

REVISION RECORD FOR THE STATE OF CALIFORNIA

ERRATA

January 1, 2011

2010 Title 24, Part 9, California Fire Code

**PLEASE NOTE: The date of this errata is for identification purposes only.
See the History Note Appendix.**

It is suggested that the section number, as well as the page number be checked when inserting this material and removing the superseded material. In case of doubt, rely on the section numbers rather than the page numbers because the section numbers must run consecutively.

It is further suggested that the superseded material be retained with this revision record sheet so that the prior wording of any section can be easily ascertained.

Please keep the removed pages with this revision page for future reference.

Note

Due to the fact that the application date for a building permit establishes the California Building Standards Code provisions that are effective at the local level, which apply to the plans, specifications, and construction for that permit, it is strongly recommended that the removed pages be retained for historical reference.

Part 9

Remove Existing Pages

iii through viii
5 and 6
11 and 12
19 and 20
47 and 48
71 and 72
75 and 76
147 and 148
545 and 546
549 through 552
569 and 570
573 and 574
623 and 624
667 and 668

Insert Buff Colored Pages

iii through viii
5 and 6
11 and 12
19 and 20
47 and 48
71 and 72
75 and 76
147 and 148
545 and 546
549 through 552
569 and 570
573 and 574
623 and 624
667 and 668

PREFACE

This document is Part 9 of 12 parts of the official triennial compilation and publication of the adoptions, amendments and repeal of administrative regulations to *California Code of Regulations, Title 24*, also referred to as the *California Building Standards Code*. This part is known as the *California Fire Code*.

The *California Building Standards Code* is published in its entirety every three years by order of the California legislature, with supplements published in intervening years. The California legislature delegated authority to various state agencies, boards, commissions and departments to create building regulations to implement the State's statutes. These building regulations or standards, have the same force of law, and take effect 180 days after their publication unless otherwise stipulated. The *California Building Standards Code* applies to occupancies in the State of California as annotated.

A city, county, or city and county may establish more restrictive building standards reasonably necessary because of local climatic, geological or topographical conditions. Findings of the local condition(s) and the adopted local building standard(s) must be filed with the California Building Standards Commission to become effective and may not be effective sooner than the effective date of this edition of the *California Building Standards Code*. Local building standards that were adopted and applicable to previous editions of the *California Building Standards Code* do not apply to this edition without appropriate adoption and the required filing.

Should you find publication (e.g., typographical) errors or inconsistencies in this code or wish to offer comments toward improving its format, please address your comments to:

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833-2936

Phone: (916) 263-0916
Fax: (916) 263-0959

Web Page: www.bsc.ca.gov

ACKNOWLEDGEMENTS

The 2010 *California Building Standards Code* (Code) was developed through the outstanding collaborative efforts of the Department of Housing and Community Development, the Division of State Architect, the Office of the State Fire Marshal, the Office of Statewide Health Planning and Development, the California Energy Commission, and the Building Standards Commission (Commission).

This collaborative effort included the assistance of the Commission's Code Advisory Committees and many other volunteers that worked tirelessly to assist the Commission in the production of this Code.

Governor Arnold Schwarzenegger

Members of the Building Standards Commission

Acting Secretary Tom Sheehy – Chair

Isam Hasenin – Vice-Chair

James Barthman

Craig Dailey

Susan Dowty

Tony Hoffman

Christina Jamison

Stephen Jensen

Michael Paravagna

Richard Sawhill

Steven Winkel

David Walls – Executive Director

Thomas Morrison – Deputy Executive Director

For questions on California state agency amendments, please refer to the contact list on the following page.

California Code of Regulations, Title 24

California Agency Information Contact List

California Energy Commission

Energy Hotline (800) 772-3300
 or (916) 654-5106
Building Efficiency Standards
Appliance Efficiency Standards
Compliance Manual/Forms

California State Lands Commission

Marine Oil Terminals (562) 499-6317

California State Library

Resources and Information (916) 654-0261
Government Publication Section (916) 654-0069

Corrections Standards Authority

Local Adult Jail Standards (916) 324-1914
Local Juvenile Facility Standards (916) 324-1914

Department of Consumer Affairs – Acupuncture Board

Office Standards (916) 445-3021

Department of Consumer Affairs – Board of Pharmacy

Pharmacy Standards (916) 574-7900

Department of Consumer Affairs – Bureau of Barbering And Cosmetology

Barber and Beauty Shop and
College Standards (916) 574-7570
 (800) 952-5210

Department of Consumer Affairs – Bureau of Home Furnishings and Thermal Insulation

Insulation Testing Standards (916) 574-2041

Department of Consumer Affairs – Structural Pest Control Board

Structural Standards (800) 737-8188
 (916) 561-8708

Department of Consumer Affairs – Veterinary Medical Board

Veterinary Hospital Standard (916) 263-2610

Department of Food and Agriculture

Meat and Poultry Packing Plant
Standards (916) 654-1447
Dairy Standards (916) 654-1447

Department of Public Health

Organized Camps Standards (916) 449-5661
Public Swimming Pools Standards (916) 449-5693
Asbestos Standards (510) 620-2874

Department of Housing and Community Development

Residential – Hotels, Motels, Apartments,
Single-Family Dwellings (916) 445-9471
Permanent Structures in Mobilehome and
Special Occupancy Parks (916) 445-9471
Factory-Built Housing, Manufactured
Housing and Commercial Modular (916) 445-3338
Mobilehomes – Permits and Inspections
Northern Region (916) 225-2501
Southern Region (951) 782-4420
Employee Housing Standards (916) 445-9471

Department of Water Resources

Gray Water Installations Standards (916) 651-9667

Division of the State Architect – Access Compliance

Access Compliance Standards (916) 445-8100

Division of the State Architect – Structural Safety

Public Schools Standards (916) 445-8100
Essential Services Building Standards (916) 445-8100
Community College Standards (916) 445-8100

Division of the State Architect – State Historical Building Safety Board

Alternative Building Standards (916) 445-8100

Office of Statewide Health Planning and Development

Hospital Standards (916) 440-8356
Skilled Nursing Facility Standards (916) 440-8356
Clinic Standards (916) 440-8356
Permits (916) 440-8356

Office of the State Fire Marshal

Code Development and Analysis (916) 445-8200
Fire Safety Standards (916) 445-8200
Fireplace Standards (916) 445-8200
Day-Care Centers Standards (916) 445-8200
Exit Standards (916) 445-8200

How to Distinguish Between Model Code Language and California Amendments

To distinguish between model code language and the incorporated California amendments, including exclusive California standards, California amendments will appear in italics.

[SFM] This is an example of a state agency acronym used to identify an adoption or amendment by the agency. The acronym will appear at California Amendments and in the Matrix Adoption Tables. Section 1.11 of Chapter 1, Division 1, of this code explains the application of State Fire Marshal adoptions to building occupancies or building features, the enforcement agency as designated by state law (may be the state adopting agency or local building or fire official), the authority in state law for the state agency to make the adoption, and the specific state law being implemented by the adoption. Only the Office of the State Fire Marshal makes adoptions in this code.

Legend of Acronyms of Adopting State Agencies

<i>BSC</i>	<i>California Building Standards Commission</i>
<i>SFM</i>	<i>Office of the State Fire Marshal (see Section 1.11)</i>
<i>HCD 1</i>	<i>Department of Housing and Community Development</i>
<i>HCD 2</i>	<i>Department of Housing and Community Development</i>
<i>HCD 1/AC</i>	<i>Department of Housing and Community Development</i>
<i>DSA-AC</i>	<i>Division of the State Architect-Access Compliance</i>
<i>DSA-SS</i>	<i>Division of the State Architect-Structural Safety</i>
<i>DSA-SS/CC</i>	<i>Division of the State Architect-Structural Safety/Community Colleges</i>
<i>OSHPD 1</i>	<i>Office of Statewide Health Planning and Development</i>
<i>OSHPD 2</i>	<i>Office of Statewide Health Planning and Development</i>
<i>OSHPD 3</i>	<i>Office of Statewide Health Planning and Development</i>
<i>OSHPD 4</i>	<i>Office of Statewide Health Planning and Development</i>
<i>CSA</i>	<i>Corrections Standards Authority</i>
<i>DPH</i>	<i>Department of Public Health</i>
<i>AGR</i>	<i>Department of Food and Agriculture</i>
<i>CEC</i>	<i>California Energy Commission</i>
<i>CA</i>	<i>Department of Consumer Affairs: Board of Barbering and Cosmetology Board of Examiners in Veterinary Medicine Board of Pharmacy Acupuncture Board Bureau of Home Furnishings Structural Pest Control Board</i>
<i>SL</i>	<i>State Librarian</i>
<i>SLC</i>	<i>State Lands Commission</i>
<i>DWR</i>	<i>Department of Water Resources</i>

The state agencies are available to answer questions about their adoptions. Contact information is provided on page iv of this code. To learn more about the use of this code refer to pages xvii and xviii. Training materials on the application and use of this code are available at the website of the California Building Standards Commission www.bsc.ca.gov.

Symbols in the margins indicate the status of code changes as follows:

|| This symbol indicates that a change has been made to a California amendment.

> This symbol indicates deletion of California amendment language.

|| This symbol indicates that a change has been made to International Code Council model language.

➔ This symbol indicates deletion of International Code Council model language.

California Matrix Adoption Tables

Format of the California Matrix Adoption Tables

The matrix adoption tables, which follow, show the user which state agencies have adopted and/or amended given sections of the model code. The building application determines which state agency’s adoptions apply. See Sections 1.8 through 1.11 for building applications and enforcement responsibilities.

Agencies are grouped together, based on either local or state enforcement responsibilities. For example, regulations from SFM are enforced both at the state and local levels; therefore, SFM is listed twice in each adoption table indicating state enforcement responsibilities and local enforcement responsibilities.

The side headings identify the scope of state agencies’ adoption as follows:

Adopt the entire IFC chapter without state amendments.

If there is an “X” under a particular state agency’s acronym on this row; this means that particular state agency has adopted the entire model code chapter without any state amendments.

Example:

CHAPTER 2 – DEFINITIONS AND ABBREVIATIONS

Adopting agency	BSC	SFM	HCD			DSA			OSHPD				CSA	DPH	AGR	DWR	CA	SL	SLC
			1	2	1-AC	AC	SS	SS/CC	1	2	3	4							
Adopt entire chapter		X																	
Adopt entire chapter as amended (amended sections listed below)						S	A	M	P	L	E								
Adopt only those sections that are listed below																			
Chapter/Section																			

Adopt the entire IFC chapter as amended, state-amended sections are listed below:

If there is an “X” under a particular state agency’s acronym on this row, it means that particular state agency has adopted the entire model code chapter; with state amendments.

Each state-amended section that the agency has added to that particular chapter is listed. There will be an “X” in the column, by that particular section, under the agency’s acronym, as well as an “X” by each section that the agency has adopted.

Example:

CHAPTER 2 – DEFINITIONS AND ABBREVIATIONS

Adopting agency	BSC	SFM	HCD			DSA			OSHPD				CSA	DPH	AGR	DWR	CA	SL	SLC
			1	2	1-AC	AC	SS	SS/CC	1	2	3	4							
Adopt entire chapter																			
Adopt entire chapter as amended (amended sections listed below)		X																	
Adopt only those sections that are listed below						S	A	M	P	L	E								
Chapter/Section																			
202		X																	

Adopts only those sections that are listed below:

If there is an “X” under a particular state agency’s acronym on this row, it means that particular state agency is adopting only specific model code or state-amended sections within this chapter. There will be an “X” in the column under the agency’s acronym, as well as an “X” by each section that the agency has adopted.

Example:

CHAPTER 2 – DEFINITIONS AND ABBREVIATIONS

Adopting Agency	BSC	DPH	CSA	SL	CA	DWR	AGR	CEC	DSA			HCD			OSHPD				SFM
									AC	SS	SS-CC	1	2	1/AC	1	2	3	4	
Adopt entire chapter																			
Adopt entire chapter as amended (amended sections listed below)					S	A	M	P	L	E									
Adopt only those sections that are listed below													X	X					
Chapter 1																			
202					S	A	M	P	L	E			X	X					
202						C	O	N	T.				X	X					
203													X	X					
203													X	X					

[BSC] This symbol within a section identifies which State agency(s), by its “acronym,” has amended a section of the model code.

Legend of Acronyms of Adopting State Agencies

- BSC* California Building Standards Commission
- SFM* Office of the State Fire Marshal
- HCD* Department of Housing and Community Development
- DSA-AC* Division of the State Architect-Access Compliance
- DSA-SS* Division of the State Architect-Structural Safety
- DSA-SS/CC* Division of the State Architect-Structural Safety/Community Colleges
- OSHPD* Office of Statewide Health Planning and Development
- CSA* Corrections Standards Authority
- DPH* Department of Public Health
- AGR* Department of Food and Agriculture
- CEC* California Energy Commission
- CA* Department of Consumer Affairs:
Board of Barbering and Cosmetology
Board of Veterinary Medicine Examiners
Board of Pharmacy
Acupuncture Board
Bureau of Home Furnishings
Structural Pest Control Board
- SL* State Library
- SLC* State Lands Commission
- DWR* Department of Water Resources

1.1.6 Nonbuilding standards, orders and regulations. Requirements contained in the International Fire 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.

1.1.7 Order of precedence and use.

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.

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

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

1.1.8 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 1.1.8.1. The effective date of amendments, additions or deletions to this code of a city, county, or a city and county filed pursuant to Section 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.

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 1800 3rd Street, Room 260, Sacramento, CA 95811.

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.

1.1.10 Availability of codes. At least one 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).

1.1.11 Format. This part fundamentally adopts the International Fire 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 Fire Code such chapter of the International Fire Code is not adopted as a portion of this code.

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.

SECTION 1.11

OFFICE OF THE STATE FIRE MARSHAL

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.

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.

1.11.1.1 Adopting agency identification. The provisions of this code applicable to buildings identified in this Subsection 1.11.1 will be identified in the Matrix Adoption Tables under the acronym SFM.

1.11.2 Duties and powers of the enforcing agency.

1.11.2.1 Enforcement.

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 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-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

buildings and structures shall be provided in accordance with an *approved* fire protection plan.

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 47 and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

102.8 Subjects not regulated by this code. Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards, as *approved*, shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the *fire code official* to determine compliance with codes or standards for those activities or installations within the *fire code official's* jurisdiction or responsibility.

102.9 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code shall be determined by the *fire code official*.

102.10 Conflicting provisions. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in a specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.

102.11 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

102.12 Application of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

PART 2—ADMINISTRATIVE PROVISIONS

SECTION 103 DEPARTMENT OF FIRE PREVENTION

103.1 General. The department of fire prevention is established within the jurisdiction under the direction of the *fire code official*. The function of the department shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The *fire code official* shall be appointed by the chief appointing authority of the jurisdiction; and the *fire code official* shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the appointing authority.

103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the *fire code official* shall have the authority to

appoint a deputy *fire code official*, other related technical officers, inspectors and other employees.

103.4 Liability. The *fire code official*, member of the board of appeals, officer or employee charged with the enforcement of this code, while acting for the jurisdiction, in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally, and is hereby relieved from all personal liability for any damage accruing to *persons* or property as a result of an act or by reason of an act or omission in the discharge of official duties.

103.4.1 Legal defense. Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The *fire code official* or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code; and any officer of the department of fire prevention, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith.

SECTION 104 GENERAL AUTHORITY AND RESPONSIBILITIES

104.1 General. The *fire code official* is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code.

104.2 Applications and permits. The *fire code official* is authorized to receive applications, review *construction documents* and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

104.3 Right of entry. Whenever it is necessary to make an inspection to enforce the provisions of this code, or whenever the *fire code official* has reasonable cause to believe that there exists in a building or upon any premises any conditions or violations of this code which make the building or premises unsafe, dangerous or hazardous, the *fire code official* shall have the authority to enter the building or premises at all reasonable times to inspect or to perform the duties imposed upon the *fire code official* by this code. If such building or premises is occupied, the *fire code official* shall present credentials to the occupant and request entry. If such building or premises is unoccupied, the *fire code official* shall first make a reasonable effort to locate the *owner* or other *person* having charge or control of the building or premises and request entry. If entry is refused, the *fire code official* has recourse to every remedy provided by law to secure entry.

104.3.1 Warrant. When the *fire code official* has first obtained a proper inspection warrant or other remedy provided by law to secure entry, an *owner* or occupant or *person* having charge, care or control of the building or premises shall not fail or neglect, after proper request is made as herein provided, to permit entry therein by the *fire code official* for the purpose of inspection and examination pursuant to this code.

104.4 Identification. The *fire code official* shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

104.5 Notices and orders. The *fire code official* is authorized to issue such notices or orders as are required to affect compliance with this code in accordance with Sections 109.1 and 109.2.

104.6 Official records. The *fire code official* shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained for not less than five years or for as long as the structure or activity to which such records relate remains in existence, unless otherwise provided by other regulations.

104.6.1 Approvals. A record of approvals shall be maintained by the *fire code official* and shall be available for public inspection during business hours in accordance with applicable laws.

104.6.2 Inspections. The *fire code official* shall keep a record of each inspection made, including notices and orders issued, showing the findings and disposition of each.

104.6.3 Fire records. The fire department shall keep a record of fires occurring within its jurisdiction and of facts concerning the same, including statistics as to the extent of such fires and the damage caused thereby, together with other information as required by the *fire code official*.

104.6.4 Administrative. Application for modification, alternative methods or materials and the final decision of the *fire code official* shall be in writing and shall be officially recorded in the permanent records of the *fire code official*.

104.7 Approved materials and equipment. All materials, equipment and devices *approved* by the *fire code official* shall be constructed and installed in accordance with such approval.

104.7.1 Material and equipment reuse. Materials, equipment and devices shall not be reused or reinstalled unless such elements have been reconditioned, tested and placed in good and proper working condition and *approved*.

104.7.2 Technical assistance. To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to inspection by the *fire code official*, the *fire code official* is authorized to require the *owner* or agent to provide, without charge to the jurisdiction, a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the *fire code official* and shall analyze the fire safety properties of the design, operation or use of the building or premises and the facilities and appurtenances situated thereon, to recommend neces-

sary changes. The *fire code official* is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

104.8 Modifications. Whenever there are practical difficulties involved in carrying out the provisions of this code, the *fire code official* shall have the authority to grant modifications for individual cases, provided the *fire code official* shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the department of fire prevention.

104.9 Alternative materials and methods. The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. The *fire code official* is authorized to approve an alternative material or method of construction where the *fire code official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, *fire resistance*, durability and safety.

104.9.1 Research reports. Supporting data, when necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from *approved* sources.

104.9.2 Tests. Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the *fire code official* shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the *fire code official* shall approve the testing procedures. Tests shall be performed by an *approved* agency. Reports of such tests shall be retained by the *fire code official* for the period required for retention of public records.

104.10 Fire investigations. The *fire code official*, the fire department or other responsible authority shall have the authority to investigate the cause, origin and circumstances of any fire, explosion or other hazardous condition. Information that could be related to trade secrets or processes shall not be made part of the public record except as directed by a court of law.

104.10.1 Assistance from other agencies. Police and other enforcement agencies shall have authority to render necessary assistance in the investigation of fires when requested to do so.

104.11 Authority at fires and other emergencies. The fire chief or officer of the fire department in charge at the scene of a fire or other emergency involving the protection of life or property or any part thereof, shall have the authority to direct such

2. **Pyrotechnics and special effects.** To use pyrotechnic special effects, open flame, use of flammable or combustible liquids and gases, welding, and the parking of motor vehicles in any building or location used for the purpose of motion picture, television and commercial production.
3. **Live audiences.** To install seating arrangements for live audiences in approved production facilities, production studios and sound stages. See Chapter 48.

105.7 Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.14.

105.7.1 Automatic fire-extinguishing systems. A construction permit is required for installation of or modification to an automatic fire-extinguishing system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.2 Battery systems. A permit is required to install stationary storage battery systems having a liquid capacity of more than 50 gallons (189 L).

105.7.3 Compressed gases. When the compressed gases in use or storage exceed the amounts listed in Table 105.6.8, a construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a compressed gas system.

Exceptions:

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.4 Cryogenic fluids. A construction permit is required for installation of or alteration to outdoor stationary cryogenic fluid storage systems where the system capacity exceeds the amounts listed in Table 105.6.10. Maintenance performed in accordance with this code is not considered an alteration and does not require a construction permit.

105.7.5 Fire alarm and detection systems and related equipment. A construction permit is required for installation of or modification to fire alarm and detection systems and related equipment. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.6 Fire pumps and related equipment. A construction permit is required for installation of or modification to fire pumps and related fuel tanks, jockey pumps, controllers and generators. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.7 Flammable and combustible liquids. A construction permit is required:

1. To install, repair or modify a pipeline for the transportation of flammable or combustible liquids.
2. To install, construct or alter tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing sta-

tions, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.

3. To install, alter, remove, abandon or otherwise dispose of a flammable or combustible liquid tank.

105.7.8 Hazardous materials. A construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a storage facility or other area regulated by Chapter 27 when the hazardous materials in use or storage exceed the amounts listed in Table 105.6.20.

Exceptions:

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.9 Industrial ovens. A construction permit is required for installation of industrial ovens covered by Chapter 21.

Exceptions:

1. Routine maintenance.
2. For repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.10 LP-gas. A construction permit is required for installation of or modification to an LP-gas system.

105.7.11 Private fire hydrants. A construction permit is required for the installation or modification of private fire hydrants.

105.7.12 Spraying or dipping. A construction permit is required to install or modify a spray room, dip tank or booth.

105.7.13 Standpipe systems. A construction permit is required for the installation, modification or removal from service of a standpipe system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.14 Temporary membrane structures and tents. A construction permit is required to erect an air-supported temporary membrane structure or a tent having an area in excess of 400 square feet (37 m²).

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.
3. Tents and awnings open on all sides which comply with all of the following:
 - 3.1. Individual tents shall have a maximum size of 700 square feet (65 m²).
 - 3.2. The aggregate area of multiple tents placed side by side without a fire break clearance

of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.

- 3.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be maintained.

SECTION 106 INSPECTIONS

106.1 Inspection authority. The *fire code official* is authorized to enter and examine any building, structure, marine vessel, vehicle or premises in accordance with Section 104.3 for the purpose of enforcing this code.

106.2 Inspections. The *fire code official* is authorized to conduct such inspections as are deemed necessary to determine the extent of compliance with the provisions of this code and to approve reports of inspection by *approved* agencies or individuals. All reports of such inspections shall be prepared and submitted in writing for review and approval. Inspection reports shall be certified by a responsible officer of such *approved* agency or by the responsible individual. The *fire code official* is authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed or complex technical issues subject to the approval of the governing body.

106.2.1 Inspection requests. It shall be the duty of the holder of the permit or their duly authorized agent to notify the *fire code official* when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

106.2.2 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the *fire code official*. The *fire code official*, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the *fire code official*.

106.3 Concealed work. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Whenever any installation subject to inspection prior to use is covered or concealed without having first been inspected, the *fire code official* shall have the authority to require that such work be exposed for inspection. Neither the *fire code official* nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

106.4 Approvals. Approval as the result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel provisions of this code or of other ordinances of the jurisdiction shall not be valid.

SECTION 107 MAINTENANCE

107.1 Maintenance of safeguards. Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, or any other feature is required for compliance with the provisions of this code, or otherwise installed, such device, equipment, system, condition, arrangement, level of protection, or other feature shall thereafter be continuously maintained in accordance with this code and applicable referenced standards.

107.2 Testing and operation. Equipment requiring periodic testing or operation to ensure maintenance shall be tested or operated as specified in this code.

107.2.1 Test and inspection records. Required test and inspection records shall be available to the *fire code official* at all times or such records as the *fire code official* designates shall be filed with the *fire code official*.

107.2.2 Reinspection and testing. Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the *fire code official* for inspection and testing.

107.3 Supervision. Maintenance and testing shall be under the supervision of a responsible *person* who shall ensure that such maintenance and testing are conducted at specified intervals in accordance with this code.

107.4 Rendering equipment inoperable. Portable or fixed fire-extinguishing systems or devices and fire-warning systems shall not be rendered inoperative or inaccessible except as necessary during emergencies, maintenance, repairs, *alterations*, drills or prescribed testing.

107.5 Owner/occupant responsibility. Correction and abatement of violations of this code shall be the responsibility of the *owner*. If an occupant creates, or allows to be created, hazardous conditions in violation of this code, the occupant shall be held responsible for the abatement of such hazardous conditions.

107.6 Overcrowding. Overcrowding or admittance of any *person* beyond the *approved* capacity of a building or a portion thereof shall not be allowed. The *fire code official*, upon finding any overcrowding conditions or obstructions in *aisles*, passageways or other *means of egress*, or upon finding any condition which constitutes a life safety hazard, shall be authorized to cause the event to be stopped until such condition or obstruction is corrected.

SECTION 108 BOARD OF APPEALS

108.1 Board of appeals established. In order to hear and decide appeals of orders, decisions or determinations made by the *fire code official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The *fire code official* shall be an ex officio member of said board but shall have

**CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE
CHAPTER 3 – GENERAL PRECAUTIONS AGAINST FIRE**

Adopting agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DPH	AGR	DWR	CEC	CA	SL	SLC
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt entire CA chapter																			
Adopt entire chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below		X																	
Chapter/Section																			
301		X																	
304		X																	
304.3		†																	
308.5		X																	
312		X																	
314		X																	
315		X																	
316		X																	

This state agency does not adopt sections identified with the following symbol: †

CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE CHAPTER 5 – FIRE SERVICE FEATURES

Adopting agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DPH	AGR	DWR	CEC	CA	SL	SLC
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt entire CA chapter																			
Adopt entire chapter as amended (amended sections listed below)		X																	
Adopt only those sections that are listed below																			
Chapter/Section																			
503.5.2		X																	
507.3		X																	
507.5		X																	
507.5.1		X																	
507.5.3		X																	
508.1		X																	
508.1.2		X																	
508.1.5		X																	
508.2.1		X																	
510.3		†																	

This state agency does not adopt sections identified with the following symbol: †

department. An *approved* access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the *fire code official*.

[California Code of Regulations, Title 19, Division 1, §3.05(b)] Fire Department Access and Egress. (Roofs)

(b) *Roofs. No person shall install or maintain any security barrier such as barbed wire fencing, razor wire fencing, chain link fencing or any other fencing material, cable, aerial, antenna or other obstruction on the roof of any commercial establishment in such a manner as to obstruct or render egress or access hazardous in the event of fire or other emergency.*

Exception: *Guy wire, rods and aerial antenna masts may be attached to a roof structure having a slope of less than 30 degrees provided there is full clearance of seven feet or more between the roof and said obstruction. Guy wire or rods required to support aerial or antenna masts may be attached to a roof structure a lateral distance from the mast not in excess of one-sixth the height of the mast.*

504.2 Maintenance of exterior doors and openings. Exterior doors and their function shall not be eliminated without prior approval. Exterior doors that have been rendered nonfunctional and that retain a functional door exterior appearance shall have a sign affixed to the exterior side of the door with the words THIS DOOR BLOCKED. The sign shall consist of letters having a principal stroke of not less than $\frac{3}{4}$ inch (19.1 mm) wide and at least 6 inches (152 mm) high on a contrasting background. Required fire department access doors shall not be obstructed or eliminated. *Exit* and *exit access* doors shall comply with Chapter 10. Access doors for *high-piled combustible storage* shall comply with Section 2306.6.1.

504.3 Stairway access to roof. New buildings four or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3-percent slope), shall be provided with a *stairway* to the roof. *Stairway* access to the roof shall be in accordance with Section 1009.13. Such *stairway* shall be marked at street and floor levels with a sign indicating that the *stairway* continues to the roof. Where roofs are used for roof gardens or for other purposes, *stairways* shall be provided as required for such occupancy classification.

SECTION 505 PREMISES IDENTIFICATION

505.1 Address identification. New and existing buildings shall have *approved* address numbers, building numbers or *approved* building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure.

505.2 Street or road signs. Streets and roads shall be identified with *approved* signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an *approved* size, weather resistant and be maintained until replaced by permanent signs.

SECTION 506 KEY BOXES

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the *fire code official* is authorized to require a key box to be installed in an *approved* location. The key box shall be of an *approved* type and shall contain keys to gain necessary access as required by the *fire code official*.

506.1.1 Locks. An *approved* lock shall be installed on gates or similar barriers when required by the *fire code official*.

506.2 Key box maintenance. The operator of the building shall immediately notify the *fire code official* and provide the new key when a lock is changed or rekeyed. The key to such lock shall be secured in the key box.

SECTION 507 FIRE PROTECTION WATER SUPPLIES

507.1 Required water supply. An *approved* water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

507.2 Type of water supply. A water supply shall consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

507.2.1 Private fire service mains. Private fire service mains and appurtenances shall be installed in accordance with NFPA 24 *as amended in Chapter 47*.

507.2.2 Water tanks. Water tanks for private fire protection shall be installed in accordance with NFPA 22.

507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an *approved* method or *Appendix B*.

507.4 Water supply test. The *fire code official* shall be notified prior to the water supply test. Water supply tests shall be witnessed by the *fire code official* or *approved* documentation of the test shall be provided to the *fire code official* prior to final approval of the water supply system.

507.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 507.5.1 through 507.5.6 and *Appendix C* or by an *approved* method.

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on

a fire apparatus access road, as measured by an *approved* route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the *fire code official*.

Exception: For Group R-3 and Group U occupancies, *equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3*, the distance requirement shall be *not more than 600 feet (183 m)*.

507.5.2 Inspection, testing and maintenance. Fire hydrant systems shall be subject to periodic tests as required by the *fire code official*. Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, *alterations* and servicing shall comply with *approved standards*.

507.5.3 Private fire service mains and water tanks. Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with *California Code of Regulations, Title 19, Division 1, Chapter 5*.

507.5.4 Obstruction. Unobstructed access to fire hydrants shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

507.5.5 Clear space around hydrants. A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants except as otherwise required or *approved*.

507.5.6 Physical protection. Where fire hydrants are subject to impact by a motor vehicle, guard posts or other *approved means* shall comply with Section 312.

SECTION 508 FIRE COMMAND CENTER

508.1 General. Where required by other sections of this code and in all buildings classified as high-rise buildings by the *California Building Code and Group I-2 occupancies having occupied floors located more than 75 feet (22 860 mm) 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 508.1.1 through 508.1.5.

508.1.1 Location and access. The location and accessibility of the *fire command center* shall be *approved* by the fire chief.

508.1.2 Separation. The *fire command center* shall be separated from the remainder of the building by not less than a 1-hour *fire barrier* constructed in accordance with Section 707 of the *California Building Code* or *horizontal assembly* constructed in accordance with Section 712 of the *California Building Code*, or both.

508.1.3 Size. The *fire command center* shall be a minimum of 200 square feet (19 m²) in area with a minimum dimension of 10 feet (3048 mm).

508.1.4 Layout approval. A layout of the *fire command center* and all features required by this section to be contained therein shall be submitted for approval prior to installation.

508.1.5 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.

Fire Command Centers shall not be used for the housing of any boiler, heating unit, generator, combustible storage, or similar hazardous equipment or storage.

SECTION 509 FIRE PROTECTION EQUIPMENT IDENTIFICATION AND ACCESS

509.1 Identification. Fire protection equipment shall be identified in an *approved* manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. *Approved* signs required to identify fire protection equipment and equipment location

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 means 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.*

907.2.6.3 Group I-3 occupancies. Group I-3 occupancies shall be equipped with a manual fire alarm system and automatic smoke detection system installed for alerting staff.

907.2.6.3.1 System initiation. Actuation of an automatic fire-extinguishing system, a manual fire alarm box or a fire detector shall initiate an approved fire alarm signal which automatically notifies staff.

907.2.6.3.2 Manual fire alarm boxes. Manual fire alarm boxes are not required to be located in accordance with Section 907.5.2 where the fire alarm boxes are provided at staff-attended locations having direct supervision over areas where manual fire alarm boxes have been omitted.

907.2.6.3.2.1 Manual fire alarms boxes in detainee areas. Manual fire alarm boxes are allowed to be locked in areas occupied by detainees, provided that staff members are present within the subject area and have keys readily available to operate the manual fire alarm boxes.

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 inmates.

Exceptions:

1. *Other approved smoke detection 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 47. 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 (356 mm) 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. *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 Section 903.3.1.1.*
 2. *Building is continuously staffed by a correctional officer at all times.*
 3. *The exception to Section 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 907.7.3.

All local detention facilities within the scope of Section 6031.4 of the Penal Code shall have an 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 enforcing agency. 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.

907.2.7 Group M. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group M occupancies where one of the following conditions exists:

1. The combined Group M occupant load of all floors is 500 or more persons.
2. The Group M occupant load is more than 100 persons above or below the lowest level of exit discharge.

Exceptions:

1. A manual fire alarm system is not required in covered mall buildings complying with Section 402 of the *California Building Code*.
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 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.

907.2.7.1 Occupant notification. During times that the building is occupied, the initiation of a signal from a manual fire alarm box or from a water flow switch shall not be required to activate the alarm notification appliances when an alarm signal is activated at a constantly attended location from which evacuation instructions shall be initiated over an emergency voice/alarm communication system installed in accordance with Section 907.6.2.2.

907.2.8 Group R-1. Fire alarm systems and smoke alarms shall be installed in Group R-1 occupancies as required in Sections 907.2.8.1 through 907.2.8.3.

907.2.8.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group R-1 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not more than two stories in height

where all individual *sleeping units* and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by at least 1-hour *fire partitions* and each individual *sleeping unit* has an *exit* directly to a *public way, exit court* or yard.

2. Manual fire alarm boxes are not required throughout the building when the following conditions are met:

- 2.1. The building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2;
- 2.2. The notification appliances will activate upon sprinkler water flow; and
- 2.3. At least one manual fire alarm box is installed at an *approved* location.

907.2.8.2 Automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.6 shall be installed throughout all interior *corridors* serving *sleeping units*.

Exception: An automatic smoke detection system is not required in buildings that do not have interior *corridors* serving *sleeping units* and where each *sleeping unit* has a *means of egress* door opening directly to an *exit* or to an exterior *exit access* that leads directly to an *exit*.

907.2.8.3 Smoke alarms. Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

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 Section 907.2.9.1 and 907.9.3.

907.2.9.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 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

CHAPTER 47

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 Section 102.7.

Standard reference number	Title	Referenced in code section number
HB-17—2002	Specification for Highway Bridges, 17th Edition 2002	503.2.6

Standard reference number	Title	Referenced in code section number
ASI—77	Design and Standard Manual	2403.10.2

Standard reference number	Title	Referenced in code section number
Spec 12P—(1995) (Reaffirmed 2000)	Specification for Fiberglass Reinforced Plastic Tanks.	3404.2.13.1.5
RP 651—(1997)	Cathodic Protection of Aboveground Petroleum Storage Tanks.	3406.7, 3406.7.1
Std 653—(2001)	Tank Inspection, Repair, Alteration and Reconstruction	3406.7
RP 752—(2003)	Management of Hazards Associated with Location of Process Plant Buildings, CMA Managers Guide	3406.7
RP 1604—(1996)	Closure of Underground Petroleum Storage Tanks	3404.2.13
RP 1615—(1996)	Installation of Underground-petroleum Storage Systems.	3404.2.13.1.5, 3406.7
Std 2000—(1998)	Venting Atmosphere and Low-pressure Storage Tanks: Nonrefrigerated and Refrigerated	3404.2.7.3.6
RP 2001—(2005)	Fire Protection in Refineries, 8th Edition	3406.7
RP 2003—(1998)	Protection Against Ignitions Arising out of Static, Lightning and Stray Currents.	3406.7
Publ 2009—(2002)	Safe Welding and Cutting Practices in Refineries, Gas Plants and Petrochemical Plants	3406.7
Std 2015—(2001)	Safe Entry and Clearing of Petroleum Storage Tanks.	3406.7, 3406.7.2
RP 2023—(2001)	Guide for Safe Storage and Handling of Heated Petroleum-derived Asphalt Products and Crude-oil Residue	3406.7, 3406.7.3
Publ 2028—(2002)	Flame Arrestors in Piping Systems	3404.2.7.3.2
Publ 2201—(2003)	Procedures for Welding or Hot Tapping on Equipment in Service.	3406.7
RP 2350—(2005)	Overfill Protection for Storage Tanks in Petroleum Facilities, 3rd Edition	3404.2.7.5.8, 3406.4.6, 3406.7

Standard reference number	Title	Referenced in code section number
A13.1—96 (Reaffirmed 2002)	Scheme for the Identification of Piping Systems.	2609.3, 2703.2.2.1, 3003.4.3, 3203.4.5, 3403.5.2
A17.1-2007/CSA B44-07	Safety Code for Elevators and Escalators	508.1.5, 607.1, 907.4.3, 1007.4

REFERENCED STANDARDS

ASME—continued

A17.3—2005	Safety Code for Existing Elevators and Escalators	4603.2
A18.1—2005	Safety Standard for Platform Lifts and Stairway Chair Lifts	604.2.6
B16.18—2001 (Reaffirmed 2005)	Cast Copper Alloy Solder Joint Pressure Fittings	909.13.1
B16.22—2001 (Reaffirmed 2005)	Wrought Copper and Copper Alloy Solder-joint Pressure Fittings	909.13.1
B31.1—2004	Power Piping	Table 3403.6.2
B31.3—2004	Process Piping	2209.5.4.3.1, 2703.2.2.2, Table 3403.6.2
B31.4—2006	Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids	Table 3403.6.2
B31.9—2004	Building Services Piping	Table 3403.6.2, 3403.6.3, 3403.6.11
<i>BPE—2009</i>	<i>Bio-processing Equipment Standard</i>	
BPVC—2004	ASME Boiler and Pressure Vessel Code (Sections I, II, IV, V & VI, VIII)	2209.5.4.2, 2703.2.1, 3003.2, 3003.3.2, 3203.4.3, 3203.7, 3404.2.13.1.5, 3506.3.1, 3506.4.1, 3506.4.8

ASTM

ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

Standard reference number	Title	Referenced in code section number
B 42—02e01	Specification for Seamless Copper Pipe, Standard Sizes	909.13.1
B 43—98(2004)	Specification for Seamless Red Brass Pipe, Standard Sizes	909.13.1
B 68—02	Specification for Seamless Copper Tube, Bright Annealed	909.13.1
B 88—03	Specification for Seamless Copper Water Tube	909.13.1
B 251—02e01	Specification for General Requirements for Wrought Seamless Copper and Copper-alloy Tube	909.13.1
B 280—03	Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service	909.13.1
D 56—05	Test Method for Flash Point by Tag Closed Tester	3402.1
D 86—07a	Test Method for Distillation of Petroleum Products at Atmospheric Pressure	2702.1
D 92—05a	Test Method for Flash and Fire Points by Cleveland Open Cup	1501.2, 3401.2, 3402.1
D 93—07	Test Method for Flash Point by Pensky-Martens Closed Up Tester	3402.1
D 323—06	Test Method for Vapor Pressure of Petroleum Products (Reid Method)	2702.1
D 3278—(2004)e01	Test Methods for Flash Point of Liquids by Small Scale Closed-cup Apparatus	3402.1
E 84—07	Test Method for Surface Burning Characteristics of Building Materials	802.1, 803.1, 803.1.1, 803.1.2, 803.5.1, 803.6.2, 803.9, 804.1, 804.1.1, 804.2.4
E 681—04	Test Method for Concentration Limits of Flammability of Chemicals (Vapors and Gases)	3502.1
E 1354—04a	Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter	304.3.2, 304.3.4, 317.1, 808.1
E 1529—06	Test Method for Determining Effects of Large Hydrocarbon Pool Fires on Structural Members and Assemblies	3404.2.9.2.3
E 1537—07	Test Method for Fire Testing of Upholstered Furniture	805.1.1.2, 805.2.1.2, 805.3.1.2, 805.4.1.2
E 1590—07	Test Method for Fire Testing of Mattresses	805.1.2.2, 805.2.2.2, 805.3.2.2, 805.4.2.2
E 1966—01	Test Method for Fire-resistant Joint Systems	702.1
E 2072—04	Standard Specification for Pholuminescent (Phosphorescent) Safety Markings	1024.4
E 2404—07a	Standard Practice for Specimen Preparation and Mounting of Textile, Paper or Vinyl Wall or Ceiling Coverings to Assess Surface Burning Characteristics	803.6.2
E 2573—07	Standard Practice for Specimen Preparation and Mounting of Site-fabricated Stretch Systems to Assess Surface Burning Characteristics	803.9
F 2200—05	Standard Specification for Automated Vehicular Gate Construction	503.5, 503.6, D103.5

BHMA

Builders Hardware Manufacturers' Association
355 Lexington Avenue, 17th Floor
New York, NY 10017-6603

Standard reference number	Title	Referenced in code section number
A156.10—05	American National Standard for Power-operated Pedestrian Doors	1008.1.4.2
A156.19—02	American National Standard for Power Assist and Low-energy Power-operated Doors	1008.1.4.2

EPA

Environmental Protection Agency
 Ariel Rios Building
 1200 Pennsylvania Avenue, NW
 Washington, DC 20460

Standard reference number	Title	Referenced in code section number
40 CFR Part 355—2008	Emergency Planning and NotificationH101.4

FCC

Federal Communications Commission
 Wireless Telecommunications Bureau (WTB)
 445 12th Street, SW
 Washington, DC 20554

Standard reference number	Title	Referenced in code section number
47 CFR Part 90.219—2007	Private Land Mobile Radio Services—Use of Signal BoostersJ103.2.5

FM

*Factory Mutual
 Standards Laboratories Department
 1151 Boston-Providence Turnpike
 Norwood, MA 02062*

Standard reference number	Title	Referenced in code section number
3260—00	<i>Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling</i>	
3011—99	<i>Approval Standard for Central Station Service for Fire Alarm and Protective Equipment Supervision</i>	.907.7.5.2
4430—80	<i>Acceptance Criteria for Smoke and Heat Vents</i>	.910.3.1

ICC

International Code Council, Inc.
 500 New Jersey Avenue, NW, 6th Floor
 Washington, DC 20001

Standard reference number	Title	Referenced in code section number
ICC 300—07	Standard on Bleachers, Folding and Telescopic Seating and Grandstands	1028.1.1
ICC ES AC 331	<i>Acceptance Criteria for Smoke and Heat Vents</i>	.910.3.1
ICC ES AC 77	<i>Acceptance Criteria for Smoke Containment Systems Used with Fire-resistance-rated Elevator Hoistway Doors and Frames</i>	.707.14.1
IWUIC—09	International Wildland-Urban Interface Code®B103.3

ISO

International Organization for Standardization (ISO)
 ISO Central Secretariat
 1 ch. de la Voie-Creuse, Case postale 56
 CH-1211 Geneva 20, Switzerland

Standard reference number	Title	Referenced in code section number
ISO 8115—86	Cotton Bales—Dimensions and Density	Table 1804.2.2.1, Table 2703.1.1(1)

NEMA

National Electrical Manufacturer's Association
 1300 N. 17th Street, Suite 1752
 Rosslyn, VA 22209

Standard reference number	Title	Referenced in code section number
250—2003	Enclosures for Electrical Equipment (1,000 Volt Maximum).3705.2



National Fire Protection Association
 1 Batterymarch Park
 Quincy, MA 02169-7471

Standard reference number	Title	Referenced in code section number
10—07	Portable Fire Extinguishers	Table 901.6.1, 906.2, 906.3, Table 906.3(1), Table 906.3(2), 906.3.2, 906.3.4, 2106.3, I101.1
11—05	Low-, Medium- and High-expansion Foam 904.7, 3404.2.9.2.2
12—05	Carbon Dioxide Extinguishing Systems.	Table 901.6.1, 904.8, 904.11
12A—04	Halon 1301 Fire Extinguishing Systems.	Table 901.6.1, 904.9
13—10	Installation of Sprinkler Systems <i>as amended</i> *	903.3.1.1, 903.3.2, 903.3.5.1.1, 903.3.5.2, 904.11, 905.3.4, 907.7.3, 2301.1, 2304.2, Table 2306.2, 2306.9, 2307.2, 2307.2.1, 2308.2.2, 2308.2.2.1, 2308.4, 2310.1, 2501.1, 2804.1, 2806.5.7, 3404.3.3.9, Table 3404.3.6.3(7), 3404.3.7.5.1, 3404.3.8.4

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*, 2006 California edition.

***Revise Section 8.15.1.2.15 as follows:**

8.15.1.2.15 Exterior columns under 10 ft² (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 or 8.15.7.3 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, 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

Revise Section 8.15.7.3

8.15.7.3 Sprinklers shall be permitted to be omitted from below the canopies, roofs, balconies, decks, or similar projections are combustible construction, provided the exposed finish material on the roof, or canopy 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 canopies 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 ft³ (4.5 m³) 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 not exceeding 55 ft² (5.1

Delete language to section 8.15.7.4 and reserve section number.

8.15.7.4.

Revise Annex Section A.8.15.7.5 as follows:

A.8.15.7.5 The presence of planters, newspaper machines and similar items, should not be considered storage.

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 and antifreeze valves shall be readily accessible for inspection, testing, and maintenance. Valves located more than 7 feet (2134 mm) above the finished floor shall be provided with a means of opening and closing the valve from the floor level.

NFPA—continued

Revise Section 8.16.1.5.1 as follows:

8.16.1.5.1 Private fire service main systems shall have sectional control 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 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.

Revise Section 9.3.5.8.3 as follows:

9.3.5.8.3 Where threaded pipe is used for sway bracing, it shall have a wall thickness of not less than 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 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 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:

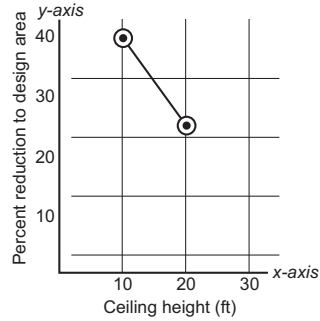
11.2.3.1.4(4)(i) Exterior columns under 10 ft² (0.93 m²) in total area, formed by studs or wood joist, with no sources of ignition within the column, supporting exterior canopies that are fully protected with a sprinkler system.

Revise Section 11.2.3.2.3.1 as follows:

11.2.3.2.3.1 Where listed quick-response sprinklers, excluding 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 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 ft² (3 m²)

REFERENCED STANDARDS



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 ft, $y = 0$

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 *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 California Code of Regulations, Title 19, 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) *California Code of Regulations, Title 19, 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 pressure 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.*

CHAPTER 49

REQUIREMENTS FOR WILDLAND-URBAN INTERFACE FIRE AREAS

SECTION 4901 GENERAL

4901.1 Scope. *The mitigation of conditions where a wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses shall comply with this chapter.*

4901.2 Purpose. *The purpose of this code is to provide minimum standards to increase the ability of a building to resist the intrusion of flame or burning embers being projected by a vegetation fire and contributes to a systematic reduction in conflagration losses through the use of performance and prescriptive requirements.*

SECTION 4902 DEFINITIONS

4902.1 General. *For the purpose of this chapter, certain terms are defined as follows:*

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

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. 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 in accordance with Section 101.14 or the Department of Housing and Community Development in accordance with Section 101.15 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.*

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."

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 51189 that is not a state responsibility area and where a local agency, city, county, city and county, or district is responsible for fire protection.*

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 4903 PLANS [RESERVED]

SECTION 4904 FIRE HAZARD SEVERITY ZONES

4904.1 General. *Lands in the state are classified by the CDF Director in accordance with the severity of wildfire hazard expected to prevail in those areas and the responsibility for fire protection, so that measures may be identified which will reduce the potential for losses to life, property and resources from wildfire.*

4904.2 Classifications. *The CDF Director classifies lands into fire hazard severity zones in accordance with California Public Resources Code Sections 4201 through 4204 for State Responsibility Areas and in accordance with Government Code Sections 51175 through 51189 for areas where a local agency is responsible for fire protection.*

SECTION 4905 WILDFIRE PROTECTION BUILDING CONSTRUCTION

4905.1 General. *Materials and construction methods for exterior wildfire exposure protection shall be applied within geographical areas where a wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses.*

4905.2 Construction methods and requirements within established limits. *Within the limits established by law, construction methods intended to mitigate wildfire exposure shall comply with the wildfire protection building construction requirements*

REQUIREMENTS FOR WILDLAND-URBAN INTERFACE FIRE AREAS

contained in the California Building Standards Code including the following:

1. California Building Code Chapter 7A,
2. California Residential Code Section R327,
3. California Reference Standards Code Chapter 12-7A
4. and this chapter.

4905.3 Establishment of limits. The establishment of limits for the Wildland-Urban Interface Fire Area's required construction methods shall be designated pursuant to the California Public Resources Code for State Responsibility areas or by a local agency following a finding supported by substantial evidence in the record that the requirements of this section are necessary for effective fire protection within the area.

Buildings and structures within the Very-High Fire Hazard Severity Zones of a Local Responsibility Areas (LRA) shall maintain defensible space as outlined in Government Code 51175 – 51189 and any local ordinance of the authority having jurisdiction.

SECTION 4906 HAZARDOUS VEGETATION AND FUEL MANAGEMENT

4906.1 General. Hazardous vegetation and fuels shall be managed to reduce the severity of potential exterior wildfire exposure to buildings and to reduce the risk of fire spreading to buildings as required by applicable laws and regulations.

4906.2 Application. Buildings and structures located in the following areas shall maintain the required hazardous vegetation and fuel management:

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.

4906.3 Requirements. Hazardous vegetation and fuels around all applicable buildings and structures shall be maintained in accordance with the following laws and regulations:

1. Public Resources Code Section 4291
2. California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299 (see guidance for implementation "General Guideline to Create Defensible Space")
3. California Government Code Section 51182
4. California Code of Regulations, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07

SECTION 4907 DEFENSIBLE SPACE

4907.1 General. Defensible space will be maintained around all buildings and structures in State Responsibility Area (SRA) as required in Public Resources Code 4290 and "SRA Fire Safe Regulations" California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 2, Section 1270.

APPENDIX CHAPTER 4
SPECIAL DETAILED REQUIREMENTS
BASED ON USE AND OCCUPANCY

SECTION 425
SPECIAL PROVISIONS FOR LICENSED
24-HOUR CARE FACILITIES IN GROUPS R-2.1,
R-3.1 AND R-4

425.1 Scope. The provisions of this chapter shall apply to 24-hour care facilities in a Group 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 Group R-2.1, R-3.1 or R-4 occupancies.

Exception: Occupancies which meet all of 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.

[California Code of Regulations, Title 19, Division 1, §3.23] **Nonambulatory Housing in Group R-2.1, R-3.1 and R-4 occupancies.** Nonambulatory persons in Group R-2.1, R-3.1 and R-4 occupancies shall not be housed above the first floor unless the building is of Type IA or Type IIA construction.

425.3.1 Group R-2.1, R-3.1, and R-4 shall be constructed in accordance with Table 503 of the California Building Code.

[California Code of Regulations, Title 19, Division 1, §3.26] **Operators Statement – Group I, R-2.1, R-3.1 and R-4 occupancies.** Every person, firm or corporation maintaining or operating any Group I or R-2.1, R-3.1 or R-4 occupancy shall provide an operators statement in accordance with Section 13132 of the Health and Safety Code which reads as follows:

“13132. Every person, firm or corporation maintaining or operating any facility for the care of the mentally handicapped shall file a statement with the fire authority having jurisdiction within five days of the admission or readmission of a patient stating that such patient is an ambulatory or a nonambulatory person and enumerating the reasons for such classification. Such a statement shall also be filed for each existing patient within 30 days of the effective date of this section.

Any statement required to be filed pursuant to this section shall be certified as to its correctness by the person attending such patient.

It shall be unlawful for any person, firm, or corporation required to file a statement pursuant to this section to include false statements therein. Any such act shall be in violation of this section and subject to the provisions of Section 13112.”

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 R-3.1 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 R-2.1, occupancies are not permitted in nonfire-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 R-2.1 and R-4 occupancies licensed as a Residential Care Facility (RCF) with individual floor areas over 6,000 square feet (557 m²) per floor, shall be provided with smoke barriers, constructed in accordance with Section 710 of the California Building Code.*

Group R-2.1 occupancies housing bedridden clients shall be provided with smoke barriers constructed in accordance with Section 710 of the California Building Code 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 m²) 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 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 903.3 of the California Building Code.*

425.7 Fire Protection system provisions.

425.7.1 *Automatic sprinkler systems in Group 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 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 R-2.1, R-3.1 and R-4 occupancies. Smoke alarms shall be installed where required in Section 907.2.11.*

425.7.4 *Hearing impaired. See Section 907.6.2.3.*

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 R-2.1, R-3.1 and R-4 occupancies.*

425.8.2 *Number of exits.*

425.8.2.1 *Group 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 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 non-ambulatory 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 1³/₈ inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section 715.4.8 of the California Building Code.*
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 1³/₈ inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section 715.4.8 of the California Building Code.*
3. *Direct exit from the bedroom to the exterior, 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 client. In Group R-3.1 occupancies housing a bedridden client and not provided with an approved automatic fire 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 1³/₈-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*

**FIGURE H3
SAMPLE FORMAT
HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP) INSTRUCTIONS**

SECTION I — FACILITY DESCRIPTION

1.1. Part A

1. Fill out Items 1 through 11 and sign the declaration.
2. Only Part A of this section is required to be updated and submitted annually, or within 30 days of a change.

1.2. Part B - General Facility Description (Site Plan)

1. Provide a site plan on 8 1/2- by 11-inch (215 mm by 279 mm) paper, using letters on the top and bottom margins and numbers on the right and left side margins, showing the location of all buildings, structures, chemical loading areas, parking lots, internal roads, storm and sanitary sewers, wells and adjacent property uses. Indicate the approximate scale, northern direction and date the drawing was completed.
2. List all special land uses within 1 mile (1,609 km).

1.3. Part C - Facility Storage Map (Confidential Information)

1. Provide a site plan on 8 1/2- by 11-inch (215 mm by 279 mm) paper, using letters on the top and bottom margins and numbers on the right and left side margins, with approximate scale and northern direction, showing the location of each storage area. Mark map clearly "Confidential - Do not disclose" for trade-secret information as specified by federal, state and local laws.
2. Identify each storage area with an identification number, letter, name or symbol.
3. Show the following:
 - 3.1. Accesses to each storage area
 - 3.2. Location of emergency equipment
 - 3.3. The general purpose of other areas within the facility
 - 3.4. Location of all above-ground and underground tanks to include, sumps, vaults, below-grade treatment systems, piping, etc.
4. Map key. Provide the following on the map or in a map key or legend for each storage area:
 - 4.1. A list of hazardous materials, including wastes
 - 4.2. Hazard class of each hazardous waste
 - 4.3. The maximum quantity for hazardous materials
 - 4.4. Include the contents and capacity limit of all tanks at each area and indicate whether they are above or below ground
 - 4.5. List separately any radioactives, cryogenics and compressed gases for each facility
 - 4.6. Trade-secret information shall be listed as specified by federal, state and local laws

SECTION II — HAZAROUS MATERIALS INVENTORY STATEMENT (HMIS)

2.1. Part A - Declaration

Fill out all appropriate information.

2.2. Part B - Inventory Statement

1. You must complete a separate inventory statement for all waste and nonwaste hazardous materials. List all hazardous materials in alphabetical order by hazard class.

2.3. Inventory Statement Instructions:

Column	Information Required
---------------	-----------------------------

1. Provide hazard class for each material.
2. Nonwaste. Provide the common or trade name of the regulated material. Waste. In lieu of trade names, you may provide the waste category.
3. Provide the chemical name and major constituents and concentrations, if a mixture.

FIGURE H3 (Continued)

4. Enter the chemical abstract service number (CAS number) found in 29 C.F.R. For mixtures, enter the CAS number of the mixture as a whole if it has been assigned a number distinct from its constituents. For a mixture that has no CAS number, leave this item blank or report the CAS numbers of as many constituent chemicals as possible.

5. Enter the following descriptive codes as they apply to each material. You may list more than one code, if applicable.

P = Pure

M = Mixture

S = Solid

L = Liquid

G = Gas

6. Provide the maximum aggregate quantity of each material handled at any one time by the business. For underground tanks, list the maximum volume [in gallons (liters)] of the tank.

6.2. Enter the estimated average daily amount on site during the past year.

7. Enter the units used in Column 6 as:

LB = Pounds

GA = Gallons

CF = Cubic Feet

8. Enter the number of days that the material was present on site (during the last year).

9. Enter the storage codes below for type, temperature and pressure.

Type

A = Above-ground tank

B = Below-ground tank

C = Tank inside building

D = Steel Drum

E = Plastic or nonmetallic drum

F = Can

G = Carboy

H = Silo

I = Fiber drum

J = Bag

K = Box

L = Cylinder

M = Glass bottle or jug

N = Plastic bottles or jugs

O = Tote bin

P = Tank wagon

Q = Rail car

R = Other

Temperature

4 = Ambient

5 = Greater than ambient, but not cryogenic [less than -150°F (-101.1°C)]

6 = Less than ambient

7 = Cryogenic conditions [less than -150°F (-101.1°C)]

Pressure

1 = Ambient (atmospheric)

2 = Greater than ambient (atmospheric)

3 = Less than ambient (atmospheric)

HISTORY NOTE APPENDIX
CALIFORNIA FIRE CODE
(Title 24, Part 9, California Code of Regulations)

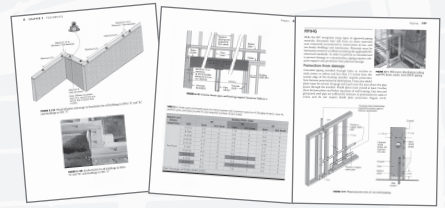
For prior code history, see the History Note Appendix to the *California Fire Code 2007* Triennial Edition, effective January 1, 2008.

1. SFM 04-09 — Adoption of the 2009 edition of the *International Fire Code* published by the International Code Council, for incorporation into the *2010 California Fire Code*, CCR Title 24, Part 9 with amendments for the State Fire Marshal regulated occupancies, effective on January 1, 2011.

|| 2. Errata to correct errors and omissions.

Helpful Code Tools from ICC

**150+ COLOR ILLUSTRATIONS!
REAL-WORLD APPLICATIONS!**



BUILDING CODE BASICS: 2009 I-CODES®

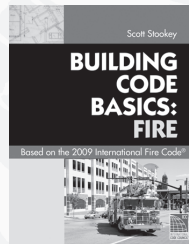
From the publishing team behind the popular Significant Changes series, Building Code Basics uses a straightforward, focused approach to introduce code requirements with non-code language. Technically accurate and easy to understand, this is the perfect resource for builders, architects, plan reviewers, inspectors, permit technicians, contractors, and students. Each book contains:

- 150+ full-color illustrations that help readers visualize correct code application.
- content that pulls together related information from various code sections into one convenient location.
- a glossary of code and construction terms to clarify key terminology as it applies to the code.
- numerous real-world applications.

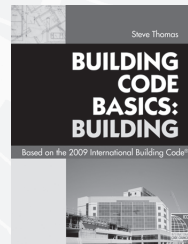
A: BUILDING CODE BASICS: FIRE, BASED ON THE 2009 IFC®

Author and ICC code expert Scott Stookey discusses requirements for controlling ignition sources and fire hazards, fire department access, building uses and processes, fire protection and life safety systems, special processes and uses, hazardous materials, and much more. (251 pages)

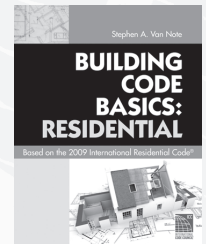
#4481S09



A



B



C

B: BUILDING CODE BASICS: BUILDING, BASED ON THE 2009 IBC®

Author Steve Thomas focuses on the basics of the IBC requirements for building classification, fire protection features, means of egress systems, accessibility and structural integrity. It also includes a review of legal aspects including permitting, right of entry and inspector liability. (191 pages)

#4081S09

C: BUILDING CODE BASICS: RESIDENTIAL, BASED ON THE 2009 IRC®

Author and ICC code expert Steve Van Note focuses on IRC basics for structural design, fire and life safety, weather protection, interior environment, energy conservation, and plumbing, mechanical, fuel gas and electrical systems. (262 pages)

#4181S09

CODE AND COMMENTARY TOGETHER!

D: 2009 IFC: CODE AND COMMENTARY

Includes the full text of the IFC, including tables and figures, followed by corresponding commentary at the end of each section in a single document.

- Read expert Commentary after each code section.
- Learn to apply the codes effectively.
- Understand the intent of the 2009 IFC with help from the code publisher. (1,260 pages)

SOFT COVER #3410S09

PDF DOWNLOAD #874P09

CD-ROM (PDF) #3410CD09

FITS IN YOUR POCKET!

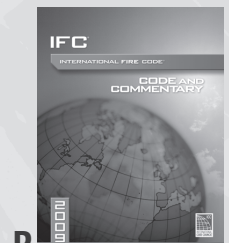
E: FIRE INSPECTOR'S GUIDE: BASED ON THE 2009 INTERNATIONAL FIRE CODE®

Your ideal pocket-sized resource for effective, accurate, consistent, and complete fire inspections.

- Learn the most important and most relevant fire inspection information from the fire code.
- Quickly identify the relevant IFC® section for each topic listed.
- Become aware of common hazards and the most frequently violated safety issues for various uses. (150 pages)

SOFT COVER #4401S09

PDF DOWNLOAD #8748P09



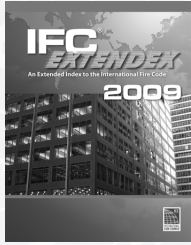
D



E

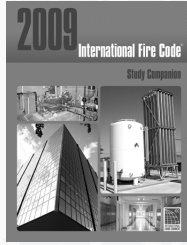
ORDER YOUR CODE TOOLS TODAY!

1-800-786-4452 | www.iccsafe.org/store


A: EXTENDEX: EXTENDED INDEX TO THE 2009 IFC®

Extendex makes it easy to find what you're looking for! Simply look up a topic and Extendex will direct you right to the IFC® chapter, section number, or figure that discusses that topic. This unique reference reaches far beyond the standard index included with the code. (229 pages)

SOFT COVER #4402S09
PDF DOWNLOAD #8950P024


**GREAT EXAM PREP TOOL!
 B: 2009 INTERNATIONAL FIRE CODE® STUDY COMPANION**

A comprehensive review of the provisions of the 2009 IFC®, including study sessions on general precautions against fire, fire service features, and fire protection systems. Other topics include flammable and combustible liquids, special occupancies, and hazardous materials.

- 18 study sessions
- 30-question quiz at end of each study session
- 540 total study questions with answer key

Great study tool for Certification exams: Fire Inspector I, Fire Inspector II, Fire Plans Examiner, or Certified Fire Marshal. (550 pages)

SOFT COVER #4407S09
PDF DOWNLOAD #8950P029

C: FLASH CARDS: 2009 IFC®

Provides code users, students and exam candidates with an effective, time-tested, easy-to-use method for study and information retention. Prepared and reviewed by code experts to ensure accuracy and quality. (190 cards)

#1421S09

2009 IFC STUDY COMPANION/FLASH CARDS COMBO

#4407BN09

**CD INCLUDED!
 FIRE PLAN REVIEW AND INSPECTION GUIDELINES,
 2009 EDITION**

Developed by ICC and author Mike Thrapp to assist designers, inspectors, and plan reviewers working with the 2009 IFC® and its referenced standards. This new book contains a collection of helpful worksheets and guidelines for performing inspections and plan reviews. A CD is included containing all forms in an editable format.

SOFT COVER #4408S09
PDF DOWNLOAD #8950P009


**270+ Q&A'S!
 D: 2009 IFC Q&A**

A new question-and-answer guide for the 2009 IFC® containing more than 270 answers to commonly asked questions that arise in the application of code provisions during design, plan review, construction and daily code enforcement. Extensive coverage of Chapter 9 on Fire Protection Systems is included. Helpful illustrations provide a clear understanding of the intent and meaning of the code text. An essential resource for engineers, architects, inspectors, building officials, and plans examiners. (152 pages)

SOFT COVER #4410S09
PDF DOWNLOAD #8950P018


**NEW VERSION!
 E: HMEx: THE HAZARDOUS MATERIALS EXPERT
 ASSISTANT CD-ROM, VERSION 6**

Valuable information in a single easy-to-use resource. Features include:

- Hazard classifications and definitions correlated with the 2009 IFC®/IBC®.
 - Chemicals identified from a classified database of nearly 3,500 chemicals with more than 9,000 chemical names and synonyms.
 - Methodology developed by FEMA/DOT/EPA allows the user to screen the consequences of the inadvertent mixing of two materials.
 - Determine physical and chemical properties.
 - Fire fighter warning placards correlated with 2009 IFC Table F101.2.
 - Determine threshold limits.
 - Updated DOT shipping information.
 - "Tool Tips" pop up windows provide helpful explanations.
- Stay updated with errata, upgrades and downloads obtainable from the ICC website. Available on CD-ROM in a Microsoft® Windows® compatible single-user version.

#9405CD6

**ORDER YOUR CODE TOOLS TODAY!
 1-800-786-4452
www.iccsafe.org/store**