

## U.S. Fire Administration / National Fire Academy

**Warning: Hot Coffee!****Topic: Multifamily Dwelling Sprinkler Protection**

**Learning objective:** The student shall be able to explain the limitations on the use of NFPA 13R sprinkler systems as a means to increase building area.

The late Boston Celtics coach Red Auerbach once was quoted as saying, “It’s not what you tell them...it’s what they hear.” A change to the recently released 2007 Edition of NFPA 13R, *Standard for the Installation of Sprinkler Systems in Multi-Family Residential Occupancies up to and Including Four Stories in Height*, makes it especially important that, as code officials, you make “what you tell them” very clear.

A new paragraph in Section 4, General Requirements, states, “**Sprinklered Throughout.** A building provided with a fire sprinkler system designed and installed in accordance with the requirements of this standard, including its allowable omissions, shall be considered fully sprinklered throughout.”

While this allows some specific exceptions--often called “trade-offs”--from building code requirements, code officials must express clearly to their clients that there are limits to the exceptions. For example, the *International Building Code*<sup>®</sup> allows a 200-percent increase in allowable area “where a building is equipped throughout with an approved automatic sprinkler system . . . [emphasis added].” The condition that permits this allowance, though, is that the sprinkler system must be installed in accordance with IBC Section 903.3.1.1, which specifically requires that the sprinkler system meet the design criteria of NFPA 13, *Automatic Sprinkler Systems*, not NFPA 13R. Fire protection systems designed in accordance with NFPA 13 generally provide a greater level of building coverage than those that comply with NFPA 13R.

Confusing? It can be. While the building codes allow specific alternatives for some so-called “partial” sprinkler systems, they are not all-encompassing. The owner, architect, and code official must have a clear understanding of how NFPA 13R and NFPA 13 system designs differ, and how and where alternatives can be employed.



A sprinkler system designed and installed in accordance with NFPA 13R may not be used to increase the allowable area of a multifamily residential occupancy.

Be certain you tell them the correct information; if they don’t hear you, that’s another story.

For additional information, refer to *International Building Code*<sup>®</sup>, Chapter 5; or NFPA 5000<sup>®</sup>, *NFPA Building Construction and Safety Code*<sup>®</sup>, Chapter 7.