

2007 NFPA 13 Chapter 9 is a Practical Solution To Conform to the I-Codes

2007 NFPA 13 Chapter 9 was aligned to conform with SEI/ASCE 7

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The I-Codes do not recognize the 2002 edition of NFPA 13 as the appropriate standard to address seismic force on fire sprinkler systems.

The I-Codes recognize and promote the 2007 edition of NFPA 13 as the appropriate standard to satisfy their fire sprinkler system seismic design requirements. Their interim amendment cycle following the issuance of the 2006 edition of the International Building Code (IBC) endorsed the earthquake protection provisions of the 2007 edition NFPA 13 Chapter 9. The amendment to IBC Section 1613.6.3 states, “Automatic fire sprinkler systems designed and installed in accordance with 2007 NFPA 13 shall be deemed to meet the requirements of Section 13.6.8 of ASCE 7.” This endorses the approach of NFPA 13 to meet the seismic load and story drift requirements of the American Society of Civil Engineers’ ASCE Standard 7-05, Minimum Design Loads for Buildings and Other Structures.

In conformance with NEHRP, FEMA and SEI/ASCE 7, the Technical Committee on Hanging and Bracing specifically revised 2007 NFPA chapter 9 to address the following:

1. Address horizontal pipe deflection
2. Revise sway brace fastener loads – including prying effect
3. Define the ability of the pipe component of a sway brace assembly
4. Require seismic Protocol – specific to each site per the USGS survey
5. Create C_p to correlate with S_s
6. Review restraint criteria of branch lines

When jurisdictions reference prior editions of NFPA 13, I propose a simple and practical solution. Reference 2007 Chapter 9 in its entirety as the appropriate design document to align system hanging and bracing requirements of NFPA 13 with SEI/ASCE 7 and the applicable I-Codes. This should be of reference to **any** prior edition of NFPA 13 in conformance with the above.

As of this date, Chapter 9 of 2007 NFPA 13 will completely solve all building code alignment problems with one inclusive simple solution. Please remember that the NFPA 13 defines a sprinkler system as an emergency system, and thus, the axiom “simplicity enhances reliability” becomes even more germane.