

Tuesday e-Tech Alert December 18, 2007 Number 103

## **UL Interprets NFPA 13 to Allow Metal Deck Hanging Options**

The NFSA engineering staff has received numerous questions about listings given to hangers marketed for connection to metal decks. Many members have noted that the NFPA 13 (Section 9.2.1.4.1 in the 2007 edition) appears to spell out limitations in this area:

"9.2.1.4.1 Branch lines hangers attached to metal deck shall be permitted only for the support of pipe 1 in (25 mm) or smaller in size, by drilling or punching the vertical portion of the metal deck and using through bolts."

By contrast, some current UL listings allow pipe up to 4 inch (100 mm) diameter to be supported directly from metal decking. NFSA members have asked if UL has changed its long-standing policy that they will not list products in opposition to the requirements of NFPA 13.

According to George Laverick, UL's Principle Engineer for Extinguishers and Sprinkler Equipment, UL has not changed its policy. In fact, UL recently advised a manufacturer that it could not obtain a listing for pipe larger than 1 in (25 mm) intended to be connected through the vertical portion of metal deck, based solely on the wording of Section 9.2.1.4.1. However, UL feels free to list hanger types and arrangements not specifically addressed within NFPA 13 by virtue of the language that appears earlier in the chapter on hanging and bracing (Section 9.1.1.4.4 in the 2007 edition):

"9.1.1.4.4 Other fasteners shall be permitted as part of a hanger assembly that has been tested, listed, and installed in accordance with the listing requirements."

According to Mr. Laverick, the current listings for hangers to metal deck for pipe larger than 1-inch do not utilize the vertical portion of the deck as addressed within 9.2.1.4.1, but rather the horizontal portion of deck, and are based on physical testing that considers the thickness of metal. UL has been allowing such listings for approximately ten years.

Caution must still be used, since the UL listings commonly only cover part of a hanger manufacturer's product line. For example, the UL allowance to support  $1\frac{1}{2}$  inch (40 mm) pipe using a listed hanger that penetrates the horizontal portion of 22 to 16 gauge metal deck covers only the version manufactured for transition to 3/8-inch threaded rod, not the version for transition to 1/4-inch rod.

## NFSA Announces Technical Tuesday Onlines for 1st Half of 2008

For the first half of 2008, the NFSA "Technical Tuesday" Online Seminars will carry a "Systems Update" theme, focusing on recent changes in system requirements. In each of ten selected

subject areas, the seminars will feature an update on rules changes that are important to fire sprinkler contractors, technicians, and authorities having jurisdiction. The seminars will present information not only on the changes themselves, but in many cases on the research, deliberations and intentions behind the changes, which provide valuable insights needed for proper application.

| Date          | Topic                                      | Instructor                  |
|---------------|--|-----------------------------|
| Jan 29        | Wet Systems                                | Victoria B. Valentine, P.E. |
| <b>Feb 12</b> | Dry and Preaction Systems                  | Russell P. Fleming, P.E.    |
| Feb 26        | Antifreeze System Updates                  | Kenneth E. Isman, P.E.      |
| Mar 11        | NFPA 13R Systems-Outside the Dwelling Unit | Cecil Bilbo, Jr.            |
| Apr 1         | Foam Sprinkler Systems Update              | Russell P. Fleming, P.E.    |
| Apr 22        | Water Supply Systems                       | Cecil Bilbo, Jr.            |
| May 6         | <b>Exposure Protection Systems</b>         | Russell P. Fleming, P.E.    |
| <b>May 20</b> | Water Cooling Towers                       | Michael Friedman, P.E.      |
| <b>Jun 10</b> | Standpipes, Pressures and Pumps            | Kenneth E. Isman, P.E.      |
| <b>Jun 24</b> | The Extent of Systems                      | Jeff Hugo                   |

Because these seminars are being offered as a complete "Systems Update" program, a 30% discount is available when signing up for all ten seminars in the series.

Information and registration for this seminar series is available at <a href="www.nfsa.org">www.nfsa.org</a> or by calling Dawn Fitzmaurice at 845-878-4200 ext. 133 or email: <a href="dawn@nfsa.org">dawn@nfsa.org</a>.

## Second Session for February 2008 Two-Week Technician Training

Due to a large waiting list, a parallel technician training session will be conducted in Centennial, Colorado February 4-15, 2008. The list of planned two-week classes for 2008 is as follows:

February 4-15, 2008 (second session added)

April 7-18, 2008

August 4-15, 2008

October 13-24, 2008

November 10-21, 2008

Centennial, CO

Orlando, FL

Providence, RI

Chicago, IL

Houston, TX

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

Note: Due to the upcoming Tuesday holidays, NFSA's *Tuesday eTechAlert* will resume publication on January 8, 2008 with the "Best of December" EOD questions and answers. Happy Holidays!

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expressed herein are not intended, and should not be relied upon, to provide professional consultation or services. Please send comments to Russell P. Fleming, P.E. <u>fleming@nfsa.org</u>.

## 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.