



e-TechNotes

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Changes in Installation Criteria Proposed for 2013 Edition of NFPA 13

As reported previously, the NFPA Sprinkler Committees will officially report proposed changes to the 2013 editions of their standards to the NFPA membership at the NFPA Annual Meeting scheduled for Las Vegas in June. Aside from issues of hanging and bracing, here are some of the most significant proposed changes relating to installation criteria within NFPA 13:

2.3.3 and Tables 6.3.1.1 and 6.4.1 – References to ASTM standards for brass pipe and cast bronze threaded fittings are being added to the tables of acceptable piping and fittings.

A.4.3(3) – a new annex section will warn that *“Recycled or reclaimed water used in a sprinkler system should not have contaminants in the water that are combustible or that will have a detrimental effect on the sprinkler system performance or the life of the sprinkler system.”*

4.5 – A new section will state *“Sprinkler system components shall not be used to support non-system components unless expressly permitted by this standard.”*

6.1.1.2.1 – A new section will clarify that *“Valve components including valve trim, internal parts, gaskets and the like) shall not be required to be individually listed.”* This was done in response to requirements from some AHJs that replacement parts be listed.

6.3.6 – This section will be retitled “CPVC Plastic Pipe” and include some new subsections addressing CPVC compatibility:

6.3.6.2 When CPVC pipe is used in combination systems utilizing steel piping internally coated with corrosion inhibitors and CPVC piping, the steel pipe coating shall be investigated for compatibility with CPVC by a testing laboratory.

6.3.6.3 When CPVC pipe is used in combination systems utilizing steel pipe that is not internally coated with chemical corrosion inhibitors, no additional evaluations are required.

6.3.6.4 When CPVC pipe is used in combination systems utilizing steel pipe, cutting oils and lubricants used for fabrication of the steel piping shall be compatible with CPVC materials.

6.3.6.5 Fire stopping materials intended for use on CPVC piping penetrations shall be investigated for compatibility with CPVC materials.

6.3.6.6 Other construction materials such as paint, electrical and communication wiring, thread sealants, gasket lubricant shall not come in contact with CPVC unless they have been evaluated as compatible with CPVC materials by a testing laboratory.

6.2.1 – Due to concern for potential damage of a sprinkler operating element or water seal, a new subsection will prevent the reinstallation of any sprinkler removed from the system, even if done

for purposes of an NFPA 25 internal piping inspection: “6.2.1.1 When a sprinkler has been removed for any reason it shall not be reinstalled.”

6.2.7.4 – A new subsection will clarify that “*The use of caulking or glue to seal the penetration or to affix the components of a recessed escutcheon or concealed cover plate shall not be permitted.*”

7.1.1 et al – Pressure gauges will no longer be required to be listed.

7.2.3.1.1 – A new subsection will more clearly state the requirement that dry pipe systems protecting dwelling unit portions of any occupancy must be capable of discharging water from the system test connection in not more than 15 seconds from the time of a fully opened test connection.

7.2.4.8.2 – A new subsection will clarify that a listed antiflooding device is not required for a quick-opening device if it either built-in antiflooding design features or is otherwise listed or approved without the use of an antiflooding device.

8.4.5.3 – This section will be aligned with Section 8.3.3.2, stating that where listed residential sprinklers are installed within a compartment, all sprinklers within the compartment will be required to be listed residential sprinklers.

8.4.9.1(b) – A new Table will specify the minimum length of barrel of a dry sprinkler required to be exposed to a heated environment based on the temperatures of both the cold and heated environments.

8.5.5.3.1.1 – A new subsection will clarify that sprinkler protection is required beneath open grate flooring over 4 ft in width regardless of the percentage of openings.

8.6.4.1.4 – Revisions within this section will clarify the intent to apply the special spacing limits for sprinklers under slopes having a pitch of 4 in 12 or greater only to combustible concealed spaces of wood joist or wood truss construction with members “less than 3 ft on center,” as opposed to the current wording of “3 ft or less on center.”

8.6.3.4.2, 8.7.3.4, 8.8.3.4.2, 8.9.3.4, 8.10.3.3 et al – Baffles required between sprinklers spaced less than 6 ft apart will no longer be required to be placed “midway between sprinklers” and will be required to be of “solid and rigid” material rather than of “noncombustible or limited combustible material.”

8.10.2.2 – This section, which calls for a special listing for residential sprinklers installed on a slope greater than 2 in 12, is being deleted. A recent TIA allows all residential sprinklers to be utilized in ceilings sloped up to 8 in 12 (*see eTechNotes No.219 –August 30, 2011*).

8.15.1.2.7 – Clarification will be added that, when sprinklers are omitted from a concealed space on the basis of filling the space with noncombustible insulation, “*A maximum 2 inch air gap at the top of the space shall be permitted.*”

8.15.3.2.3.1 – It will be clarified that a sprinkler is not required at the bottom of a stairwell if the space under the stairs beneath the bottom landing is blocked off so that storage cannot occur.

8.15.5.3 – Automatic sprinklers will be permitted to be eliminated from elevator machine rooms, elevator machinery spaces, control spaces, or hoistways of traction elevators installed in accordance with NFPA 101 or the applicable building code if all of the following conditions are met:

- (1) The elevator machine room, machinery space, control room, control space or hoistway of traction elevator is dedicated to elevator equipment only*
- (2) The elevator machine room, machinery space, control room, control space or hoistway of traction elevators are protected by smoke detectors, or other automatic fire detection, installed in accordance with NFPA 72*
- (3) The elevator machine room, machinery space, control room, control space or hoistway of traction elevators is separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire resistance rating of not less than that specified by the applicable building code*
- (4) No materials unrelated to elevator equipment are permitted to be stored in the elevator machine rooms, machinery spaces, control rooms, control spaces or hoistways of traction elevators*
- (5) The elevator machinery is not of the hydraulic type*

8.15.5.6 – Sprinklers will be required at the top and bottom of elevator hoistways only where elevators use combustible suspension means such as non-circular elastomeric or polyurethane coated steel belts, but sprinklers will not be required if the suspension means provide not less than a FT-1 rating when tested to the vertical burn requirements of UL 62 / UL 1581.

8.15.6.1 – The requirement for sprinklers under combustible ground floors will be extended to include spaces under “combustible exterior docks and platforms.”

8.15.19.4.4 and 8.15.19.5.4 – The ban on the use of pipe nipples less than 1-inch diameter to revamp systems where seismic design is required will be limited to situation involving armovers. Smaller diameter pipe nipples will be permitted during revamping involving straight drops.

8.16.1.5.3 et al – Multi-story buildings exceeding two stories in height will be required to have floor control valves, check valves, main drain valves and flow switches for isolation, control, and annunciation of water flow on each floor level. Section 8.16.1.5.4 will state that the top floor of a building can be supplied by piping on the floor below. Section 8.16.1.5.5 will state that the floor control assemblies are not required where the total area of all floors combined does not exceed the system protection area limits of Section 8.2.1. A new annex section will clarify that it is not the intent to require floor control valve assemblies in all multi-story buildings, such as multi-level condominiums or apartments under the control of a single owner or management firm.

8.16.1.6.3 – The separate indicating valves for in-rack sprinklers will be permitted to be arranged as sectional control valves “supplied from the ceiling sprinkler system where in-rack sprinklers are required and the racks including the adjacent aisles occupy 8,000 sq ft or less of the area protected by the ceiling sprinklers.”

8.16.4.1.1 – This section will be revised to read as follows: “*8.16.4.1.1 Where any portion of a system is subject to freezing and the temperatures cannot be reliably maintained at or above 40°F (4°C), the system shall be installed as a dry pipe or preaction system.*”

8.17.5.1.3(6) – A new subsection will clarify that “*Hose connections in non-storage occupancies that are not a part of a standpipe system shall be permitted to be supplied from ceiling sprinkler piping in the same area as the hose connection.*”

A. 12.1.3.4 – A new annex section will clarify that “batt insulation creates an effective thermal barrier and can be considered the ceiling/roof deck when determining the clearance to ceiling. The insulation needs to be installed in each pocket (not just above the sprinkler) and attached to the ceiling/roof in such a manner that it will not fall out during a fire prior to sprinkler operation.”

Note: As a correction to the previous issue of *eTechNotes* (No. 230 – January 17, 2012), the NFPA 13 Committee has not proposed to add a definition of “shadow area” to the standard, but has simply added the following guidance to the annex: “A.8.1.1(3) *Notwithstanding the obstruction rules provided in Chapter 8, it is not intended or expected that water will fall on the entire floor space of the occupancy. When obstructions or architectural features interfere with the sprinkler’s spray pattern such as columns, angled walls, wing walls, slightly indented walls, and various soffit configurations disrupt water discharging from a sprinkler and shadowed areas can occur. Where small shadowed areas are formed on the floor adjacent to their referenced architectural features, these shadowed areas are purely on paper and do not take into account the dynamic variables of sprinkler discharge.*”

Upcoming NFSA “Technical Tuesday” Seminar – February 7th

Topic: *Class I and III Standpipe Systems*

Instructor: *Jeff Hugo, CBO, NFSA Manager of Codes*

Date: *Tuesday, February 7, 2012 - 10:30 am EST*

This seminar will cover the rules for installing Class I and Class III standpipe systems. These rules come from several sources and will explore topics such as outlet location, hydraulic calculations, and pressure rules. Several common scenarios involving Class I and Class III standpipes will be discussed. Examples of calculation procedures will also be demonstrated. Attending this seminar will increase the understanding of when and where these systems are installed, and how to calculate them.

To register or for more information, click [HERE](#) or contact Michael Repko at (845) 878-4207 or e-mail to seminars@nfsa.org.

Layout Technician Training Course (2-week course)

Orlando, FL – February 6-17, 2012

Fishkill, NY – October 8-19, 2012

For more information, contact Nicole Sprague using Sprague@nfsa.org or by calling 845-878-4200 ext. 149 or click [HERE](#).

Upcoming In-Class Training Seminars

The NFSA training department also offers in-class training on a variety of subjects at locations across the country, and in recognition of the current recession has adopted a new reduced fee structure. Here are some upcoming seminars:

Feb 21	Salt Lake City, UT	Inspection, Testing & Maintenance for the AHJ
Feb 22	Salt Lake City, UT	NFPA 13, 13R & 13D Update
Feb 23	Salt Lake City, UT	Basic & Advanced Seismic
Feb 28	Charleston, SC	Inspection, Testing & Maintenance for the AHJ (<i>SPECIAL RATE!!</i>)
Mar 1	Raleigh, NC	Inspection, Testing & Maintenance for the AHJ (<i>SPECIAL RATE!!</i>)
Mar 6-8	Apple Valley, MN	3-Day Inspection & Testing for the Sprinkler Industry
Mar 6	Pataskala, OH	Inspection, Testing & Maintenance for the AHJ
Mar 7	Pataskala, OH	Hydraulics for Fire Protection
Mar 8	Pataskala, OH	Sprinkler Protection of Special Storage
Mar 13	Louisville, KY	Inspection, Testing & Maintenance for the AHJ (<i>SPECIAL RATE!!</i>)
Mar 13	Winston-Salem, NC	Hydraulics for Fire Protection
Mar 14	Winston-Salem, NC	Plan Review Policies & Procedures
April 10-11	Willoughby, OH	Two-Day NFPA 13 Overview
April 12	Willoughby, OH	Inspection, Testing & Maintenance

These seminars qualify for continuing education as required by NICET, and meet mandatory Continuing Education Requirements for Businesses and Authorities Having Jurisdiction.

To register for these in-class seminars, click [HERE](#). Or contact Michael Repko at (845) 878-4207 or e-mail to seminars@nfsa.org for more information.

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About the National Fire Sprinkler Association

Established in 1905, the National Fire Sprinkler Association (NFSA) is the voice of the fire sprinkler industry. NFSA leads the drive to get life-saving and property protecting fire sprinklers into all buildings; provides support and resources for its members – fire sprinkler contractors, manufacturers and suppliers; and educates authorities having jurisdiction on fire protection issues. Headquartered in Patterson, N.Y., NFSA has regional operations offices throughout the country. www.nfsa.org.