REVISION RECORD
FOR THE STATE OF CALIFORNIA

EMERGENCY SUPPLEMENT

Effective January 18, 2019

2016 Title 24, Part 1
California Administrative Code

General Information:

1. The publication date of this Emergency Supplement is for identification purposes only. The subject emergency building standards became effective and enforceable upon filing with the Secretary of State on January 18 following the approval or adoption by the Building Standards Commission. On that same date the Building Standards Commission announced the effectiveness of the emergency building standards by multimedia means.
2. This emergency supplement provides new or replacement blue supplement pages with building standards adopted or approved by the California Building Standards Commission on an emergency basis for insertion in the *California Code of Regulations*, Title 24, Part 1, of the 2016 *California Administrative Code*. Instructions are provided below. State law allows emergency building standards to be effective for 180 days, with two 90-day extensions under specific conditions. While the emergency building standards remain in effect, public hearings may be conducted to consider making the emergency building standards a permanent part of the code. Should that occur, another supplement may be issued. Information regarding hearings and code revisions is available at the Building Standards Commission website (http://www.bsc.ca.gov/).
3. *Health and Safety Code*, Section 18938.5, establishes that only building standards in effect at the time of the application for a building permit may be applied to the project plans and construction. This rule applies to both adoptions of building standards for Title 24 by the California Building Standards Commission, and local adoptions and ordinances imposing building standards.
4. Not all code text on the enclosed blue emergency supplement pages is a new or amended building standard. New, amended, or repealed building standards are identified by margin symbols. An explanation of margin symbols is provided in the code, before the Table of Contents.
5. You may wish to retain the superseded material with this revision record so that the prior wording of any section can be easily ascertained.

Title 24, Part 1

Remove Existing Pages	Insert Blue-Colored Pages
77 through 96	77 through 96
139 and 140	139 and 140

Item No. 5510S163

CHAPTER 6

SEISMIC EVALUATION PROCEDURES FOR HOSPITAL BUILDINGS

ADMINISTRATIVE REGULATIONS FOR THE OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT (OSHPD)

ARTICLE 1
DEFINITIONS AND REQUIREMENTS

1.0 Scope. The regulations in this article shall apply to the administrative procedures necessary to implement the seismic retrofit requirements of the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983.

1.1 Application. The regulations shall apply to all general acute care hospital facilities as defined in Section 1.2 of these regulations.

1.2 Definitions. Unless otherwise stated, the words and phrases defined in this section shall have the meaning stated therein throughout Chapter 6, Part 1, Title 24.

ADMINISTRATIVE EXTENSION means an extension not to exceed two years granted while the hospital's application for an extension pursuant to Section 1.5.2 Item 8 is being reviewed by the Office.

ALTERNATIVE ANALYSIS means a complete seismic analysis using methodology approved in advance by the Office and meeting the criteria of Article 2, Section 2.7 of these regulations.

BULK MEDICAL GAS SYSTEM means an assembly of fixed equipment such as storage containers, pressure regulators, pressure relief devices, vaporizers, manifolds and interconnecting piping that has a capacity of more than 20,000 cubic feet (NTP) of cryogenic medical gas.

COMMUNICATIONS SYSTEM means the assembly of equipment such as telephone switchgear, computers, batteries, radios, microwave communications systems, towers and antennas that provide essential internal and external communication links.

COMPLETE STRUCTURAL DAMAGE means a significant portion of the structural elements have exceeded their ultimate capacities for some critical structural elements or connections have failed, resulting in dangerous permanent lateral displacement, partial collapse or collapse of the entire building. A Complete Structural Damage would be a loss of 100% of the building's replacement cost.

CONFORMING BUILDING means a building originally constructed in compliance with the requirements of the 1973 or subsequent edition of the *California Building Code or classified as SPC-4D, as defined in this section.*

CRITICAL CARE AREA means those special care units, intensive care units, coronary care units, angiography laboratories, cardiac catheterization laboratories, delivery rooms, emergency rooms, operating rooms, postoperative recovery rooms and similar areas in which patients are intended to be subjected to invasive procedures and connected to line-operated, electromedical devices.

CRITICAL COMMUNITY PROVIDER means hospitals determined to be critical to community access to healthcare, as determined in Section 1.5.2 Item 8.5.

DAMAGE CONTROL STRUCTURAL PERFORMANCE CATEGORY *is a performance category that has been demonstrated either by analysis or retrofit to satisfy the requirements of Section 1.4.5.1.3 and the 2016 California Building Code (2016 CBC) Section 3412A.2.3 or equivalent provisions in later editions of the CBC. Buildings satisfying this structural performance standard shall be deemed to satisfy the requirements of the Structural Performance Category SPC-4D.*

EMERGENCY POWER SUPPLY (EPS) means the source of electric power including all related electrical and mechanical components of the proper size or capacity, or both, required for the generation of the required electrical power at the EPS output terminals. For rotary energy converters, components of an EPS include the prime mover, cooling system, generator, excitation system, starting system, control system, fuel system and lube system (if required).

ESSENTIAL ELECTRICAL SYSTEMS means a system as defined in the *California Electrical Code,* Article 517 "Health Care Facilities," Chapter 5, Part 3 of Title 24.

FIRE ALARM SYSTEM means a system or portion of a combination system consisting of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal initiating devices and to initiate appropriate response to those signals.

FUNCTIONAL CONTIGUOUS GROUPING means a group of hospital buildings, each of which contains the primary source of one or more basic service that are operationally interconnected in a manner acceptable to the Department of Health Services.

GENERAL ACUTE CARE HOSPITAL as used in Chapter 6, Part 1 means a hospital building as defined in Section 129725 of the Health and Safety Code and that is also licensed pursuant to subdivision (a) of Section 1250 of the Health and Safety Code, but does not include these buildings if the beds licensed pursuant to subdivision (a) of Section 1250 of the Health and Safety Code, as of January 1, 1995, comprise 10 percent or less of the total licensed beds of the total physical plant, and does not include facilities owned or operated, or both, by the Department of Corrections. It also precludes hospital buildings that may be licensed under the above mentioned code sections, but provide skilled nursing or acute psychiatric services only.

HOSPITAL EQUIPMENT means equipment permanently attached to the building utility services such as surgical, morgue, and recovery room fixtures, radiology equipment, medical gas containers, food service fixtures, essential laboratory equipment, TV supports, etc.

HYBRID STRUCTURE means a structure consisting of an original and one or more additions, constructed at different times, and with lateral-force-resisting systems of different types, or constructed with differing materials or a different design approach. The original building and additions are interconnected and not seismically isolated.

NONCONFORMING BUILDING means any building that is not a conforming building.

NONSTRUCTURAL PERFORMANCE CATEGORY (NPC) means a measure of the probable seismic performance of building contents and nonstructural systems critical to providing basic services to inpatients and the public following an earthquake, as defined in Article 11, Table 11.1 of these regulations.

PATIENT ORIGIN REGION is a geographic area bounded by the same U.S. Postal Service five-digit Zip Code. For the purposes of determining the hospital service area the patient origin region may be referred to as "region."

PRIMARY SOURCE means that building or portion of a building identified by the hospital as housing the main or principal source of a basic hospital service, serving the greatest number of patients, providing the greatest number of patient beds, or having the largest/greatest floor space of the specified basic service. The hospital may submit data to substantiate the primary source through alternative criteria if different than above.

PRINCIPAL HORIZONTAL DIRECTIONS means the two predominant orthogonal translational modes of vibration with the lowest frequency.

PROBABILITY OF COLLAPSE means the fraction of building that is expected to collapse given that the ground motions defined in Section 1.4.5.1.2.1.4 occur at the building site.

REBUILD PLAN means a plan to meet seismic standards primarily by constructing a new conforming SPC-5 building for use in lieu of an SPC-1 building.

REGION see definition for "patient origin region."

REMOVAL PLAN means a plan to meet seismic standards primarily by removing acute care services or beds from the hospital's license.

REPLACEMENT PLAN means a plan to meet seismic standards primarily by relocating acute care services or beds from nonconforming buildings into a conforming building.

RETROFIT PLAN means a plan to meet seismic standards primarily by modifying the building in a manner that brings the building up to SPC-2, SPC-4D, or SPC-5 standards.

SIGNIFICANT STRUCTURAL DEFICIENCY means an attribute of the structure considered to be significant with respect to Probability of Collapse.

SLENDER SEISMIC RESISTING SYSTEM means any vertical system for resisting lateral forces, such as walls, braced frames or moment frames, with a height to width ratio greater than four for the minimum horizontal dimension at any height.

STRUCTURAL PERFORMANCE CATEGORY (SPC) means a measure of the probable seismic performance of building structural systems and risk to life posed by a building subject to an earthquake, as defined in Article 2, Table 2.5.3 of these regulations.

STRUCTURAL PERFORMANCE CATEGORY SPC-4D *is a performance category assigned to previously nonconforming hospital buildings that have been demonstrated either by analysis or retrofit to be equivalent to the minimum prescriptive requirements of the 1979 Uniform Building Code (UBC 1979) including the California amendments, hereafter called the 1980 CBC, in accordance with Section 1.4.5.1.3 and the CBC 2016 Section 3412A.2.3.*

1.3 Seismic evaluation. All general acute care hospital owners shall perform a seismic evaluation on each hospital building in accordance with the Seismic Evaluation Procedures as specified in Articles 2 through 11 of these regulations. By January 1, 2001, hospital owners shall submit the results of the seismic evaluation to the Office for review and approval. By completing this seismic evaluation, a hospital facility can determine its respective seismic performance categories for both the Structural Performance Category (SPC) and the Nonstructural Performance Category (NPC) in accordance with Articles 2 and 11 of these regulations.

Exception: *The Structural Performance Category of SPC-4D shall be established in accordance with Section 1.4.5.1.3 and the 2016 California Building Code (2016 CBC) Section 3412A.2.3 or equivalent provisions in later editions of the CBC.*

1.3.1 Seismic evaluation submittal. Hospital owners shall submit the seismic evaluation report to the Office by January 1, 2001. There are no provisions for submittal of the evaluation report after this date, except as provided in Section 1.4.5.1.2. The hospital owners shall submit the evaluation report in accordance with Section 7-113, "Application for Plan Report or Seismic Compliance Extension Review" and Section 7-133, "Fees" of Article 3, Chapter 7, Part 1, Title 24.

Exceptions:

1. Any hospital facility owner whose building is exempted from the structural evaluation per Section 2.0.1.2 shall not be required to submit a structural evaluation report as specified in Section 1.3.3. In lieu of the structural evaluation report, hospital owners shall submit the matrix of construction information for the specified building(s) as noted in Section 1.3.4.6 to the Office by January 1, 2001;
2. Any hospital facility owner whose building is exempted from the nonstructural seismic evaluation per Section 11.0.1.2 shall not be required to submit a nonstructural evaluation report as specified in Section 1.3.4. In lieu of the nonstructural evaluation report, hospital owners shall submit the matrix of construction information for the specified building(s) as noted in Section 1.3.4.6 to the Office by January 1, 2001.

1.3.2 Seismic evaluation format. The evaluation shall consist of the Structural Evaluation and the Nonstructural Evaluation Reports. The reports shall be prepared in conformance with Part 1, Chapter 7, Title 24 and these regulations and prepared as follows:

1. Reports shall be submitted in an $8^1/_2$″ x 11″ format;
2. All site, architectural, and engineering plans shall be formatted on 11- by 17-inch sheets (folded to $8^1/_2$ by 11 inches);
3. Larger sheets, if required to clearly describe the requested information, shall be appended to the reports; and
4. Other supporting documents in addition to those meeting the minimum requirements of Sections 1.3.3 and 1.3.4 may be appended to the reports.

1.3.3 Structural evaluation report. The structural evaluation report shall include the following elements:

1. A description of the building, including photographs of the building, and sketches of the lateral force resisting system;

2. The "General Sets of Evaluation Statements" from the Appendix;
3. A synopsis of the investigation and supporting calculations that were made;
4. A list of the deficiencies requiring remediation to change statement responses from false to true; and
5. The SPC for the building, with comments on the relative importance of the deficiencies.

1.3.4 Nonstructural evaluation report. The nonstructural evaluation report shall include the following elements:

1. A written description of the evaluation methods and procedures conducted in conformance with Article 11 of these regulations for the determination of the facilities existing compliance. The description shall include the systems and components required for the planned level of nonstructural performance as identified in Table 11.1;

   Exceptions:

   1. Additional evaluations as per Section 11.01.3 will be required for any hospital owner electing to obtain a higher NPC at a future date consistent with an approved compliance plan;
   2. A complete nonstructural evaluation up to NPC 5 is required prior to the hospital owner selling or leasing the hospital to another party.

2. Provide single line diagrammatic plans (site plan and floor plans) of the following:

   2.1. Location of the following areas/spaces:

   (a) Central supply areas;
   (b) Clinical laboratory service spaces;
   (c) Critical care areas;
   (d) Pharmaceutical service spaces;
   (e) Radiological service spaces; and
   (f) Sterile supply areas.

   2.2. Diagrammatic or narrative descriptions of the following major building systems where deficiencies are identified that are within the scope of the evaluation, including primary source location or point(s) of entry into the building and major distribution routes of each utility or system.

   (a) Mechanical systems including:

   i. Air supply equipment, piping, controls and ducting;
   ii. Air exhaust equipment and ducting;
   iii. Steam and hot water piping systems, including boilers, piping systems, valving and components; and
   iv. Elevators selected to provide service to patient, surgical, obstetrical and ground floors.

   (b) Plumbing systems including:

   i. Domestic water supply system, including heating equipment, valving, storage facilities and piping;
   ii. Medical gas supply system, including storage facilities, manifolding and piping;
   iii. Fire protection system, including sprinkler systems, wet and dry standpipes, piping systems and other fire suppression systems; and
   iv. Sanitary drainage system, including storage facilities and piping.

   (c) Electrical systems, including:

   i. Essential electrical system, including emergency fuel storage;
   ii. Internal communication systems;
   iii. External communication systems;
   iv. Fire alarm systems; and
   v. Elevators selected to provide service to patient, surgical, obstetrical and ground floors.

3. A synopsis of the evaluation and all the calculations used in the course of the evaluation for the planned level of nonstructural performance;
4. A list of the deficiencies identified in the course of the evaluation for the planned level of nonstructural performance;
5. Provide an 11- by 17-inch scaled Site Plan which identifies the boundaries of the facility property, locates all buildings, roadways, parking and other significant site features and improvements. Identify boundaries between buildings which were constructed at different times. For all buildings, note the names of the buildings and date of each related building permit. Provide the SPC and NPC for all buildings.
6. Provide the following matrix of construction information for each building of the facility under the acute care license, include the Structural Performance Category (SPC) and Nonstructural Performance Category (NPC) for all hospital buildings (see Tables 2.5.3 and 11.1). Identify each building addition separately. For buildings constructed, reconstructed or remodeled under a building permit issued by the Office, provide the OSHPD application number and the date of the initial submittal.

BUILDING NAME/ DESIGNATION	OSHPD (or local building) permit date/ number	GOVERNING BUILDING CODE	CONSTRUCTION COMPLETION DATE	BUILDING TYPE (per Section 2.2.3)	SPC	NPC

1.4 Compliance plans. A compliance plan shall be prepared and submitted for each building subject to these regulations. All general acute care hospital owners shall formulate a compliance plan which shall indicate the facilities intent to do any of the following:

1. Building retrofit for compliance with these regulations for continued acute care operation beyond 2030;
2. Partial retrofit for initial compliance, with closure or replacement expected by 2002, 2008, 2013 or 2030;
3. Removal from acute care service with conversion to nonacute care health facility use; or
4. No action, building to be closed, demolished or replaced.

This plan must clearly indicate the actions to be taken by the facility and must be in accordance with the timeframes set forth in Article 2 (Structural Performance Category-"SPC") and Article 11 (Nonstructural Performance Category-"NPC") of the Seismic Evaluation Procedure regulations.

1.4.1 Preparation of the compliance plan. The Compliance Plan shall be prepared and submitted in conformance with these regulations in the following format:

1. Compliance Plans shall be submitted in an $8^1/_2$- by 11-inch format;
2. All site, architectural, and engineering plans shall be formatted on 11- by 17-inch sheets (folded to $8^1/_2$ by 11 inches);
3. Larger sheets, if required to clearly describe the requested information, shall be appended to the compliance plan; and
4. Other supporting documents in addition to those meeting the minimum requirements of Section 1.4.4 may be appended to the compliance plan.

1.4.2 Compliance plan submittal. Hospital owners shall submit the compliance plan to the Office by January 1, 2001, unless the owner requests an extension pursuant to Section 1.4.3. The hospital owners shall submit the compliance plan in accordance with Section 7-113, "Application for Plan or Report Review" and Section 7-133, "Fees" of Article 3, Chapter 7, Part 1, Title 24.

1.4.3 Compliance plan submittal extension. Hospital owners may request an extension from the Office for submission of the compliance plan. Any hospital owner requesting an extension for submittal of the compliance plan shall make such request in writing to the Office up to 180 days prior to, but no later than January 1, 2001. The compliance plan must be submitted no later than January 1, 2002. All hospital owners requesting an extension for submittal of the compliance plan shall certify to OSHPD that all hospital buildings continuing acute care operation beyond January 1, 2002 meet the standards of NPC 2 by January 1, 2002.

1.4.4 Compliance plan requirements. Each compliance plan shall contain the following elements:

1. An Existing Site/Campus Description;
2. A Compliance Plan Description;
3. A Compliance Site Plan;
4. A Compliance Plan Schedule; and
5. An Existing and Planned Buildings Matrix.

1.4.4.1 Existing site/campus description. If the compliance plan is submitted separately from the seismic evaluation, it will be necessary to resubmit the information as specified in Section 1.3.4.5, of the Nonstructural Evaluation Report.

1.4.4.2 Compliance plan description. Provide a comprehensive narrative description of the Compliance Plan, including the projected schedule for compliance.

1.4.4.3 Compliance site plan. Provide Compliance Site Plans, indicating the configuration of the facility at the 2008 and 2030 milestones. The plans shall indicate conforming and nonconforming buildings and identify the final configuration of the facility at each milestone, after completion of compliance measures.

1.4.4.4 Compliance plan schedule. Provide a bar graph schedule which describes the schedule for compliance with the SPC and NPC seismic performance categories, indicating the schedule of the following major phases of the plan:

1. Obtain a geotechnical report (if necessary);
2. Architecture and engineering design/construction document preparation;
3. Local approvals;
4. Office review, approval and permitting;

BUILDING NAME/ DESIGNATION	BUILDING TYPE (per Section 2.2.3)	SPC existing	SPC planned	NPC existing	NPC planned

5. Approval of Department of Health Services Licensing and Certification, and any other required licensing;
6. Permanent relocation of acute care services to other buildings or facilities (identify services affected);
7. Temporary/interim relocation of acute care services to other buildings including the duration of the approved program flexibility plan pursuant to Health and Safety Code Section 1276.05;
8. Construction period; and
9. Beneficial occupancy.

1.4.4.5 Existing and planned buildings matrix. Provide the following matrix of construction information for each building of the facility under the acute care license, include the Structural Performance Category (SPC) and Nonstructural Performance Category (NPC) for all hospital buildings (see Tables 2.5.3 and 11.1). Identify each building addition separately.

1.4.5 Compliance plan update/change notification. Should a hospital owner change an approved Compliance Plan, the hospital shall document any changes and submit for review and approval to the Office an amended Compliance Plan. Changes are defined as alterations to the planned level of seismic performance or compliance schedule. Submittal of an amended compliance plan shall require a hospital owner to comply with one or more of the following provisions, if applicable:

1. A hospital owner shall submit to the Department of Health Services' Seismic Safety Unit (DHS) an Office-approved compliance plan that includes interim relocation of general acute care services in accordance with a program flexibility plan pursuant to Health and Safety Code Section 1276.05. This submittal by the hospital

owner to DHS shall occur within 30 days of the Office's approval.

2. A hospital owner shall comply with the requirements of Section 1.5.2, "Delay in Compliance" for any amended compliance plan.
3. A hospital owner amending a compliance plan to attain a higher NPC level will perform a nonstructural evaluation of the systems and components required for the planned level of nonstructural performance identified in Table 11.1, "Nonstructural Performance Categories."

1.4.5.1 Change in seismic performance category. The SPC or NPC for a hospital building may be changed by the Office from the initial determination in Section 1.3.3 or 1.3.4, provided the building has been modified to comply with the requirements of Chapter 34A, *California Building Code* (Part 2 of Title 24) for the specified SPC or NPC. *The SPC of a hospital building shall also be permitted to be changed on the basis of the following:*

*1. C*ollapse probability assessments in accordance with Section 1.4.5.1.2*; or*

2. Analysis or retrofit in accordance with Section 1.4.5.1.3.

1.4.5.1.1 The SPC or NPC for a hospital building may be changed by the Office from the initial determination made per Sections 2.0.1.2.3 or 11.0.1.2.1 upon the following:

1. A Seismic Evaluation Report shall be submitted and approved which shall include either or both of the following:
   1.1 A structural evaluation report in accordance with Section 1.3.3;
   1.2 A nonstructural evaluation report in accordance with Section 1.3.4.

   Exception: To change an NPC 1 hospital building to an NPC 2 under this section, the nonstructural evaluation may be limited in scope to the systems and equipment specified in Section 11.2.1.
2. The building has been modified to comply with the requirements of Chapter 34A, *California Building Code* (Part 2 of Title 24) for the specified SPC or NPC.

1.4.5.1.2 Hospital buildings with an SPC 1 rating, may be reclassified to SPC 2 by the Office, pursuant to Table 2.5.3, on the basis of a collapse probability assessment per Section 1.4.5.1.2 Item 1 provided the hospital buildings received an extension to the January 1, 2008, compliance deadline in accordance with Section 1.5.2.

Exception: Hospital buildings with the potential for surface fault rupture and surface displacement at the building site (Section 9.3.3) *are not eligible for reclassification.*

1. Hospital buildings with SPC 1 rating may be reclassified as follows:
   a) The Office shall issue a written notice to the hospital owners informing them that they may be eligible for reclassification of their SPC 1 buildings as permitted by this section.
   b) For an SPC-1 building to be considered for reclassification to the SPC-2 rating, the hospital owner shall request a collapse probability assessment. The request shall include at a minimum the information and documents specified in Section 1.8.

1.4.5.1.2.1 Upon assessment of the collapse probability of the SPC-1 building, the Office shall notify the hospital owner in writing the final SPC rating of the subject building.

Every building with collapse probability more than 0.75 percent, but less than or equal to 1.20 percent, shall be altered, repaired or seismically retrofitted to mitigate any deficiencies identified in accordance with Article 10 Sections 10.1.1.1, 10.1.2.2, 10.1.6 and 10.1.7 of this chapter (as part of the complete seismic evaluation in accordance with Section 1.3.3) by January 1, 2015. Hospitals not meeting the deadline set by this section shall not be issued a building permit for any noncompliant building except those required for seismic compliance in accordance with the *California Administrative Code* (Chapter 6), maintenance, and emergency repairs until the building permit required by this section is issued.

1.4.5.1.2.2 When the collapse probability assessment by the Office results in the building remaining in SPC 1, further evaluation may be provided by the hospital owner in accordance with Section 2.7 in order to substantiate a higher SPC rating.

1.4.5.1.3 *Nonconforming hospital buildings shall be permitted to be reclassified to SPC-4D, pursuant to Table 2.5.3, in accordance with the CBC 2016 Section 3412A.2.3 or equivalent provisions in later editions of the CBC.*

Exceptions: *Hospital buildings with the following deficiencies are not eligible for reclassification to SPC-4D:*

1. Hospital buildings with the potential for surface fault rupture and surface displacement at the building site (Section 9.3.3).
2. Unreinforced Masonry shear wall buildings (Section 5.4), and
3. Precast Concrete buildings (Sections 4.4, 5.2 & 7.4).

1.4.5.1.4 Except as provided in Section *1.4.5.1.5,* a nonconforming hospital building that does not meet the structural and nonstructural requirements of Table 2.5.3 and Table 11-1 shall not provide acute care services or beds after the compliance deadlines set forth in Section 1.5.1. After these deadlines, the following shall apply.

1. A nonconforming hospital building used as a hospital outpatient clinical services building shall not be classified as a hospital building. It shall comply with the provisions of Health and Safety Code Section 129725. It shall not be subject to the requirements of Title 24, Part 1, Chapter 6.
2. A nonconforming hospital building used as an acute psychiatric hospital or multistory skilled nursing facility or intermediate care facility shall be classified as a hospital building. However, it shall not be subject to the requirements of Title 24, Part 1, Chapter 6.
3. A nonconforming hospital building used as a single-story wood frame or light steel frame skilled nursing facility or intermediate care facility shall not be classified as a hospital building, and shall not be subject to the requirements of Title 24, Part 1, Chapter 6.
4. A nonconforming hospital building used for purposes other than those listed above shall not be classified as a hospital building; shall not be licensed pursuant to

Health and Safety Code Section 1250(a); shall not be subject to the requirements of Title 24, Part 1, Chapter 6; and shall not be under the jurisdiction of the Office.

1.4.5.1.5 A hospital building from which acute care services and beds have been removed *or a nonconforming hospital building without SPC or NPC rating* shall not provide *general acute care* services unless it has been modified to comply with the requirements of *SPC-4D or* SPC 5 and NPC 4 or 5. Prior to use for acute care service, the SPC and/or NPC of the hospital building shall be changed in accordance with Section 1.4.5.1.1 *or 1.4.5.1.3*.

1.5 Compliance requirements. All general acute care hospital owners shall comply with the seismic performance categories, both SPCs and NPCs, established in the seismic evaluation procedures, Articles 2 and 11 and set forth in Tables 2.5.3 and 11.1, respectively.

1.5.1 Compliance deadlines.

1. After January 1, 2002, any general acute care hospital building which continues acute care operation must, at a minimum, meet the nonstructural requirements of NPC 2, as defined in Article 11, Table 11.1 or shall no longer provide acute care services.
2. After January 1, 2008, any general acute care hospital building which continues acute care operation must, at a minimum, meet the structural requirements of SPC 2, as defined in Article 2, Table 2.5.3 or shall no longer provide acute care services.

   Exception: A general acute care hospital may request a delay of SPC 2 requirements if the conditions of Section 1.5.2 are met.
3. After January 1, 2008, any general acute care hospital which continues acute care operation must, at a minimum, meet the nonstructural requirements of NPC 3, as defined in Article 11, Table 11.1 or shall no longer provide acute care services.

   Exception: A general acute care hospital may request an exemption from the anchorage and bracing requirements of NPC 3 if all the conditions of Section 1.5.2 are met.
4. Before January 1, 2020, the owner of an acute care inpatient hospital where buildings are rated SPC 1 or SPC 2, or where the NPC rating is less than 5, shall submit to the Office an attestation that the board of directors of that hospital is aware that the hospital building is required to meet the January 1, 2030, deadline for substantial compliance with those regulations and standards.
5. After January 1, 2030, any general acute care hospital building which continues acute care operation must, at a minimum, meet the structural requirements of SPC 3, 4, *4D* or 5, as defined in Article 2, Table 2.5.3 and the nonstructural requirements of NPC 5, as defined in Article 11, Table 11.1 or shall no longer provide acute care services.

1.5.2 Delay in compliance.

1. The Office may grant the hospital owner an extension to the January 1, 2008 seismic compliance deadline for both structural and nonstructural requirements if compliance will result in diminished health care capacity which cannot be provided by other general acute care hospitals within a reasonable proximity.

   1.1 Hospital owners requesting an extension in accordance with Section 1.5.2 must submit an application form to the Office by January 1, 2007. The application form shall be accompanied by a statement explaining why the hospital is seeking the extension to the January 1, 2008 seismic compliance deadline. The statement shall include, at a minimum, the following information:

   (a) The length/duration of the extension request;

   (b) The hospital buildings requiring an extension; and

   (c) The acute care services that will be completely or partially unavailable if the extension is denied.

   1.2 The hospital owner shall request an extension for seismic compliance in one year increments, up to a maximum of five years, beyond the mandated year of compliance. The hospital owner shall also submit an amended compliance plan and schedule in accordance with Section 1.4.5 indicating when compliance will be obtained.
2. Any general acute care hospital located in Seismic Design Category D, as defined by Section 1613A of the 2013 *California Building Code,* may request an exemption from the anchorage and bracing requirements of NPC 3 for a hospital building if all the following conditions are met:

   2.1 The hospital building shall meet the anchorage and bracing requirements for NPC 2.

   2.2 Any future upgrade of building(s) to SPC 5 shall be accompanied by upgrade of nonstructural components to either NPC 4 or NPC 5.

   2.3 By January 1, 2024, the hospital owner shall submit to the Office a complete nonstructural evaluation up to NPC 5, for each building.

   2.4 By January 1, 2026, the hospital owner shall submit to the Office construction documents for NPC 5 compliance that are deemed ready for review by the Office, for each building.

   2.5 By January 1, 2028, the hospital owner shall obtain a building permit to begin construction, for NPC 5 compliance of each building that the owner intends to use a a general acute care hospital building after January 1, 2030. Hospitals not meeting the January 1, 2028 deadline set by this section shall not be issued a building permit for any noncompliant building except those required for seismic compliance in accordance with the California Administrative Code (Chapter 6), maintenance, and emergency repairs until the building permit required by this section is issued.

   Exception: If the hospital has obtained a building permit(s) for project(s) to relocate all general acute care hospital beds and/or services to SPC 3 or higher, and NPC 5 building(s) within a timeframe which permits such relocation of beds and/or services by January 1, 2030, requirements of Sections 1.5.2.2.3 through 1.5.2.2.5 shall be deemed to be satisfied.
3. Any SPC-1 building which is part of the functional contiguous grouping of a general acute care hospital

may receive a five-year extension to the January 1, 2008 deadline for both structural and nonstructural requirements under the following conditions:

3.1 The owner must apply for an extension with the Office no later than January 1, 2004;

3.2 The owner must submit an amended compliance plan to the Office by July 1, 2004;

3.3 The buildings must have met the NPC-2 nonstructural requirements by January 1, 2002;

3.4 At least one building within the contiguous grouping shall have obtained a building permit prior to 1973 and shall have been evaluated and classified as SPC-1 in accordance with Section 1.3;

Exception: Hospital buildings that were classified as SPC-1 under Section 2.0.1.2.3 must submit a structural evaluation report in accordance with Sections 1.3.2 and 1.3.3 by January 1, 2004.

3.5 The basic service(s) from the building shall be:

(a) Relocated to an SPC-3, 4, or 5/NPC-4 or 5 building by January 1, 2013.

i. The building shall not be used for general acute care service after January 1, 2013, unless it has been retrofitted to an SPC-5/NPC-4 or 5 building; or

(b) Continued in building if it is retrofitted to an SPC-5/NPC-4 or 5 building by January 1, 2013;

3.6 Any other SPC-1 building in the contiguous grouping other than the building identified in subsection 1.5.2.3.4 must be retrofitted to at least an SPC-2/NPC-3 by January 1, 2013, or no longer used for acute care hospital inpatient services.

4. A post-1973 building classified as SPC-3 or 4 may receive an extension to the January 1, 2008, deadline for both the structural and nonstructural requirements, provided it will be closed to general acute care inpatient service by January 1, 2013. The basic services in this building shall be relocated to an SPC-5/NPC-4 or 5 building by January 1, 2013;

4.1 Any SPC-1 building in a functional contiguous grouping must be retrofitted to at least an SPC-2/NPC-3 by January 1, 2013, or no longer used for acute care hospital inpatient services. The following conditions apply to these hospital buildings:

(a) The owner must apply for an extension with the Office no later than January 1, 2004;

(b) The owner must submit an amended compliance plan to the Office by July 1, 2004; and

(c) The buildings must have met the NPC-2 nonstructural requirements by January 1, 2002.

5. A single building containing all of the basic services may receive a five-year extension to the January 1, 2008, deadline for both structural and nonstructural requirements under the following conditions:

5.1 The owner must apply for an extension with the Office no later than January 1, 2004;

5.2 The owner must submit an amended compliance plan to the Office by July 1, 2004;

5.3 The building shall have obtained a building permit prior to 1973 and shall have been evaluated and classified as SPC-1 in accordance with Section 1.3;

Exception: Hospital buildings that were classified as SPC-1 under Section 2.0.1.2.3 must submit a structural evaluation report in accordance with Sections 1.3.2 and 1.3.3 by January 1, 2004.

5.4 The basic services from this building shall be:

(a) Relocated to an SPC-3, 4, or 5/NPC-4 or 5 building by January 1, 2013.

i. The building shall not be used for general acute care service after January 1, 2013, unless it has been retrofitted to an SPC-5/NPC-4 or 5 building; or

(b) Continued in building if it is retrofitted to an SPC-5/NPC-4 or 5 building by January 1, 2013.

6. Any general acute care hospital that received an approval by the Office to replace all the nonconforming buildings subject to the requirements of Health and Safety Code Section 130060(a) with new buildings by January 1, 2020, may request an exemption from the anchorage and bracing requirements of NPC 3 if all of the following conditions are met:

6.1 The hospital shall meet the anchorage and bracing requirements for NPC 2.

6.2 New building(s) replacing the existing non- compliant building(s) shall be either NPC 4 or NPC 5 building(s).

7. Any general acute care hospital (buildings located in Seismic Design Category D or F) may request an extension from the anchorage and bracing requirements of NPC 3 up to January 1, 2020, if all of the following conditions are met:

7.1 The hospital shall meet the anchorage and bracing requirements for NPC 2.

7.2 All building(s) shall be upgraded to either NPC 4 or NPC 5 by January 1, 2020.

7.3 By January 1, 2014, the hospital owner shall submit to the Office a complete nonstructural evaluation up to NPC 5, for each building.

7.4 By January 1, 2016, the hospital owner shall submit to the Office construction documents for NPC 4 or NPC 5 compliance that are deemed ready for review by the Office, for each building.

7.5 By January 1, 2018, the hospital owner shall obtain a building permit to begin construction, for NPC 4 or NPC 5 compliance of each building that the owner intends to use as general acute care hospital building after January 1, 2020. Hospitals not meeting the January 1, 2018 deadline set by this section shall not be issued a building permit for any noncompliant building, except those required for seismic compliance in accordance with the California Administrative Code (Chapter 6), maintenance, and emergency repairs until the building permit required by this section is issued.

Exception: If the hospital has obtained a building permit(s) for project(s) to relocate all general

acute care hospital beds and/or services to SPC 3 or higher, and NPC 5 building(s) within a timeframe which permits such relocation of beds and/or services by January 1, 2020, requirements of Sections 1.5.2.7.3 through 1.5.2.7.5 shall be deemed to be satisfied.

8. Any SPC-1 general acute care hospital building that has received an extension to the January 1, 2008, deadline for both the structural and nonstructural requirements may receive an additional extension of up to seven years to the January 1, 2013, deadline for both the structural and nonstructural requirements.

8.1 For an SPC-1 building to be eligible for this extension, all of the following conditions must be met:

(a) The hospital owner requesting an extension for an SPC-1 building in accordance with this section, must submit to the Office no later than March 31, 2012, the following:

(i) An application for extension accompanied by a letter of intent stating whether the hospital intends to rebuild, replace or retrofit the building, or remove all general acute care beds and services from the building.

(ii) A facility site plan identifying the SPC-1 hospital building for which the extension is being requested by name and OSHPD assigned building number.

(iii) A chart or a bar graph schedule which describes the necessary amount of time and schedule to complete the construction for the subject building in order to achieve the targeted building resolution stipulated in the letter of intent pursuant to Section 1.5.2 Item 8.1(a)(i). The chart shall indicate all major milestones required for the implementation of the construction plan.

(iv) A narrative description and supporting documentation demonstrating how the hospital intends to meet the requested deadline and why the requested extension is necessary.

(v) When applicable, a narrative description and supporting documentation demonstrating community access to essential hospital services as specified in Section 1.5.2 Item 8.5.

(vi) When applicable, a narrative description and supporting documentation demonstrating the hospital owner's financial hardship to meet the milestones specified in Section 1.5.2 Items 8.6.

(vii) Information on the type of use/ occupancy of the SPC-1 building by listing the type of services currently delivered in the building.

(b) The hospital owner submits to the Office, no later than September 30, 2012, an application and required documents ready for review seeking collapse probability assessment for its SPC-1 building in accordance with Section 1.8.2.

(c) The hospital owner submits to the Office, no later than January 1, 2015, construction documents ready for review consistent with the letter of intent and the schedule submitted pursuant to Section 1.5.2 Items 8.1(a)(i) and (iii). The construction documents shall be accompanied by a financial capacity report. The financial capacity report shall demonstrate the hospital owner's financial capacity to implement the construction plans submitted pursuant to this subsection.

(d) The hospital owner receives a building permit consistent with the letter of intent and the schedule submitted pursuant to Section 1.5.2 Items 8.1(a)(i) and (iii) no later than July 1, 2018.

8.2. A hospital may demonstrate that it has complied with the requirements of their compliance schedule if they received confirmation of compliance from the Office by the end of their extension date.

8.3. Extensions to the January 1, 2013 compliance deadline.

8.3.1. The maximum permitted extension for a hospital building is the greater extension time allowed based on consideration of the structural integrity of the building as determined by the Risk- Based Extension in Section 1.5.2. Item 8.4, the access to essential hospital services as determined in Section 1.5.2 Item 8.5 and the Financial Hardship as determined by Section 1.5.2 Item 8.6. In no event shall the maximum permitted extension exceed seven years or the amount of time reasonably required to complete the construction described in Section 1.5.2 Item 8.1(a), whichever is less.

8.3.2. Upon acceptance of the application for extension and all submittal documentation required in Section 1.5.2 Item 8.1 (a) an SPC-1 building may be granted an Administrative Extension by the Office.

8.4. Risk-Based Extension. The risk-based extension is based on the seismic risk coefficient.

(a) The seismic risk coefficient posed by a building, P, shall be determined by:

$$P = H \times E$$

Where:

H = the value of the collapse probability in percent, as determined by the requirements of Section 1.8; and,

E = the Exposure Factor, based on the presence of Basic and Supplemental Services, as defined in Part 2, Title 24, Section 1224.3.

The Exposure Factor E shall be taken as:

E = 0.5 where the building houses only storage spaces, central ster-

ile supply spaces, and/or utility plant spaces.

E = 0.7 where the building houses only clinical laboratory, pharmaceutical, dietetic and/or support services spaces, or nonpatient care building which is contiguous to and provides egress or structural support to an acute care hospital building(s).

E = 1.0 where the building houses any other Basic and/or Supplementary Service spaces.

Where a building contains more than one Basic and/or Supplementary Service space, the largest value of E shall apply.

(b) The Risk-Based Extension is determined by the seismic risk coefficient, P:

i. Where $P \leq 3.0\%$, the Risk-Based Extension for the building shall not exceed seven years.

ii. Where $P > 3.0\%$ but $P \leq 5.0\%$, the Risk-Based Extension for the building shall not exceed five years.

iii. Where $P > 5.0\%$, the Risk-Based Extension for the building shall not exceed two years.

iv. Regardless of the seismic coefficient, P, the Risk-Based Extension for any building straddling an Active Fault shall not exceed two years.

8.5. Community access to essential hospital services. The potential effect of closure of the hospital building on community access to essential hospital services shall be evaluated. A building at a hospital defined as a Critical Community Provider in accordance with this Section is eligible for a Maximum Permitted Extension of up to seven years. The hospital may be classified as a Critical Community Provider if it meets the requirements of Section 1.5.2 Items 8.5(a), 8.5(b), 8.5(c), 8.5(d) or 8.5(e):

(a) The hospital meets the requirements of (i) or (ii) below:

i. Certified as a Sole Community Hospital, Critical Access Hospital, or Rural Referral Center by the Department of Health and Human Service Centers for Medicare & Medicaid Services.

ii. Disproportionate Share Hospital. For purposes of this section a hospital is deemed to be a disproportionate share hospital if it meets the eligibility requirements of the Welfare and Institutions Code, Section 14105.98 for at least two years during the five most current years prior to application for an extension.

(b) The hospital provides care for uninsured/underinsured populations. To qualify, the hospital must meet or exceed all of the following minimum thresholds:

i. 10 percent Medicaid Discharges.

ii. 10 percent Medicaid Emergency Department visits.

iii. 10 percent Uninsured Emergency Department visits.

iv. Inpatient Occupancy rate of the hospital general acute licensed beds greater than 50 percent.

(c) The hospital is a critical service provider of any of the following specialized medical care within its service area as defined in Section 1.5.2 Item 8.5(f):

i. Trauma Center as defined by CCR – Title 22, Division 9, Section 100248.

ii. Children's Hospital as defined by the Welfare and Institutions Code, Section 10727.

iii. Burn Unit as defined by CCR – Title 22, Division 5, Section 70421.

iv. Emergency department provides 10 percent or more of the total Emergency Treatment Stations.

v. A hospital in which its service area has an average number of patient beds/1000 population below 1.5.

(d) The hospital provides more than 20 percent of the licensed acute care beds in the hospitals' service area as defined in Section 1.5.2 Item 8.5(f).

(e) A tertiary or specialty hospital dedicated to specific sub-specialty care with volumes in excess of 50 percent of total annual discharges within the county in which the hospital is located.

(f) Hospital Service Area. The total geographic area comprised by the sum of all patient origin regions that significantly contribute to the inpatient population of the subject hospital. For the purposes of determining the hospital service area, conditions (i) and (ii) listed below shall be satisfied:

(i) The number of regions considered shall include all the regions with a relative hospital ratio of inpatient discharges per region greater than 5 percent of the total hospital inpatient discharges. "Relative hospital ratio of inpatient discharges per region" means the number of hospital patients discharged in a region by the subject hospital in relation to the total hospital patients discharged for the same region by all hospitals.

(ii) The number of regions considered shall include all the regions with a hospital ratio of inpatient discharges per region that cumulatively account for at least 70 percent of the total hospital patient discharges. "Hospital ratio of inpatient dis-

charges per region" means the number of hospital patients discharged in a region by the subject hospital in relation to the total patients discharged by the subject hospital.

The data utilized to determine community access to essential hospital services shall be based on the hospital's most current fiscal reporting information filed with the Office or on the hospital's fiscal reporting information filed with the Office for any of the most current three years.

8.6. Financial Hardship. Evaluation of financial hardship shall be determined on a hospital-by-hospital basis. A building at a hospital that meets the financial hardship criteria of this section is eligible for a Maximum Permitted Extension of up to seven years. A hospital may be determined to have financial hardship if it meets at least one of the following requirements:

(a) Financial performance. The hospital meets all of the following thresholds:

i. Negative operating margin for the hospital for at least two years during the five years prior to application for an extension.

ii. Days Cash-on-Hand less than 60.

iii. Current Ratio less than 1.5

(b) The hospital has a bond rating based on the following table:

TABLE 1.5.2.8.6
BOND RATING GRADES

CREDIT RISK	MOODY'S	STANDARD AND POOR'S	FITCH RATINGS
Medium	Baa	BBB	BBB
Lower Medium	Ba	BB	BB
Lower Grade	B	B	B
Poor Grade	Caa	CCC	CCC
Speculative	Ca	CC	CC
No Payments/Bankruptcy	C	D	D
In Default	C	D	D

(c) For public hospitals, voters rejected the most recent bond issue specifically related to seismic compliance construction work at the facility.

The data utilized to determine financial hardship shall be based on the hospital owner's most current fiscal reporting information filed with the Office or on the hospital owner's fiscal reporting information filled with the Office for any of the most current three years unless noted otherwise in subsection (a) above.

8.7. Extension Adjustments. A hospital may request an extension adjustment necessary to complete the construction for the building granted an extension pursuant to Section 1.5.2 Item 8. In order for this request to be considered, the hospital owner shall notify the Office in writing as soon as practicable, but in no event later than six months after the hospital owner discovered the change of circumstances. The request shall include at a minimum all of the following:

(a) The length/duration of the additional extension time adjustment, but in no event the total extension including the adjustment shall exceed the period specified in Section 1.5.2 Item 8.

(b) The name and OSHPD assigned number for the hospital building requiring the extension adjustment.

(c) A narrative description and data supporting the discovered change of circumstances in completing the construction for the building granted an extension pursuant to Section 1.5.2 Item 8.

(d) An amended bar graph schedule required by Section 1.5.2 Item 8.1(a)(iii).

8.8. Extension Revocation/Termination. An extension for any hospital building granted pursuant to Section 1.5.2 Item 8 may be revoked or terminated based on the following:

(a) The Office determines that any information submitted pursuant to this section was falsified; or

(b) The hospital failed to meet a milestone set forth in Sections 1.5.2 Item 8.1(a) (iii); or

(c) Where the work of construction is abandoned or suspended for a period of at least six months, unless the hospital demonstrates in a publicly available document that the abandonment or suspension was caused by factors beyond its control.

9. Additional extension beyond January 1, 2020, for SPC 1 buildings.

9.1. The Office may grant the hospital owner an additional extension to the January 1, 2020, seismic compliance deadline for each SPC 1 building where all the following conditions are met:

a) An extension was previously granted pursuant to California Health and Safety Code, Section 130060(g) or Section 130061.5(b).

b) A prior compliance plan corresponding to a replacement, retrofit or rebuild project was submitted to the Office by January 1, 2018.

c) The application for an extension is submitted by the owner on a form provided by the Office, and received by the Office no later than April 1, 2019.

d) The application, one per building, shall identify the seismic compliance method chosen based on a replacement, retrofit or rebuild plan as defined in definitions Section 1.2 of this chapter, for addressing the acute care functions in the SPC-1 building.

e) Documentation of facts necessary in determining the maximum length of the extension that may be granted in accordance with sub section 9.1.1 shall be submitted with the application.

9.1.1. Maximum length of Extension. The Office shall not grant an extension that exceeds the amount of time needed by the owner to come into compliance. The length of the extension to be granted shall be based upon a showing by the owner of the facts necessitating the additional time. It shall include a review of the plan and all the documentation submitted in the application for the extension, and shall permit only that additional time necessary to allow the owner to deal with compliance plan issues that cannot be fully met without the extension.

9.1.2. Extension for Replacement or Retrofit Plan where Construction has not Started. For an extension request based on a replacement plan or retrofit plan, final seismic compliance shall be achieved, a certificate of occupancy or construction final shall be obtained by July 1, 2022, and the following conditions shall apply:

1) Application submitted shall contain an extension schedule that identifies:

a) The maximum extension time requested but no later than July 1, 2022.

b) Date when building permit will be obtained.

c) Date the hospital will begin construction.

2) A construction schedule shall be submitted within 15 calendar days of obtaining a building permit. The construction schedule shall identify a minimum of two major milestones acceptable to the office that will be used as a basis for determining whether the hospital is making adequate progress. Major milestones identified in the construction schedule shall be chosen such that they are easily verifiable by the Office.

3) Obtain a building permit.

4) Start construction.

Compliance with the requirements in 1) through 4) above shall be achieved no later than April 1, 2020.

9.1.3. Extension for Rebuild Plan where Construction has not Started. For an extension requested based on a rebuild plan, final seismic compliance shall be achieved, a certificate of occupancy shall be obtained by January 1, 2025, and the following shall apply:

1. Application submitted shall contain an extension schedule that identifies:

a. The maximum time request for the extension but no later than January 1, 2025.

b. Date of submission of the rebuild project deemed ready for review to the Office, but no later than July 1, 2020.

c. Date when building permit will be obtained.

d. Date the hospital will begin construction.

2. Submission of the rebuild project deemed ready for review to the Office shall occur no later than July 1, 2020.

3. A construction schedule submitted within 15 calendar days of obtaining a building permit. The construction schedule shall identify a minimum of two major milestones acceptable to the office that will be used as a basis for determining whether the hospital is making adequate progress. Major milestones identified in the construction schedule shall be chosen such that they are easily verifiable by the Office.

4. Obtain a building permit.

5. Start construction.

Compliance with the requirements in 3) through 5) above shall be achieved no later than January 1, 2022.

9.1.4. Extension where Construction has Started. For a hospital building that has previously submitted to the Office a retrofit, replace or rebuild project under construction, the application for an extension request shall contain all the following:

1. The method of compliance with the requested extension which shall be no later than July 1, 2022, for retrofit or replace plan and January 1, 2025, for rebuild plan. The application shall include the facts necessitating the additional time.

2. The project number under which the construction has commenced and is continuing.

3. A revised construction schedule to reflect the extension being requested and at least two major milestones shall be identified. Major milestones shall be chosen such that they are easily verifiable by the Office.

9.2. Quarterly Status Reports. A hospital granted an extension pursuant to this section shall provide a quarterly status report in a form required by the Office, consistent with their extension/construction schedule. The first report is due on July 1, 2019, subsequent status reports shall be due every October 1, January 1, April 1, and July 1, until seismic

compliance is achieved. Each quarterly report shall contain the cumulative progress made towards meeting the dates in the extension and the construction schedules, current to 15 calendar days before the report is due. The report may be submitted to the Office no more than 15 calendar days before the due date.

9.3. Fines for Failure to Comply. Failure to comply with the dates for plan submission, construction schedule submission, obtain a building permit, to begin construction identified and accepted by the Office in the extension schedule or the major milestone dates identified and accepted by the Office in the construction schedule shall result in the assessment of a fine of five thousand dollars ($5,000) per calendar day until the requirements or milestones, respectively, are met. The Office shall not issue a construction final or certificate of occupancy for the building until all assessed penalties accrued pursuant to this section have been paid in full or, if an appeal is pending, have been posted with the Office and held pending resolution of the appeal.

9.4. Adjustments to Schedules. The Office may grant an adjustment as necessary to deal with contractor, labor, material delays, with acts of God, or with governmental entitlements, experienced by the hospital. The hospital shall submit the reason for the delay along with substantiating documents, a revised construction schedule and identify at least two new major milestones consistent with the adjustment. Requests for adjustments shall be made with the Office as soon as the reasons for the delay are known but no less than 30 calendar days before any upcoming affected extension schedule or construction milestone date.

Failure to comply with the revised construction schedule or meet any of the major milestones shall result in penalties as specified in 9.3. The adjustment shall not exceed the corresponding final seismic compliance date of July 1, 2022, for a replacement plan or retrofit plan and January 1, 2025, for a rebuild plan.

1.6 Dispute resolution/appeals process. Dispute resolution and appeals shall be in conformance with Article 5, Chapter 7, Part 1 of Title 24.

1.7 Notification from OSHPD.

1. The Office shall issue written notices of compliance to all hospital owners that have attained the minimum required SPC and NPC performance levels by the required seismic compliance dates or extension dates granted by the Office;
2. The Office shall issue written notices of violation to all hospital owners that are not in compliance with the minimum SPC and NPC performance levels by the required seismic compliance dates or extension dates granted by the Office; and
3. The Office shall notify the State Department of Health Services of the hospital owners which have received a written notice of violation for failure to comply with these regulations.

1.8 Collapse Probability Assessment. Hospital owners may request a collapse probability assessment to reclassify buildings with an SPC-1 rating to SPC-2 in accordance with Section 1.4.5.1.2, or be used to determine eligibility for an extension in accordance with Section 1.5.2 Item 8.

1.8.1 The collapse probability assessment by the Office shall be determined using the following:

1. Multi-Hazard Loss Estimation Methodology, Earthquake Module (HAZUS-MH) developed by the Federal Emergency Management Agency (FEMA)/National Institute of Building Sciences (NIBS).
2. Building specific input parameters required by the Advanced Engineering Building Module (AEBM) of the HAZUS methodology shall be obtained from Appendix H to Chapter 6.
3. Modifications by the Office to the AEBM input parameters are hereby adopted as shown in Appendix H to Chapter 6, which are based on the following:
   a) Building type
   b) Building height and number of stories
   c) Building age
   d) Significant Structural Deficiencies listed in Section 1.8.2 Item 2.
4. Site seismicity parameters adjusted for soil type, as determined by the Office, shall be the lesser of:
   a) Deterministic ground motion due to the maximum magnitude earthquake event on the controlling fault system.
   b) Probabilistic ground motion having 10 percent probability of being exceeded in 50 years.

1.8.2 The collapse probability assessment for SPC-1 buildings shall be based on the following building information, parameters and documents:

1. A complete seismic evaluation of the building pursuant to Section 1.3.3.

   Exception: Hospital owners who had submitted a complete structural evaluation report in compliance with Section 1.3.3, that is deemed to be complete by the Office, need not resubmit.
2. A supplemental evaluation report prepared by a California registered structural engineer that identifies the existence or absence of the building structural Lateral Force Resisting System (LFRS) properties and Significant Structural Deficiencies listed below:
   a. Age: Year of the *California Building Code* (CBC) used for the original building design.

      Exception: For pre-1933 buildings, the design year shall be reported.
   b. Materials Tests: Office approved materials test results based on test plan preapproved by the Office (Section 2.1.2).
   c. Load path (Section 3.1)
   d. Mass irregularity (Section 3.3.4).
   e. Vertical discontinuity (Section 3.3.5).
   f. Adjacent buildings (Section 3.4).
   g. Short captive column (Section 3.6).

h. Material deterioration (Section 3.7).
i. Weak columns (Sections 4.2.8 and 4.3.6).
j. Wall anchorage (Section 8.2).
k. Redundancy (Section 3.2).
l. Weak story irregularity (Section 3.3.1).
m. Soft story irregularity (Section 3.3.2).
n. Torsional irregularity (Section 3.3.6).
o. Deflection incompatibility (Section 3.5).
p. Cripple walls (Section 5.6.4).
q. Openings (in diaphragm) at shear walls (Section 7.1.4).
r. Topping slab missing (Sections 7.3 and 7.4) or the building type (structural system) is of lift slab construction.
s. URM wall height to thickness ratio (Section 5.4.3).
t. URM Parapets (Section 10.1.6).

This supplemental evaluation report shall include supporting documentation including existing construction drawings or reconstructed as-builts (Section 2.1.2)

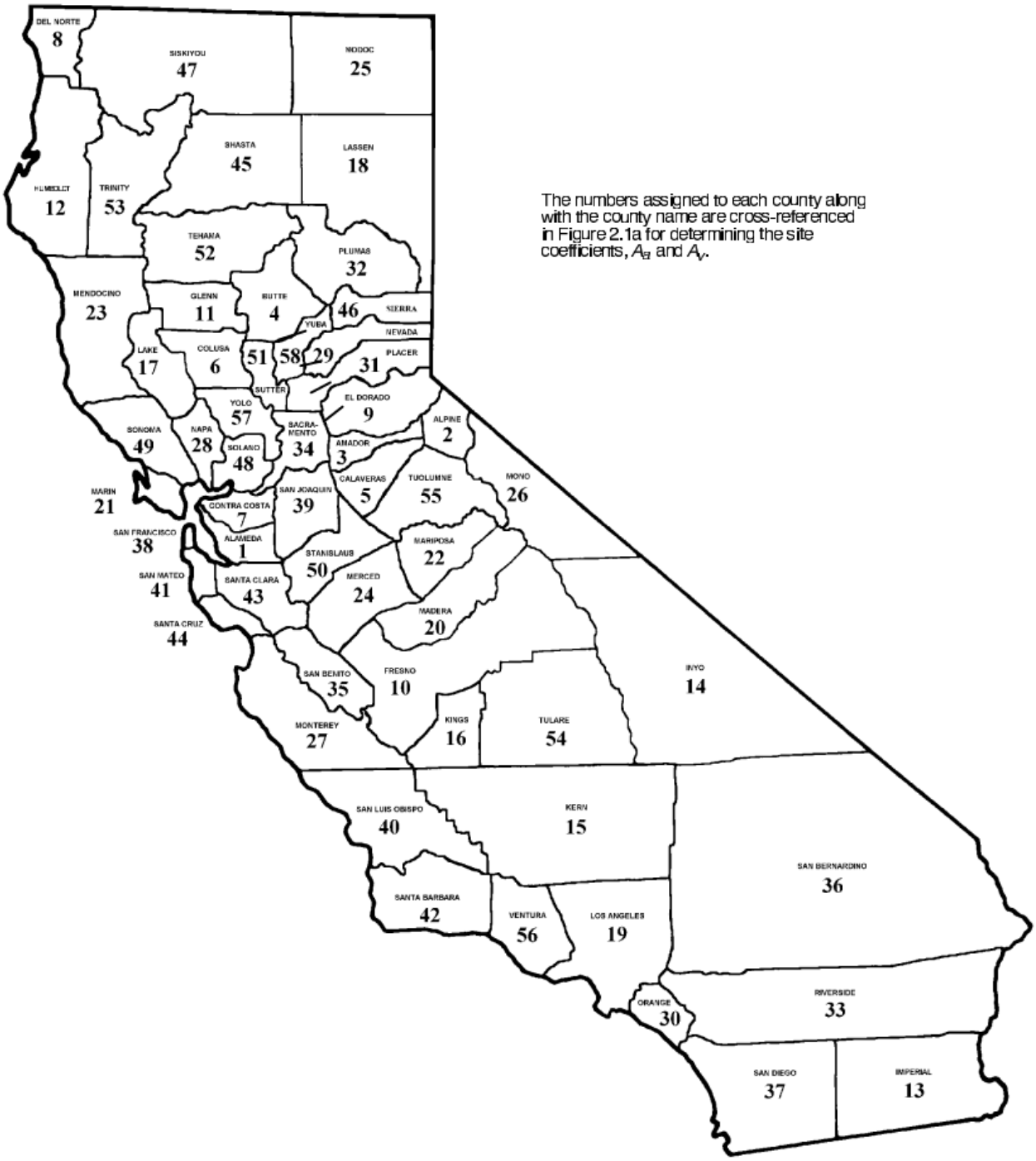


FIGURE 2.1

relating to the existence or absence of the Significant Structural Deficiencies listed above including calculations, where required, for review and acceptance by the Office, unless they are included in the complete structural evaluation.

3. Building systems shall be classified as to their Model Building Type per Table 1.8. For buildings with multiple building types, all types shall be listed. The building type resulting in the maximum collapse probability will be utilized by the Office to determine eligibility for reclassification.
4. Building height and number of stories above and below the seismic base shall be specified.
5. For SPC-1 buildings where the potential for surface fault rupture and surface displacement at the building site is present as determined by Section 9.3, a supplemental geologic hazards report prepared by a California registered engineering geologist/seismologist is required to address the following:
    a. A site plan showing diagrammatically the location of the building footprint, the surface trace or traces of potential surface fault rapture.
    b. The expected surface displacement during a rupture event.

TABLE 1.8—MODEL BUILDING TYPE

MODEL BUILDING TYPE (MBT)	DESCRIPTION
W1	Wood, Light Frame (≤ 5,000 sq ft)
W2	Wood, greater than 5,000 sq ft
S1	Steel Moment Frame
S2	Steel Braced Frame
S3	Steel Light Frame
S4	Steel Frame with Cast-In Place Concrete Shear Walls
S5	Steel Frame with Unreinforced Masonry Infill Walls
C1	Concrete Moment Frame
C2	Concrete Shear Walls
C3	Concrete Frame with Unreinforced Masonry Infill Walls
PC1	Precast Concrete Tilt-Up Walls
PC2	Precast Concrete Frames with Concrete Shear Walls
RM1	Reinforced-Masonry Bearing Walls with Flexible Diaphragms
RM2	Reinforced-Masonry Bearing Walls with Rigid Diaphragms
URM	Unreinforced-Masonry Bearing Walls
MH	Manufactured Housing

ARTICLE 2
PROCEDURES FOR STRUCTURAL EVALUATION OF BUILDINGS

2.0 General.

2.0.1 Structural evaluation procedure.

1. The structural evaluation process shall include the following steps:
    1.1 Site visit and data collection;
    1.2 Identification of building type;
    1.3 Completion of evaluation statements in appendix;
    1.4 Follow-up field work, if required;
    1.5 Follow-up analysis for "False" evaluation statements;
    1.6 Final evaluation for the building;
    1.7 Preparation of the evaluation report; and
    1.8 Submittal of evaluation report to OSHPD.
2. A general acute care hospital facility building may be exempted from a structural evaluation upon submittal of a written statement by the hospital owner to OSHPD certifying the following conditions:
    2.1 A conforming building as defined in Article 1, Section 1.2, may be placed into SPC 5 in accordance with Table 2.5.3 under the following circumstances:
        (a) The building was designed and constructed to the 1989 or later edition of Part 2, Title 24, and
        (b) If any portion of the structure, except for the penthouse, is of steel moment resisting frame construction (Building Type 3, or Building Type 4 or 6 with dual lateral system, as defined in Section 2.2.3) and the building permit was issued after October 25, 1994.
    2.2 All other conforming buildings as defined in Article 1, Section 1.2, may be placed into SPC 4 in accordance with Table 2.5.3, except those required by Section 4.2.10 to be placed in SPC 3 in accordance with Table 2.5.3, without the need for any structural evaluation.
    2.3 Nonconforming buildings as defined in Article 1, Section 1.2 may be placed into SPC 1 in accordance with Table 2.5.3 without any structural evaluation.

TABLE 2.1—SOIL PROFILE TYPES AND SITE COEFFICIENTS

SOIL PROFILE TYPE	PROFILE WITH	SITE COEFFICIENT, *S*
*S*1	Rock of any characteristic, either shalelike or crystalline in nature. Such material may be characterized by a shear wave velocity greater than 2,500 feet per second or by other appropriate means of classification.	1.0
	or	
	Stiff soil conditions where the soil depth is less than 200 feet and the soil types overlying rock are stable deposits of sands, gravels or stiff clays.	
*S*2	Deep cohesionless or stiff clay conditions, including sites where the soil depth exceeds 200 feet and the soil types overlying rock are stable deposits of sands, gravels or stiff clays.	1.2
*S*3	Soft- to medium-stiff clays and sands characterized by 30 feet or more of soft- to medium-stiff clays with or without intervening layers of sand or other cohesionless soils.	1.5
*S*4	More than 70 feet of soft clays or silts characterized by a shear wave velocity less than 400 feet per second.	2.0

2.1 Site visit, evaluation and data collection procedures.

2.1.1 Site visit and evaluation.

1. The evaluator shall visit the building to observe and record the type, nature and physical condition of the structure.
2. The evaluator shall review an *Engineering Geological Report* on site geologic and seismic conditions. The report shall be prepared in accordance with Title 24, Section 1634A of 1995 *California Building Code* (CBC) or equivalent provision in later version of the CBC.

   Exceptions:

   1. Reports are not required for one-story, wood-frame and light steel-frame buildings of Type II or Type V construction and 4,000 square feet or less in floor area;
   2. A previous report for a specific site may be resubmitted, provided that a reevaluation is made and the report is found by the Office to be currently appropriate.
   3. Establish the following *site and soil parameters:*
      a. The value of the effective peak acceleration coefficient (A_a) from Figure 2.1 and 2.1a;
      b. The value of the effective peak velocity-related acceleration coefficient (A_v) from Figure 2.1 and 2.1a;
      c. The soil profile type (S_1, S_2, S_3 or S_4) derived from the geotechnical report or from Table 2.1;
      d. The site coefficient, (S), from Table 2.1; and
      e. The ground motion parameters and near field effects in strong ground shaking required for the evaluation of welded steel moment frame structures per Sections 4.2.0.1, 4.2.0.2 and 4.2.10.
   4. Assemble building design data including:
      a. Construction drawings, specifications and calculations for the original building (Note: when reviewing and making use of existing analyses and structural member checks, the evaluator shall assess and report the basis of the earlier work);
      b. All drawings, specifications and calculations for remodeling work; and

FIGURE 2.1a—EFFECTIVE PEAK ACCELERATION COEFFICIENT (A_a) AND EFFECTIVE PEAK VELOCITY COEFFICIENT (A_v) FOR CALIFORNIA

No.	County	EPA A_a	EPV A_v		No.	County	EPA A_a	EPV A_v
1	Alameda	0.40	0.40		30	Orange	0.40	0.40
2	Alpine	0.20	0.20		31	Placer	0.20	0.20
3	Amador	0.20	0.20		32	Plumas	0.20	0.20
4	Butte	0.20	0.20		33	Riverside	0.40	0.40
5	Calaveras	0.20	0.20		34	Sacramento	0.20	0.30
6	Colusa	0.20	0.30		35	San Benito	0.40	0.40
7	Contra Costa	0.40	0.40		36	San Bernardino	0.40	0.40
8	Del Norte	0.20	0.20		37	San Diego	0.40	0.40
9	El Dorado	0.20	0.20		38	San Francisco	0.40	0.40
10	Fresno	0.40	0.40		39	San Joaquin	0.30	0.30
11	Glenn	0.20	0.20		40	San Luis Obispo	0.40	0.40
12	Humboldt	0.20	0.30		41	San Mateo	0.40	0.40
13	Imperial	0.40	0.40		42	Santa Barbara	0.40	0.40
14	Inyo	0.40	0.40		43	Santa Clara	0.40	0.40
15	Kern	0.40	0.40		44	Santa Cruz	0.40	0.40
16	Kings	0.40	0.40		45	Shasta	0.20	0.20
17	Lake	0.30	0.30		46	Sierra	0.20	0.20
18	Lassen	0.20	0.20		47	Siskiyou	0.20	0.20
19	Los Angeles	0.40	0.40		48	Solano	0.40	0.40
20	Madera	0.20	0.30		49	Sonoma	0.40	0.40
21	Marin	0.40	0.40		50	Stanislaus	0.40	0.40
22	Mariposa	0.20	0.20		51	Sutter	0.20	0.20
23	Mendocino	0.40	0.40		52	Tehama	0.20	0.20
24	Merced	0.40	0.40		53	Trinity	0.20	0.30
25	Modoc	0.20	0.20		54	Tulare	0.40	0.40
26	Mono	0.40	0.40		55	Tuolumne	0.20	0.20
27	Monterey	0.40	0.40		56	Ventura	0.40	0.40
28	Napa	0.40	0.40		57	Yolo	0.20	0.30
29	Nevada	0.20	0.20		58	Yuba	0.20	0.20

c. Material tests and inspection reports for nonconforming buildings. If the original drawings are available, but material test and inspection reports are not available, perform the testing program as specified in Section 2.1.2.2.

If structural drawings are not available, the site visit and evaluation shall be performed as described in Section 2.1.1.5, and structural data shall be collected using the procedures in Sections 2.1.2.1 and 2.1.2.2.

5. During the site visit, the evaluator shall:
   a. Verify existing data;
   b. Develop other needed data (e.g., measure and sketch building as outlined in Section 2.1.2);
   c. Verify the vertical and lateral systems;
   d. Check the condition of the building; and
   e. Identify special conditions, anomalies and oddities.
6. Review other data available such as assessments of building performance following past earthquakes.
7. Prepare a summary of the data using an OSHPD- approved format.
8. Perform the evaluation using the procedures in Sections 2.2 through 2.5.
9. Prepare a report of the findings of the evaluation using an OSHPD-approved format.

2.1.2 Data collection. Building information pertinent to a structure's seismic performance, including condition, configuration, detailing, material strengths and foundation type, shall be obtained in accordance with this section, and documented on drawings and/or sketches that shall be included with the structural calculations.

Exception: Materials testing is not required for reclassification by the collapse probability assessment option as permitted by Section 1.4.5.1.2, where nonavailability of materials test is identified as a deficiency per Section *1.8.2.2(b).*

2.1.2.1 Building characteristics. Characteristics of the building relevant to its seismic performance shall be obtained for use in the building evaluation. This shall include current information on the building's condition, configuration, material strengths, detailing and foundation type. This data shall be obtained from:

1. Review of construction documents;
2. Destructive and nondestructive testing and examination of selected building components; and
3. Field observation of exposed conditions *to verify that field conditions substantially match the construction documents in accordance with data collection requirements in Section 3413A.1.3, or equivalent provisions in later editions of the CBC.*

The characteristics of the building shall be established, including identification of the gravity- and lateral-load-carrying systems. The effective lateral-load carrying system may include structural and nonstructural elements that will participate in providing lateral resistance, although these elements may not have intended to provide lateral resistance. The load path shall be identified, taking into account the effects of any modifications, alterations or additions.

The owner or the owner's authorized agent shall submit the following to the office for review and approval:

1. *Complete set of construction documents.*
2. *Field test report(s) in accordance with Section 2.1.2.2.*
3. *Field observation report, which shall verify that field conditions substantially match the construction documents.*

2.1.2.1.1 Nonconforming buildings without construction documents. Where the available construction documents do not provide sufficient detail to characterize the structure, the evaluation may be based on field surveys, summarized in as-built drawings. These drawings must depict building dimensions, component sizes, reinforcing information (for concrete and masonry elements), connection details, footing information, and the proximity of neighboring structures. All parts of the building that may contribute to the seismic resistance or that may be affected by the seismic response of the structure must be identified. The field survey shall establish the physical existence of the structural members, and identify critical load bearing members, transfer mechanisms, and connections. The survey shall include information on the structural elements and connector materials and details. Performing the field survey will entail removal of fireproofing or concrete encasement at critical locations to permit direct visual inspection and measurement of elements and connections. Nondestructive techniques such as radiographic, electromagnetic and other methods may be used to supplement destructive techniques.

1. **Steel elements.** Steel elements shall be classified by structural member type (e.g., rolled or build-up, material grade, and general properties). The survey shall note the presence of degradation or indications of plastic deformation, integrity of surface coatings, and signs of any past movement. For degraded elements, the lost material thickness and reduction of cross-sectional area and moment of inertia shall be determined. Visual inspection of welds shall be per American Welding Society D1.1, "Structural Welding Code-Steel." Structural bolts shall be verified to be in proper configuration and tightened as required in the AISC Steel Construction Manual. Rivets shall also be verified to be in proper configuration and in full contact, with "hammer sounding" conducted on random rivets to ensure they are functional. Nondestructive testing methods, such as dye penetrant and magnetic particle testing, acoustic emission, radiography and ultrasound shall be used when visual inspection identifies degradation or when a particular element or connection is critical to seismic resistance and requires further verification. For buildings in which archaic cast and wrought irons are employed, additional investigations to confirm ductility and impact resistance shall be conducted.
2. **Concrete elements.** The configuration and dimensions of primary and secondary structural elements shall be established. The configuration and condition of reinforcing steel shall be assessed, through removal of concrete cover and direct visual inspection, and through nondestructive inspection using electromagnetic, radiographic and other methods. Critical parameters of the reinforcing

system, such as lap splice length, presence of hooks, development within concrete, degree of corrosion and integrity of the construction shall be established in sufficient detail to perform the structural evaluation.

3. **Masonry elements.** The configuration and dimensions of masonry elements shall be established. The configuration and condition of reinforcing-steel shall be assessed, through removal of masonry cover and direct visual inspection, and through nondestructive inspection using electromagnetic, radiographic and other methods. Critical parameters of the reinforcing system, such as lap splice length, presence of hooks, development within concrete, degree of corrosion and integrity of the construction shall be established in sufficient detail to perform the structural evaluation.
4. **Wood elements.** The configuration and dimensions of wood elements; the connections between wood elements; and the connections between wood and other structural components or elements such as concrete or masonry walls shall be established. The configuration and condition of wood members, including size, type, grade, condition and quality shall be assessed, through removal of finish materials, and examination of unfinished areas such as attics, crawl spaces and basements. Critical connections and elements shall be visually inspected, using invasive procedures or removal of finishes where necessary. For shear walls, select locations shall be exposed to allow evaluation of sheathing material, nail size, spacing and installation (e.g., overdriven or nails that miss or split the framing members). The base connections of shear resisting elements shall be inspected and evaluated for their adequacy to connect the base of the structure to the foundation or structure below.
5. **Foundation elements.** In the absence of dependable construction drawings, determination of the size and detailing of the foundation system requires invasive procedures. The evaluator shall select representative footings for exposure to establish footing size and depth. Conservative assumptions regarding the reinforcement may be made considering code requirements and local practice at the time of the design. In the absence of evidence to the contrary, it may be assumed that the foundation elements were adequately designed to resist actual gravity loads to which the building has been subjected.

2.1.2.2 Material properties. The building evaluation shall be based on the strength and deformation properties of the existing materials and components. The strength of existing components shall be calculated using data on their configuration, obtained from the original construction documents, supplemented by field observations and the test values of material properties. Where such effects may have a deleterious effect on component or structural behavior, allowances shall be made for the likely effects of strain hardening or degradation. Test values may be obtained from samples extracted from the structure, or from original materials and compliance certificates. The Office will determine the adequacy of the *test results based upon the approved material* testing program.

The materials testing program shall require approval by the Office prior to testing. Prior to performing destructive materials test and non-destructive tests requiring modification to existing conditions, the owner or the owner's authorized agent shall obtain a building permit.

The materials testing shall be in accordance with the California Building Code 2016 (2016 CBC) Section 3413A.1.3, or equivalent provisions in later editions of the CBC.

2.1.2.2.1 Nonconforming buildings with construction documents. The material properties for nonconforming buildings for which original construction documents of sufficient detail are available shall be confirmed by testing or from acceptable original materials and compliance certificates. If original materials and compliance certificates are available, they must provide the information specified in Items 1 through 4 of this section to be considered acceptable.

1. **Steel elements.** The following properties are required for each member type (e.g., beams, columns, braces) and each steel grade used in the structure:
   a) Ultimate tensile and yield capacities;
   b) Modulus of elasticity; and
   c) Deformation characteristics including mode of failure.
2. **Concrete elements.** The following material properties are required for each member type (e.g., beams, columns, walls) in the structure:
   a) Concrete compressive strength;
   b) Concrete unit weight;
   c) Concrete modulus of elasticity;
   d) Reinforcing steel tensile yield point;
   e) Reinforcing steel modulus of elasticity;
   f) Reinforcing steel chemical composition and carbon equivalent; and
   g) Reinforcing steel surface deformations.
3. **Masonry elements.** The following material properties are required for each type of masonry in the structure:
   a) Masonry compressive strength;
   b) Masonry unit weight;
   c) Masonry modulus of elasticity;
   d) Reinforcing steel tensile yield point;
   e) Reinforcing steel modulus of elasticity;
   f) Reinforcing steel chemical composition and carbon equivalent; and
   g) Reinforcing steel surface deformations.
4. **Wood elements.** The following material properties are required for each type of wood element in the structure:
   a) Identification of Wood Species, and
   b) Grade Material. (Note: This may be established by visual inspection or stamped labels on the element.)

2.1.2.2.2 Nonconforming buildings without construction documents. The material properties for nonconforming buildings for which original construction documents of sufficient detail are unavailable shall be confirmed by testing. The number and location of tests shall be selected so as to provide sufficient information to adequately define the existing condition of materials in the building. The evaluator shall determine the number and location of tests. The test locations shall be located throughout the entire building in those components which provide the primary path of lateral force resistance.

2.2 Selection and use of evaluation statements.

2.2.1 Identification of building type. The evaluator shall determine the building type using the following procedure:

1. Identify the lateral-force-resisting system using text and drawings, including whatever components are available and effective to constitute a system. Prepare floor and roof plans, and elevations and sketches of the lateral-force-resisting system.
2. Select one or more of the 15 common building types which best characterize the structure (see Sections 2.2.2 and 2.2.3 below). Structures with multiple lateral force resisting systems (different lateral systems in orthogonal directions, or structures where the system changes from level to level) may require the use of two or more building types. In the case of hybrid structures or other buildings that cannot be adequately classified using the 15 building types, the alternative analysis procedure shall be used, or the building shall be placed in SPC "1."
3. Reproduce from the Appendix the list of evaluation statements. These statements shall be used for all types of buildings. Some statements on the list may not be appropriate. These statements may be marked "NA" as "not applicable." The Appendix also contains the set of evaluation statements that address foundations and geologic site hazards, and nonstructural elements.

2.2.2 Using the general procedure. The general procedure involving use of the set of evaluation statements presented in the Appendix consists of the following steps:

1. Evaluate the basic building system according to the evaluation statements in Article 3;
2. Evaluate the vertical systems resisting lateral forces according to Article 4 (moment frames), Article 5 (shear walls) or Article 6 (braced frames) as appropriate. For buildings with a combination of vertical systems, each system in the building must be evaluated;
3. Evaluate the diaphragm or horizontal bracing system according to Article 7;
4. Evaluate the structural connections according to Article 8;
5. Evaluate the foundation and possible geologic site hazards according to Article 9;
6. Evaluate the nonstructural elements that involve immediate life-safety issues according to Article 10; and
7. Evaluate the critical nonstructural components and systems according to Article 11.

If a statement is found to be true, the condition being evaluated is acceptable according to the criteria of these regulations, and the issue may be set aside. If a statement is found to be false, a condition exists that needs to be addressed further, using the specified analysis procedures. Analysis procedures are given in Section 2.4. Each statement includes a reference to a particular section in Articles 3 through 10 where additional procedures for the resolution of the issues are given. The evaluator shall assemble the list of deficiencies and the results of the analysis and proceed to the final evaluation in Section 2.5.

2.2.3 Common building types. The evaluator shall determine the type(s) of building being evaluated, choosing from among the following 15 common types:

1. **Building Type 1—Wood, light frame.** These buildings are typically small structures of one or more stories. The essential structural character of this type is repetitive framing by wood joists on wood studs. Loads are light and spans are small. These buildings may have relatively heavy chimneys and may be partially or fully covered with veneer. Lateral loads are transferred by diaphragms to shear walls. The diaphragms are roof panels and floors. Shear walls are exterior walls sheathed with plank siding, stucco, plywood, gypsum board, particle board or fiberboard. Interior partitions are sheathed with plaster or gypsum board.
2. **Building Type 2—Wood, commercial and industrial.** These are buildings with a floor area of 5,000 square feet or more and with few, if any, interior bearing walls. The essential structural character is framing by beams on columns. The beams may be glulam beams, steel beams or trusses. Lateral forces usually are resisted by wood diaphragms and exterior walls sheathed with plywood, stucco, plaster or other paneling. The walls may have rod bracing. Large exterior wall openings often require post-and-beam framing. Lateral force resistance on those lines may be achieved with steel rigid frames or diagonal bracing.
3. **Building Type 3—Steel moment frame.** These buildings have a frame of steel columns and beams. Lateral forces are resisted by the development of flexural forces in the beams and columns. In some cases, the beam-column connections have very small moment resisting capacity but, in other cases, the connections of some of the beams and columns were designed to fully develop the member capacities. Lateral loads are transferred by diaphragms to moment resisting frames. The diaphragms can be of almost any material. The frames develop their stiffness by full or partial moment connections. The frames can be located almost anywhere in the building. Usually the columns have their strong directions oriented so that some columns act primarily in one direction while the others act in the other direction, and the frames consist of lines of strong columns and their intervening beams.
4. **Building Type 4—Steel braced frame.** These buildings are similar to Type 3 buildings except that the vertical components of the lateral-force-resisting system are braced frames rather than moment frames.
5. **Building Type 5—Steel light frame.** These buildings are pre-engineered and prefabricated with transverse rigid frames. The roof and walls consist of lightweight panels. The frames are built in segments and assembled in the field with bolted joints. Lateral loads in the transverse direction are resisted by the rigid frames with loads distributed to them by shear elements. Loads in the longitudinal direction are resisted entirely by shear elements. The shear elements can be either the roof and wall sheathing panels, an independent system of tension-only rod bracing, or a combination of panels and bracing.
6. **Building Type 6—Steel frame with concrete shear walls.** The shear walls in these buildings are cast-in-place concrete and may be bearing walls. The steel frame is designed for vertical loads only. Lateral loads are transferred by diaphragms of almost any material to the shear walls. The steel frame may provide a secondary lateral-force-resisting system depending on the

stiffness of the frame and the moment capacity of the beam-column connections. In "dual" systems, the steel moment frames are designed to work together with the concrete shear walls in proportion to their relative rigidities. In this case, the walls would be evaluated under this building type and the frames would be evaluated under Type 3, Steel Moment Frames.

7. **Building Type 7—Steel frame with infill shear walls.** This is one of the older type of buildings. The infill walls usually are offset from the exterior frame members, wrap around them, and present a smooth masonry exterior with no indication of the frame. Solidly infilled masonry panels act as a diagonal compression strut between the intersections of the moment frame. If the walls do not fully engage the frame members (i.e., lie in the same plane), the diagonal compression struts will not develop. The peak strength of the diagonal strut is determined by the tensile stress capacity of the masonry panel. The post-cracking strength is determined by an analysis of a moment frame that is partially restrained by the cracked infill. The analysis shall be based on published research and shall treat the system as a composite of a frame and the infill. An analysis that attempts to treat the system as a frame and shear wall is not permitted.

8. **Building Type 8—Concrete moment frame.** These buildings are similar to Type 3 buildings except that the frames are of concrete. There is a large variety of frame systems. Older buildings may have frame beams that have broad shallow cross sections or are simply the column strips of flat-slabs.

9. **Building Type 9—Concrete shear walls.** The vertical components of the lateral-force-resisting system in these buildings are concrete shear walls that are usually bearing walls. In older buildings, the walls often are quite extensive and the wall stresses are low but reinforcing is light. Remodeling that entailed adding or enlarging the openings for windows and doors may critically alter the strength of the modified walls. In newer buildings, the shear walls often are limited in extent, generating the need for boundary members and additional design consideration of overturning forces.

10. **Building Type 10—Concrete frame with infill shear walls.** These buildings are similar to Type 7 buildings except that the frame is of reinforced concrete. The analysis of this building is similar to that recommended for Type 7 except that the shear strength of the concrete columns, after cracking of the infill, may limit the semiductile behavior of the system. Research that is specific to confinement of the infill by reinforced concrete frames shall be used for the analysis.

11. **Building Type 11—Precast/tilt-up concrete walls with lightweight flexible diaphragm.** These buildings have a wood or metal deck roof diaphragm that distributes lateral forces to precast concrete shear walls. The walls are thin but relatively heavy while the roofs are relatively light. Tilt-up buildings often have more than one story. Walls can have numerous openings for doors and windows of such size that the wall behaves more like a frame than a shear wall.

12. **Building Type 12—Precast concrete frames with concrete shear walls.** These buildings contain floor and roof diaphragms typically composed of precast concrete elements with or without cast-in-place concrete topping slabs. The diaphragms are supported by precast concrete girders and columns. The girders often bear on column corbels. Closure strips between precast floor elements and beam-column joints usually are cast-in-place concrete. Welded steel inserts often are used to interconnect precast elements. Lateral loads are resisted by precast or cast-in-place concrete shear walls.

13. **Building Type 13—Reinforced masonry bearing walls with wood or metal deck diaphragms.** These buildings have perimeter bearing walls of reinforced brick or concrete-block masonry. These walls are the vertical elements in the lateral-force-resisting system. The floors and roofs are framed either with wood joists and beams with plywood or straight or diagonal sheathing or with steel beams with metal deck with or without a concrete fill. Wood floor framing is supported by interior wood posts or steel columns; steel beams are supported by steel columns.

14. **Building Type 14—Reinforced masonry bearing walls with precast concrete diaphragms.** These buildings have bearing walls similar to those of Type 13 buildings, but the roof and floors are composed of precast concrete elements such as planks or tee-beams, and the precast roof and floor elements are supported on interior beams and columns of steel or concrete (cast-in-place or precast). The precast horizontal elements may have a cast-in-place topping.

15. **Building Type 15—Unreinforced masonry (URM) bearing wall buildings.** These buildings include structural elements that vary depending on the building's age and, to a lesser extent, its geographic location. In buildings built before 1900, the majority of floor and roof construction consists of wood sheathing supported by wood subframing. In large multistory buildings, the floors are cast-in-place concrete supported by the unreinforced masonry walls and/or steel or concrete interior framing. In buildings built after 1950, unreinforced masonry buildings with wood floors usually have plywood rather than board sheathing. The perimeter walls, and possibly some interior walls, are unreinforced masonry. The walls may or may not be anchored to the diaphragms. Ties between the walls and diaphragms are more common for the bearing walls than for walls that are parallel to the floor framing. Unreinforced masonry bearing wall buildings (TYPE 15) shall be assigned to SPC 1. No further analysis is required.

2.3 Follow-up field work. The first assessment of the evaluation statements may indicate a need for more information about the building. The evaluator shall make additional site visits, performing the necessary surveys and tests to complete the evaluation.

2.4 Analysis of the building. The general requirements for building analysis (including the determination of force level, horizontal distribution of lateral forces, accidental torsion, interstory drift and overturning) are summarized in this sec-

tion. For cases where dynamic analysis is required, the general requirements are given in Section 2.4.10.

2.4.1 Scope of analysis. When an evaluation statement is false and requires further analysis, the evaluator shall provide appropriate analyses that will cover the statement requirements. For the analysis, the evaluator will:

1. Calculate the building weights;
2. Calculate the building period;
3. Calculate the lateral force on the building;
4. Distribute the lateral force over the height of the building;
5. Calculate the story shears and overturning moments;
6. Distribute the story shears to the vertical resisting elements in proportion to their relative stiffness;
7. Examine the individual elements as required by the evaluation statements:
   a. Load and reaction diagrams for diaphragms and for the vertical resisting elements;
   b. Shearing stresses and chord forces in the diaphragm;
   c. Vertical components (walls and frames) and find the story deflections, member forces and deflections; and
   d. Total forces or deflections according to the specified load combinations.

For moment frames consisting of beams and columns, the distribution of story shears to the vertical lateral-force-resisting elements in that story may be in proportion to their relative stiffness. In multistory frame-shear wall structures or in structures where the vertical resisting elements have significantly different lateral stiffnesses, or where the stiffnesses of the vertical resisting elements change significantly over the height of the structure, an analysis of the entire structure under the prescribed lateral loads shall be performed.

2.4.2 Demand. All building components evaluated shall resist the effects of the seismic forces prescribed herein and the effects of gravity loadings from dead, floor live and snow loads. The following load combinations shall be used:

$$Q = 1.1\ Q_D + Q_L + Q_S \pm Q_E \quad (2\text{-}1)$$

or

$$Q = 0.9Q_D \pm Q_E \quad (2\text{-}2)$$

where:

Q = the effect of the combined loads.

Q_D = the effect of dead load.

Q_E = the effect of seismic forces.

Q_L = the effective live load is equal to 25 percent of the unreduced design live load but not less than the actual live load.

Q_S = the effective snow load is equal to either 70 percent of the full design snow load or, where conditions warrant and are approved by OSHPD, not less than 20 percent of the full design snow load except that, where the design snow load is less than 30 pounds per square foot, no part of the load need be included in seismic loading.

The seismic portion of the demand (Q_E) is obtained from analysis of the building using the seismic base shear (V) from Equation 2-3.

2.4.3 Seismic analysis of the building.

2.4.3.1 Base shear. The seismic base shear determined from Equation 2-3 is the basic seismic demand on the building. Element forces and deflections obtained from analysis based on this demand are the element demands (Q_E) to be used in the load combinations of Equations 2-1 and 2-2. The demands are modified in some cases as discussed in Section 2.4.11.

The seismic base shear (V) in a given direction shall be determined as follows:

$$V = C_s\, W \quad (2\text{-}3)$$

where:

C_s = the seismic design coefficient determined by Equation 2-4 or 2-5.

W = the total dead load and applicable portions of the following:

- In storage and warehouse occupancies, a minimum of 25 percent of the floor live;
- Where an allowance for partition load is included in the floor load design, the actual partition weight or a minimum weight of 10 psf of floor area, whichever is greater;
- Total operating weight of all permanent equipment; and
- The effective snow load as defined in Section 2.4.2.

The seismic coefficient (C_s) for existing buildings shall be determined as follows:

$$C_s = 0.67\left(\frac{1.2A_vS}{RT^{2/3}}\right) = \frac{0.80A_vS}{RT^{2/3}} \quad (2\text{-}4)$$

where:

A_v = the peak velocity-related acceleration coefficient given in Figures 2.1 and 2.1a.

R = a response modification coefficient from Table 2.4.3.1.

S = the site coefficient given in Table 2.1. In locations where the soil properties are not known in sufficient detail to determine the Soil Profile Type S_3 shall be used. Soil Profile Type S_4 need not be assumed unless OSHPD determines that Soil Profile Type S_4 may be present at the site, or in the event the Soil Profile Type S4 is established by the geotechnical engineer.

T = the fundamental period of the building.

The value of C_s need not be greater than:

$$C_s = 0.85\left(\frac{2.5A_a}{R}\right) = \frac{2.12A_a}{R} \quad (2\text{-}5)$$

where:

A_a = the effective peak acceleration coefficient given in Figures 2.1 and 2.1a.

HISTORY NOTE APPENDIX FOR CHAPTER 6

Administrative Regulations for the Office of Statewide Health Planning and Development
(Title 24, Part 1, California Code of Regulations)

The format of the history notes has been changed to be consistent with the other parts of the *California Building Standards Code*. The history notes for prior changes remain within the text of this code.

1. (OSHPD 1/96) Adoption of Chapter 6, Seismic Evaluation Procedures for Hospital Buildings, Part 1, Title 24, C.C.R. Filed with the secretary of state on April 8, 1997, effective April 8, 1997. Approved by the California Building Standards Commission on February 6, 1997.

2. (OSHPD 1/97) New Article 1-Definitions and Requirements based on SB 1953. Approved by the California Building Standards Commission on March 18, 1998. Filed with the Secretary of State on March 25, 1998, effective March 25, 1998.

3. (BSC 2/99) Article 1-7, Conflict of Interest Code. Amend Section 1-701. Approved by the Fair Political Practices Committee on October 29, 1999. Filed with the Secretary of State on December 31, 1999, effective January 30, 2000.

4. (OSHPD EF 1/00) Part 1, Chapter 6, Articles 1, 10, 11 and Appendix. Approved as submitted by the California Building Standards Commission on February 28, 2000. Filed with the Secretary of State on March 3, 2000, effective March 3, 2000. Permanent approval by California Building Standards Commission on May 24, 2000. Certification of Compliance filed with Secretary of State May 26, 2000.

5. (OSHPD EF 2/00) Part 1, Amend Chapter 6, Articles 1, 2, 10 and 11. Emergency approval by the California Building Standards Commission on May 24, 2000. Filed with the Secretary of State on May 26, 2000, effective May 26, 2000. Permanent approval by California Building Standards Commission September 20, 2000. Certification of Compliance filed with Secretary of State November 15, 2000.

6. (OSHPD EF 5/01) Emergency adoption of amendments to hospital seismic safety evaluation regulations contained in Title 24, C.C.R., Part 1, Chapter 6. Approved by the California Building Standards Commission on November 28, 2001. Filed with the Secretary of State on December 4, 2001, effective December 4, 2001.

7. (OSHPD EF 01/02) Amend Chapter 6 and 7 of Part 1. Approved as emergency by the California Building Standards Commission on January 15, 2003, and filed with the Secretary of State on January 16, 2003. Effective January 16, 2003.

8. (OSHPD EF 01/02) Amend Chapters 6 and 7 of Part 1. Approved as permanent emergency by the California Building Standards Commission. Permanent approval on May 14, 2003. Certification of Compliance filed with the Secretary of State on May 15, 2003. Effective January 16, 2003.

9. (OSHPD EF 01/05) Amend Part 1, Chapter 6, Article 11 and Table 11.1. Approved as emergency by the California Building Standards Commission on December 13, 2005. Filed with the Secretary of State on December 14, 2005 with an effective date of December 14, 2005.

10. (OSHPD EF 01/05) Amend Part 1, Chapter 6, Article 11 and Table 11.1. Re-adopted/approved as emergency by the California Building Standards Commission on March 22, 2006. Filed with the Secretary of State on March 30, 2006 with an effective date of March 30, 2006.

11. (OSHPD 01/04) Amend Article 1 for nonconforming hospital buildings. Filed with Secretary of State on May 23, 2006, and effective on the 30th day after filing with the Secretary of State.

12. (OSHPD EF 01/05) Amend Title 24, Part 1, Chapter 6, Article 11 and Table 11.1. The language for the permanent rule will remain effective and unchanged from the readoption/approval of Emergency Finding (OSHPD EF 01/05) Supplement dated May 30, 2006. Approved as permanent by the California Building Standards Commission on July 27, 2006 and filed with the Secretary of State on July 28, 2006.

13. (OSHPD EF 01/07) Amend Title 24, Part 1, Chapter 6, Article 1, Article 2, Article 4, Article 6, Article 11, Table 11.1. Approved by the California Building Standards Commission on July 19, 2007. Filed with the Secretary of State July 20, 2007, effective January 1, 2008.

14. (OSHPD EF 01-07) Amend Title 24, Part 1, Chapter 6, Article 1, Article 2, Article 4, Article 6, Article 11 and Table 11.1. Approved by the California Building Standards Commission on July 19, 2007. Filed with the Secretary of State on July 20, 2007, effective January 1, 2008. It was approved as permanent by the California Building Standards Commission on May 21, 2008 and filed with the Secretary of State on May 23, 2008.

15. (OSHPD EF 02/07) Amend Title 24, Part 1, Chapter 6, definitions added and Chapter amended throughout with a new Appendix H to Chapter 6. Approved as an emergency regulation by the California Building Standards Commission on November 14, 2007, filed with the Secretary of State on November 29, 2007. Effective November 29, 2007. It was approved as permanent by the California Building Standards Commission on May 21, 2008 and filed with the Secretary of State on May 23, 2008.

16. (OSHPD 08/09) Amend Title 24, Part 1, Chapter 6 with amendments throughout. Effective on February 13, 2010.

17. (OSHPD EF 01/10) Amend Title 24, Part 1, Chapter 6 with updates to HAZUS standards pursuant to SB 499 (Chapter 601, Statutes of 2009). Effective on February 13, 2010.

18. (OSHPD 02/10) Amend Article 1, Title 24, Chapter 6, effective on August 28, 2011.

19. (OSHPD 01/12 and OSHPD 03/12) Amend Chapter 6, Seismic Evaluation Procedures for Hospital Buildings. Approved by the California Building Standards Commission on January 23, 2013, filed with the Secretary of State on January 28, 2013, and effective 30 days after filing with Secretary of State.

20. (OSHPD 04/15) Amend Chapter 6, Seismic Evaluation Procedures for Hospital Buildings. Article 1: Section 1.2, 1.3, 1.4.5.1, 1.4.5.1.1, 1.4.5.1.2, 1.4.5.1.3, 1.4.5.1.4, 1.4.5.1.5, 1.5.1, 2.1.2, 2.1.2.1, 2.1.2.2, 2.7, Table 2.5.3, 11.2.2. Approved by the California Building Standards Commission on December 16, 2015, filed with the Secretary of State on December 21, 2015, and effective 30 days after filing with Secretary of State.

21. (OSHPD EF 01/18) Amend Chapter 6, Seismic Evaluation Procedures for Hospital Buildings, Article 1. Approved as an emergency regulation by the California Building Standards Commission on January 16, 2019, and filed with Secretary of State on January 18, 2019, effective upon filing. It was approved as permanent by the California Building Standards Commission on July 17, 2019, and filed with Secretary of State on July 18, 2019.

ICC INTERNATIONAL CODE COUNCIL®

People Helping People Build a Safer World®

GET UP TO CODE FAST IN CALIFORNIA

with ICC Significant Changes guides

SIGNIFICANT CHANGES TO THE CALIFORNIA CODES, 2019 EDITIONS

In the fast-paced world of construction, it is critical to have a solid understanding of the latest updates to the California Codes. This series of full-color, illustrated guides will help you gain a clear knowledge of the code itself, what areas have been updated, how they have been revised, and the rationale behind those changes.

Each easy-to-use resource focuses on provisions that have special significance, are utilized frequently, or have had a change in application between the 2016 and 2019 editions. Each change is accompanied by a photograph, real-world application example, table or illustration to assist and enhance readers' understanding.

FEATURES:

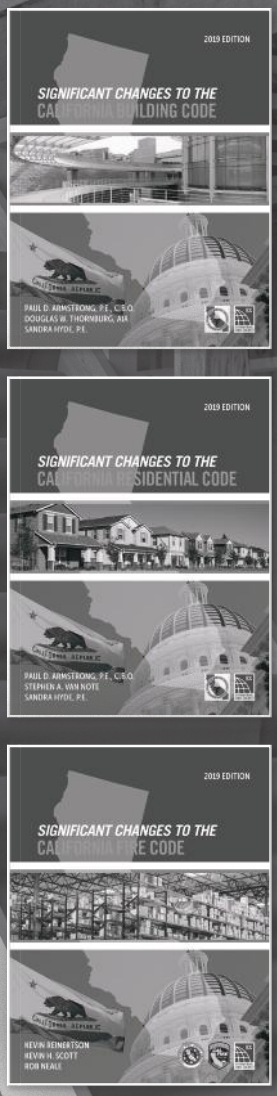
- a full-color photograph, table or example illustrates each change
- detailed table of contents, part summaries and change summaries
- clear notation of deleted code language and new code text
- logical organization that follows the layout of the code

SIGNIFICANT CHANGES TO THE CALIFORNIA BUILDING CODE, 2019
SOFT COVER #5521S19 | **PDF DOWNLOAD** #8950P864

SIGNIFICANT CHANGES TO THE CALIFORNIA RESIDENTIAL CODE, 2019
SOFT COVER #5526S19 | **PDF DOWNLOAD** #8950P865

SIGNIFICANT CHANGES TO THE CALIFORNIA FIRE CODE, 2019
SOFT COVER #5592S19 | **PDF DOWNLOAD** #8950P866

COMING SOON!
SIGNIFICANT CHANGES TO THE CALIFORNIA ENERGY CODE, 2019
SOFT COVER #5523S19 | **PDF DOWNLOAD** #8950P867



Order your Significant Changes guides today!
1-800-786-4452 | www.iccsafe.org/books

19-17586

Easy to use. Easy to access.

Municipal content when you need it, where you need it.

General Code, LLC, the newest member of the ICC family of companies, brings the higher standard of codification services and content management solutions to over 3,000 municipal governments.

Expert Municipal Codification Services that provide:

- > Accurate and enforceable municipal and Zoning Codes
- > Supplementation and maintenance of updates to local ordinances and Zoning Codes
- > A smarter, user-friendly experience for online Codes and other public documents
- > Legal analysis and consultation

Land and Records Management Solutions that provide:

- > Parcel Management and code enforcement software with Municity®
- > Customized enterprise content management and eForms processing powered by Laserfiche®
- > Process automation, including FOIA requests, accounts payable, contract management, compliance tracking, and asset management
- > Records management automation for managing records retention and disposition

generalcode.com | 800.836.8834

GENERAL CODE

A Member of the ICC Family of Companies

19-16588