



Tuesday e-Tech Alert

September 19, 2006

No. 66

Drop-Out Ceilings Not Listed for use with Quick Response Sprinklers

NFPA 13 has long recognized the use of “drop-out ceilings”, with rules appearing as Section 8.14.13 in the 2002 edition of the standard. Drop-out ceilings must be specially listed for installation below sprinklers and installed in accordance with their listings. Such ceilings are generally made of expanded polystyrene with nominal 1 lb/ft³ (16 kg/m³) density and are intended to twist or shrivel from the early heat of a fire, thereby dropping out of the ceiling grid and allowing proper operation of the sprinklers above.

At present there is only one UL listed manufacturer, but FM Global has more than a dozen listed producers of the drop-out panels. Both laboratories have their own internal standards by which to test and list the products, such that they are satisfied that the products that are listed do not unduly compromise sprinkler performance. It should also be noted that among the tests applied to the panels by FM Global are tests conducted to ensure that the flow of water from sprinklers directly above the panels will not prevent their dropping due to heat from below.

It is important to recognize that the use of these panels does not waive other requirements of NFPA 13, such as the requirement that quick response or residential sprinklers be used in light hazard occupancies. The special provisions of Section 8.3.3.1 (2002 edition) that would allow continued use of standard response sprinklers in light hazard occupancies do not include the situation in which an ordinary hazard space is converted to light hazard. As industrial properties are changed to offices or residential lofts, the older standard response sprinklers would have to be changed to quick response or residential sprinklers, raising the question of whether the use of drop-out ceilings below such sprinklers is appropriate. This is significant since such conversions have traditionally been the primary application for the drop-out ceilings.

In August of 2003, recognizing the greater use of fast response sprinkler technology, UL added a requirement to its listing criteria for drop-out ceilings that “unless otherwise noted...drop-out ceilings are intended for use with standard response sprinklers only.” The sole UL-listed manufacturer of drop-out ceilings does not have a listing for use with quick response or any other sprinklers beyond traditional spray and old-style upright and pendent sprinklers. Although the FM Global Approval Guide does not specifically state the limitation to standard response sprinklers, staff engineer George Smith confirms that they do not recognize the use of these ceilings with fast response sprinklers.

What does NFPA 13 say on the matter? Section 8.14.13.2 states, “Special sprinklers shall not be installed above drop-out ceilings unless specifically listed for this purpose.” Although the current definition of “special sprinklers” in Sections 3.6.2.11 and 8.4.9.1 does not include quick response sprinklers, quick response sprinklers were defined as “a type of special sprinkler” back when this section was added to the standard in the 1987 edition, as were extended coverage sprinklers. As such, NFPA 13 clearly intended to preclude the installation of drop-out ceilings below quick response and extended coverage sprinklers unless they were specifically investigated for such use.

Upcoming NFSA “Technical Tuesday” Online Seminar

Topic: Commissioning and Acceptance of Systems

Instructor: Victoria B. Valentine, P.E, NFSA Manager of Product Standards

Date: September 26, 2006

Every system has to go through the acceptance process to begin its service. Commissioning fire sprinkler systems involves many hydrostatic and flow tests. These will be discussed along with the owner's certificate. Common situations that arise during the acceptance process will also be included.

Information and registration for this seminar is available at www.nfsa.org or by calling Dawn Fitzmaurice at 845-878-4200 ext. 133, email: dawn@nfsa.org.

Upcoming NFSA "Business Thursday" Online Seminar

Topic: Mold Remediation

Instructor: Buddy Dewar, NFSA Director of Regional Operations

Date: September 28, 2006

The objective of a mold remediation program is to utilize prevention techniques to minimize the potential for mold and fungal growth, identify, control and remediate areas containing fungal growth, and to prevent company claims for water damage caused by others. Many insurance providers have removed mold coverage from general liability policies and limited coverage may or may not be available for the subcontractor. The potential litigation path of mold incidents has been compared to that of the asbestos experience. Therefore, company mold remediation policies and procedures are essential to minimize liability exposure. Timely response to water intrusion incidents is critical and the proper mold remediation procedures will be presented.

Information and registration for this seminar is available at www.nfsa.org or by calling Dawn Fitzmaurice at 845-878-4200 ext. 133, email: dawn@nfsa.org.

2006 Basic and Advanced Technician Training, NICET Inspection Seminars

The NFSA is the only organization that offers two-week basic technician training seminars, 3-day advanced technician training seminars, and NICET-oriented inspection and testing review seminars at various locations across the United States. The 2006 schedule still includes the following dates and locations:

2-week Basic Technician Training

October 16-27, 2006 – Philadelphia, PA

3-day Advanced Technician Training

October 3-5, 2006 – Minneapolis, MN

3-day NICET Inspection and Testing Certification Review

November 14-16, 2006 – Anchorage, AK

For more information, contact Nicole Sprague using Sprague@nfsa.org or by calling 845-878-4200 ext. 149.

NFSA In-Class Training Opportunities

NFSA also offers in-class training on a variety of subjects at locations across the country. Here are some upcoming seminars:

Sept 20-21	Two-day NFPA 13 Overview & Intro to Plan Review	Dublin, OH
Sept 26	Standpipe Systems (1/2 day) AM	Kansas City, MO
Sept 26	Underground Piping (1/2 day) PM	Kansas City, MO
Sept 27	Pumps for Fire Protection	Kansas City, MO
Sept 28	Inspection, Testing & Maintenance	Kansas City, MO
Sept 26-27	Two-day NFPA 13 Overview & Intro to Plan Review	Seattle, WA
Sept 28	Hydraulics for Fire Protection	Seattle, WA
Oct 3-4	Two-day NFPA 13 Overview & Intro to Plan Review	Meridian, ID
Oct 5	Hydraulics for Fire Protection	Meridian,
ID		
Oct 3	Inspection, Testing & Maintenance	North Las Vegas,
NV		
Oct 4	Residential: Homes to High-Rise	North Las Vegas,
NV		
Oct 5	Standpipe Systems (1/2 day) (AM)	North Las Vegas,
NV		
Oct 5	Underground Piping (1/2 day) (PM)	North Las Vegas,
NV		
Oct 17-18	Two-day NFPA 13 Overview & Intro to Plan Review	Noblesville, IN
Oct 19	Inspection, Testing & Maintenance	Noblesville, IN
Oct 24	Introduction to Sprinkler Systems (1/2 day) (AM)	Southfield, MI
Oct 24	Standpipe Systems (1/2 day) (PM)	Southfield,
MI		
Oct 25	Hydraulics for Fire Protection	Southfield,
MI		
Oct 24	Introduction to Sprinkler Systems (1/2 day) (AM)	Willoughby, OH
Oct 24	Standpipe Systems (1/2 day) (PM)	Willoughby, OH
Oct 25	Sprinklers for Dwellings	Willoughby, OH
Oct 26	Pumps for Fire Protection	Willoughby, OH
Oct 26-27	Two-day NFPA 13 Overview & Intro to Plan Review	Southfield, MI
Nov 7	Sprinkler Protection for General Storage	Irvine, CA
Nov 9	Sprinkler Protection for Rack Storage	Irvine,
CA		
Nov 14-15	Two-day NFPA 13 Overview & Intro to Plan Review	Winston-Salem, NC
Nov 16	Hydraulics for Fire Protection	Winston-Salem, NC

For more information or to register, visit www.nfsa.org or call Michael Repko at 845-878-4207 or email: seminars@nfsa.org.

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In the promotion of the fire sprinkler concept, the National Fire Sprinkler Association represents all fire sprinkler industry interests including fire sprinkler contractors, manufacturers and suppliers of fire sprinklers and related equipment and fire protection professionals. Established in 1905, the National Fire Sprinkler Association provides publications, nationally accredited seminars, representation in codes and standards-making, market development, labor relations and other services to its membership. Headquartered in Patterson, New York, the National Fire Sprinkler Association has regional operations offices throughout the country.