

**INITIAL STATEMENT OF REASONS
FOR PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT**

**REGARDING PROPOSED CHANGES TO THE
CALIFORNIA ADMINISTRATIVE CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 1, CHAPTER 6 & 7**

The Administrative Procedure Act (APA) requires that an Initial Statement of Reasons be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

Pursuant to SB 1953 (Chapter 740, Statute 1994), all general acute care hospitals in service prior to January 1, 2000, were required to evaluate each hospital building to determine the structural and nonstructural performance categories based on their expected seismic performance. Hospital buildings were evaluated to specific Structural Performance Categories (SPC) and these categories are described in Table 2.5.3 of Title 24, Part 1, Chapter 6. Hospital buildings rated SPC-1 were constructed pre-1973, prior to the Alfred E. Alquist Hospital Facilities Seismic Safety Act (HSSA), and are at risk of collapse in an earthquake. These hospital buildings must be retrofitted, replaced or removed from acute care service by January 1, 2008, unless an extension has been granted to 2013, 2015, or 2020. The SPC-2 hospital buildings were also constructed pre-1973, and may not be operational or repairable following an earthquake but do not significantly pose a risk to life. These buildings must be retrofitted or replaced by January 1, 2030. The SPC-3 and SPC-4 buildings were built to the HSSA requirements, but because of certain features, may not be operational or repairable after an earthquake. Hospital buildings rated as SPC-3, SPC-4, or highest rated SPC-5 can be used through January 1, 2030 and beyond.

Based on the seismic evaluations, a significant number of hospital buildings are rated SPC -1. The prescriptive procedure used for these evaluations was based on Federal Emergency Management Agency's (FEMA) "FEMA 178: NEHRP Handbook for the Seismic Evaluation of Existing Buildings (1992)". Since the publication of FEMA 178, significant progress has been made in understanding the seismic performance of buildings, especially in performance based design.

STATEMENT OF SPECIFIC PURPOSE:

The Office of Statewide Health Planning and Development (OSHPD) is proposing to update current requirements using Advanced Engineering Building Module (AEBM) of Hazards U.S. Multi-Hazard (HAZUS-MH), as permitted by SB 499 (Chapter 601, Statutes of 2009), to reassess the SPC-1 buildings and reprioritize them based on their level of seismic risk. Those SPC-1 buildings that exceed the maximum allowable risk would have to comply with the 2013/2015 deadlines. Buildings that are determined to be at a lower seismic risk will be reclassified to SPC-2 and would have until 2030 to comply with seismic safety requirements.

HAZUS/AEBM, which is based on performance-based pushover analysis, is a state-of-the-art methodology to assess the collapse probability of the SPC -1 buildings for potential reclassification to SPC 2. Hospital owners have the option of requesting a collapse probability assessment, it is not mandatory.

The proposed regulations will amend Title 24, Part 1, Chapter 6 by updating the HAZUS standardized methodology requirements that estimates potential losses from earthquakes. HAZUS was developed by FEMA under contract with the National Institute of Building Sciences. This program uses mathematical formulas and information about building stock, local geology, the location and size of potential earthquakes, and other information to estimate losses from a potential earthquake. It also uses state-of-the-art geographic information system (GIS) to map and display ground shaking and the pattern of building damage and economic loss estimates for buildings.

Building specific performance parameters in the HAZUS methodology and software are based on:

1. Building type,
2. Seismic design level,
3. Quality of construction, and
4. Site seismicity and soil type.

Amendments to Chapter 6 address changes to HAZUS parameters and other building specific evaluation

requirements along with regulatory framework for using the procedure for collapse probability assessment and possible reclassification.

The proposed regulations will update HAZUS methodology to analyze and evaluate all or a portion of approximately 835 SPC-1 rated hospital buildings to determine their relative risk of collapse following an earthquake. OSHPD will notify the hospitals of the opportunity to receive a collapse probability assessment using the HAZUS methodology. The hospital owner may:

1. Do nothing and the building will remain at the SPC-1 level, or
2. Submit an evaluation report based on the existing regulations in Title 24, Part 1, Chapter 6, if it had not already been submitted, and a supplemental report prepared by a structural engineer certifying the existence or absence of the building deficiencies delineated in the proposed regulations, as applicable, and information identifying the building type (structural system) and height of the building.

Upon receipt of this information, OSHPD will perform a collapse probability assessment of the building using the updated HAZUS process and notify the hospital owner of the final SPC rating of either SPC-1 or SPC-2.

The proposed regulations will also revise NPC deadlines for consistency with statutory mandate for the SPC/NPC compliance deadlines established pursuant to SB 2006 (Chapter 851, Statutes of 2000), SB 1661 (Chapter 679, Statutes of 2006), SB 306 (Chapter 642, Statute of 2007), and SB 499 (Chapter 601, Statute of 2009).

Additionally, the proposed regulations will require the hospital owner to pay a fee to cover the costs of the HAZUS assessment of an SPC 1 building.

RATIONALE:

California Administration Code Title 24, Part 1, Chapter 6

Section 1.4.5.1.2.2 – Submittal deadline is revised pursuant to statutory requirements of SB 499 (Chapter 601, Statutes of 2009).

Section 1.4.5.1.2.2.2.2 – Two additional significant structural deficiencies are added for consistency with higher cut-off for probability of collapse in Table 2.5.3.

Section 1.4.5.1.2.3 - This section will also require that certain nonstructural components that pose highest risk to life will be retrofitted to make the building life safe to occupant.

Section 1.5.2 – NPC deadlines are revised for consistency with requirements contained in SB 2006 (Chapter 851, Statutes of 2000), SB 1661 (Chapter 679, Statutes of 2006), SB 306 (Chapter 642, Statutes of 2007), and SB 499 (Chapter 601, Statutes of 2009).

Section 1.5.2.7 – The language that was adopted as emergency regulations by the California Building Standards Commission on January 12, 2010, is being revised to delete a reference to statute and add clarifying language regarding an extension to compliance with NPC 3 requirements for certain hospital buildings.

Table 2.5.3 – Acceptable collapse probability, as obtained by HAZUS analysis, is defined in this table. A collapse probability of 1.20% or less will reclassify the building from SPC 1 to SPC 2 based on recommendation from the Hospital Building Safety Board (HBSB) on the basis of analysis of bench mark study of existing SPC-2 hospital buildings.

Section 11.01.3 – This section codifies OSHPD's practice of accepting an engineering report instead of NPC 2 evaluation report required by Section 1.4.5.1.1 in accordance with CAN 1-6-1.4.5.1.

Appendix H to Chapter 6, Table A6-1 – Table A6.1 is updated for consistency with the addition of two significant structural deficiencies in Section 1.4.5.1.2.2.2.2.

Title 24, Part 1, Chapter 7

Section 7-133 (k) – This section will require that hospital owners pay a fee for the actual costs of the Office's services associated with the seismic collapse probability assessment of an SPC 1 hospital building.

TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:

HAZARDS U.S. (HAZUS) Multi-Hazard (MH) Loss Estimation Methodology, Earthquake Model is described in the following manuals:

- 1) HAZUS- MH Technical Manual, Developed by Department of Homeland Security, Emergency Preparedness and Response Directorate, FEMA Mitigation Division, Washington D. C.
- 2) HAZUS-MH Advanced Engineering Building Module (AEBM) Technical and User's Manual, Developed by Department of Homeland Security, Emergency Preparedness and Response Directorate, FEMA Mitigation Division, Washington D. C.

CONSIDERATION OF REASONABLE ALTERNATIVES

The proposed regulations comply with the statutory requirements of SB 499 (Chapter 601, Statutes of 2009).

REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.

There will be no adverse impact on small business.

FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS.

The regulations proposed will have no significant adverse impact on business, since they are less restrictive than current regulations.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

These regulations do not duplicate or conflict with Federal regulations.