The City of Des Moines adopted the 2015 International Building and Fire Codes effective March 1st. The 2015 IFC and IBC reference the 2013 versions of NFPA 13 and NFPA 72. In the past we have discussed the relevant changes to the 2015 IBC and IFC, so now we thought we’d discuss the changes to the 13 and 72 that we believe will most affect designs. Because of the nature of the presentation we are going to break it into 2 meetings on the 17th. The first at the normal 8 AM start time will cover changes to NFPA 13. The second, at 9 AM will cover NFPA 72. Please feel free to attend one or both sessions.

**Significant Changes to NFPA 13 and 72 2013**

A number of changes have been made in the system chapter “Emergency Communications Systems” including the following:

- The addition of specific references to documentation requirements in the new documentation chapter;
- The addition of a requirements to post instructions for the use of microphones in making voice announcements and for test messages to specifically state “this is a test;”
- The addition of ANSI/UL 2572, Standard for Mass Notification Systems, in the requirement for the listing of mass notification systems control units;
- The addition of a requirement to provide message templates for each message developed for scenarios of the emergency response plan;
- Clarification of requirements for the use of live voice instructions in emergency voice/alarm communication systems upon release of the microphone;
- Updated in-building mass notification system documentation requirements to provide the owner with a written sequence of operations and a copy of the site-specific software;
- Updated requirements for voice message priority in in-building mass notification systems;
- Added provisions on the use of textual and graphical visible notification appliances for primary or supplemental notification; and,
- Updated requirements for the location and accessibility of emergency command centers.

Changes have been made in the system chapter “Supervising Station Alarm Systems” addressing alarm signal verification, alarm signal content, and restoration of signals including the following:

- Updated requirements for supervision intervals for both single and multiple communications paths;
- Changes to the types of transmission means that can be used for the second channel of a digital alarm communicator transmitter (DACT);
- Added provisions for signal processing equipment at supervising stations;
- Updated requirements for secondary power for shared communications equipment used with performance-based technologies;
- Added annex material to provide examples of technologies that fall under the requirements for performance-based technologies; and,
- Removed requirements addressing digital alarm radio systems.

Several changes have been made in systems chapter “Single- and Multiple-Station Alarms and Household Fire Alarm Systems,” including the following:

- Modified the performance requirements for the low frequency alarm signal;
- Updated the provisions for visible and tactile notification so they apply to those with moderately severe as well as profound hearing loss;
- Changed the secondary power capacity requirements for smoke and heat alarms to 7 days instead of 24 hours;
- Introduced two new separate provisions addressing smoke alarm and smoke detector resistance to common nuisance sources in general, and to common cooking nuisance sources when installed within 20 ft (6 m) of a fixed cooking appliance;
- Added provisions to address the connection of sprinkler waterflow switches to multiple-station alarms;
- Added provisions to require two simultaneous or sequential operations to activate a keypad fire alarm signal; and,

The provisions for testing of smoke alarms (in the testing chapter) have been revised to eliminate the requirement for sensitivity testing.

*This newsletter drew upon Issue 64: NFPA-72 2013 – Most Significant Changes By Lee Richardson*
A Few of the Changes to NFPA 13

CPVC Compatibility
The new language requires that, where corrosion inhibitors are used in combination systems that include coated steel pipe and CPVC pipe, the coating must be tested for compatibility with CPVC. Furthermore, the new requirements state that when CPVC pipe is used in combination systems using steel pipe, cutting oils and lubricants used in the fabrication of the steel piping shall be compatible with CPVC materials.

Antifreeze and Freeze Protection Requirements
The tentative interim amendments (TIAs) that were approved by the Standards Council in March 2011 were reviewed by the technical committees responsible for NFPA 13, NFPA 13R, and NFPA 13D for inclusion in the 2013 editions of the standards. With the exception of a revised definition for premixed antifreeze solution, the requirements in the TIAs, including the antifreeze concentration limits and testing criteria, were accepted.

Sprinkler Requirements for Elevator Hoistways and Elevator-Related Spaces
Sprinkler protection requirements for elevator hoistways and elevator machine rooms have never been correlated between the model building codes, life safety codes, elevator codes, and sprinkler design standards. The 2013 edition of NFPA 13, however, takes a large step towards getting these documents in harmony.

Sprinklers in Small Bathrooms
The 2010 edition of NFPA 13 allows sprinklers to be omitted from dwelling unit bathrooms that are less than 55 square feet (5 square meters), are not located in limited-care facilities, or do not open on to a public corridor. The 2013 edition of NFPA 13 will see a significant change to that concept, as this allowance will now only apply to dwelling units in hotels and motels. Apartment buildings designed with NFPA 13 systems with bathrooms less than 55 square feet (5 square meters) must now have sprinkler protection where they were not required to do so in previous editions.

Shadow Areas
NFPA 13R does not have the three- and four-times rules, and the technical committee found value in quantifying maximum allowable dry areas for sprinklers. In addition to a definition for a shadow area, the committee specified that shadow areas are permitted in the protection area of a sprinkler as long as they do not exceed 15 square feet (1.4 square meters) per sprinkler.

New Storage Chapter
The 2013 edition of NFPA 13 will include a new storage chapter dedicated to performance-based protection approaches for storage applications. The new Chapter 21, “Alternative Sprinkler System Designs for Chapters 12 Through 20,” provides manufacturers and designers with the information necessary to implement an alternative design approach.

ESFR and CMSA Sprinklers
Another loop closed in the 2013 edition of NFPA 13 surrounds the use of control mode specific application (CMSA) and early suppression fast response (ESFR) sprinklers in light- and ordinary-hazard occupancies.

*This newsletter drew upon 131 NFPA Journal®, May/June 2012 By Matt Klaus and Issue 63: Changes to the 2013 edition of NFPA 13 By Roland J. Huggins, P.E.