *All exterior openings in a boiler room or room containing central heating equipment, if located below openings in another story, or if less than 10 feet (3048 mm) from other doors or windows of the same building, shall be protected by a fire assembly having a three-fourths-hour fire protection rating.*

~~407.8.3~~ 407.10.3 Safety padding*. See Sections 308.1 and 408.14.*

~~407.8.4~~ 407.10.4 Floor Surfaces. *Rooms occupied by patients whose personal liberties are restrained shall have noncombustible floor surfaces see Section 308.1 and 804.4.2.*

~~408.1.1~~ 408.1.2 Construction. *Group I-3 Occupancies shall be housed in buildings of Type IA or Type IB.*

Exception: *Such occupancies may be housed in one-story buildings of Type IIA, Type IIIA or Type VA construction provided the floor area does not exceed 5,200 square feet (483 m2) between fire walls of two-hour fire-resistive construction with openings protected by fire assemblies having one- and one-half-hour fire-protection rating.*

~~408.9~~ 408.1.2.1 Nonbearing Walls and Partitions Interior. *Nonbearing cell or dormitory walls within cell complexes shall be of noncombustible construction.*

~~408.10~~ 408.1.2.2 Cells with Open Bars. *In buildings protected throughout by an automatic sprinkler system and automatic fire detection system, corridor doors or walls of cells and dormitories, may be of open bars, perforated metal, grilles, or other similar construction.*

408.2 Other occupancies. Portions of buildings with an occupancy in Group I-3 that are classified as a different occupancy shall meet the applicable requirements of this code for such occupancies. Where security operations necessitate the locking of required means of egress, provisions shall be made for the release of occupants at all times.

Means of egress from detention and correctional occupancies that traverse other use areas shall, as a minimum, conform to requirements for detention and correctional occupancies.

Exceptions:

1. It is permissible to exit through a horizontal exit into other contiguous occupancies that do not conform to detention and correctional occupancy egress provisions but that do comply with requirements set forth in the appropriate occupancy, as long as the occupancy is not a high-hazard use.
2. *Regardless of the provisions of Section 508, laundry areas and kitchens including associated dining areas, where commercial/institutional equipment is used shall be separated from the remainder of the building by construction capable of resisting the passage of smoke.*
3. *For the purpose of occupancy separation only prisoner docks directly accessory to courtrooms need not be separated from a courtroom .*

408.3.1.1 *Cell Doors shall outwardly or slide laterally.*

~~408.3.4~~ 408.3.6 Exit discharge.

~~408.3.4.1~~ 408.3.6.1 Exits are permitted to discharge into a fenced or walled courtyard. Enclosed yards or courts shall be of a size to accommodate all occupants, a minimum of 50 feet (15 240 mm) from the building with a net area of *~~15~~ 3* square feet (1.4 m2) per person. *A gate shall be provided from the safe dispersal area to allow for the necessary relocation of occupants.*

~~408.3.4.2~~ 408.3.6.2 *Exterior fenced enclosures and fenced enclosures utilized for recreational or activity purposes, used for exit termination for more than 20 persons, and which do not provide a safe dispersal area, shall have not less than two exits.*

~~408.3.4.3~~ 408.3.6.3 *Fenced enclosure utilized for recreational or activity purposes only, for more than 49 people, and which do not provide a safe dispersal area, shall be provided with not less than two exits.*

~~408.3.4.4~~ 408.3.6.4 *Fenced enclosures located on roofs of buildings one or more stories in height shall be provided with not less than two exits regardless of occupant load.*

~~408.3.6~~ 408.3.8 **Exit enclosures.**

~~408.3.6.1~~ 408.3.8.1 One of the required exit enclosures in each building shall be permitted to have glazing installed in doors and interior walls at each landing level providing access to the enclosure, provided that the following conditions are met:

1. The exit enclosure shall not serve more than four floor levels.
2. Exit doors shall not be less than 3/4-hour fire door assemblies complying with Section 715.4
3. The total area of glazing at each floor level shall not exceed 5,000 square inches (3m2) and individual panels of glazing shall not exceed 1,296 square inches (0.84 m2).
4. The glazing shall be protected on both sides by an automatic fire sprinkler system. The sprinkler system shall be designed to wet completely the entire surface of any glazing affected by fire when actuated.
5. The glazing shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler system operates.
6. Obstructions, such as curtain rods, drapery traverse rods, curtains, drapes or similar materials shall not be

installed between the automatic sprinklers and the glazing.

~~408.3.6.2~~ 408.3.8.2 Where the number and arrangement of exits complies with the requirements of Chapter 10, other stairways which occur within the secure area of the detention facility and are not used for required exiting but are used primarily for the movement of inmates and security staff need not extend to the exterior.

~~408.11~~ 408.3.9 Dead-end Balconies. *Exit balconies serving cell tiers shall not extend more than 50 feet (15240mm) beyond an exit stairway.*

408.4 Locks. Egress doors are permitted to be locked in accordance with the applicable use condition. Doors from an area of refuge to the exterior are permitted to be locked with a key in lieu of locking methods described in Section 408.4.1. The keys to unlock the exterior doors shall be available at all times and the locks shall be operable from both sides of the door. *Security hardware may be used on any fire-rated door.*

408.4.3 Redundant operation. ~~Remote release, m~~*M*echanically operated sliding doors or ~~remote release~~, mechanically operated locks shall be provided with a mechanically operated release mechanism at each door~~, or~~ *and* shall be provided with a ~~redundan~~t remote release control.

408.6 Smoke barrier. Occupancies in Group I-3 shall have smoke barriers complying with Section 709 to divide every story occupied by residents for sleeping, or any other story having an occupant load of 50 or more persons, into at least two smoke compartments.

Exception: Spaces having a direct exit to one of the following, provided that the locking arrangement of the doors involved complies with the requirements for doors at the smoke barrier for the use condition involved:

1. A public way.
2. A building separated from the resident housing area by a 2-hour fire-resistance-rated assembly or 50 feet (15 240 mm) of open space.
3. A secured yard or court having a holding space 50 feet (15 240 mm) from the housing area that provides 6 square feet (0.56 m^2) or more of refuge area per occupant, including residents, staff and visitors.
4. *Holding Facility*

408.8 Subdivision of ~~resident housing~~ areas. ~~Sleeping areas and any contiguous day room, group activity space or other common spaces where residents are housed~~ *Each cell complex* shall be separated from other *cell complexes or other* spaces ~~in accordance with Sections 408.7.1 through 408.7.4~~ *by a smoke-tight partition*.

~~**408.8.1 Occupancy Conditions 3 and 4.** Each sleeping area in Occupancy Conditions 3 and 4 shall be separated from the adjacent common spaces by a smoke-tight partition where the travel distance from the sleeping area through the common space to the corridor exceeds 50 feet (15 240 mm).~~

~~**408.8.2 Occupancy Condition 5.** Each sleeping area in Occupancy Condition 5 shall be separated from adjacent sleeping areas, corridors and common spaces by a smoke-tight partition. Additionally, common spaces shall be separated from the corridor by a smoke-tight partition.~~

~~**408.8.3 Openings in room face.** The aggregate area of openings in a solid sleeping room face in Occupancy Conditions 2, 3, 4 and 5 shall not exceed 120 square inches (77 419 mm2). The aggregate area shall include all openings including door undercuts, food passes and grilles. Openings shall be not more than 36 inches (914 mm) above the floor. In Occupancy Condition 5, the openings shall be closeable from the room side.~~

~~**408.8.4**~~ **408.*1* Smoke-tight doors.** Doors in openings in partitions required to be smoke tight by Section 408.7 shall be substantial doors, of construction that will resist the passage of smoke. Latches and door closures are not required on cell doors.

~~408.12~~ 408.11 Emergency and standby power systems. *Special electrical systems, exit illumination, power installations and alternate on-site electrical supplies shall be provided for every building or portion of a building housing 10 or more inmates in a detention or correctional facility in accordance with the provisions of the California*

Electrical Code. There shall be a source of emergency power in all detention facilities capable of providing minimal lighting in all housing units, activity areas, corridors, stairs and central control points, and to maintain fire and life safety, security, communications, and alarm systems.

***~~408.13~~ 408.12* Windows.** *In security areas within cell complexes sprinklered throughout, the area of glazing in one-hour corridor walls and smoke barrier walls shall not be restricted, provided:*

1. *All openings are protected by fixed glazing listed and labeled for a fire-protection of at least three-fourths hour; or*
2. *Fixed security glazing set in noncombustible frames. Shall comply with the minimum requirements of one of the following test standards: ASTM F1233-98, Class III glass, or; California Department of Corrections, CDC 860-94d, or H.P. White Laboratory, Inc., HPW-TP-0500.02, Forced Entry Level III.*
3. *In lieu of the sizes set forth in CBC, the size and area of glazed assemblies shall conform to the following:*

Windows required to have a three-fourths-hour fire-resistive rating or windows protected by fixed security glazing, as delineated in Items 1 and 2 above, may have an area not greater than 84 square feet (7.8m2) with neither width nor height exceeding 12 feet (3658mm).

409.3 Projection room and equipment ventilation. Ventilation shall be provided in accordance with the *~~International~~ California Mechanical Code*.

412.6.6 Ventilation. Aircraft paint hangars shall be provided with ventilation as required in the *~~International~~ California Mechanical Code*.

[F] 414.1.1 Other provisions. Buildings and structures with an occupancy in Group H shall also comply with the applicable provisions of section 415 and the California Fire Code. *For Group L occupancies see section 443.*

414.1.2 Materials. The safe design of hazardous material occupancies is material dependent. Individual material requirements are also found in Sections 307 and 415, and in the *~~International~~ California Mechanical Code* and the *~~International~~ California Fire Code*.

414.3 Ventilation. Rooms, areas or spaces of Group H in which explosive, corrosive, combustible, flammable or highly toxic dusts, mists, fumes, vapors or gases are or may be emitted due to the processing, use, handling or storage of materials shall be mechanically ventilated as required by the *~~International~~ California Fire Code* and the *~~International~~ California Mechanical Code*.

Ducts conveying explosives or flammable vapors, fumes or dusts shall extend directly to the exterior of the building without entering other spaces. Exhaust ducts shall not extend into or through ducts and plenums.

Exception: Ducts conveying vapor or fumes having flammable constituents less than 25 percent of their lower flammable limit (LFL) are permitted to pass through other spaces.

Emissions generated at workstations shall be confined to the area in which they are generated as specified in the *~~International~~ California Fire Code* and the *~~International~~ California Mechanical Code*.

The location of supply and exhaust openings shall be in accordance with the *~~International~~ California Mechanical Code*. Exhaust air contaminated by highly toxic material shall be treated in accordance with the *~~International~~ California Fire Code*.

[F] 415.6.1.4 Explosion control. Explosion control shall be provided as specified in the *~~International~~ California Fire Code*, or spaces shall be equipped with the equivalent mechanical ventilation complying with the *~~International~~ California Mechanical Code*.

415.6.2 Flammable and combustible liquids. The storage, handling, processing and transporting of flammable and combustible liquids shall be in accordance with the *~~International~~ California* Mechanical Code and the *~~International~~ California* Fire Code.

[F] 415.6.2.8 Room ventilation. Storage tank areas storing Class I, II or IIIA liquids shall be provided with mechanical ventilation. The mechanical ventilation system shall be in accordance with the ~~*International*~~ *California Mechanical Code* and the ~~*International*~~ *California Fire Code*.

415.6.3 Liquefied petroleum gas-distribution facilities. The construction and installation of liquefied petroleum gas facilities shall be in accordance with the requirements of this code, the ~~*International*~~ *California Fire Code,* the ~~*International*~~ *California Mechanical Code*, ~~the *International Fuel Gas Code*~~ and NFPA 58.

[F] 415.6.4 Dry cleaning plants. The construction and installation of dry cleaning plants shall be in accordance with the requirements of this code, the ~~*International*~~ *California Mechanical Code*, the ~~*International*~~ *California Plumbing Code* and NFPA 32. Dry cleaning solvents and systems shall be classified in accordance with the ~~*International*~~ *California Fire Code*.

[F] 415.8.11.1 Exhaust ducts for HPM. An approved automatic sprinkler system shall be provided in exhaust ducts conveying gases, vapors, fumes, mists or dusts generated from HPM in accordance with this section and the ~~*International*~~ *California Mechanical Code*.

[F] 416.3 Spraying spaces. Spraying spaces shall be ventilated with an exhaust system to prevent the accumulation of flammable mist or vapors in accordance with the ~~*International*~~ *California Mechanical Code*. Where such spaces are not separately enclosed, noncombustible spray curtains shall be provided to restrict the spread of flammable vapors.

SECTION 427
Reserved

SECTION 428
Reserved

SECTION 429
Reserved

SECTION 430
HORSE RACING STABLES [SFM]

430.1 *For automatic sprinkler and fire alarm system requirements applying to each building, barn or structure which is used by an association regulated by the California Horse Racing Board for the stabling of horses or human habitation, and the stable area grounds, including any additional location where any excess horses are stabled see Title 4, Division 4, Article 17, Section 1927.*

SECTION 431
PET KENNELS [SFM]

431.1 *These regulations shall apply to every building or fire area in which a pet dealer, as defined in Health and Safety Code Section 122125, maintains a kennel.*

431.2 Automatic Sprinkler System. *An approved automatic sprinkler system complying with California Fire Code Section 903 shall be installed.*

> ***Exception:*** *Where a fire alarm system that is connected to a central reporting station that alerts the local fire department in case of fire.*

SECTION 432
COMBUSTION ENGINES AND GAS TURBINES [SFM]

432.1 General. *The installation of combustion engines and gas turbines shall be in accordance with NFPA-37 and this chapter.*

432.2 Separation.

432.2.1 Construction. *Every room in which is installed a combustion engine or gas turbine shall be separated from the remainder of the building by not less than a one-hour fire barrier.*

432.2.2 Exterior openings. *When doors, windows or louvered openings are located below openings in another story or less than 10 feet (3048 mm) from doors, windows or louvered openings of the same building, they shall be protected by a fire assembly having a 3/4-hour rating. Such fire assemblies shall be fixed, automatic or self-closing.*

432.2.3 Location. *Combustion engines and gas turbines used for emergency power shall not be located in a room or area used for any other purpose other than equipment and controls related to the generation and distribution of emergency power.*

432.2.4 Special hazards. *The handling and use of flammable or combustible liquids shall comply with the ~~CFC~~California Fire Code.*

SECTION 433
FIXED GUIDEWAY TRANSIT SYSTEMS [SFM]

433.1 General.

433.1.1 Scope. *The provisions of this section shall apply to buildings or structures defined as stations for fixed guideway transit systems and shall supersede other similar requirements in other sections of this code.*

433.1.2 Definitions. *For the purpose of this section, certain terms are defined as follows:*

AT-GRADE STATION *is any at-grade or unroofed station other than an elevated or underground station.*

ELEVATED STATION *is a station greater than one story not otherwise defined as an at-grade or underground station.*

EMERGENCY MANAGEMENT PANEL (EMP) *is the location where all necessary on-site control and communication facilities are consolidated for effective response to emergency situations.*

ENCLOSED STATION *is a station or portion thereof that does not meet the definition of an open station.*

ENGINEERING ANALYSIS (FIRE HAZARD/FIRE RISK ASSESSMENT) *is an analysis that evaluates all various factors that affect the fire safety of the system or component. A written report of the analysis shall indicate the fire protection method(s) recommended that demonstrates a level of fire safety commensurate with this standard.*

FIXED GUIDEWAY TRANSIT SYSTEM *(the system) is an automated driverless or manually controlled electrified transportation system, utilizing a fixed guideway, operating on right-of-way for the mass movement of passengers and consisting of its fixed guideways, transit vehicles and other rolling stock; power system; buildings; maintenance facilities; stations; transit vehicle yard; and other stationary and movable apparatus, equipment, appurtenances and structures.*

GUIDEWAY *is that portion of the system on which the transit vehicles operate.*

OPEN STATION *is a station that is constructed in such a manner that it is open to the atmosphere, and smoke and heat are allowed to disperse directly into the atmosphere. The following enclosed areas in open stations are permitted but limited to:*

1. *Ticket/pass booths not exceeding 150 square feet (13.9 m2) in area.*
2. *Mechanical and electrical spaces typically not used for human occupancy and necessary for the operation of a*

fixed guideway transit system. Such spaces shall be limited to two per level.

3. *Restrooms not exceeding 150 square feet (13.9 m2) in area. A maximum of four restrooms are permitted per level.*

OPERATIONS CONTROL CENTER (OCC) (CENTRAL CONTROL) *is the operation center where the authority controls and coordinates the system-wide movement of passengers and trains from which communication is maintained with supervisory and operating personnel of the authority, and with participating agencies when required.*

POINT OF SAFETY *is an enclosed fire exit that leads to a public way or safe location outside the structure, or an at-grade point beyond any enclosing structure, or other area that affords adequate protection for passengers.*

POWER SUBSTATION *is the location of electric equipment that does not generate electricity but receives and converts or transforms generated energy to usable electric energy.*

STATION *is a place designated for the purpose of loading and unloading passengers, including patron service areas and ancillary spaces associated with the same structure.*

STATION PLATFORM *is the area of a station used primarily for loading and unloading transit vehicle passengers.*

UNDERGROUND STATION *is a station or that part of a station located beneath the surface of the earth or of the water.*

433.2 Types of Construction.

433.2.1 *Unless otherwise specified in this section, buildings or portions of buildings classed as stations of fixed guideway transit systems shall be minimum Type I<u>A</u>, Type IB, or Type II-A construction and shall not exceed in area or height the limits specified in Table 503.*

Underground stations shall be a minimum Type I or Type I-B constructions.

Open stations may be of Type II-B construction and shall not exceed in area or height as required by Table 503 for Type II-A.

Exception: *At-grade structures of open stations with an occupancy load not exceeding 300 persons may be of any construction type permitted by this code.*

433.2.2 Mixed occupancies.

433.2.2.1 *Stations of fixed guideway transit systems shall be separated from other occupancies in accordance with Table ~~508.3.3~~ <u>508.4</u> for Group A Occupancies.*

433.2.2.2 *The following areas shall be separated from public areas by a two-hour <u>fire</u> barrier:*

1 Electrical control rooms, auxiliary electrical rooms and associated battery rooms.
2. Trash rooms.
3. Train control rooms and associated battery rooms.
4. Fan rooms.
5. Emergency generator rooms.

433.2.2.3 *Within station structures, all power substations shall be separated from all other areas by a three-hour fire barrier with no openings to public areas.*

433.3 Access and Exit Facilities*.*

433.3.1 Occupant load. *The occupant load for a transit station shall be based on the emergency condition requiring*

evacuation of that station to a point of safety. The station occupant load shall be the sum of the number of persons in the calculated train load of trains entering a station plus the entraining load of persons awaiting train(s), during a specified time period. Notwithstanding, the minimum occupant load shall not be less than the maximum capacity load of a train which would occupy the entire length of the station platform on a single track. Exiting shall be provided for occupant loads recalculated upon increase in service and/or every five years.

433.3.1.1 Calculated train load. *The calculated train load is the number of passengers on trains simultaneously entering the station on all tracks in normal traffic direction during the peak 15-minute period.*

The following limitations to the calculated train load shall be applied:

1. *No more than one train will unload at any one track to a platform during an emergency.*
2. *The load on any single train is limited to the maximum train capacity.*

433.3.1.2 Entraining load (on platform awaiting train). *The entraining load is equal to the number of passengers that would accumulate on the platform in the time period equivalent to two headways or 12minutes during the peak 15-minute period, whichever time period is greater.*

This entraining load is constrained as stated as follows:

1. *Special consideration shall be given to stations servicing areas where events occur that establish occupant loads not included in normal passenger loads. These would include such areas as civic centers, sports complexes and convention centers.*
2. *At multiplatform stations, each platform shall be considered separately. Arrival of trains from all normal traffic directions, plus their entraining loads, shall be considered.*
3. *At concourses, mezzanines or multilevel stations, simultaneous platform loads shall be considered for all exit lanes passing through that area.*

433.3.2 Exits required.

433.3.2.1 Number of exits. *Stations shall have at least two exits placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the station. Enclosed station platforms shall have a minimum of one exit within 20 feet (6096 mm) from each end. Underground station platforms shall have a minimum of one enclosed exit within 20 feet (6096 mm) from each end. Routes from platform ends into the underground guideway shall not be considered as exits for calculating exiting requirements.*

433.3.2.2 Capacity of exits and station evacuation time.

433.3.2.2.1 *Exit capacities shall be calculated on the basis of 22-inch-wide (559mm) exit lanes at the clear and narrowest point except that individual handrails may project into the required width as permitted by Chapter 10. Fractional lanes shall not be counted in measuring exit capacities except that 12 inches (305 mm) added to one or more lanes shall be counted as one-half a lane. Escalators 32 inches (813 mm) in width may be considered as 1½ lanes.*

433.3.2.2.2 *There shall be sufficient means of exit to evacuate the station occupant load from the station platforms in four minutes or less.*

433.3.2.2.3 *The station shall also be designed to permit evacuation from the most remote point on the platform to a point of safety in six ~~months~~minutes or less.*

433.3.2.2.4 *In at-grade or elevated structures so designed that the station platform is open to the elements and, when the concourse is below or protected from the platform by distance or materials as determined by an appropriate engineering analysis, that concourse may be defined as a point of safety, with Fire Code Official concurrence.*

433.3.2.2.5 *To calculate evacuation time, the walking travel time should be tabulated using the longest exit route and travel speeds. To this time should be added the following factors:*

1. *The waiting time at the vertical elements at platform level minus the longest walking travel time at platform level.*
2. *The waiting time at the fare collection barriers minus the waiting time at the platform vertical circulation elements.*
3. *The waiting time at the vertical or horizontal circulation elements from mezzanine to grade minus the waiting time at the platform vertical circulation elements or fare collection barrier, whichever is greater.*
4. *The waiting time, if any, at any additional constriction minus the greatest previous waiting time. (Repeat for all additional constrictions.)*

Note: *The total of any of the factors in Items 1 through 4 above cannot be less than zero.*

433.3.3 Exit width and exit lanes.

433.3.3.1 *The capacity in persons per minute (ppm), patron travel speeds in feet per minute (fpm) and requirements for exit lanes shall be as follows:*

1. *Platforms, corridors, and ramps of 1 foot vertical for 20 feet horizontal (5%slope) or less: Exit corridors, platforms and ramps shall be a minimum clear width of 5 feet (1524 mm). In computing the number of exit lanes available, 1 foot 6 inches (457 mm) shall be deducted at each platform edge and 1 foot (305 mm) at each side wall.*

Per exit lane:
Capacity - 50 ppm
Travel speed - 200 fpm

2. *Stairs, stopped escalators, and ramps of over 1 foot vertical for 20 feet horizontal (5% slope): Exit ramps shall be a minimum clear width of 6 feet (1829 mm). Stopped escalators may be considered as a means of egress, provided they are of nominal 2 feet 8 inches (813 mm) width.*

Per exit lane "up" direction:
Capacity - 35 ppm
*Travel speed - 50 fpm**

Per exit lane "down" direction:
Capacity - 40 ppm
*Travel speed - 60 fpm**

3. *Doors and gates: Gates fitted with approved panic hardware and opening in the direction of exit travel, with minimum nominal width of 3 feet (914 mm) shall be permitted in exit calculation.*

Per doors and gate:
Capacity - 50 ppm per exit lane

4. *Fare collection gates: Fare collection gates, when deactivated, shall provide a minimum 20 inches (508 mm) clear unobstructed aisle. Console shall not exceed 40 inches (1016 mm) in height.*

Per gate:
Capacity - 50 ppm

Note: *Examples of exiting analysis may be found in Appendix C of NFPA 130, 1995 edition, Standard for Fixed Guideway Transit Systems.*

**Indicates vertical component of travel speed.*

433.3.4 Arrangement of exits.

433.3.4.1 *Vertical circulation elements shall be comprised of stairs or stair/escalator combinations. Escalators shall not account for more than half of the units of exit at any one level in the public area. Escalators must be paired in combination with stairs to be included in exiting capacity calculations.*

433.3.4.2 *Because of the possibility of maintenance or malfunction, one escalator at each station shall be considered as being out of service in calculating egress requirements. The escalator chosen shall be that one having the most adverse effect on exiting capacities.*

433.3.5 Distance to exits. *No point of the station platform(s) or mezzanine(s) shall be more than 300 feet (91 440mm) from a point of safety.*

433.3.6 Other exits required/guideway access.

433.3.6.1 *Access/egress between guideway and platforms shall be provided as follows:*

1. *Stairs or ramps, 2 feet 10 inches (864 mm) in width minimum, or other arrangement having equivalent capacity, shall be provided at each end of the platform, arranged to provide access/egress to guideway level.*
2. *Except in underground stations, the access points between the guideway and the platform, and the exit from the platform may be integrated.*

433.3.6.2 *In enclosed stations, escalator and stairway enclosures are not required in the public areas of multilevel transit stations among platform, mezzanine and concourse when the station is provided with an emergency ventilation system.*

433.3.7 Emergency lighting and exit signs.

433.3.7.1 *Emergency lighting and exit signs shall be provided in accordance with Chapter 10.*

Exception: *Open stations at grade need not provide emergency lighting or exit signs.*

433.4 Special Provisions.

433.4.1 Automatic sprinkler system. *See Section 903.2.17.1.*

433.4.2 Station guideway deluge system. *See Section 903.2.17.1*

433.4.3 Standpipe systems. *See Section 905.3.10.*

433.4.4 Emergency Management Panel (EMP). *An EMP shall be required for enclosed and underground stations. Location of the EMP shall be determined by the Fire Code Official. The EMP shall include but not be limited to the following:*

1. *Indication of manual pull boxes and automatic smoke detectors.*
2. *Indication of alarm signals from all suppression systems.*
3. *Capabilities for using station paging system.*
4. *Emergency telephone.*
5. *Escalator controls.*
6. *Emergency ventilation controls.*
7. *Station schematics.*

433.4.5 Emergency ventilation systems.

433.4.5.1 General. *Emergency ventilation shall be provided for enclosed and underground stations for the protection of passengers, employees and emergency personnel.*

433.4.5.2 *These systems shall be designed as follows:*

1. *A stream of non contaminated air is provided to passengers in a path(s) of egress away from a train fire; and*
2. *Airflow rates produced toward a train fire in a path of egress are sufficient to prevent back layering of smoke; and*
3. *The temperature in a path of egress away from a train fire is limited to 140°F (60°C), or less; and*
4. *The design heat release rate produced by a train fire shall be used to design the emergency ventilation system.*

433.4.5.3 *Ventilation shaft terminals at-grade shall be located to prevent recirculation as follows:*

1. *Openings for blast relief shafts, and under platform and smoke exhaust shafts at-grade shall be separated by a minimum horizontal distance of 40 feet (12 192 mm) from any station entrance, elevator hoistway enclosure, surface emergency stair doorway, unprotected outside air intake or other opening, or from each other. Exhaust outlets that are not used for intakes may be adjacent to each other.*
2. *Where this distance is not practical, the horizontal distance may be reduced to 15 feet (4572 mm) if the closest blast relief or under platform and smoke exhaust shaft terminal is raised a minimum of 10 feet (3048 mm) above the station entrance, emergency stair doorway and unprotected outside air intake or other opening, or the underplatform and smoke exhaust shaft terminal is raised a minimum of 10 feet (3048 mm) above the blast relief shaft terminal.*
3. *Ventilation of stations shall not terminate at grade on any vehicle roadway.*

433.4.5.4 Emergency ventilation fans.

433.4.5.4.1 *Ventilation fans used for emergency service, their motors, dampers, and all related components exposed to the ventilation airflow shall be designed to operate in an ambient atmosphere of 482°F (250°C) for a period of at least one hour. Ventilation fans and related components shall be capable of withstanding the maximum anticipated plus/minus pressure transients induced by train operations.*

433.4.5.4.2 *Local fan motor starters and related operating control devices for emergency ventilation equipment shall be isolated from the ventilation airflow by a separation having a fire-resistance rating of at least one hour.*

433.4.5.4.3 *Thermal overload protective devices shall not be provided on motor controls of fans used for emergency ventilation.*

433.4.5.4.4 *The power supply for fans essential for emergency ventilation service shall consist of two separate electrical feeders. Each feeder shall originate from a different source (substation) and shall be separated physically to the extent possible. Automatic transfer shall be provided in the event the normal supply source fails.*

433.4.5.4.5 *Operation and fail-safe verification for proper operation of emergency fans shall be affected from the operation control center with indication provided for all modes of operation for each fan.*

433.4.5.5 Emergency ventilation control.

433.4.5.5.1 *Local controls shall override remote control. Local control shall be capable of operating the fans in all modes in the event the remote controls become inoperative.*

433.4.5.5.2 *Emergency ventilation systems shall be supervised and/or controlled in all operating modes locally (motor control center and/or fan unit) and remotely at both the OCC and the station EMP.*

433.4.5.5.3 *Fan running shall be provided by sensing devices for each fan for operation in both the supply and exhaust directions.*

433.4.5.5.4 *Trouble status signals shall be annunciated in the local control room. A summarized trouble signal shall be annunciated at OCC and EMP.*

433.4.5.6 Ventilation systems and ancillary areas. *Ancillary area ventilation systems shall be arranged so that air is not exhausted into station public occupancy areas.*

433.5 Fire Alarm and Communication Systems. *See Section 907.2.26.*

SECTION 434
EXPLOSIVES [SFM]

434.1 General Construction Requirements. *Magazines shall be constructed in conformity with the provisions of these regulations, or may be of substantially equivalent construction satisfactory to the enforcing agency having jurisdiction. Reasonable allowances shall be made for storage facilities in existence prior to the adoption of these regulations. No allowance, however, shall be made for storage facilities which constitute a distinct hazard to life and property.*

434.2 Ventilation and Weather Resistance. *Magazines for the storage of explosives shall be sufficiently ventilated and weather resistant and when used for the storage of Class A explosives (other than black powder, blasting agents, blasting caps and electric blasting caps), they shall also be of bullet-resistant construction unless deemed exempt by the enforcing agency having jurisdiction.*

NOTE: *The recommendation for ventilation as contained in Pamphlet No. 1, Institute of Makers of Explosives, 1965 edition, is evidence of good practice.*

434.3 Construction for Separation between Primers and Flammable Liquids. *Primers shall be separated from flammable liquids by a one-hour fire-resistive occupancy separation.*
Exception: *A separation need not be provided for small arms ammunition primers when such primers are located a distance of not less than 25 feet (7620 mm) from flammable liquids.*

434.4 Construction of Type I Magazine. *Type I magazines shall be of bullet-resistant construction. Plans shall be submitted to the enforcing agency having jurisdiction for approval prior to construction.*

434.4.1 General. *Use of the following materials and methods of construction shall be evidence of compliance with this requirement:*

1. *Masonry units not less than 8 inches (203 mm) in thickness with all hollow spaces filled with weak cement, well-tamped sand, or equivalent material; or*
2. *Reinforced concrete not less than 6 inches (152 mm) in thickness; or*
3. *Steel walls of minimum No. 14 manufacturers. Standard gage (0.0747 inch) (1.9 mm) to No. 6 manufacturers. Standard gage (0.1943 inch) (4.9 mm) may be used, provided there are two layers spaced at least 6 inches (152 mm) apart with all hollow*

spaces filled with weak cement, well-tamped sand or equivalent
material; or

4. *One layer of No. 6 manufacturers. standard gage (0.1943 inch) (4.9 mm) or heavier; steel lined on the interior with a minimum of 4 inches (102 mm) of wood; or*
5. *Two layers of No. 6 manufacturers. standard gage (0.1943 inch) (4.9 mm) or heavier steel spaced a minimum 1/2 inch (12.7mm) apart and lined on the interior with a minimum of 2 inches (51mm) of wood; or*
6. *Two layers of wood, at least 2 inches (51mm) nominal thickness each, spaced a minimum 4 inches (102 mm) apart with the hollow space filled with weak cement, well-tamped sand or equivalent material.*
7. *Wood used shall conform to the following:*

Wood shall be of tongue-and-grooved lumber or plywood. Wood shall be covered, on the exterior side, with metal to provide protection against flying embers and sparks.

434.4.2 Doors. *Doors shall be of bullet-resistant construction. Each door is to be equipped with:*

1. *Two mortise locks;*
2. *Two padlocks fastened in separate hasps and staples;*
3. *A combination of a mortise lock and a padlock;*
4. *A mortise lock that requires two keys to open; and*

5. A three-point lock.

Padlocks must have at least five tumblers and a case-hardened shackle of at least 3/8-inch (9.5 mm) diameter. Padlocks must be protected with not less than 1/4-inch (6.4 mm) steel hoods constructed so as to prevent sawing or lever action on the locks, hasps and staples. These requirements do not apply to magazine doors that are adequately secured on the inside by means of a bolt, lock or bar that cannot be actuated from the outside.

434.4.3 Floors. *Floors of magazines shall be securely fastened in place and shall be capable of withstanding the loads imposed.*

434.4.4 Roofs. *Roofs shall be securely fastened in place and they shall be bullet resistant, if required by the .chief. having jurisdiction.*

434.4.5 Ventilation openings. *Ventilation openings shall be screened to prevent the entrance of sparks and they shall be protected in a manner that will maintain the bullet resistance of the magazine.*

434.4.6 Interiors. *Magazine interiors shall be of a smooth finish without cracks or crevices with all nails, screws, bolts and nuts countersunk. Exposed metal capable of emitting sparks shall be covered so as not to come in contact with packages of explosives.*

434.4.7 Location. *No Type I magazine, or portion thereof, shall be located under a high-voltage power line (750 volts or more). For the purposes of this section, "under" shall include an open space of not less than the height of the power line from the ground at right angles to the walls of the magazine.*

434.5 Buildings Used for Mixing of Blasting Agents. *Buildings used for the mixing of blasting agents shall conform to the requirements of Sections ~~412A.5~~434.5 and ~~412A.6~~434.6, unless otherwise specifically approved by the enforcing agency having jurisdiction.*

434.5.1 Construction. *Buildings shall be of all noncombustible construction or of sheet metal on wood studs.*

434.5.2 Separation. *The layout of the mixing building shall be such so as to provide physical separation between the finished product storage and the mixing and packaging operations.*

434.5.3 Storage areas. *Floors in storage areas and in the processing plant shall be of concrete or other noncombustible material. Isolated fuel storage shall be provided to avoid contact between molten ammonium nitrate and fuel in case of fire.*

434.5.4 Ventilation. *The building shall be well ventilated in accordance with Section ~~412A.2~~434.2.*

434.5.5 Heat. *Heat, if used, shall be provided exclusively from a unit outside of the building.*

434.5.6 Venting. *Explosion venting shall be provided when required by the enforcing agency having jurisdiction.*

434.6 Building Construction Storage. *Blasting agents may be stored in the manner set forth in Title 19, California Code of Regulations, Subchapter 10, Article 3, or in one-story warehouses (without basements), which shall be:*

1. *Of noncombustible or one-hour fire-resistive construction;*
2. *Constructed so as to eliminate floor drains and piping into which molten materials could flow and be confined in case of fire;*
3. *Weather resistant;*
4. *Well ventilated in accordance with Section ~~412A.2~~434.2; and*
5. *Equipped with a substantially constructed and lockable door which shall be kept securely locked, except when the facility is open for business.*

434.7 Electrical Requirements for Type I Magazines. *Magazines shall not be provided with either heat or light, except upon the approval of the enforcing agency having jurisdiction. Electrical installation, when permitted, shall be*

in accordance with the California Electrical Code for Type II, Division I locations.

434.8 Mixing Room Blasting Agents. *All electrical switches, controls, motors and lights, if located in the mixing room, shall be installed in accordance with the California Electrical Code for Type II, Division I locations.*

434.9 Storage of Special Effects Materials. *The storage of not more than 750 pounds (340 kg) of special effects materials shall be in a building or a room conforming to the requirements of Group*
H, Division I Occupancies as defined in this part. In addition, the following shall apply to every special effects materials storage building or room:

1. *The building shall be sprinklered as required in Chapter 9.*
2. *It shall be deemed that the storage of special effects materials creates an atmosphere of flammable dust.*
3. *Two or more permanent openings having an area of not less than 100 square inches (64 500 mm2) shall be located in the exterior wall to provide natural ventilation. These openings shall be protected by screens or louvers covered with 1/4-inch (6.4 mm) wire mesh screen.*
4. *Walls, floor ceiling, shelves and benches shall have a smooth nonmetallic surface which can be easily cleaned with a minimum of brushing or scrubbing.*
5. *Each entrance door shall be posted on the outside with signs stating, "Authorized Personnel Only" and .No Smoking..*
6. *Assembling and manufacturing are prohibited in special effects storage rooms or buildings.*
7. *The room shall be located above grade in a one-story building or on the top floor of a multistory building or may be a separate building.*
8. *The room or building shall have a minimum floor area of 80 square feet (7.4 m2) with no dimension less than 8 feet (2438mm).*
9. *Electric wiring, lighting and heating shall be of a type approved for use in hazardous locations.*

434.10 Mixing Room or Building. *Buildings or rooms in which more than 50 pounds (22.7 kg) of special effects materials are present at any time shall be constructed with at least one wall of explosion-relief type. The relief wall should be placed so as to be of least hazard to persons in adjacent buildings.*

434.10.1 Explosive venting *When explosive venting is required, the venting area will be calculated on 1 square foot (0.0929 m2) for each 35 cubic feet (0.99 m3) of building or roof area.*

434.10.2 Egress *All rooms or buildings shall have adequate aisle space and at least two exits separated by a distance equal to at least one-fifth the perimeter of the room. Openings in fire walls shall be equipped with approved, self-closing fire doors. All exit doors shall open outward and be equipped with approved panic hardware.*

> ***Exception:*** *Cubicles 100 square feet (9.3 m2) or less and occupied by not more than two persons working within 12 feet (3658 mm) of an unobstructed passageway may have one exit.*

434.10.3 Room finishes *Floors, walls, interior surfaces and equipment shall be of a finish and color that will indicate the presence of dust and spilled material. They shall be smooth finished for easy cleaning.*

434.10.4 HVAC *Heating and cooling shall be by the indirect method using water, steam, electric heaters or other indirect methods.*

NOTE: *Floor registers shall not be permitted.*

434.10.5 Electrical *All electrical wiring and equipment shall be acceptable for the hazard involved and installed in accordance with Hazardous Locations, California Electrical Code.*

434.10.6 Grounding *Effective bonding and grounding means shall be provided to prevent accumulation of static charges where static charges are a hazard, as set forth in the California Electrical Code.*

434.10.7 Pressure relief valves *Hydraulic or air presses and hand jacks shall be provided with pressure-relief valves so arranged and set that the material being processed will not be subjected to pressure likely to cause it to explode.*

Dies and plugged press equipment shall not be cleared by striking blows that may detonate or start the material burning.

434.10.8 Dust control *Dust from special effects materials shall not be exhausted to the atmosphere. Where vacuum dust collections systems are used, they shall comply with the following requirements:*

1. *Adequate filters must be installed between the source vacuum and the point of pickup to prevent explosive special effects materials from entering the vacuum pump or exhauster.*
2. *The dust-collection system shall be designed to prevent pinch points threaded fittings exposed to the hazardous dust and sharp turns, dead ends, pockets, etc., in which special effects materials may lodge and accumulate outside the collecting chamber.*
3. *The entire vacuum collection system shall be made electrically continuous and be grounded to a maximum resistance of 5 ohms.*
4. *Chambers in which the dusts are collected shall not be located in the operating area unless adequate shields for the maximum quantity of material in the collector are furnished for personnel protection.*
5. *No more than two rooms may be serviced by a common connection to a vacuum collection chamber. Where interconnections are used, means should be employed to prevent propagation of an incident via the collection piping.*
6. *When collecting the more sensitive special effects materials, such as black powder, lead azide, etc., a "wet" collector which moistens the dust close to the point of intake and maintains the dust wet until removed for disposal shall be used. Wetting agents shall be compatible with the explosives.*
7. *Dusts shall be removed from the collection chamber as often as necessary to prevent overloading. The entire system shall be cleaned at a frequency that will eliminate hazardous concentrations of dusts in pipes, tubing and/or ducts.*

434.10.9 Fans *Squirrel cage blowers should not be used for exhausting hazardous fumes, vapors or gases. Only nonferrous fan blades are permitted for fans located within the ductwork and through which hazardous materials are exhausted. Motors shall be located outside the duct.*

434.10.10 Work stations *Work stations for small amounts of special effects materials [less than 1 pound (0.454 kg)] shall be separated by distance, barrier or other means, so fire in one station will not ignite material in the next work station. When necessary, each operator shall be protected by a personnel shield located between the operator and the material being processed. This shield and its support shall be a test design to withstand a blast from the maximum amount of special effects materials allowed behind it.*

434.10.11 Shielding *When shields or structures are needed to protect personnel, the following requirement shall be followed when specific weights of special effects materials in the amount of 1 pound (0.454 kg) or more are involved:*

Weight of Explosive	***Structure of Shield Wall***
1-15 pounds (0.454-6.8 kg)	*Shield wall constructed of concrete not less than 12 inches (305 mm) thick which is reinforced near both sides by rods not less than 1/2 inch (12.7 mm) in diameter located on maximum centers of 12 inches (305 mm) both horizontally and vertically. The rods must be staggered on opposite faces.*
More than 15 pounds (6.8 kg)	*The shield wall for the protection of workers must be designed in such a manner to protect against the efforts of not less than 25 percent overload above the expected maximum charge to be processed.*

Notes:

1. *One inch (25 mm) of mild steel is equivalent to 1 foot (305 mm) of reinforced concrete.*
2. *Explosives shall be located not less than 36 inches (914 mm) from the wall and 24 inches (610 mm) above the floor.*

If this personnel protection wall for the required operation involving large quantities of special effects materials becomes so large that it is impractical, the operator must perform the operations by remote control or be protected by a suitably constructed shelter designed with a safety factor of not less than 4 to withstand the overpressure from the maximum amount of explosives in process.

SECTION 436
WINERY CAVES [SFM]

436.1 Scope. The use of subterranean space for winery facilities in natural or manmade caves shall be in accordance with this Section.

436.2 Definitions

436.3 General. *For definitions of ASSEMBLY, FIRE APPLIANCE and NONCOMBUSTIBLE, see Chapter 2.*

436.4 Limited Application. *For the purpose of Section 436, certain terms are defined as follows:*

TYPE 1 WINERY CAVES *are natural or manmade caves used solely for storage and/or processing of wine at a winery facility. Type 1 winery caves are not accessible to the public.*

TYPE 2 WINERY CAVES *are natural or manmade caves used for the storage and/or processing of wine at a winery facility. Type 2 winery caves are accessible to the public on guided tours only.*

TYPE 3 WINERY CAVES *are natural or manmade caves used for the storage and/or processing of wine at a winery facility. Type 3 winery caves are accessible to the public on guided tours and contain assembly use areas.*

436.5 Permits. *For permits to operate Type 2 and 3 winery caves, see ~~Appendix Chapter 1,~~ Section 105.*

436.6 Fire Apparatus Access Roads *Fire apparatus access roads shall be constructed and maintained in accordance with the California Fire Code, Section 503.*

436.7 Construction Requirements

436.7.1 *Allowable Area. The area of winery caves shall not be limited if constructed entirely of noncombustible materials. Winery caves constructed with combustible materials shall be limited in area so that no point is more than 150 feet (45 720 mm) from an exit.*

436.7.2 Interior Construction. *The walls and ceilings of winery caves shall not contain hidden or concealed spaces.*

436.8 General Requirements.

436.8.1 Public Tours. *Tours for the public shall be continuously guided by staff knowledgeable in the location of exits and the use of emergency notification devices.*

436.8.2 Standby Personnel. *Per the California Fire Code, Section 2404.20, when, in the opinion of the Fire Chief, it is essential for public safety, the owner, agent or lessee shall employ one or more qualified persons, as required and approved by the chief, to be on duty at such place. Such individuals shall be in uniform or otherwise easily identifiable.*

Standby personnel shall be subject to the Fire Chief's orders at all times when so employed and shall remain on duty during the times such places are open to the public or when such activity is being conducted.

Before the start of any activity requiring standby personnel, such individuals shall:

1. *Inspect the required fire appliances to ensure they are in the proper place and in good working order.*
2. *Inspect all exits to verify accessibility and proper operation.*

While on duty, such individuals shall not be required or permitted to perform any duties other than those specified by the Fire chief.

436.8.3 Open-Flame Devices. *The use of candles and other open-flame devices shall be in accordance with California Fire Code Section ~~308.3.5~~308.1.7.*

436.9 Portable Fire Extinguishers and Other Fire Appliances
Portable fire extinguishers shall be located to be readily accessible. Its type, location and spacing throughout the facility shall be in accordance with the provisions of Title 19, Chapter 3 and California Fire Code Section 906.1. Other fire appliances shall be maintained at the site as required by the chief.

436.10 Fire Alarm Systems
An approved manual fire alarm system conforming with the provisions of the California Fire Code, Section 907.2.1 shall be provided in all Type 3 winery caves.

436.11 Exits

436.11.1 Distribution. *Exits shall be located remotely from each other and arranged to minimize any possibility that more than one may be blocked off by any one fire or other emergency condition.*

436.11.2 Number. *Winery caves shall be provided with a minimum of two exits.*
Assembly areas of Type 3 winery caves shall be provided with exits as required by the California Building Code for Group A Occupancies.

436.12 Exit Illumination

436.12.1 General. *Exits shall be illuminated to a minimum intensity of not less than 1 foot-candle (10.76 lx) at floor level whenever the winery cave is occupied. Fixtures providing exit illumination shall be supplied from a dedicated circuit or source of power used only for exit illumination.*

436.12.2 Separate Sources of Power. *The power supply for exit illumination may be provided by the premises' wiring system. In the event of its failure, illumination shall be automatically provided from an emergency system in Types 2 and 3 winery caves. Emergency systems shall be supplied from storage batteries or an on-site generator set, and the system shall be installed in accordance with the requirements of the California Electrical Code.*

436.13 Exit Signs
Exit signs shall be installed at required exits and where otherwise necessary to clearly indicate the exits from assembly areas in Type 3 winery caves.

436.14 Maximum Occupant Load.
Occupant load requirements in the assembly areas of Type 3 winery caves shall be in accordance with Section 1004.

436.15 Seating Arrangements
Seating arrangements in the assembly areas of Type 3 winery caves shall be in accordance with California Fire Code, Section ~~1024.9~~1028.9.

SECTION 439
PUBLIC LIBRARIES [SL & SFM]

Public libraries funded from the California Library Construction and Renovation Act of 1988.

439.1 Automatic Sprinkler System*. Automatic sprinkler systems shall be installed in:*

1. *New facilities, including additions;*
2. *Existing facilities to which a project adds the lesser of 5,000 square feet (465m2) or 10 percent of the size of*

the existing facility, if the existing facility does not already have an automatic sprinkler system.

439.2 System Monitoring Requirement. *All fire protection systems shall be monitored by a fire alarm supervising station in accordance with the NFPA 72.*

439.3 Book Return Slots. *Any interior book return with a slot piercing the exterior wall shall have a separate sprinkler head and be enclosed in fire-rated construction.*

439.4 Automatic sprinkler and extinguishing systems. *For public libraries constructed with funds awarded under the California Reading and Literacy Improvement and Public Library Construction and Renovation Bond Act of 2000:*

1. ***Fire sprinkler system requirement.*** *All libraries funded for new construction, including additions, shall have automatic fire sprinkler systems installed.*
2. ***Fire sprinkler system requirement for renovations of existing facilities.*** *If there is no automatic fire sprinkler system in the existing facility, grant recipients shall be required to install a fire sprinkler system throughout the existing facility.*
3. ***Fire sprinkler system types.*** *The grant recipient may choose, on approval by the local fire authority, from wet-pipe, dry-pipe or pre-action systems, utilizing listed standard, early suppression fast response (ESFR), or on/off type sprinkler heads.*
4. ***Book return rooms and slots.*** *Book return rooms with slots in exterior walls shall have an automatic sprinkler head and be of approved fire-resistive construction. Book return slots and book drops shall have an additional automatic sprinkler head when shielded from the room sprinkler head.*
5. ***System monitoring requirement.*** *All fire protection systems shall be monitored by a fire alarm supervising station in accordance with the National Fire Protection Association (NFPA) 72.*
6. ***Alternate fire-extinguishing systems for specialized areas.*** *When approved by the fire authority having jurisdiction, other types of approved automatic fire-extinguishing systems may be utilized as an alternate to sprinklers in the following areas: rare book rooms, central computer rooms and telecommunication rooms.*
7. ***Automatic sprinkler system plan requirement.*** *Fire sprinkler system drawings shall use the furniture plan as a background for coordination with furniture and book stack location and height.*

SECTION 440
GROUP C [SFM]

440.1 Group C Occupancies Defined.

440.1.1 Organized Camps. *For the purposes of these regulations, Group C Occupancies shall mean "organized camps" as defined in Section 18897, Health and Safety Code.*

440.1.1.1 Description. *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.*

The term "organized camp" does not include a motel, tourist camp, trailer park, resort, hunting camp, auto court, labor camp, penal or correctional camp, child-care institution or home-finding agency nor does it include any charitable or recreational organization which complies with the rules and regulations for recreational trailer parks provided for by Section 18301 (b), Health and Safety Code.

440.1.2 Tents and tent structures. *For the purpose of this chapter, a tent or tent structure is defined as any shelter of which 25 per-cent or more of the walls or roof, or both, are constructed of, or covered or protected by, a canvas or any other fabric material.*

440.2 Purpose and Intent. *The provisions of this section are established to provide fire and life safety in organized camps, but at the same time preserve the basic concept of outdoor living. It is the intent of this section that organized camps shall be considered as a separate and distinct occupancy.*

440.3 Basic Building and Structures.

440.3.1 Building Classification. *Every building or structure shall be classified into the occupancy group they most nearly resemble and be constructed in accordance with appropriate occupancy requirements specified in this part.*

Exceptions:

1. *Tents, tent structures, and buildings and structures that do not exceed 25 feet (7620 mm) in any lateral dimension and where such building or structure is not more than one story.*
2. *For fire safety, buildings or structures on the premises of an organized camp which are used for sleeping purposes, regardless of their similarity to other occupancy groups, shall conform to the provisions of Sections 440.4, 440.5, 440.6 and 440.7.*
3. *For fire safety, buildings and structures which are not used for sleeping purposes shall conform to the provisions of Section 440.7,which shall supersede any similar provisions contained in this part.*

440.3.2 Occupant load. *The living shelter whether a building, structure, tent and tent structure, or cabin, shall provide a minimum of 30 square feet(2.8 m2) of superficial floor area per person for single-tier bed units, and 20 square feet (1.9 m2) of superficial floor area per person for two-tier bed units. More than two tiers per bed unit are prohibited. There shall be at least 3 feet (914 mm) of lateral distance between beds.*

Exception: *Intermittent short-term organized camps are not required to provide shelter facilities but, if provided, they shall comply with this section.*

440.4 General.

440.4.1 Buildings intended for sleeping. *Buildings and structures used or intended for sleeping purposes which do not exceed any one of the limitations set forth below shall conform to the provisions of Sections 440.5 and 440.7.*

1. *One story in height.*
2. *Twenty-five feet (7620 mm) in any lateral dimension.*

   Exception: *This provision shall not apply to buildings or structures conforming to construction provisions of this section in effect prior to January 1, 1985.*

3. *Maximum housing of 12 persons.*

440.4.2 Limitations. *Buildings and structures used or intended for sleeping purposes, including those so used in whole or in part by staff personnel, and which exceed any one of the limitations set forth in Section 440.4.1, shall conform to the provisions of Sections 440.5 and 440.7.*

Exception: *Buildings or structures used exclusively for living and sleeping purposes by resident custodial or caretaker personnel only may be constructed in accordance with the provisions of these regulations for a Group R, 3 Occupancy.*

440.5 Special Buildings, Tents and Tent Structures.

440.5.1 Special buildings. *In addition to the provisions of Section 440.7, special buildings conforming to the limitations specified in Section 440.4.1 shall conform to the following:*

1. *The flame-spread end-point rating of all interior finish materials shall not exceed 200.*
2. *Every room or area housing more than eight persons shall be provided with not less than two approved exits, each of which shall be direct to the exterior and shall not be less than 32 inches (813mm) in clear width and 6 feet 8 inches (2032 mm) in height. Rooms or areas housing eight or less persons shall be provided with at least one such exit direct to the exterior.*
3. *Every exit door shall be openable from the inside without the use of any key, special knowledge or effort.*
4. *Exit doors need not be hung to swing in the direction of exit travel. Where exit doors are hung to swing in the direction of exit travel, a landing conforming to the provisions of Section 1008.1.5 shall be provided.*
5. *When the distance (measured vertically) between the ground level and the floor level exceeds 8 inches (203*

mm), a stairway from each exit shall be provided. Steps shall have a rise of not more than 8 inches (203 mm) and a run of not less than 9 inches (229 mm). Such stairway shall be at least as wide as the door it serves.

Exception: *In lieu of a stairway, a ramp having a slope of not more than 1 foot (305 mm) of rise for each 8 feet (2438 mm) of run may be provided.*

6. *When the floor level at any door opening of any building or structure is more than 30 inches (762 mm) above the adjacent ground level, handrails or guardrails shall be provided on the landing, balcony or porch, and on every stairway or ramp to ground level.*
7. *Buildings and structures or groups of buildings and structures shall be separated from each other by not less than 10 feet (3048 mm). This section shall not apply to existing buildings and structures of existing Group C Occupancies.*

440.5.2 Tents and tent structures. *In addition to the provisions of Section 440.7, tents and tent structures, or groups thereof, shall conform to the provisions of Section 440.5, except as follows:*

1. *Regardless of any other provisions of this section, heating of tents and tent structures shall be prohibited unless written permission is obtained from the Fire Chief.*
2. *All canvas or other fabric material shall be treated and maintained in a flame-retardant condition.*

Exceptions:

1. *Tents in existence prior to January 1, 1979, provided the following conditions are met:*

    1.1 Tents shall not exceed 80 square feet (7.4 m2) in area.
    1.2 No electrical devices, except flashlights, are installed or used in the tents.
    1.3 Tents are not located closer than 30 feet (9144 mm) to any open fire.
    1.4 Smoking is prohibited in the tents.
    1.5 All other applicable provisions of this article are met.

2. *Canvas or materials used exclusively to protect windows and similar openings in walls.*
3. *Canvas or materials used as a windbreak enclosure of not more than three sides and open to the sky.*

Note: *It is not the intent of Section 440.5.2 that strict adherence to the width and height requirements of exit openings be enforced for exits from tents.*

440.6 Building and Structures for Sleeping. *Buildings and structures, or portions thereof, used or intended for sleeping purposes and which exceed the height, area or capacity limitations specified in Section 440.4.1 shall conform to the provisions of this section.*

440.6.3 Exits. *Stairs, exits and smoke-proof enclosures shall be provided in accordance with the provisions of Chapter 10.*

440.6.4 Enclosure of vertical openings. *Exits shall be enclosed as specified in Chapter 10. Elevator shafts, vent shafts and other vertical openings shall be enclosed and enclosures shall be as set forth in Chapter 7.*

440.6.5 Fire-extinguishing systems. *Automatic fire-extinguishing systems, standpipes, and basement pipe inlets shall be installed when and as specified in Chapter 9 for buildings, based on the occupancy they most nearly resemble.*

440.6.6 Automatic fire alarm system. *See Section 907.*

440.7 Special Requirements. *The provisions of this section shall apply to the premises and to all buildings and structures of all organized camps.*

440.7.1 Electrical. *The installation of all electrical wiring shall conform to the applicable provisions of the California Electrical Code.*

440.7.2 Heating equipment. *Heating equipment, and the installation thereof, shall conform to the provisions of the California Mechanical Code.*

440.7.3 Motion picture booths. *Motion picture machine booths shall conform to the requirements of Section 409.*

440.7.4 Interior finish. *Interior finish shall conform to the requirements of Chapter 8, except as permitted in Section 440.5.1, Item 1.*

440.7.5 Heater room openings. *All exterior openings in rooms containing central heating equipment, low-pressure boilers or water-heating boilers used as part of the heating system, if located below openings in another story, or if less than 10 feet (3048 mm) from other doors or windows of the same building, shall be protected by a fire assembly having a three-fourths-hour fire-resistive rating. Such fire assemblies shall be fixed, automatic or self-closing.*

> ***Exception:*** *The requirement for three-fourths-hour fire assembly protection of openings may be deleted if the entire room is protected by an automatic sprinkler system conforming to the provisions of Section 903.*

440.7.6 Heating rooms. *Every room containing central-heating equipment, low-pressure boiler or water-heating boiler used as part of the heating system shall be separated from the rest of the building by a one-hour fire-resistive fire barrier with all openings protected as set forth in Section ~~706.7~~707.6.*

> ***Exceptions:***
> 1. *Boilers or central heating plants where the largest piece of fuel equipment does not exceed 400,000 Btu per hour (135 kW) input.*
> 2. *When any such opening is protected by a pair of fire doors, the inactive leaf shall be normally secured in the closed position and shall be openable only by use of a tool. An astragal shall be provided and the active leaf shall be self-closing.*

440.7.7 Exits. *For purposes of determining occupant load for exit requirements, see Section 440.3.2.*

440.7.8 Liquefied petroleum gas. *The construction and installation of all tanks, cylinders, equipment and systems used or intended for use in conjunction with any liquefied petroleum gas shall conform to the provisions of the California Mechanical Code and the California Fire Code.*

440.7.9 Air-conditioning and ventilation systems. *Heating units used as an integral part of an air-conditioning and ventilation system shall be installed in accordance with Sections 440.7.2, 440.7.3 and 440.7.6.*

440.8 Camp Fire Alarm. *Every organized camp shall provide and maintain a device or devices suitable for sounding a fire alarm. Such device or devices may be of any type acceptable to the enforcing agency provided they are distinctive in tone from all other signaling devices or systems and shall be audible throughout the camp premises. When an automatic fire alarm system is provided, as required by Section 440.6.6, all signaling devices required by this section shall be of the same type as that used in the automatic system.*

SECTION 442
GROUP E [SFM]

442.1 Location on Property. *All buildings housing Group E Occupancies shall front directly on a public street or an exit discharge not less than 20 feet (6096 mm) in width. The exit discharge to the public street shall be a minimum 20-foot-wide (6096 mm) right-of-way, unobstructed and maintained only as access to the public street. At least one required exit shall be located on the public street or on the exit discharge.*

442.3 Fences and Gates. *School grounds may be fenced and gates therein may be equipped with locks, provided that safe dispersal areas based on 3 square feet (0.28 m2) per occupant are located between the school and the fence. Such required safe dispersal areas shall not be located less than 50 feet (15240 mm) from school buildings.*

Every public and private school shall conform with Section 32020 of the Education Code which states:

The governing board of every public school district, and the governing authority of every private school, which maintains any building used for the instruction or housing of school pupils on land entirely enclosed (except for building walls) by fences of walls, shall, through cooperation with the local law enforcement and fire-protection agencies having jurisdiction of the area, make provision for the erection of gates in such fences or walls. The gates shall be of sufficient size to permit the entrance of the ambulances, police equipment and fire-fighting apparatus used by the law enforcement and fire-protection agencies. There shall be no less than one such access gate and there shall be as many such gates as needed to assure access to all major buildings and ground areas. If such gates are to be equipped with locks, the locking devices shall be designed to permit ready entrance by the use of the chain or bolt-cutting devices with which the local law enforcement and fire-protection agencies may be equipped.

442.5 Special hazards. *School classrooms constructed after January 1, 1990, not equipped with automatic sprinkler systems, which have metal grilles or bars on all their windows and do not have at least two exit doors within 3 feet (914 mm) of each end of the classroom opening to the exterior of the building or to a common hallway used for evacuation purposes, shall have an inside release for the grilles or bars on at least one window farthest from the exit doors. The window or windows with the inside release shall be clearly marked as emergency exits.*

442.5.1 *Class I, II or III-A flammable liquids shall not be placed, stored or used in Group E Occupancies, except in approved quantities as necessary in laboratories and classrooms and for operation and maintenance as set forth in the California Fire Code.*

SECTION 443
GROUP L [SFM]

443.1 Scope. *The provisions of this section shall apply to buildings or structures, or portions thereof, containing one or more Group L laboratory suites as defined in Section 443.2.*

443.2 Definitions

LABORATORY SUITE. *A laboratory suite is a 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 Table 443.7.3.1.*

[F] LIQUID TIGHT FLOOR. *A non-permeable barrier capable of containing hazardous material liquids without degradation.*

443.3 Laboratory suite requirements.

443.3.1 *The gross square footage of an individual laboratory suite shall not exceed 10,000 sq.ft. (929m2).*

443.3.2 *An individual laboratory suite shall not serve more than a single tenant.*

Exception: *A laboratory suite controlled by a single responsible party.*

443.4 Construction

443.4.1 Separation of Laboratory Suites

443.4.1.1 *Laboratory suites shall be separated from other occupancies in accordance with Table ~~508.3.3~~ 508.4.*

443.4.1.2 *Laboratory suites shall be separated from other laboratory suites by a fire barrier having a fire-resistance rating of not less than 1-hour.*

443.4.1.3 *Laboratory suites shall be separated from control areas by a minimum 2-hour fire-resistance rating in accordance with Section ~~706~~707 and ~~711~~712.*

Exception: *Laboratory suites shall be separated from control areas by a minimum 1-hour fire-resistance rating on floor levels below the 4th story.*

443.4.1.4 Horizontal Separation. *The floor construction of the laboratory suite and the construction supporting the floor of the laboratory suite shall have a minimum 2-hour fire-resistance rating in accordance with Section ~~711~~712.*

Exceptions:

1. The floor construction of the laboratory suite and the construction supporting the floor of the laboratory suite are allowed to be 1-hour fire-resistance rated in buildings of Type IIA, IIIA, and VA construction.

2. When an individual laboratory suite occupies more than one story, the intermediate floors contained within the suite shall comply with the requirements of Table 601.

443.4.2 Structural design occupancy category.

443.4.2.1 *Buildings containing Group L occupancies with an occupant load greater than 500 for colleges or adult education facilities, or other buildings with an occupant load greater than 5,000 shall be classified as Occupancy Category III in accordance with Chapters 16 and 16A.*

443.4.2.2 *Other buildings containing Group L occupancies shall be classified as Occupancy Category II in accordance with Chapters 16 and 16A.*

443.4.4 Emergency response equipment area. *An area for emergency response equipment shall be provided on each floor in an approved location. The area shall be a minimum of 50 square feet (4.6 m2), accessed from outside the laboratory suite and identified with signage*

443.4.5 Liquid tight floor*. All portions of the laboratory suite where hazardous materials may be present shall be provided with a liquid tight floor. Where the floor is designed to provide spill control or secondary containment the floor shall be designed in accordance with California Fire Code section 2704.2.*

443.4.6 Emergency power. *An emergency power system shall be provided in accordance with Chapter 27.*

443.4.6.1 Required Systems. *Emergency power shall be provided for all electrically operated equipment, systems and connected control circuits including:*

1. Mechanical ventilation systems. See section 443.4.7.
2. Emergency alarm and monitoring systems.
3. Temperature control systems required to prevent unsafe process excursions or chemical reactions.
4. Treatment Systems and Scrubbers.
5. Egress lighting
6. Electrically operated systems required elsewhere in this code and the California Fire Code

443.4.7 Ventilation.

443.4.7.1 Compatibility. *Incompatible materials shall not be conveyed in the same duct system. Combined products in mechanical exhaust ducts shall not create a physical hazard or reaction that could degrade the duct material. The building official may require a technical report in accordance with Section 443.7.1.*

443.4.7.2 Fire dampers, smoke dampers and combination fire/smoke dampers. *Fire dampers, smoke dampers or fire/smoke dampers shall not be permitted in product conveying and other mechanical exhaust duct systems used to maintain a safe laboratory environment. When the exhaust duct penetrates the laboratory suite boundary the exhaust duct shall be located within a horizontal assembly having a fire resistance rating equal to the fire barrier.*

443.4.7.3 Duct materials. *Product conveying and other mechanical exhaust duct systems used to maintain a safe laboratory environment shall be constructed in accordance with Chapters 5 and 6 of the California Mechanical Code.*

443.4.7.4 Laboratory suite exhaust air.

443.4.7.4.1 *Exhaust air from Laboratory suites shall not be recirculated.*

443.4.7.4.2 *Laboratory suite exhaust air shall be independently ducted to a point outside the building or a roof top structure.*

Exceptions:

1. *Exhaust ducts serving a single laboratory suite.*
2. *Exhaust ducts serving separate laboratory suites on the same story may be connected to a common duct within a fire rated vertical shaft when the sub-duct~~s~~ ~~extended~~extends vertically upward at least 22 inches.*
3. *Exhaust ducts serving separate laboratory suites on the basement through the 4th story may be connected to a common duct within a fire rated vertical shaft when the sub- duct~~s~~ ~~extended~~extends vertically upward at least 22 inches.*
4. *Exhaust ducts serving separate laboratory suites on the 5th story and above may be connected to a common duct that does not exceed 100 vertical feet within a fire rated vertical shaft when the subducts ~~extended~~extends vertically upward at least 22 inches. Ducts serving the 5th story and above shall be ~~a~~ separate from the duct serving the 4th story and below, but may be within the same fire rated shaft.*

443.4.7.4.3 *Laboratory suite exhaust ducts shall not penetrate the 2-hour fire barrier required by Section 443.4.3.*

Exception: *Where the exhaust duct is enclosed in a 2-hour shaft in accordance with Section ~~707~~708.*

443.4.7.5 Ventilation rates. *.Mechanical exhaust ventilation systems shall provide a minimum ventilation rate not less than 1 cubic feet per minute per square foot [0.00508 m3/(s·m2)] of floor area, or 6 air exchanges per hour, whichever is greater. Systems shall operate continuously at the designed ventilation rate.*

443.4.7.6 Mechanical ventilation systems on emergency power. *When operating on emergency power, the ventilation rate may be reduced to a level sufficient to maintain a differential pressure negative to the surrounding area.*

443.4.7.7 Mechanical ventilation system balancing. *Mechanical ventilation systems shall be designed and balanced such that during normal and emergency conditions the door opening forces comply with the requirements of Sections ~~1008.1.2~~1008.1.3 and 1133B.2.5 as applicable. Emergency conditions shall include: supply fan shutdown or failure, closing of smoke dampers or combination fire/smoke dampers, or emergency power.*

443.5. Fire protection systems. *See Chapter 9.*

443.6 Means of egress.

443.6.1 Access to exits. *Every portion of a laboratory suite containing hazardous materials and having a floor area of 500 square feet (19m²) or more shall have access to not less than two separate exits or exit-access doorways in accordance with Section 1015.2.*

443.6.2 Door swing. *All exit and exit-access doors serving areas with hazardous materials shall swing in the direction of exit travel, regardless of the occupant load served.*

443.6.3 Panic hardware. *Exit and exit access doors from areas with hazardous materials shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.*

443.6.4 Buildings more than 4 stories. *A minimum of one exit shall be provided to serve the floor on each side of the 2-hour fire barrier and shall comply with the provisions of Chapter 10.*

443.6.5 Corridors. *Corridors shall comply with Section 1017 and shall have opening protection in accordance with Table 715.4, Table 715.5 and Table ~~715.5.3~~715.5.4.*

443.7 Hazardous materials

443.7.1 Technical report. *The enforcing agency may require a technical opinion and report to identify and develop methods of protection from the hazards presented by the hazardous materials. A qualified person, firm, or corporation, approved by the enforcing agency, shall prepare the opinion and report, and shall be provided without charge to the enforcing agency. The opinion and report may include, but is not limited to, the preparation of a hazardous material management plan (HMMP); chemical analysis; recommendations for methods of isolation, separation, containment or protection of hazardous materials or processes, including appropriate engineering controls to be applied; the extent of changes in the hazardous behavior to be anticipated under conditions of exposure to fire or from hazard control procedures; and the limitations or conditions of use necessary to achieve and maintain control of the hazardous materials or operations. The report shall be entered into the files of the code enforcement agencies. Proprietary and trade secret information shall be protected under the laws of the state or jurisdiction having authority.*

443.7.2 Multiple hazards. *When a hazardous material has multiple hazards, all hazards shall be addressed and controlled in accordance with the provisions of this code.*

443.7.3 Percentage of maximum allowable quantities. *The percentage of the maximum allowable quantity of hazardous materials per laboratory suite permitted for each story level within a building shall be in accordance with Table 443.7.3.1.*

SECTION 445
LARGE FAMILY DAY CARE HOMES [SFM]

445.1 Large Family Day-Care Homes.

445.2 *For purposes of clarification, Health and Safety Code Section 1597.46 is repeated.*

(a) A city, county, or city and county shall not prohibit large family day care homes on lots zoned for single-family dwellings, but shall do one of the following:

(1) Classify these homes as a permitted use of residential property for zoning purposes.

(2) Grant a nondiscretionary permit to use a lot zoned for a single-family dwelling to any large family day care home that complies with local ordinances prescribing reasonable standards, restrictions, and requirements concerning spacing and concentration, traffic control, parking, and noise control relating to such homes, and complies with subdivision (d) and any regulations adopted by the State Fire Marshal pursuant to that subdivision. Any noise standards shall be consistent with local noise ordinances implementing the noise element of the general plan and shall take into consideration the noise level generated by children. The permit issued pursuant to this paragraph shall be granted by the zoning administrator, if any, or if there is no zoning administrator by the person or persons designated by the planning agency to grant such permits, upon the certification without a hearing.

(3) Require any large family day care home to apply for a permit to use a lot zoned for single-family dwellings. The zoning administrator, if any, or if there is no zoning administrator, the person or persons designated by the planning agency to handle the use permits shall review and decide the applications. The use permit shall be granted if the large family day care home complies with local ordinances, if any, prescribing reasonable standards, restrictions, and requirements concerning spacing and concentration, traffic control, parking, and noise control relating to such homes, and complies with subdivision (d) and any regulations adopted by the State Fire Marshal pursuant to that subdivision.

Any noise standards shall be consistent with local noise ordinances implementing the noise element of the general plan and shall take into consideration the noise levels generated by children.

The local government shall process any required permit as economically as possible, and fees charged for review shall not exceed the costs of the review and permit process. Not less than 10 days prior to the date on which the decision will be made on the application, the zoning administrator or person designated to handle such use permits shall give notice of the proposed use by mail or delivery to all owners shown on the last equalized assessment roll as owning real property within a 100 foot radius of the exterior boundaries of the proposed large family day care home. No hearing on the application for a permit issued pursuant to this paragraph shall be held before a decision is made unless a hearing is requested by the applicant or other affected person. The applicant or other affected person may appeal the decision. The appellant shall pay the cost, if any of the appeal.

(b) A large family day care home shall not be subject to the provisions of Division 13 (commencing with Section

21000) of the Public Resources Code.

(c) Use of a single-family dwelling for the purposes of a large family day care home shall not constitute a change of occupancy for purposes of Part 1.5 (commencing with Section 17910) of Division 13 (State Housing Law), or for purposes of local building and fire codes.

(d) Large family day care homes shall be considered as single-family residences for the purposes of the State Uniform Building Standards Code and local building and fire codes, except with respect to any additional standards specifically designed to promote the fire and life safety of the children in these homes adopted by the State Fire Marshal pursuant to this subdivision.

445.3 Smoke Alarms. *Large family day-care homes shall be equipped with State Fire Marshal approved and listed single station residential type smoke alarms. The number and placement of smoke alarms shall be determined by the enforcement authority.*

445.4 Fire Extinguishers. *Large and small family day-care homes shall be equipped with a portable fire extinguisher having a minimum 2A10BC rating.*

445.5 Fire Alarm Devices. ~~*Every large family day-care home shall be provided with at least one manual device at a location approved by the authority having jurisdiction. Such device shall actuate a fire alarm signal, which shall be audible throughout the facility at a minimum level of 15 db above ambient noise level. These devices need not be interconnected to any other fire alarm device, have a control panel or be electrically supervised or provided with emergency power. Such device or devices shall be attached to the structure and may be of any type acceptable to the enforcing agent, provided that such devices are distinctive in tone and are audible throughout the structure.*~~ *See Section 907.2.6.4.*

445.6 Compliance. *Every large-family day care home shall comply with the provisions for Group R-3 occupancies and, if appropriate, Section 426.1. For the purposes of Section 426.1, the first story shall be designated as the floor used for residential occupancy nearest to the street level which provides primary access to the building.*

Enforcement of the provisions shall be in accordance with the Health and Safety Code Sections 13145 and 13146. No city, county, city and county, or district shall adopt or enforce any building ordinance or local rule or regulation relating to the subject of fire and life safety in large-family day-care homes which is inconsistent with those standards adopted by the State Fire Marshal, except to the extent the building ordinance or local rule or regulation applies to single-family residences in which day care is not provided.

445.7 Special Hazards*. Every unenclosed gas-fired water heater or furnace which is within the area used for child care in a large family day-care home shall be protected in such a way as to prevent children from making contact with those appliances.*

Exception: *This does not apply to kitchen stoves or ovens.*

445.8 Exiting. *See Section 1015.7*

~~*Every story or basement of a large family day-care home shall be provided with two exits which are remotely located from each other. Every required exit shall be of a size to permit the installation of a door not less than 32 inches (813mm) in clear width and not less than 6 feet 8 inches (2032 mm) in height. A manually operated horizontal sliding door may be used as one of the two required exits.*~~

~~*Where basements are used for day-care purposes, one of the two required exits shall provide access directly to the exterior without entering the first story. The second exit from the basement may either pass through the story above or exit directly to the exterior.*~~

~~*Rooms used for day-care purposes shall not be located above the first story.*~~

~~***Exception:*** *Buildings equipped with an automatic sprinklers system throughout and which have at least one of the required exits providing access directly to the exterior. NFPA 13R or NFPA 13D may be used in large family day-care homes. Section 206 of NFPA 13R or NFPA 13D shall not apply unless approved by the authority having jurisdiction.*~~

~~*Section 1004.1.1 is not applicable to this occupancy classification.*~~

CHAPTER 5
GENERAL BUILDING HEIGHTS AND AREAS

507.3 Sprinklered, one story. The area of a Group B, F, M or S building no more than one story above grade plane, ~~or a Group A-4 building no more than one story above grade plane of other than Type V construction,~~ shall not be limited when the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1 and is surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

Exception~~s~~:

1. Buildings and structures of Type I and II construction for rack storage facilities that do not have access by the public shall not be limited in height, provided that such buildings conform to the requirements of Sections 507.3, 903.3.1.1 and Chapter 23 of the ~~*International*~~ *California Fire Code*.

~~2. The automatic sprinkler system shall not be required in areas occupied for indoor participant sports, such as tennis, skating, swimming and equestrian activities in occupancies in Group A-4, provided that:~~

~~2.1. Exit doors directly to the outside are provided for occupants of the participant sports areas; and~~

~~2.2. The building is equipped with a fire alarm system with manual fire alarm boxes installed in accordance with Section 907.~~

507.10 Group E buildings. The area of a Group E building no more than one story above grade plane, of Type II*A*, IIIA or IV construction, shall not be limited when all of the following criteria are met:

1. Each classroom shall have not less than two means of egress, with one of the means of egress being a direct exit to the outside of the building complying with Section 1020.
2. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. The building is surrounded and adjoined by public ways or yards not less than 60 feet (18-288 mm) in width.

CHAPTER 6
TYPES OF CONSTRUCTION

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. Thermal and acoustical insulation, other than foam plastics, having a flame spread index of not more than 25.

Exceptions:

1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a flame spread index of not more than 100.
2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a flame spread index of not more than 200.
2. Foam plastics in accordance with Chapter 26.
3. Roof coverings that have an A, B or C classification.
4. Interior floor finish and floor covering materials installed in accordance with Section 804.
5. Millwork such as doors, door frames, window sashes and frames.
6. Interior wall and ceiling finishes installed in accordance with Sections 801 and 803.
7. Trim installed in accordance with Section 806.
8. Where not installed over 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
9. Finish flooring installed in accordance with Section 805.
10. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a corridor serving an occupant load of 30 or more shall be permitted to be constructed of fire-retardant- treated wood, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
11. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.

12. Combustible exterior wall coverings, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
13. Blocking such as for handrails, millwork, cabinets and window and door frames.
14. Light-transmitting plastics as permitted by Chapter 26.
15. Mastics and caulking materials applied to provide flexible seals between components of exterior wall construction.
16. Exterior plastic veneer installed in accordance with Section 2605.2.
17. Nailing or furring strips as permitted by Section 803.4.
18. Heavy timber as permitted by Note c to Table 601 and Sections 602.4.7 and 1406.3.
19. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
20. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of fire-resistance tests in accordance with Section 703.2 and installed in accordance with Sections 1704.12 and 1704.13, respectively.
21. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 713.
22. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 717.5.
24. Materials exposed within plenums complying with Section 602 of the ~~*International*~~ *California Mechanical Code*.
25. Fire-retardant-treated wood shall be permitted in:

    25.1. Nonbearing partitions where the required fire-resistance rating is 2 hours or less.
    25.2. Nonbearing exterior walls where no fire rating is required.
    25.3. Roof construction, including girders, trusses, framing and decking.

    Exception: In buildings of Type IA construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof construction when the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

603.1.1 Ducts. The use of nonmetallic ducts shall be permitted when installed in accordance with the limitations of the ~~*International*~~ *California Mechanical Code*.

603.1.2 Piping. The use of combustible piping materials shall be permitted when installed in accordance with the limitations of the ~~*International*~~ *California Mechanical Code* and the ~~*International*~~ *California Plumbing Code*.

603.1.3 Electrical. The use of electrical wiring methods with combustible insulation, tubing, raceways and related components shall be permitted when installed in accordance with the limitations of the ~~*NFPA 70*~~ *California Electrical Code*.

CHAPTER 7
FIRE-RESISTANCE-RATED CONSTRUCTION

TABLE 706.3.9
FIRE-RESISTANCE RATING REQUIREMENTS FOR FIRE BARRIER ASSEMBLIES BETWEEN FIRE AREAS

OCCUPANCY GROUP	FIRE-RESISTANCE RATING (hours)
H-1, H-2	4
F-1, H-3, S-1	3
A, B, E, F-2, H-4, H-5, I, *L,* M, R, S-2	2
U	1

708.2 Shaft enclosure required. Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this Section.

Exceptions:
1. A shaft enclosure is not required for openings totally within an individual residential dwelling unit and

connecting four stories or less.

2. *In other than Groups I-2, I-2.1,and I-3, ~~A~~*a shaft enclosure is not required in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 for an escalator opening or stairway that is not a portion of the means of egress protected according to Item 2.1 or 2.2:

2.1. Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M, this application is limited to openings that do not connect more than four stories.

2.2. Where the opening is protected by approved power-operated automatic shutters at every penetrated floor. The shutters shall be of noncombustible construction and have a fire-resistance rating of not less than 1.5 hours. The shutter shall be so constructed as to close immediately upon the actuation of a smoke detector installed in accordance with Section 907.3 and shall completely shut off the well opening. Escalators shall cease operation when the shutter begins to close. The shutter shall operate at a speed of not more than 30 feet per minute (152.4 mm/s) and shall be equipped with a sensitive leading edge to arrest its progress where in contact with any obstacle, and to continue its progress on release there from.

3. A shaft enclosure is not required for penetrations by pipe, tube, conduit, wire, cable and vents protected in accordance with Section 713.4.
4. A shaft enclosure is not required for penetrations by ducts protected in accordance with Section 713.4. Grease ducts shall be protected in accordance with the ~~*International*~~ *California Mechanical Code*.
5. In other than Group H occupancies, a shaft enclosure is not required for floor openings complying with the provisions for atriums in Section 404.
6. A shaft enclosure is not required for approved masonry chimneys where annular space protection is provided at each floor level in accordance with Section 717.2.5.
7. In other than Groups I-2, *I-2.1* and I-3, a shaft enclosure is not required for a floor opening or an air transfer opening that complies with the following:

   7.1. Does not connect more than two stories.
   7.2. Is not part of the required means of egress system.
   7.3. Is not concealed within the construction of a wall or a floor/ceiling assembly.
   7.4. Is not open to a corridor in Group I and R occupancies.
   7.5. Is not open to a corridor on nonsprinklered floors in any occupancy.
   7.6. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.
   7.7. Is limited to the same smoke compartment.

8. A shaft enclosure is not required for automobile ramps in open and enclosed parking garages constructed in accordance with Sections 406.3 and 406.4, respectively.
9. A shaft enclosure is not required for floor openings between a mezzanine and the floor below.
10. A shaft enclosure is not required for joints protected by a fire-resistant joint system in accordance with Section 713.
11. A shaft enclosure shall not be required for floor openings created by unenclosed stairs or ramps in accordance with Exception 3 or 4 in Section 1016.1.
12. Floor openings protected by floor fire doors in accordance with Section 712.8.
13. In Group I-3 occupancies, a shaft enclosure is not required for floor openings in accordance with Section 408.5.
14. A shaft enclosure is not required for elevator hoistways in open or enclosed parking garages that serve only the parking garage.
15. In open or enclosed parking garages a shaft enclosure is not required to enclose mechanical exhaust or supply duct systems when such duct system is contained within and serves only the parking garage.
16. Where permitted by other sections of this code.

715.4.6.1 Fire door labeling requirements. Fire doors shall be labeled showing the name of the manufacturer or other identification readily traceable back to the manufacturer, the name or trademark of the third-party inspection agency, the fire protection rating and, where required for fire doors in exit enclosures and exit passageways by Section 715.4.4, the maximum transmitted temperature end point. Smoke and draft control doors complying with UL 1784 shall be labeled as such and shall also comply with Section 715.4.6.3. Labels shall be approved and

permanently affixed. The label shall be applied at the factory or location where fabrication and assembly are performed.

Exception: *In Group I-3 doors which are required to be 45 minutes or higher shall be fire-rated assemblies or certified by the manufacturer as being equivalent to the required standard.*

715.4.8.3 Smoke-activated doors. Automatic-closing doors installed in the following locations shall be automatic-closing by the actuation of smoke detectors installed in accordance with Section 907.3 or by loss of power to the smoke detector or hold-open device. Doors that are automatic-closing by smoke detection shall not have more than a 10-second delay before the door starts to close after the smoke detector is actuated:

1. Doors installed across a corridor.
2. Doors that protect openings in exits or corridors required to be of fire-resistance-rated construction.
3. Doors that protect openings in walls that are capable of resisting the passage of smoke in accordance with Section 508.2.5.2.
4. Doors installed in smoke barriers in accordance with Section 710.5.
5. Doors installed in fire partitions in accordance with Section 709.6.
6. Doors installed in a fire wall in accordance with Section 706.8.
7. Doors installed in shaft enclosures in accordance with Section 708.7.
8. Doors installed in refuse and laundry chutes and access and termination rooms in accordance with Section 708.13.
9. Doors installed in the walls for compartmentation of underground buildings in accordance with Section 405.4.2.
10. Doors installed in the elevator lobby walls of underground buildings in accordance with Section 405.4.3.
11. Doors installed in smoke partitions in accordance with Section 711.5.3.
12. *[SFM] Doors installed in walls required to be fire rated in accordance with Section 508.2.2*
13. *[SFM] Doors installed in walls required to be fire rated in accordance with Section 508.3.3*

In Group I-2 occupancies smoke activated doors installed in the above locations shall be automatic closing by actuation of the fire alarm system, or actuation of smoke detectors installed in accordance with Section 907.10, or activation of the sprinkler system installed in accordance with Section 903.1.

716.2.2 Hazardous exhaust ducts. Fire dampers for hazardous exhaust duct systems shall comply with the ~~*International*~~ *California Mechanical Code*.

716.6.1 Through penetrations. In occupancies other than Groups I-2 and I-3, a duct constructed of approved materials in accordance with the ~~*International*~~ *California Mechanical Code* that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two stories is permitted without shaft enclosure protection, provided a listed fire damper is installed at the floor line or the duct is protected in accordance with Section 713.4. For air transfer openings, see Exception 7 to Section 708.2.

Exception: A duct is permitted to penetrate three floors or less without a fire damper at each floor, provided it meets all of the following requirements:

1. The duct shall be contained and located within the cavity of a wall and shall be constructed of steel having a minimum wall thickness of 0.187-inches (0.4712 mm) (No. 26 gage).
2. The duct shall open into only one dwelling or sleeping unit and the duct system shall be continuous from the unit to the exterior of the building.
3. The duct shall not exceed 4-inch (102 mm) nominal diameter and the total area of such ducts shall not exceed 100 square inches (0.065 m^2) in any 100 square feet (9.3 m^2) of floor area.
4. The annular space around the duct is protected with materials that prevent the passage of flame and hot gases sufficient to ignite cotton waste where subjected to ASTM E 119 or UL 263 time-temperature conditions under a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water at the location of the penetration for the time period equivalent to the fire-resistance rating of the construction penetrated.
5. Grille openings located in a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with a listed ceiling radiation damper installed in accordance with Section 716.6.2.1.

716.6.2 Membrane penetrations. Ducts and air transfer openings constructed of approved materials in accordance with the ~~*International*~~ *California Mechanical Code* that penetrate the ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with one of the following:

1. A shaft enclosure in accordance with Section 708.
2. A listed ceiling radiation damper installed at the ceiling line where a duct penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.
3. A listed ceiling radiation damper installed at the ceiling line where a diffuser with no duct attached penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.

716.6.3 Nonfire-resistance-rated floor assemblies. Duct systems constructed of approved materials in accordance with the ~~*International*~~ *California Mechanical Code* that penetrate nonfire-resistance-rated floor assemblies shall be protected by any of the following methods:

1. A shaft enclosure in accordance with Section 708.
2. The duct connects not more than two stories, the annular space around the penetrating duct is protected with an approved noncombustible material that resists the free passage of flame and the products of combustion.
3. The duct connects not more than three stories, the annular space around the penetrating duct is protected with an approved noncombustible material that resists the free passage of flame and the products of combustion and a fire damper is installed at each floor line.

Exception: Fire dampers are not required in ducts within individual residential dwelling units.

717.5 Combustible materials in concealed spaces in Type I or II construction. Combustible materials shall not be permitted in concealed spaces of buildings of Type I or II construction.

Exceptions:
1. Combustible materials in accordance with Section 603.
2. Combustible materials exposed within plenums complying with Section 602 of the ~~*International*~~ *California Mechanical Code*.
3. Class A interior finish materials classified in accordance with Section 803.
4. Combustible piping within partitions or shaft enclosures installed in accordance with the provisions of this code.
5. Combustible piping within concealed ceiling spaces installed in accordance with the ~~*International*~~ *California Mechanical Code* and the ~~*International*~~ *California Plumbing Code*.
7. Combustible insulation and covering on pipe and tubing, installed in concealed spaces other than plenums,
8. Complying with Section 719.7.

719.1 General. Insulating materials, including facings such as vapor retarders and vapor-permeable membranes, similar coverings, and all layers of single and multilayer reflective foil insulations, shall comply with the requirements of this section. Where a flame spread index or a smoke-developed index is specified in this section, such index shall be determined in accordance with ASTM E 84. Any material that is subject to an increase in flame spread index or smoke-developed index beyond the limits herein established through the effects of age, moisture, or other atmospheric conditions shall not be permitted.

Exceptions:
1. Fiberboard insulation shall comply with Chapter 23.
2. Foam plastic insulation shall comply with Chapter 26.
3. Duct and pipe insulation and duct and pipe coverings and linings in plenums shall comply with the ~~*International*~~ *California Mechanical Code*.

719.7 Insulation and covering on pipe and tubing. Insulation and covering on pipe and tubing shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

Exception: Insulation and covering on pipe and tubing installed in plenums shall comply with the ~~*International*~~ *California Mechanical Code.*

CHAPTER 8
INTERIOR FINISHES

804.4 Interior floor finish requirements. In all *other* occupancies *except I-3*, interior floor finish and floor covering materials in exit enclosures, exit passageways, corridors and rooms or spaces not separated from corridors by full-height partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux as specified in Section 804.4.1. *For Group I-3 Occupancies see Section 804.4.2.*

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

> ***Exception:*** *Noncombustible floor finish and floor coverings in areas where restraint is not used may have carpet or other floor covering materials applied in areas protected by an automatic sprinkler system and meeting ASTM Standard E 648, and having a smoke density rating of less than 450 per ASTM Standard E 84. The carpeting and carpet padding shall be tested as a unit in accordance with floor Covering Radiant Panel Test meeting Class I 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.*

[F] 806.5 Interior trim. Material, other than foam plastic used as interior trim, shall have a minimum *Class B flame spread and 450 smoke-developed index in Group I-3 and for all other occupancies* Class C flame spread and smoke-developed index when tested in accordance with ASTM E 84 or UL 723, as described in Section 803.1.1. Combustible trim, excluding handrails and guardrails, shall not exceed 10 percent of the specific wall or ceiling area in which it is attached.

CHAPTER 10
MEANS OF EGRESS

[F] 1001.3 Maintenance. Means of egress shall be maintained in accordance with the ~~*International*~~ *California Fire Code*.

1003.1 Applicability. The general requirements specified in Sections 1003 through 1013 shall apply to all three elements of the means of egress system, in addition to those specific requirements for the exit access, the exit and the exit discharge detailed elsewhere in this chapter.

> ***Exception:*** *Exiting requirements for Fixed Guideway Transit Systems shall be as per Section 433.3.*

1003.3 Protruding objects. Protruding objects shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.

> ***Exception:*** *In Group I-2 and Group I-2.1 occupancies, protruding objects shall not extend more than 12 inches (305 mm) below the minimum ceiling height required by Section 1003.2.*

1003.5 Elevation change. Where changes in elevation of less than 12 inches (305 mm) exist in the means of egress, sloped surfaces shall be used. Where the slope is greater than one unit vertical in 20 units horizontal (5-percent slope), ramps complying with Section 1010 shall be used. Where the difference in elevation is 6 inches (152 mm) or less, the ramp shall be equipped with either handrails or floor finish materials that contrast with adjacent floor finish materials.

> **Exceptions:**
> 1. A single step with a maximum riser height of 7 inches (178 mm) is permitted for buildings with occupancies in Groups F, H, R-2 and R-3 and Groups S and U at exterior doors not required to be accessible by Chapter 11.
> 2. A stair with a single riser or with two risers and a tread is permitted at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1009.4, the minimum depth of the tread is 13 inches (330 mm) and at least one handrail complying with Section 1012 is provided within 30 inches (762 mm) of the centerline of the normal path of egress travel on the stair.

3. A step is permitted in aisles serving seating that has a difference in elevation less than 12 inches (305 mm) at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1028.11 and the aisle is provided with a handrail complying with Section 1028.13.

Throughout a story in a Group I-2 *and Group I-2.1* occupancy*ies*, any change in elevation in portions of the exit access that serve nonambulatory persons shall be by means of a ramp or sloped walkway.

TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal Baggage claim Baggage handling Concourse Waiting areas	 20 gross 300 gross 100 gross 15 gross
Assembly Gaming floors (keno, slots, etc.)	 11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats Concentrated (chairs only-not fixed) Standing space Unconcentrated (tables and chairs)	 7 net 5 net 15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms-other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational Classroom area Shops and other vocational room areas	 20 net 50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas Inpatient treatment areas Outpatient areas Sleeping areas	 240 gross 100 gross 120 gross

Kitchens, commercial	200 gross
Laboratory *Educational* *Laboratories, non-educational* *Laboratory suite*[a]	 *50 net* *100 net* *200 gross*
Library Reading rooms Stack area	 50 net 100 gross
Locker rooms	50 gross
Mercantile Areas on other floors Basement and grade floor areas Storage, stock, shipping areas	 60 gross 30 gross 300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools Rink and pool Decks	 50 gross 15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m2.
[a] *See section 443.2.*

1007.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by ~~not less than two~~ accessible means of egress *in at least the same number as required by Section 1015.1 or ~~1019.1~~1021.1. In addition to the requirements of this chapter, means of egress, which provide access to, or egress from, buildings for persons with disabilities, shall also comply with the requirements of Chapters 11A or 11B as applicable.*

Exceptions:
1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with sloped or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8.

1007.6.1 Size. Each area of refuge shall be sized to accommodate ~~one~~ *two* wheelchair space*s that are not less than* ~~of~~ 30 inches by 48 inches (762 mm by 1219 mm)*. The total number of such 30-inch by 48-inch (762 mm by 1219 mm) spaces per story shall be not less than one for every 200 persons of calculated occupant load served by the area of* ~~*rescue*~~ *refuge.* ~~for each 200 occupants or portion thereof, based on the occupant load of the area of refuge and areas served by the area of refuge.~~ Such wheelchair spaces shall not reduce the required means of egress width. Access to any of the required wheelchair spaces in an area of refuge shall not be obstructed by more than one adjoining wheelchair space

Exception: *The enforcing agency may reduce the size of each required area of refuge to accommodate one wheelchair space that is not less than 30 inches by 48 inches on floors where the occupant load is less than 200.*

~~1007.9~~ 1007.12 Alarms/emergency warning systems/accessibility. *If emergency warning systems are required, they shall activate a means of warning the hearing impaired. Emergency warning systems as part of the fire-alarm system shall be designed and installed in accordance with NFPA 72 as amended in Chapter 35.*

1008.1.1 Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds *and litter patients* shall provide a clear width not less than ~~41.5~~ *44* inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in Group R-2 and R-3 occupancies.
2. Door openings to resident sleeping units in Group I-3 occupancies shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93 m2) in area shall not be limited by the minimum width.
4. Width of door leafs in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units and sleeping units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
7. In other than Group R-1 occupancies, the minimum widths shall not apply to interior egress doors within a dwelling unit or sleeping unit that is not required to be an Accessible unit, Type A unit or Type B unit .

1008.1.1.1 Projections into clear width. There shall not be projections into the required clear 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 occupancy, there shall be no projections into the clear width of doors used for the movement of beds and litter patients in the means of egress.

1008.1.2 Door swing. Egress doors shall be of the pivoted or side-hinged swinging type.

Exceptions:

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Critical or intensive care patient rooms within suites of health care facilities.
4. Doors within or serving a single dwelling unit in Groups R-2 and R-3.
5. In other than Group H occupancies, revolving doors complying with Section 1008.1.4.1.
6. In other than Group H occupancies, horizontal sliding doors complying with Section 1008.1.4.3 are permitted in a means of egress.
7. Power-operated doors in accordance with Section 1008.1.4.2.
8. Doors serving a bathroom within an individual sleeping unit in Group R-1.
9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a means of egress from spaces with an occupant load of 10 or less.

~~9.~~*10. In I-2 and I-2.1 occupancies, exit doors serving an occupant load of 10 or more, may be of the pivoted or balanced type.*

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons or a Group H occupancy. *For Group L occupancies see Section 443.6.3.*

In a Group I-2 occupancy, all required exterior egress doors shall open in the direction of egress regardless of the occupant load served.

1008.1.9.1 Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be

accessible by Chapters 11*A or 11B* shall not require tight grasping, tight pinching or twisting of the wrist to operate.

1008.1.9.7 Delayed egress locks. Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E*,* ~~and~~ H*, and L* occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 ~~or~~ *and* an approved automatic smoke ~~or heat~~ detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through ~~6~~ *9* below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit. *Delayed egress devices shall conform to all of the following:*

1. The doors unlock upon actuation of the automatic sprinkler system or automatic ~~fire~~ *smoke* detection system.
2. The doors unlock upon loss of *electrical* power ~~controlling the lock or lock mechanism.~~ to any one of the following:

   2.1 The egress-control device itself.
   2.2 The smoke detection system.
   2.3 Means of egress illumination as required by Section 1006.

3. The door locks shall have the capability of being unlocked by a signal from ~~the fire command center~~ *a switch located in an approved location.*
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only. *The time delay established for each egress-control device shall not be field adjustable.*

Exception: ~~Where approved,~~ *In facilities housing Alzheimer's or dementia clients,* a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: ~~PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECOMDS.~~ "KEEP PUSHING. THIS DOOR WILL OPEN IN 15 [30] SECONDS. ALARM WILL SOUND" *Sign lettering shall be at least 1 inch (25mm) in height and shall have a stroke of not less than 1/8 inch (3.2 mm). A tactile sign shall also be provided in Braille and raised characters, which complies with Section 1117B.5.1.1.*
6. Emergency lighting shall be provided at the door.
7. *Actuation of the panic bar or other door-latching hardware shall activate an audible signal at the door.*
8. *The unlatching shall not require more than one operation.*
9. *Regardless of the means of deactivation, relocking of the egress-control device shall be by manual means only at the door.*

1008.1.10 Panic and fire exit hardware. Doors serving a Group H occupancy and doors serving rooms or spaces with an occupant load of 50 or more in a Group A occupancy, *assembly area not classified as an assembly occupancy,* E, *I-2 or I-2.1 occupancies* shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware. *For Group L occupancies see Section* ~~*443.6.4*~~*443.6.3*.

Exception: A main exit of a Group A occupancy in compliance with Section 1008.1.9.3, Item 2.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide that contain overcurrent devices, switching devices or control devices with exit or exit access doors shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

1009.1 Stairway width. The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

Exceptions:
1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
2. Spiral stairways as provided for in Section 1009.9.
3. Aisle stairs complying with Section 1028.

4. Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

Means of egress stairs in a Group I-2 occupancy used for the movement of beds and litter patients shall provide a clear width not less than 44 inches (1118 mm).

1009.5 Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum dimension measured in the direction of travel equal to the width of the stairway. Such dimension need not exceed 48 inches (1219 mm) where the stairway has a straight run. Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When wheelchair spaces are required on the stairway landing in accordance with Section 1007.6.1, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exceptions:

1. Aisle stairs complying with Section 1028.

~~3.~~*2. In Group R-3 occupancies a floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs.*

1009.12 Handrails. Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407.

Exceptions:

1. Handrails for aisle stairs are not required where permitted by Section 1028.13.
2. Stairways within dwelling units, spiral stairways and aisle stairs serving seating only on one side are permitted to have a handrail on one side only.
3. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require handrails.
4. In Group R-3 occupancies, ~~a change in elevation consisting of a single riser at an entrance or egress door does not require handrails~~ *a continuous run of treads or flight of stairs with less than four risers does not require handrails*.
5. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require handrails.

1011.7 Path marking. *When exit signs are required by Chapter 10, in addition to approved floor-level exit signs, approved path marking shall be installed at floor level or no higher than 8 inches (203 mm) above the floor level in all interior rated exit corridors of unsprinklered Group A Occupancies, and Group R-1 and R-2 Occupancies.*

Such marking shall be continuous except as interrupted by door-ways, corridors or other such architectural features in order to provide a visible delineation along the path of travel.

Note: *Pursuant to Health and Safety Code Section 13143, the California amendments of this section shall apply to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.*

1014.2 Egress through intervening spaces. Egress through intervening spaces shall comply with this section.

1. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas and the area served are accessory to one or the other, are not a Group H occupancy and provide a discernible path of egress travel to an exit.

Exception: Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H, S or F occupancy when the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group.

2. An exit access shall not pass through a room that can be locked to prevent egress.

3. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.

4. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

Exceptions:
1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
2. Means of egress are not prohibited through stockrooms in Group M occupancies when all of the following are met:

   2.1. The stock is of the same hazard classification as that found in the main retail area;
   2.2. Not more than 50 percent of the exit access is through the stockroom;
   2.3. The stockroom is not subject to locking from the egress side; and
   2.4. There is a demarcated, minimum 44-inch-wide (1118 mm) aisle defined by full- or partial-height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

~~3~~5. Exits shall not pass through any room subject to locking except in Group I-3 occupancies classified as detention facilities.

1015.1 Exits or exit access doorways from spaces. Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:

Exception: Group I-2 occupancies shall comply with Section 1014.2.2 through 1014.2.7.

1. The occupant load of the space exceeds one of the values in Table 1015.1.

   Exception: In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

2. The common path of egress travel exceeds one of the limitations of Section 1014.3.
3. Where required by Sections 1015.3, 1015.4, 1015.5, 1015.6 or 1015.6.1.
4. *In detention and correctional facilities and holding cells, such as are found in courthouse buildings, a minimum of two means of egress shall be provided when the occupant load is more than 20.*

Where a building contains mixed occupancies, each individual occupancy shall comply with the applicable requirements for that occupancy. Where applicable, cumulative occupant loads from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1.

1015.5 Refrigerated rooms or spaces. Rooms or spaces having a floor area larger than 1,000 square feet (93 m2), containing a refrigerant evaporator and maintained at a temperature below 68°F (20°C), shall have access to not less than two exits or exit access doors.

Travel distance shall be determined as specified in Section 1016.1, but all portions of a refrigerated room or space shall be within 150 feet (45 720 mm) of an exit or exit access door where such rooms are not protected by an approved automatic sprinkler system. Egress is allowed through adjoining refrigerated rooms or spaces.

Exception: Where using refrigerants in quantities limited to the amounts based on the volume set forth in the

~~International~~ California Mechanical Code.

1015.7 Large Family Day-care Home. *Every story or basement of a large family day-care home shall be provided with two exits which are remotely located from each other. Every required exit shall be of a size to permit the installation of a door not less than 32 inches (813 mm) in clear width and not less than 6 feet 8 inches (2,032 mm) in height. A manually operated horizontal sliding door may be used as one of the two required exits.*

Where basements are used for day-care purposes, one of the two required exits shall provide access directly to the exterior without entering the first story. The second exit from the basement may either pass through the story above or exit directly to the exterior.

Rooms used for day-care purposes shall not be located above the first story.

Exception: *Buildings equipped with an automatic sprinkler system throughout and which have at least one of the required exits providing access directly to the exterior. NFPA 13R may be used in large family day-care homes. The sprinkler omissions of NFPA 13R shall not apply unless approved by the ~~authority having jurisdiction~~enforcing agency.*

Exit doors, including manually operated horizontal sliding doors, shall be openable from the inside without use of a key or any special knowledge or effort.

Table ~~1019.1~~1021.1 and ~~1019.2~~1021.2 are not applicable to this occupancy classification.

1018.5 Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

1. Use of a corridor as a source of makeup air for exhaust systems in *small* rooms *of 30 sq feet or less* that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, ~~smoking lounges~~ and janitor closets, shall be permitted, provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
3. Where located within tenant spaces of 1,000 square feet (93 m2) or less in area, utilization of corridors for conveying return air is permitted.
4. Incidental air movement from pressurized rooms within health care facilities, provided that the corridor is not the primary source of supply or return to the room.
5. *~~4.~~5. For health care facilities under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD), see the California Mechanical Code.*

1018.5.1 Corridor ceiling. Use of the space between the corridor ceiling and the floor or roof structure above as a return air plenum is permitted for one or more of the following conditions:

1. The corridor is not required to be of fire-resistance-rated construction;
2. The corridor is separated from the plenum by fire-resistance-rated construction;
3. The air-handling system serving the corridor is shut down upon activation of the air-handling unit smoke detectors required by the *~~International~~ California Mechanical Code*.
4. The air-handling system serving the corridor is shut down upon detection of sprinkler waterflow where the building is equipped throughout with an automatic sprinkler system; or
5. The space between the corridor ceiling and the floor or roof structure above the corridor is used as a component of an approved engineered smoke control system.

1018.6 Corridor continuity. Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.

Exceptions:

1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.

2. [SFM] In fully sprinklered office buildings, corridors may lead through enclosed elevator lobbies if all areas of the building have access to at least one required exit without passing through the elevator lobby.

TABLE 1021.2
STORIES WITH ONE EXIT

STORY	OCCUPANCY	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE
First story or basement	A, B[d], E[e], F[d], M, U[d]	49 occupants and 75 feet travel distance
	H-2, H-3, *L,*	3 occupants and 25 feet travel distance
	H-4, H-5, I, R	10 occupants and 75 feet travel distance
	S[a]	29 occupants and 100 feet travel distance
	I-2, I-2.1	*7 occupants and 50 feet travel distance*
Second story	B[b], F, M, S[a]	29 occupants and 75 feet travel distance
	R-2	4 dwelling units and 50 feet travel distance
Third story	R-2[c]	4 dwelling units and 50 feet travel distance

For SI: 1 foot = 304.8 mm.
a. For the required number of exits for parking structures, see Section 1021.1.2.
b. For the required number of exits for air traffic control towers, see Section 412.3.
c. 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 1029.
d. 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 travel distance of 100 feet.
e. Day care occupancies shall have a maximum occupant load of 10.
stance-rated construction;
3. The air-handling system serving the corridor is shut down upon activation of the air-handling unit smoke detectors required by the ~~*International*~~ *California Mechanical Code*.
4. The air-handling system serving the corridor is shut down upon detection of sprinkler waterflow where the building is equipped throughout with an automatic sprinkler system; or
5. The space between the corridor ceiling and the floor or roof structure above the corridor is used as a component of an approved engineered smoke control system.

1022.9 Smokeproof enclosures and pressurized stairways. In buildings required to comply with Section 403 or 405, each of the exit enclosures ~~serving a story with a floor surface located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access or more than 30 feet (9144 mm) below the finished floor of a level of exit discharge serving such stories~~ shall be a smokeproof enclosure or pressurized stairway in accordance with Section 909.20.

1022.9.1 Termination and extension. A smokeproof enclosure or pressurized stairway shall terminate at an exit discharge or a public way. The smokeproof enclosure or pressurized stairway shall be permitted to be extended by an exit passageway in accordance with Section 1022.2. The exit passageway shall be without openings other than the fire door assembly required by Section 1022.2 and those necessary for egress from the exit passageway. The exit passageway shall be separated from the remainder of the building by 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both.

Exceptions:
1. Openings in the exit passageway serving a smokeproof enclosure are permitted where the exit passageway is protected and pressurized in the same manner as the smokeproof enclosure, and openings are protected as required for access from other floors.
~~2. Openings in the exit passageway serving a pressurized stairway are permitted where the exit passageway is protected and pressurized in the same manner as the pressurized stairway.~~

~~3~~ *2.* The fire barrier separating the smokeproof enclosure or pressurized stairway from the exit passageway is not required, provided the exit passageway is protected and pressurized in the same manner as the smokeproof enclosure or pressurized stairway.
4. A smokeproof enclosure or pressurized stairway shall be permitted to egress through areas on the level of discharge or vestibules as permitted by Section 1027.

1022.9.2 Enclosure access. Access to the stairway within a smokeproof enclosure shall be by way of a vestibule or an open exterior balcony.

~~**Exception:** Access is not required by way of a vestibule or exterior balcony for stairways using the pressurization alternative complying with Section 909.20.5.~~

1023.2 Width. The width of exit passageways shall be determined as specified in Section 1005.1 but such width shall not be less than 44 inches (1118 mm), except that exit passageways serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width. The required width of exit passageways shall be unobstructed.

Exception: Doors complying with Section 1005.2.

The clear width of exit passageways in a Group I-2 occupancy used for the movement of beds and litters shall be 44" (1118) minimum.

~~1022.5~~ 1025.5 Ducts and air transfer openings, *Ducts and air transfer openings through fire walls or fire barriers, forming a horizontal exit, shall be designed and protected in accordance with Section 716 in order to afford safety from both fire and smoke in the refuge area. All ducts and air transfer openings shall be protected by listed combination fire/smoke dampers.*

1027.6 Access to a public way. The exit discharge shall provide a direct and unobstructed access to a public way.

Exception: Where access to a public way cannot be provided, a safe dispersal area shall be provided where all of the following are met:

1. The area shall be of a size to accommodate at least 5 square feet (0.28 m^2) for each person.
2. *For other than Group E buildings,* ~~T~~*t*he area shall be located on the same lot at least 50 feet (15 240 mm) away from the building requiring egress. *For Group E buildings, the area shall be located on the same lot at least 50 feet (15 240 mm) away from any building.*
3. The area shall be permanently maintained and identified as a safe dispersal area.
4. The area shall be provided with a safe and unobstructed path of travel from the building.

1028.1 General. *All* occupancies in Group A and assembly occupancies accessory to Group E *including those* which contain seats, tables, displays, equipment or other material shall comply with this section.

~~1025.6.4~~ 1028.6.4 Public address system. *See section ~~907.2.1.3~~907.2.1.2.*

1028.9.1 Minimum aisle width. The minimum clear width for aisles shall be as shown:

1. Forty-eight inches (1219 mm) for aisle stairs having seating on each side.

   Exception: Thirty-six inches (914 mm) where the aisle serves less than 50 seats.

2. Thirty-six inches (914 mm) for aisle stairs having seating on only one side.
3. Twenty-three inches (584 mm) between an aisle stair handrail or guard and seating where the aisle is subdivided by a handrail.
4. Forty-two inches (1067 mm) for level or ramped aisles having seating on both sides.

   Exceptions:
   1. Thirty-six inches (914 mm) where the aisle serves less that 50 seats.

2. Thirty inches (762 mm) where the aisle does not serve more than 14 seats.

5. Thirty-six inches (914 mm) for level or ramped aisles having seating on only one side.

Exceptions:
1. Thirty inches (762 mm) where the aisle does not serve more than 14 seats.
2. Twenty-three inches (584 mm) between an aisle stair handrail and seating where an aisle does not serve more than five rows on one side.

6. Libraries with open book stacks shall have main aisles not less than 44 inches (1118 mm) in width, and side, range and end aisles not less than 36 inches (914 mm) in width.

1029.4 Operational constraints. Emergency escape and rescue openings *and any exit doors* shall be *maintained free of any obstructions other than those allowed by this section and shall be* operational from the inside of the room ~~without the use of keys or tools~~. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with Section 1029.2 and such devices shall be releasable or removable from the inside without the use of a key, tool*, special knowledge or effort* or force greater than that which is required for normal operation of the escape and rescue opening. Where such bars, grilles, grates or similar devices are installed ~~in existing buildings~~, smoke alarms shall be installed in accordance with Sections 907.2.11 regardless of the valuation of the alteration. *The release mechanism shall be maintained operable at all times.*

Such bars, grills, grates or any similar devices shall be equipped with an approved exterior release device for use by the fire department only when required by the authority having jurisdiction.

Where security bars (burglar bars) are installed on emergency egress and rescue windows or doors, on or after July 1, 2000, such devices shall comply with California Building Standards Code, Part 12, Chapter 12-3 and other applicable provisions of Part 2.

Exception: *Group R1 occupancies provided with a monitored fire sprinkler system ~~is~~in accordance with section ~~903.2.7~~903.2.8 and designed in accordance with NFPA 13 may have openable windows permanently restricted to a maximum 4-inch (102mm) open position.*

~~**CHAPTER 11**~~
~~**ACCESSIBILITY**~~

CHAPTER 11A
HOUSING ACCESSIBILITY

1118A.1 General. *Including but not limited to the requirements contained in this chapter for accessible routes, signage and emergency warning systems in buildings or portions of buildings required to be accessible shall be provided with accessible means of egress as required by Chapter 10. (See Section 1007.)*

CHAPTER 11B
ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLICLY FUNDED HOUSING

1114B.2.1 General. *In buildings or facilities, or portions of buildings or facilities, required to be accessible, accessible means of egress shall be provided as required by Chapter 10.*

CHAPTER 12
INTERIOR ENVIRONMENT

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the ~~*International*~~ *California Mechanical Code*.

1203.2.1 Openings into attic. Exterior openings into the *attic* space of any building intended for human occupancy shall be protected to prevent the entry of birds, squirrels, rodents, snakes and other similar creatures. Openings for ventilation having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum shall be permitted. Openings for ventilation having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Where combustion air is obtained from an *attic* area, it shall be in accordance with Chapter 7 of the ~~*International*~~ *California Mechanical Code*.

1203.3.2 Exceptions. The following are exceptions to Sections 1203.3 and 1203.3.1:

1. Where warranted by climatic conditions, ventilation openings to the outdoors are not required if ventilation openings to the interior are provided.
2. The total area of ventilation openings is permitted to be reduced to 1/1,500 of the under-floor area where the ground surface is covered with a Class I vapor retarder material and the required openings are placed so as to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited.
3. Ventilation openings are not required where continuously operated mechanical ventilation is provided at a rate of 1.0 cubic foot per minute (cfm) for each 50 square feet (1.02 L/s for each 10 m^2) of crawl-space floor area and the ground surface is covered with an approved vapor retarder.
4. Ventilation openings are not required when the ground surface is covered with a Class I vapor retarder, the perimeter walls are insulated and the space is conditioned in accordance with the ~~*International*~~ *California Energy* ~~*Conservation*~~ *Code*.
5. For buildings in flood hazard areas as established in Section 1612.3, the openings for under-floor ventilation shall be deemed as meeting the flood opening requirements of ASCE 24 provided that the ventilation openings are designed and installed in accordance with ASCE 24.

1203.4.2 Contaminants exhausted. Contaminant sources in naturally ventilated spaces shall be removed in accordance with the ~~*International*~~ *California Mechanical Code* and the ~~*International*~~ *California Fire Code.*

1203.4.2.1 Bathrooms. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated in accordance with the ~~*International*~~ *California Mechanical Code*.

1203.5 Other ventilation and exhaust systems. Ventilation and exhaust systems for occupancies and operations involving flammable or combustible hazards or other contaminant sources as covered in the ~~*International*~~ *California Mechanical Code* or the ~~*International*~~ *California Fire Code* shall be provided as required by both codes. *For Group L occupancies see Section 443.4.7.*

1205.4.1 Controls. The control for activation of the required stairway lighting shall be in accordance with the ~~NPPA 70~~ *California Electrical Code*.

1206.3.3 Court drainage. The bottom of every court shall be properly graded and drained to a public sewer or other approved disposal system complying with the ~~*International*~~ *California Plumbing Code*.

1209.3 Mechanical appliances. Access to mechanical appliances installed in under-floor areas, in attic spaces and on roofs or elevated structures shall be in accordance with the ~~*International*~~ *California Mechanical Code*.

CHAPTER 15
ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

1503.4 Roof drainage. Design and installation of roof drainage systems shall comply with Section 1503 and the ~~*International*~~ *California Plumbing Code*.

1505.1.1 ~~Real~~Roof Coverings within Very High Fire Hazard Severity Zones. *The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.*

Exception: *The requirements shall not apply in any jurisdiction that adopts the model ordinance approved by the State Fire Marshal pursuant to Section 51189 of the Government Code or an ordinance that substantially conforms to the model ordinance and transmits a copy to the State Fire Marshal.*

1505.1.2 ~~Real~~Roof Coverings within State Responsibility Areas. *The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.*

Exception: *Areas designated as moderate fire hazard severity zones.*

1505.1.3 Roof Coverings in All Other Areas. *The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class C.*

1505.1.4 Roofing Requirements a Wildland-Urban Interface Fire Area. *Roofing requirements for structures located in a Wildland-Urban Interface Fire Area shall also comply with Section 704A.1.*

1505.6 Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shakes and shingles ~~shall be treated by impregnation with chemicals by the full cell vacuum pressure process, in accordance with AWPA C1. Each bundle shall be marked to identify the manufactured unit and the manufacturer, and shall also be labeled to identify the classification of the material in accordance with the testing required in Section 1505.1, the treating company and the quality control agency~~. *are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A, B or C roofs*

Fire-retardant-treated wood shakes and shingles shall comply with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code Section 13132.7 (j). Each bundle shall bear labels from an ICBO accredited quality control agency identifying their roof-covering classification and indicating their compliance with ICC-ES EG107 and with the weathering requirements contained in Health & Safety Code Section 13132.7 (j).

Health and Safety Code Section 13132.7 (j) No wood roof covering materials shall be sold or applied in this state unless both of the following conditions are met:

(1) The materials have been approved and listed by the State Fire Marshal as complying with the requirements of this section.
(2) The materials have passed at least five years of the 10-year natural weathering test. The 10-year natural weathering test required by this subdivision shall be conducted in accordance with standard 15-2 of the 1994 edition of the Uniform Building Code at a testing facility recognized by the State Fire Marshal.

TABLE 1505.1a~~,b~~
MINIMUM ROOF COVERING CLASSIFICATION
FOR TYPES OF CONSTRUCTION

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	C~~c~~	B	C~~c~~	B	B	C~~c~~

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

a. Unless otherwise required in accordance with *Chapter 7A* ~~the *International Wildland-Urban Interface Code* or due to the location of the building within a fire district in accordance with Appendix D~~.

~~b. Nonclassified roof coverings shall be permitted on buildings of Group R-3 and Group U occupancies, where there is a minimum fire separation distance of 6 feet measured from the leading edge of the roof.~~

~~c. Buildings that are not more than two stories in height and having not more than 6,000 square feet of projected roof area and where there is a minimum 10 foot fire separation distance from the leading edge of the roof to a lot line on all sides of the building, except for street fronts or public ways, shall be permitted to have roofs of No. 1 cedar~~

~~or redwood shakes and No. 1 shingles.~~

CHAPTER 21
MASONRY

2113.9.1 Spark arrestors. ~~Where a spark arrestor is installed on a masonry chimney~~ ***[SFM]*** *All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester*, the spark arrestor shall meet all of the following requirements:

~~1. The net free area of the arrestor shall not be less than four times the net free area of the outlet of the chimney flue it serves.~~
~~2. The arrestor screen shall have heat and corrosion resistance equivalent to 19 gage galvanized steel or 24 gage stainless steel.~~
~~3. Openings shall not permit the passage of spheres having a diameter greater than 1/2 inch (13 mm) nor block the passage of spheres having a diameter less than 3/8 inch (11 mm).~~

1. *The net free area of the spark arrester shall not be less than four times the net free area of the outlet of the chimney.*
2. *The spark arrester screen shall have heat and corrosion resistance equivalent to 12 gage wire, 19 gage galvanized wire or 24 gage stainless steel.*
3. *Openings shall not permit the passage of spheres having a diameter larger than 1/2 inch (12.7 mm) and shall not block the passage of spheres having a diameter of less than 3/8 inch (9.5 mm).*
4. The spark arrestor shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.

2113.11.1.2 Gas appliances. Flue lining systems for gas appliances shall be in accordance with the ~~*International Fuel Gas*~~ *California Mechanical Code*.

2113.15 Flue area (appliance). Chimney flues shall not be smaller in area than the area of the connector from the appliance. Chimney flues connected to more than one appliance shall not be less than the area of the largest connector plus 50 percent of the areas of additional chimney connectors.

Exceptions:
1. Chimney flues serving oil-fired appliances sized in accordance with NFPA 31.
2. Chimney flues serving gas-fired appliances sized in accordance with the ~~*International Fuel Gas*~~ *California Mechanical Code*.

CHAPTER 21*A*
MASONRY

2113*A*.9.1 Spark arrestors. ~~Where a spark arrestor is installed on a masonry chimney~~ ***[SFM]*** *All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester*, the spark arrestor shall meet all of the following requirements:

~~1. The net free area of the arrestor shall not be less than four times the net free area of the outlet of the chimney flue it serves.~~
~~2. The arrestor screen shall have heat and corrosion resistance equivalent to 19 gage galvanized steel or 24 gage stainless steel.~~
~~3. Openings shall not permit the passage of spheres having a diameter greater than 1/2 inch (13 mm) nor block the passage of spheres having a diameter less than 3/8 inch (11 mm).~~

1. *The net free area of the spark arrester shall not be less than four times the net free area of the outlet of the chimney.*
2. *The spark arrester screen shall have heat and corrosion resistance equivalent to 12 gage wire, 19 gage galvanized wire or 24 gage stainless steel.*
3. *Openings shall not permit the passage of spheres having a diameter larger than 1/2 inch (12.7 mm) and shall not block the passage of spheres having a diameter of less than 3/8 inch (9.5 mm).*
4. The spark arrestor shall be accessible for cleaning and the screen or chimney cap shall be removable to allow

for cleaning of the chimney flue.

CHAPTER 27
ELECTRICAL

2701.1 Scope. This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of the ~~NFPA 70~~ *California Electrical Code*.

[F] 2702.1 Installation. Emergency and standby power systems required by this code or the ~~*International*~~ *California Fire Code* shall be installed in accordance with this code, NFPA110 and 111.

[F] 2702.2.9 Membrane structures. Standby power shall be provided for auxiliary inflation systems in accordance with Section 3102.8.2. Emergency power shall be provided for exit signs in temporary tents and membrane structures in accordance with the ~~*International*~~ *California Fire Code*.

[F] 2702.2.11 Highly toxic and toxic materials. Emergency power shall be provided for occupancies with highly toxic or toxic materials in accordance with the ~~*International*~~ *California Fire Code*.

[F] 2702.2.12 Organic peroxides. Standby power shall be provided for occupancies with silane gas in accordance with the ~~*International*~~ *California Fire Code*.

[F] 2702.2.13 Pyrophoric materials. Emergency power shall be provided for occupancies with silane gas in accordance with the ~~*International*~~ *California Fire Code*.

[F] 2702.2.15 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*. Emergency and standby power shall be provided 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* in accordance with Sections 403.4.7 and 403.4.8.

2702.2.21 Group L-Occupancy. *Emergency power shall be provided in Group L occupancies in accordance with this chapter and Section 443.4.6.1.*

[F] 2702.3 Maintenance. Emergency and standby power systems shall be maintained and tested in accordance with the ~~*International*~~ *California Fire Code*.

CHAPTER 28
MECHANICAL SYSTEMS

2801.1 Scope. Mechanical appliances, equipment and systems shall be constructed, installed and maintained in accordance with the ~~International~~ *California Mechanical Code* ~~and the *International Fuel Gas Code*~~. Masonry chimneys, fireplaces and barbecues shall comply with the ~~*International*~~ *California Mechanical Code* and Chapter 21 of this code.

2802 Spark Arrester. [SFM] *All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester, the spark arrestor shall meet all of the following requirements:*

1. *The net free area of the spark arrester shall not be less than four times the net free area of the outlet of the chimney.*
2. *The spark arrester screen shall have heat and corrosion resistance equivalent to 12 gage wire, 19 gage galvanized wire or 24 gage stainless steel.*
3. *Openings shall not permit the passage of spheres having a diameter larger than 1/2 inch (12.7 mm) and shall not block the passage of spheres having a diameter of less than 3/8 inch (9.5 mm).*
4. *The spark arrestor shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.*

3002.4.4a Elevator recall. *The elevator(s) designated the medical emergency elevator shall be equipped with a key switch to recall the elevator nonstop to the main floor. For the purpose of this section, elevators in compliance with Section 3003.2 shall be acceptable.*

3002.4.5a Designation. *Medical emergency elevators shall be identified by the international symbol (Star of Life) for emergency medical services.*

3002.4.6a Symbol size. *The symbol shall not be less than 3 inches (76 mm) in size.*

3002.4.7a Symbol location. *A symbol shall be permanently attached to each side of the hoistway door frame on the portion of the frame at right angles to the hallway or landing area. Each symbol shall be not less than 78 inches (1981 mm) and not more than 84 inches (2134 mm) above the floor level at the threshold.*

3002.9 Photoelectric Tube Bypass Switch.

3002.9.1 *Elevators equipped with photoelectric tube devices which control the closing of automatic, power-operated car or hoistway doors, or both, shall have a switch in the car which, when actuated, will render the photoelectric tube device ineffective.*

3002.9.2 *The switch shall be constant-pressure type, requiring not less than 10 pounds (44.5N) or more than 15 pounds (66.7 N) pressure to actuate.*

3002.9.3 *The switch shall be located not less than 6 feet (1829mm) or more than 6 feet 6 inches (1981mm) above the car floor and shall be located in or adjacent to the operating panel.*

3002.9.4 *The switch shall be clearly labeled* TO BE USED IN CASE OF FIRE ONLY.

3002.9.5 *Switches shall be kept in working order or be removed when existing installations are arranged to comply with Section 3002.9.5, Exception 1 or 2.*

Exceptions

1. *Elevators installed and maintained in compliance with Section 3003.*
2. *Where alternate means acceptable to the fire authority having jurisdiction are provided that will ensure the doors can close under adverse smoke conditions.*

3003.2.1 Floor numbers. *Elevator hoistways shall have a floor number not less than 4 inches (102 mm) in height, placed on the walls and/or doors of the hoistway at intervals such that a person in a stalled elevator, upon opening the car door, can determine the floor position.*

3003.2.1.1 Fire signs. *All automatic elevators shall have not less than one sign at each landing printed on a contrasting background in letters not less than 1/2 inch (12.7 mm) high to read:* IN CASE OF FIRE USE STAIRWAY FOR EXIT. DO NOT USE ELEVATOR.

3003.2.1.2 Call and Car Operation Buttons. *Automatic passenger elevators shall have call and car operation buttons within 60 inches (1524 mm) of the floor. Emergency telephones shall also be within 60 inches (1524 mm) of the floor.*

3006.5.1 *Elevator power shunt-trip shall not activate prior to the completion of elevator Phase I emergency recall operation to the designated recall floor.*

3006.5.2 *Elevator power shunt-trip capability shall be disabled during Phase II emergency in-car operation.*

3006.5.3 *Audible and visual annunciation shall be provided at the fire alarm control unit indicating the disabling of*

elevator power shunt-trip capability under Phase II operation.

3006.5.4 *Audible and visual annunciation shall be provided at the fire alarm control unit indicating that the automatic sprinklers, smoke detectors, or heat detectors in the elevator hoistway or elevator machine room have activated.*

3006.5.5 *Visual annunciation shall be provided inside all elevator cars indicating that the automatic sprinklers, smoke detectors, or heat detectors in the elevator hoistway or elevator machine room have activated.*

3006.5 Shunt trip. Where elevator hoistways or elevator machine rooms containing elevator control equipment are protected with automatic sprinklers, a means installed in accordance with NFPA 72, Section 6.16.4~~*6.15.4*~~, 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 hoistway or machine room shall not disconnect the main line power supply.

CHAPTER 31
SPECIAL CONSTRUCTION

3102.1 General. The provisions of this section shall apply to air-supported, air-inflated, membrane-covered cable and membrane-covered frame structures, collectively known as membrane structures, erected for a period of 180 days or longer. Those erected for a shorter period of time shall comply with the ~~*International*~~ *California Fire Code*. Membrane structures covering water storage facilities, water clarifiers, water treatment plants, sewage treatment plants, greenhouses and similar facilities not used for human occupancy, are required to meet only the requirements of Sections 3102.3.1 and 3102.7.

3103.1 General. The provisions of this section shall apply to structures erected for a period of less than 180 days. Tents and other membrane structures erected for a period of less than 180 days shall comply with the ~~*International*~~ *California Fire Code*. Those erected for a longer period of time shall comply with applicable sections of this code.

CHAPTER 33
SAFEGUARDS DURING CONSTRUCTION

3309.2 Fire hazards. The provisions of this code and the ~~*International*~~ *California Fire Code* shall be strictly observed to safeguard against all fire hazards attendant upon construction operations.

CHAPTER 34
EXISTING STRUCTURES

~~3401.4~~3401.5 Existing Group R-3 Occupancies. [SFM] *For smoke alarm requirements in existing buildings see Section ~~907.2.10.5~~907.2.11.5.*

SECTION ~~3411~~3413
EXISTING GROUP R-1 and Group R-2 OCCUPANCIES [SFM]

~~3411.1~~3413.1 Scope. *The provisions of this section are intended to maintain or increase the current degree of public safety, health and general welfare in existing buildings classified as Group R Occupancies.*

~~3411.1.1~~3413.1.1 Application. *In accordance with Health and Safety Code Section 13143.2, the provisions of Section ~~3411.2~~3413.2 through ~~3411.12~~3413.12 shall only apply to multiple-story structures existing on January 1, 1975, let for human habitation, including, and limited to, apartment houses, hotels, and motels wherein rooms used for sleeping are let above the ground floor.*

~~3411.2~~3413.2 Number of exits. *Every apartment and every other sleeping room shall have access to not less than two exits- when the occupant load is 10 or more (exits need not be directly from the apartment or sleeping room). A fire escape as specified herein may be used as one required exit.*

Subject to approval of the authority having jurisdiction, a ladder device as specified herein may be used in lieu of a fire escape when the construction feature or the location of the building on the property cause the installation of a fire

escape to be impractical.

~~3411.4~~3413.4 Interior Stairways. *Every interior stairway shall be enclosed with walls of not less than one-hour fire-resistive construction. Where existing partitions form part of a stairwell enclosure, wood lath and plaster in good condition will be acceptable in lieu of one-hour fire-resistive construction. Doors to such enclosures shall be protected by a self-closing door equivalent to a solid wood door with a thickness of not less than 1-3/4 inches (44.5 mm).*

Enclosures shall include all landings between flights and any corridors, passageways or public rooms necessary for continuous exit to the exterior of the buildings. The stairway need not be enclosed in a continuous shaft if cut off at each story by the fire-resistive construction required by this subsection for stairwell enclosures. Enclosures shall not be required if an automatic sprinkler system is provided for all portions of the building except bedrooms, apartments and rooms accessory thereto. Interior stairs and vertical openings need not be enclosed in two-story buildings.

~~3411.5~~3413.5 Exterior Stairways. *Exterior stairways shall be non-combustible or of wood of not less than 2-inch (51 mm) nominal thickness with solid treads and risers.*

~~3411.6~~3413.6 Fire escapes, *exit ladder devices. Fire escapes may be used as one means of egress if the pitch does not exceed 60 degrees, the width is not less than 18 inches (457 mm), the treads are not less than 4 inches (102mm) wide, and they extend to the ground or are provided with counterbalanced stairs reaching to the ground. Access shall be by an opening having a minimum dimension of 29 inches (737 mm) when open. The sill shall not be more than 30 inches (762 mm) above the floor and landing.*

A ladder device, when used in lieu of a fire escape, shall conform to Section ~~3411.6.1~~3413.6.1 and the following:

Serves an occupant load of nine people or less or a single dwelling unit or hotel room.

The building does not exceed three stories in height.

The access is adjacent to an opening as specified for emergency egress or rescue or from a balcony.

The device does not pass in front of any building opening below the unit being served.

The availability of activating the ladder device is accessible only to the opening or balcony served.

The device as installed will not cause a person using it to be within 12 feet (3658 mm) of exposed energized high-voltage conductors.

~~3411.6.1~~3413.6.1 Exit Ladder Devices

~~3411.6.1.1~~3413.6.1.1 Scope *This standard for exit ladder devices is applicable where such devices are permitted by the building official for installation on existing apartment houses and hotels in conformance with the California Building Code.*

~~3411.6.1.2~~3413.6.1.2 Instructions *Installation shall be in accordance with the manufacturer's instructions. Instructions shall be illustrated and shall include directions and information adequate for attaining proper and safe installation of the product. Where exit ladder devices are intended for mounting on different support surfaces, specific installation instructions shall be provided for each surface.*

~~3411.6.1.3~~3413.6.1.3 General Design *All load-bearing surfaces and supporting hardware shall be of noncombustible materials. Exit ladder devices shall have a minimum width of 12 inches (305mm) when in the position intended for use. The design load shall not be less than 400 pounds (1780N) for 16-foot (4877mm) length and 600 pounds (2699N) for 25-foot (7620mm) length.*

~~3411.6.1.4~~3413.6.1.4 Performance

~~3411.6.1.4.1~~3413.6.1.4.1 *Exit ladder devices shall be capable of withstanding an applied load of four times the design*

load when installed in the manner intended for use. Test loads shall be applied for a period of one hour.

~~3411.6.1.4.2~~3413.6.1.4.2 *Exit ladder devices of the retractable type shall, in addition to the static load requirements of Section ~~3411.6.1.4.1~~3413.6.1.4.1, be capable of withstanding the following tests:*

1. *Rung strength.*
2. *Rung-to-side-rail shear strength.*
3. *Release mechanism*
4. *Low temperature.*

~~3411.6.1.5~~3413.6.1.5 Rung-Strength Test *Rungs of retractable exit ladder devices shall be capable of withstanding a load of 1,000 pounds (4448N) when applied to a 3-1/2-inch-wide (89mm) block resting at the center of the rung. The test load shall be applied for a period of one hour. The ladder shall remain operational following this test.*

~~3411.6.1.6~~3413.6.1.6 Rung-To-Side-Rail Shear Test *Rungs of retractable exit ladder devices shall be capable of withstanding 1,000 (4448N) when applied to a 3-1/2-inch-wide (89mm) block resting on the center rung as near the side rail as possible. The test load shall be applied for a period of one hour. Upon removal of the test load the fasteners attaching the rung to the side rail shall show no evidence of failure. The ladder shall remain operational following the test.*

~~3411.6.1.7~~3413.6.1.7 Release Mechanism Test *The release mechanism of retractable exit ladder devices shall operate with an average applied force of not more than 5 pounds (22.2N) for hand-operated releasing mechanisms and an average applied force of not more than 25 pounds (111N) for foot-pedal types of releasing mechanisms. For these tests, a force gauge shall be applied to the release mechanism, and the average of three consecutive readings shall be computed.*

~~3411.6.1.8~~3413.6.1.8 Low Temperature Operation Test *Representative samples of the exit ladder devices shall be subjected to a temperature of -40° C in an environmental chamber for a period of 24 hours. The release mechanism shall be operated immediately upon removal from the chamber. The ladder device shall function as intended without any restriction of operation*

~~3411.7~~3413.7 Doors and Openings. *Exit doors and openings shall meet the requirements of Sections 1008.1.2, 1008.8.1.8, 1008.1.9, and 708.6. Doors shall not reduce the required width of stairway more than 6 inches (152 mm) when open. Transoms and openings other than doors from corridors to rooms shall be fixed closed and shall be covered with a minimum of 3/4-inch (19 mm) plywood or 1/2-inch (13 mm) gypsum wallboard or equivalent material.*

Exceptions:

1. *Existing solid-bonded wood-core doors 13/8 inches thick (34.9 mm), or their equivalent may be continued in use.*
2. *Where the existing frame will not accommodate a door complying with Section 708.6, a 1 3/8 -inch-thick (35 mm) solid-bonded wood-core door may be used.*

~~3411.8~~ 3413.8 Exit Signs. *Every exit doorway or change of direction of a corridor shall be marked with a well-lighted exit sign having letters at least 5 inches (127 mm) high.*

~~3411.9~~3413.9 Enclosure of vertical openings. *Elevators, shafts, ducts and other vertical openings shall be enclosed as required for stairways in Section ~~3411.5~~3413.5 or by wired glass set in metal frames. Doors shall be noncombustible or as regulated in Section ~~3411.5~~3413.5.*

~~3411.10~~3413.10 Separation of occupancies. *Occupancy separations shall be provided as specified in Section 508. Lobbies and public dining rooms, not including cocktail lounges, shall not require a separation if the kitchen is so separated from the dining room. Every room containing a boiler or central heating plant shall be separated from the rest of the building by not less than a one-hour fire-resistive occupancy separation.*

Exception: *A separation shall not be required for such rooms with equipment serving only one dwelling unit.*

~~3411.11~~ 3413.11 Equivalent protection. *In lieu of the separation of occupancies required by Section ~~3411.10~~3413.10, equivalent protection may be permitted when approved by the enforcement agency.*

Exception: *The provisions of Sections ~~3411.3~~3413.3 through ~~3411.11~~3413.11 above shall not apply to any existing apartment house, hotel or motel having floors (as measured from the top of the floor surface) used for human occupancy located more than 75 feet (22 860 mm) above the lowest floor level having building access which is subject to the provisions of Section ~~3412~~33414, California Building Code, relating to existing high-rise buildings.*

Note: In accordance with Health and Safety Code Section 17920.7, the provisions of Sections ~~3411.3~~3413.3 through ~~3411.11~~3413.11 above shall apply only to multiple-story structures existing on January 1, 1975, let for human habitation including, and limited to, apartments, houses, hotels and motels wherein rooms used for sleeping are let above the ground floor.

~~3411.12~~3413.12 Fire Alarms.

~~3411.12.1~~3413.12.1 General. *Every apartment house three or more stories in height or containing more than 15 apartments, every hotel three or more stories in height or containing 20 or more guest rooms, shall have installed therein an automatic or manually operated fire alarm system. Such fire alarm systems shall be so designed that all occupants of the building may be warned simultaneously and shall be in accordance with the California Fire Code. See Section ~~3412.14~~3414.14 for special requirements in buildings over 75 feet (22 860 mm) in height.*

Exception: *A fire alarm system need not be installed provided such apartment house or hotel is separated by an unpierced wall of not less than four-hour fire resistance in buildings of Type IA, Type IIB, Type III or Type IV construction and two-hour fire resistance in buildings of all other types of construction provided:*

1. *Areas do not exceed the number of apartments or guest rooms stipulated.*
2. *The fire-resistive wall conforms to the requirements of Section ~~705.6~~706.6.*
3. *The wall complies with all other applicable provisions of the California Building Code.*
4. *The wall extends to all outer edges of horizontal projecting elements, such as balconies, roof overhangs, canopies, marquees or architectural projections.*
5. *No openings are permitted for air ducts or similar penetrations, except that openings for pipes, conduits and electrical outlets of copper, sheet steel or ferrous material shall be permitted through such wall and need not be protected, provided they do not unduly impair the required fire resistance of the assembly.*
6. *Tolerances around such penetrations shall be filled with approved noncombustible materials..*

~~3411.12.2~~3413.12.2 Installation. *The installation of all fire alarm equipment shall be in accordance with the California Fire Code.*

~~3411.13~~3413.13 Existing Group R Occupancy High-rise Buildings.

~~3411.13.1~~3413.13.1 General. *Regardless of other provisions of these regulations relating to existing high-rise buildings, requirements relative to existing Group R-1 or Group R-2 Occupancies shall not be less restrictive than those established pursuant to Health and Safety Code Section 13143.2..*

~~3411.13.2~~3413.13.2 Corridor openings. *Openings in corridor walls and ceilings shall be protected by not less than 13/4-inch (44.5 mm) solid-bonded wood-core doors, 1/4-inch-thick (6 mm) wired glass conforming to Section 715.1, by approved fire dampers or by equivalent protection in lieu of any of these items. Transoms shall be fixed closed with material having a fire-resistive rating equal to 1/2-inch (12.7 mm) Type X gypsum wallboard or equivalent material installed on both sides of the opening.*

~~3411.13.3~~3413.13.3 Fire alarm systems. *Notwithstanding the provisions of Section 403~~.20~~, every existing high-rise building used for the housing of a Group R-1 or Group R-2 Occupancies shall have installed therein a fire alarm system conforming to this subsection.*

~~3411.13.3.1~~3413.13.3.1 General. *Every apartment house and every hotel shall have installed therein an automatic or manually operated fire alarm system. Such fire alarm systems shall be so designed that all occupants of the building may be warned simultaneously.*

~~3411.13.3.2~~3413.13.2 **Installation.** *The installation of all fire alarm equipment shall be in accordance with the California Fire Code.*

~~3411.13.3.3~~3413.13.3.3 **Fire-extinguishing systems.** *Automatic fire-extinguishing systems installed in any structure subject to these regulations shall have an approved flow indicator electrically interconnected to the required fire alarm system.*

SECTION ~~3412~~3414
EXISTING HIGH-RISE BUILDINGS [SFM]

~~3412.1~~3414.1 **Scope and definition.** *The provisions of Sections ~~3412.1~~3414.1through ~~3412.27~~3414.27 shall apply to every existing high-rise building of any type of construction or occupancy having floors (as measured from the top of the floor surface) used for human occupancy located more than 75 feet (22 860 mm) above the lowest floor level having building access.*

Exceptions:

1. Hospitals, as defined in Section 1250 of the Health and Safety Code.
2. The following structures, while classified as high-rise buildings, shall not be subject to the provisions of Sections ~~3412.1~~3414.1through ~~3412.27~~3414.27, but shall conform to all applicable provisions of these regulations.
2.1 Building used exclusively as open parking garages.
2.2 Buildings where all floors above the 75 foot (22 860 mm) level are used exclusively as open parking garages.
2.3 Floors of buildings used exclusively as open parking garages and located above all other floors used for human occupancy.
2.4 Buildings such as power plants, look-out towers, steeples, grain houses, and similar structures, when so determined by the enforcing agency.
2.5 Buildings used exclusively for jails and prisons.

For the purposes of this section, "building access" shall mean an exterior door opening conforming to all of the following:

1. Suitable and available for fire department use.
2. Located not more than 2 feet (610 mm) above the adjacent ground level.
3. Leading to a space, room or area having foot traffic communication capabilities with the remainder of the building.
4. Designed to permit penetration through the use of fire department forcible-entry tools and equipment unless other approved arrangements have been made with the fire authority having jurisdiction.

"Existing high-rise structure" means a high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.

For the purpose of this section, construction shall be deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Actual construction of such buildings shall commence on or before January 1, 1976, unless all provisions for new buildings have been met.

Note: *it is the intent of this section that, in determining the level form which the highest occupied floor is to be measured, the enforcing agency should exercise reasonable judgment, including consideration of overall accessibility to the building by fire department personnel and vehicular equipment. When a building is situated on sloping terrain and there is building access on more than one level, the enforcing agency may select the level which provides the most logical and adequate fire department access.*

~~3412.2~~3414.2 **Compliance data.** *Except as may be otherwise specified, existing high-rise building shall conform to*

the applicable requirements of these regulations by April 26, 1979.

> ***Exception:*** *The period of compliance may be extended upon showing of good cause for such extension if a systematic and progressive plan of correction is submitted to, and approved by, the enforcing agency. Such extension shall not exceed two years from the date of approval of such plan. Any plan of correction submitted pursuant to this exception shall be submitted and approved on or before April 26, 1979.*

***~~3412.3~~3414.3* Continued use.** *Existing high-rise building may have their use continued if they conform, or are made to conform, to the intent of the provisions of Sections . ~~3412.5~~3414.5through ~~3412.27~~3414.27 to provide for the safety of the occupants of the high-rise buildings and person involved in fire-suppression activities.*

***~~3412.4~~3414.4* Alternate protection.** *Alternate means of egress, fire walls or fire barriers, smoke barriers, automatic fire detection or fire-extinguishing systems, or other fire-protection devices, equipment or installations may be approved by the enforcing agency to provide reasonable and adequate life safety as intended by Sections ~~3412.5~~3414.5 through ~~3412.27~~3414.27 for existing high-rise buildings.*

***~~3412.5~~3414.5* Basic provisions.** *The provisions outlined in Sections ~~3412.1~~3414.1through ~~3412.27~~3414.27are applicable to every existing high-rise building.*

***~~3412.6~~3414.6* Minimum construction.** *Existing wood lath and plaster, existing ½-inch (12.7 mm) gypsum wallboard, existing installations of ½-inch thick (12.7 mm) wired glass which are or are rendered inoperative and fixed in a closed position, or other existing materials having similar fire-resistive capabilities shall be acceptable. All such assemblies shall be in good repair, free of any condition which would diminish their original fire-resistive characteristics.*

Where 1 ¾ -inch (44.5 mm) solid-bonded wood-core doors are specified in these regulations for existing high-rise buildings, new or existing 1 3/8-inch (34.9 mm) doors shall be acceptable where existing framing will not accommodate a 1 ¾-inch (44.5 mm) door.

Note: *It is the intent of this provisions that existing wood frames may have their use continued.*

***~~3412.7~~3414.7* New construction.** *All new construction shall be composed of materials and assemblies of materials conforming to the fire-resistive provisions of these regulations. In no case shall enclosure walls be required to be of more than one-hour fire-resistive construction.*

> ***Exception:*** *When approved by the enforcing agency, materials specified in Section ~~3412.6~~3414.6 may be used for new construction when necessary to maintain continuity of design and measurement of existing construction.*

***~~3412.8~~3414.8* Exits.** *Every floor from an existing high-rise building shall have access to two separate means of egress, one of which, when approved by the enforcing agency, may be an existing exterior fire escape.*

New installations of smoke-proof enclosures shall not be required.

Note: *In determining the adequacy of exits and their design, Chapter 10 may be used as a guide. It is the intent of this section that every existing high-rise building need not mandatorily conform or be made to conform with the requirements for new high-rise buildings. Reasonable judgment in the application of requirements must be exercised by the enforcing agency.*

***~~3412.9~~3414.9* Fire escapes.** *An existing fire escape in good structural condition may be acceptable as one of the required means of egress from each floor. Access to such fire escapes may be by any one of the following:*

Through a room between the corridor and the fire escape if the door to the room is operable from the corridor side without the use of any key, special knowledge or effort.

By a door operable to a fire escape from the interior without the use of any key, special knowledge or effort.

By a window operable from the interior. Such window shall have a minimum dimension of 29 inches (737 mm)

when open. The sill shall not be more than 30 inches (762 mm) above the floor and landing.

***~~3412.10~~3414.10* Protection of exterior openings.** *When an existing fire escape is accepted as one of the require means of egress, openings onto the fire escape landing and openings within 5 feet (1524 mm) horizontally of the landings shall be protected in a manner acceptable to the enforcing agency.*

***~~3412.11~~3414.11* Locking of stairway doors.** *When exit doors from corridors to exit stairways are locked to prohibit access from the stairway side, the locking mechanisms shall be retracted to the unlocked position upon failure of electrical power and a telephone or other two-way communication system connected to an approved emergency service that operates continuously shall be provided at not less than every fifth floor in each required stairway. In lieu thereof, master keys which will unlock all such doors from the stairway side shall be provided in such numbers and locations as approved by the enforcing agency.*

***~~3412.12~~3414.12* Enclosures.** *Interior vertical shafts, including but not limited to, elevators, stairway and utility, shall be enclosed with construction as set forth in Section ~~3412.6~~3414.6.*

***~~3412.13~~3414.13* Opening protection**. *Doors in other than elevators, which shall be of a type acceptable to the enforcing agency, shall be approved one-hour, fire-rated, tight-fitting or gasketed doors or equivalent protection, and shall be of the normally closed type, self-closing or a type which will close automatically in accordance with Section 715.*

Exception: *In lieu of stairway enclosures, smoke barriers may be provided in such a manner that fire and smoke will not spread to other floors or otherwise impair exit facilities.*

In these instances, smoke barriers shall not be less than one-hour fire resistive with openings protected by not less than approved one-third-hour, fire-rated, tight-fitting or gasketed doors. Such doors shall be of the self-closing type or of a type which will close automatically in the manner specified in Section 715.

Doors crossing corridors shall be provided with wired-glass vision panels set in approved steel frames.

Doors for elevators shall not be of the open-grille type.

***~~3412.14~~3414.14* Fire alarm system**. *Every existing high-rise building shall be provided with an approved fire alarm system. In department stores, retail sales stores and similar occupancies where the general public is admitted, such systems shall be of a type capable of alerting staff and employees. In office buildings and all other high-rise buildings, such systems shall be of a type capable of alerting all occupants simultaneously.*

Exceptions:

1. *In areas of public assemblage, the type and location of audible appliances shall be as determined by the enforcing agency.*
2. *When acceptable to the enforcing agency, the occupant voice notification system required by Section ~~3412.17~~3414.17 may be used in lieu of the fire alarm system required by Section ~~3412.14~~3414.14.*

***~~3412.15~~3414.15* Existing systems.** *Existing fire systems, when acceptable to the enforcing agency, shall be deemed as conforming to the provisions of these regulations. For requirements for existing Group R-1 Occupancies, see Section ~~3411.13~~3412.13.*

***~~3412.16~~3414.16* Annunciation**. *When a new fire alarm system is installed, it shall be connected to an annunciator panel installed in a location approved by the enforcing agency.*

For purposes of annunciation, zoning shall be in accordance with Section ~~907.9~~907.6.3:

***~~3412.17~~3414.17* Monitoring.** *Shall be in accordance with Section ~~907.14~~907.6.5.*

***~~3412.18~~3414.18* Systems Interconnection.** *When an automatic fire detection system or automatic extinguishing system is installed, activation of such system shall cause the sounding of the fire alarm notification appliances at locations designated by the enforcing agency.*

***~~3412.19~~3414.19* Manual fire alarm boxes.** *A manual fire alarm box shall be provided in the locations designated by the enforcing agency. Such locations shall be where boxes are readily accessible and visible and in normal paths of daily travel by occupants of the building.*

***~~3412.20~~3414.20* Emergency voice/alarm communication system.** *An approved emergency voice/alarm system shall be provided in every existing high-rise building which exceeds 150 feet (45720 mm) in height measured in the manner set forth in Section ~~3412.1~~3412.1. Such system shall provide communication from a location available to and designated by the enforcing agency to not less than all public areas.*

The emergency voice/alarm system may be combined with a fire alarm system provide the combined system has been approved and listed by the State Fire Marshal. The sounding of a fire alarm signal in any given area or floor shall not prohibit voice communication to other areas of floors. Combination systems shall be designed to permit voice transmission to override the fire alarm signal, but the fire alarm signal shall not terminate in less than three minutes.

***~~3412.21~~3414.21* Fire department system.** *When it is determined by test that portable fire department communication equipment is ineffective, a communication system acceptable to the enforcing agency shall be installed within the building to permit emergency communication between fire-suppression personnel.*

***~~3412.22~~3414.22* Interior Wall and Ceiling Finish.** *Interior wall and ceiling finish of exitways shall conform to the provisions of Chapter 8. Where the materials used in such finishes do not conform to the provisions of Chapter 8, such finishes may be surfaced with an approved fire-retardant coating.*

***~~3412.23~~3414.23* Ventilation.** *Natural or mechanical ventilation for the removal of products of combustion shall be provided in every story of an existing high-rise building. Such ventilation shall be any one or combination of the following:*

Panels or windows in the exterior wall which can be opened. Such venting facilities shall be provided at the rate of at least 20 square feet (1.86 m2) of opening per 50 lineal feet (15 240 lineal mm) of exterior wall in each story, distributed around the perimeter at not more than 50-foot (15 240 mm) intervals on at least two sides of the building.

Approved fixed tempered glass may be used in lieu of openable panels or windows. When only selected panels or windows are of tempered glass, they shall be clearly identified as required by the enforcing agency. Any other design which will produce equivalent results.

***~~3412.24~~3414.24* Smoke control systems.** *Existing air-circulation systems shall be provided with an override switch in a location approved by the enforcing agency which will allow for the manual control of shutdown of the systems.*

> ***Exception:*** *Systems which serve only a single floor, or portion thereof, without any penetration by ducts or other means into adjacent floors.*

***~~3412.25~~3414.25* Elevator recall smoke detection.** *Smoke detectors for emergency operation of elevators shall be provided as required by Section 3003.*

***~~3412.26~~3414.26* Exit signs and illumination.** *Exits and stairways shall be provided with exit signs and illumination as required by Sections1011.1 and 1011.2.*

***~~3412.27~~3414.27* Automatic sprinkler system – Existing high-rise buildings.** *Regardless of any other provisions of these regulations, every existing high-rise building of Type II-B, Type III-B or Type V-B construction shall be provided with an approved automatic sprinkler system conforming to NFPA 13.*

SECTION ~~3413~~3415

EXISTING GROUP I OCCUPANCIES [SFM]

***~~3413.1~~3415.1* General.** *Existing buildings housing existing protective social-care homes or facilities established prior to March 4, 1972 may have their use continued if they conform, or are made to conform, to the following provisions:*

***~~3413.2~~3415.2* Use of floors.** *The use of floor levels in buildings of Type III, IV or V nonfire-rated construction may be as follows:*

Nonambulatory - first floor only;
Ambulatory - not higher than the third-floor level, provided walls and partitions are constructed of materials equal in fireresistive quality to that of wood lath and plaster in good repair and all walls are firestopped at each floor level.

***~~3413.3~~3415.3* Enclosure of exits and vertical openings.** *Except for two-story structures housing ambulatory guests, all interior stairs shall be enclosed in accordance with Chapter 10. In lieu of stairway enclosures, floor separations or smoke barriers may be provided in such a manner that fire and smoke will not spread rapidly to floors above or otherwise impair exit facilities. In these instances, floor separations or smoke barriers shall have a fire resistance equal to not less than 1/2-inch (13 mm) gypsum wall board on each side of wood studs with openings protected by not less than a 13/4-inch (44.5 mm) solid bonded wood-core door of the self-closing type. All other vertical openings shall be enclosed in accordance with the provisions of Section ~~3412.6~~ 3414.6 and 3414.13.*

***~~3413.4~~3415.4* Exit access.** *Each floor or portion thereof of buildings used for the housing of existing protective social-care homes or facilities shall have access to not less than two exits in such a manner as to furnish egress from the building or structure in the event of an emergency substantially equivalent to the provisions of Chapter 10.*

***~~3413.5~~3415.5* Corridor openings.** *Openings from rooms to interior corridors shall be protected by not less than 13/4-inch (44.5 mm) solid-bonded wood-core doors. Transoms and other similar openings shall be sealed with materials equivalent to existing corridor wall construction.*

***~~3413.6~~3415.6* Interior finishes** *Interior wall and ceiling finishes shall conform to the requirements for a Group R-1 Occupancy as specified in Chapter 8.*

***~~3413.7~~3415.7* Automatic fire sprinklers** *Automatic sprinkler systems shall be installed in existing protective social-care occupancies in accordance with the provisions of Section ~~903.2.5~~903.2.6.*

***~~3413.8~~3415.8* Fire alarm systems.** *Automatic fire alarm systems shall be installed in existing protective social-care homes or facilities in accordance with the provisions of Section 907.2.6.*

> ***Exception:*** *When an approved automatic sprinkler system conforming to Section ~~903.2.5~~903.2.6is installed, a separate fire alarm system as specified in this section need not be provided.*

SECTION ~~3414~~3416
EXISTING GROUP L OCCUPANCIES [SFM]

~~3414~~3416 Existing Group L Occupancies

***~~3414.1~~3416.1* Repairs General.** *Additions, alterations or repairs, or may be made to any building or structure without requiring the existing building or structure to comply with all the requirements of this Code Section, provided the addition, alteration, or repair conforms to the requirements of this Section.*

***~~3414.2~~3416.2* Unsafe Condition.** *Additions, repairs, or alterations shall not be made to an existing building or structure that will cause the existing building or structure to be in violation of any of the provisions of this code, nor shall such additions or alterations cause the existing building or structure to become unsafe, or to be in violation of any of the provisions of this code. An unsafe condition shall be deemed to have been created if an addition or alteration will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate egress in compliance with the provisions of this code or will obstruct existing exits; will create a fire hazard;*

will reduce required fire resistance or will otherwise create conditions dangerous to human life.

***~~3414.3~~3416.3* Changes in Use or Occupancy.** *Any buildings that have alternations or additions , which involves a change in use or occupancy, shall not exceed the height, number of stories and area permitted for new buildings*

***~~3414.4~~3416.4* Buildings Not in Compliance with Code**. *Additions or alterations shall not be made to an existing building or structure when such existing building or structure is not in full compliance with the provisions of this code except when such addition or alteration will result in the existing building or structure being no more hazardous, based on life safety, fire safety and sanitation, than before such additions or alterations are undertaken.*

***~~3414.5~~3416.5* Maintenance of Structural and Fire Resistive Integrity** *Alterations or repairs to an existing building or structure that are nonstructural and do not adversely affect any structural member of any part of the building or structure having required fire resistance may be made with the same materials of which the building or structure is constructed. The installation or replacement of glass shall be as required for new installations.*

***~~3414.6~~3416.6* Continuation of Existing Use.** *Buildings in existence at the time of the adoption of this code may have their existing use or occupancy continued if such use or occupancy was legal at the time of the adoption of this code, provided such continued use is not dangerous to life.*

***~~3414.7~~3416.7* Maximum Allowable Quantities.** *Laboratory suites approved prior to January 1, 2008 shall not exceed the maximum allowable quantities listed in Tables ~~3414.1~~3416.1 and ~~3414.2~~3416.2.*

TABLE ~~3414.7(1)~~3416.7(1) EXEMPT AMOUNTS OF HAZARDOUS MATERIALS, LIQUIDS AND CHEMICALS PRESENTING A PHYSICAL HAZARD BASIC QUANTITIES PER LABORATORY SUITE[1]
When two units are given, values within parentheses are in cubic feet (Cu. Ft.) or pounds (Lbs.)

CONDITION		STORAGE			USE CLOSED SYSTEMS			USE OPEN SYSTEMS		
MATERIAL	CLASS	Solid Lbs. (Cu. Ft.)	Liquid Gallons (Lbs.)	Gas Cu. Ft.	Solid Lbs. (Cu. Ft.)	Liquid Gallons (Lbs.)	Gas Cu. Ft.	Solid Lbs. (Cu. Ft.)	Liquid Gallons (Lbs.)	Gas Cu. Ft.
1.1 Combustible liquid	II	—	120[2]	—	—	120	—	—	30	—
	III-A	—	330[2]	—	—	330	—	—	80	—
	III-B	—	13,200[2]	—	—	13,200	—	—	3,300	—
1.2 Combustible dust lbs./1000 cu. ft.		1	—	—	1	—	—	1	—	—
1.3 Combustible fiber (loose) (baled)		(100) (1,000)	— —	— —	(100) (1,000)	— —	— —	(20) (200)	— —	— —
1.4 Cryogenic, flammable or oxidizing			45	—	—	45	—	—	10	—
2.1 Explosives		12	(1)[2]	—	1/4	(1/4)	—	1/4	(1/4)	—
3.1 Flammable solid		125[2]	—	—	25	—	—	25	—	—
3.2. Flammable gas (gaseous) (liquefied)		— —	— 15[2]	750[2] —	— —	— 15[2]	750[2] —	— —	— —	— —
3.3 Flammable liquid Combination I-A, I-B, I-C	I-A	—	30[2]	—	—	30	—	—	10	—
	I-B	—	60[2]	—	—	60	—	—	15	—
	I-C	—	90[2]	—	—	90	—	—	20	—
		—	120[2]	—	—	120	—	—	30	—
4.1 Organic peroxide, unclassified detonatable		1[2]	(1)[2]	—	1/4	(1/4)	—	1/4	(1/4)	—

4.2 Organic peroxide	I II III IV V	5[2] 50[2] 125[2] 500 N.L.	(5)[2] (50)[2] (125)[2] (500) N.L.	— — — — —	(1) 50 125 500 N.L.	(1) (50) (125) (500) N.L.	— — — — —	1 10 25 100 N.L.	1 (10) (25) (100) N.L.	— — — — —
4.3 Oxidizer	4 3 2 1	1[2] 10[2] 250[2] 1,000[2]	(1)[2] (10)[2] (250)[2] (1,000)[2]	— — — —	1/4 [2] 2 50 1,000	(1/4) (2) (250) (1,000)	— — — —	¼ 2 50 200	(1/4) (2) (50) (200)	— — — —
4.4 Oxidizer.Gas (gaseous) (liquefied)		— —	— 15[2]	1,500[2] —	— —	— 15[2]	1,500[2] —	— —	— —	— —
5.1 Pyrophoric		4[2]	(4)[2]	50[2]	1	(1)	10[2]	0	0	0
6.1 Unstable (reactive)	4 3 2 1	1[2] 5[2] 50[2] 125[2]	(1)[2] (5)[2] (50)[2] (125)[2]	10[2] 50[2] 250[2] 750[2]	1/4 1 50 125	(1/4) (1) (50) (125)	2[2] 10[2] 250[2] 750[2]	1/4 1 10 25	(1/4) (1) (10) (25)	0 0 0 0
7.1 Water (reactive)	3 2 1	5[2] 50[2] 125[2]	(5)[2] (50)[2] (125)[2]	— — —	5 50 125	(5) (50) (125)[2]	— — —	1 10 25	(1) (10) (25)	— — —

[1] A laboratory suite is a space up to 10,000 square feet (929 m2) bounded by not less than a one-hour fire-resistive occupancy separation within which the exempt amounts of hazardous materials may be stored, dispensed, handled or used. Up through the third floor and down through the first basement floor, the quantity in this table shall apply. Fourth, fifth and sixth floors and the second and third basement floor level quantity shall be reduced to 75 percent of this table. The seventh through 10th floor and below the third basement floor level quantity shall be reduced to 50 percent of this table.

[2] Quantities may be increased 100 percent when stored in approved exhausted gas cabinets, exhausted enclosures or fume hoods.

TABLE ~~3414.7(2)~~3416.7(2) EXEMPT AMOUNTS OF HAZARDOUS MATERIALS, LIQUIDS AND CHEMICALS PRESENTING A HEALTH HAZARD MAXIMUM QUANTITIES ER LABORATORY SUITE[1]
When two units are given, values within parentheses are in pounds (Lbs.)

MATERIAL	STORAGE			USE CLOSED SYSTEMS			USE OPEN SYSTEMS	
	Solid Lbs.	Liquid Gallons (Lbs.)	Gas Cu. Ft.	Solid Lbs.	Liquid Gallons (Lbs.)	Gas Cu. Ft.	Solid Lbs.	Liquid Gallons (Lbs.)
1. Corrosives	5,000	500	650[2]	5,000	500	650	1,000	100
2a. Highly toxics[2]	40	10	65	5	1	65	2	1/4
2b. Toxics	500	50	650[2]	500	50	650	5	1/2
3. Irritants	5,000	500	650	5,000	500	650	1,000	100
4. Sensitizers	5,000	500	650	5,000	500	650	1,000	100
5. Other health hazards	5,000	500	650	5,000	500	650	1,000	100

[1] A laboratory suite is a space up to 10,000 square feet (929 m2) bounded by not less than a one-hour fire-resistive occupancy separation within which the exempt amounts of hazardous materials may be stored, dispensed, handled or used. Up through the third floor and down through the first basement floor, the quantity in this table shall apply. Fourth, fifth and sixth floors and the second and third basement floor level quantity shall be reduced to 75 percent of this table. The seventh through 10th floor and below the third basement floor level quantity shall be reduced to 50 percent of this table.

[2] Permitted only when stored or used in approved exhausted gas cabinets, exhausted enclosures or fume hoods.

Quantities of high toxics in use in open systems need not be reduced above the third floor or below the first basement floor level. Individual container size shall be limited to 2 pounds (0.91 kg) for solids and 1/4 gallon (0.95 L) for liquids.

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, 17921, 18949.2, Government Code Section 51189
References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204