ASCE 7-02/05 reference section(s)		2001 CBC reference section(s)	Other standard reference section(s)
ASCE 7-02	ASCE 7-05	2210	ANSI/AISC 341-02/05 and 341s1-05
9.8	14.1	2211	ANSI/AISC 360-05
A9.8		2212	AISC 358
		2213	2003 IBC section 2205.2.2/2205.3.1
			2006 IBC, section 2205.2

Adoption Status

The current standard for earthquake design of steel structures is AISC 341-05, the 2005 AISC (American Institute of Steel Construction) *Seismic Provisions for Structural Steel Buildings* (AISC 2005a). The 2005 AISC Seismic Provisions document was written to be consistent with ASCE 7-05.

ASCE 7-02, the 1997 UBC, and the 2001 CBC all cite older versions of this AISC document as reference standards:

- ASCE 7-02 section 9.8 cites the 1997 Seismic Provisions through Supplement No. 2 (AISC 1997; 1999a; 2000)
- 1997 UBC sections 2210 and 2211 revise the 1992 provisions for Load and Resistance Factor Design (AISC1992), and sections 2212 and 2213 retain the historic provisions of the UBC for Allowable Stress Design.
- For structures regulated by local building officials, the 2001 CBC matches the 1997 UBC, except as modified by locally adopted amendments.
- The 2003 IBC (section 2205.2.2 and 2205.3.1) adopts the 2002 AISC provisions as its earthquake design standard for steel and composite construction.
- The 2006 IBC section 2205.2, and ASCE 7-05 section 14.1.1 adopt the 2005 AISC provisions as their earthquake design standards.

The SEAOC Seismology Committee recommends the 2005 AISC Seismic Provisions for use by California engineers and for adoption as an alternative standard by local building officials. Absent a local amendment referencing the 2002 or 2005 Seismic Provisions, an engineer may request a variance from the building official in order to use the current standard.

Local adoption. Some California jurisdictions, notably those participating in the Tri-Chapter Uniform Code Adoption and Interpretation Program (Tri-Chapter 2002) in the San Francisco Bay Area, and the City of Los Angeles, have amended the California Building Code to incorporate the 1997 AISC Seismic Provisions through Supplement No. 2 (AISC 1997; AISC 1999a; AISC 2000). Their amendments typically delete CBC Chapter 22 Division V and replace Division IV with slightly modified versions of AISC Seismic Provisions Parts I and III. In addition, these local amendments have modified CBC Table 16-N to make the seismic design parameters for various moment-resisting frame systems consistent with the 2003 NEHRP Provisions (BSSC 2004).

With revisions to Chapter 22A, the CBC has essentially made the same update of reference standards for buildings regulated by State of California agencies including the Office of Statewide Health Planning and Development, the Division of the State Architect, and the Building Standards Commission (ICC 2004a; 2004b).

Historical Background

The SEAOC Seismology Committee had the lead role in developing UBC seismic provisions for steel structures from the 1950s through the 1980s, and NEHRP led the more recent nationalization process. To support the NEHRP effort, the American Institute of Steel Construction began the development of a set of seismic design provisions specifically for steel buildings. The first edition was developed under the direction of Professor Egor Popov and published in 1992 (AISC 1992). The 1992 AISC Seismic Provisions were similar in scope and content to the UBC