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TECHNICAL HANDBOOK FOR  
ENVIRONMENTAL HEALTH AND ENGINEERING  
VOLUME III - HEALTH CARE FACILITIES DESIGN AND CONSTRUCTION  
PART 21 - DESIGN CRITERIA AND STANDARDS

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## **CHAPTER 21-9 SEISMIC STANDARDS**

### **21-9.1 INTRODUCTION**

This chapter sets forth the guidelines for implementation of seismic safety into the facilities programs managed by the Indian Health Service (IHS). Included are Federally Assisted and leased facilities as well as new construction programs and the existing IHS Real Property Inventory.

### **21-9.2 BACKGROUND**

The "Earthquake Hazards Reduction Program Act of 1977" was enacted by Congress to reduce risks to life and property from future earthquakes in the United States, including territories and possessions, through the establishment and maintenance of an effective earthquake hazards reduction program. Recent amendments to the act also require that standards be adopted for existing Federally owned buildings.

### **21-9.3 NEW FACILITIES**

#### **A. Executive Order 12699**

On January 5, 1990 the President signed Executive Order 12699, "Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction." The Executive Order required that all New Federally owned or leased buildings meet seismic safety standards which are outlined in paragraph 21-9.3B.

#### **B. Minimum Seismic Standards for New Construction**

Based on the recommendations of the Interagency Committee for Seismic Safety in Construction (ICSSC), each of the model codes listed below has been found to provide a level of seismic safety substantially equivalent to that provided by use of the 1988 National Earthquake Hazard Reduction Program (NEHRP) Recommended Provisions:

- (1) 1994 International Conference of Building Officials (ICBO), Uniform Building Code
- (2) 1993 Supplement to the Building Officials and Code

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Administrators (BOCA) National Building Code

- (3). 1994 Amendments to the Southern Building Code Congress  
International (SBCC) Standard Building Code

The revisions to these model codes that are substantially equivalent to the current edition of the NEHRP Recommended Provisions, can be considered to be appropriate for implementing the order. State, county, local, or other jurisdictional building ordinances adopting and enforcing these model codes in their entirety, without significant revisions or changes in the direction of less seismic stringency, are also deemed adequate for implementing the Order. In all other circumstances, substantial equivalency of the ordinances to the seismic safety level contained in the NEHRP Recommended Provisions must be determined by the responsible agency before the Order can be considered as having been properly implemented.

#### **21-9.4 EXISTING FACILITIES**

A. Executive Order 12941

On December 1, 1994 the President signed Executive Order 12941, "Seismic Safety of Existing Federally Owned or Leased Buildings." The Executive Order requires all agencies to review their inventory and report to FEMA, the cost of mitigation for all facilities in their inventory four years from the date of the order. In addition, those facilities that pose an unacceptable risk shall be upgraded or removed from the inventory.

B. Seismic Standards for Federally Owned and Leased Facilities

As required by the Executive Order, standards prepared by the Interagency Committee for Seismic Safety in Construction (ICSSC) are to be used for screening and evaluating the existing real property inventory. This standard is known as ICSSC RP-4 or NISTIR 5832, entitled, "Standards of Seismic Safety for Existing Federally Owned or Leased Buildings".

C. Inventory Screening and Evaluation

The Executive Order requires all Federal Agencies to screen their respective Real Property Inventories and take the following action:

- Identify buildings that pose life-safety risks to occupants and

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mitigate those risks.

- Determine the costs of corrections of seismic deficiencies for the inventory and report results to the Federal Emergency Management Agency.