NATIONAL FIRE SPRINKLER ASSOCIATION, INC.

Tuesday e-Tech Alert
November 27, 2007
Number 101

TIA to be Issued on NFPA 13 to Restore Beam Centerline Allowance

Although a Technical Correlating Committee ballot is still needed to confirm its action, the NFPA 13 Committee on Sprinkler System Installation Criteria has voted to support a Tentative Interim Amendment proposed by NFSA to correct an error in processing the 2007 edition of the standard. The proposed TIA would restore the provision that permits a sprinkler to be located directly over the lower chord of a truss or bar joist up to 8 inches wide, provided the sprinkler is at least 6 inches above the member. Here is the wording of the TIA:

TIA Log No. 896
Reference: 8.8.5.2.1.6
Comment Closing Date: September 17, 2007
Submitter's: Cecil Bilbo, Jr., National Fire Sprinkler Association, Inc.

1. Propose that 8.8.5.2.1.6 from the 2002 edition of the standard be inserted as 8.8.5.2.1.6 of the 2007edition of the standard and that the two subsequent sections be renumbered:

8.8.5.2.1.6 Sprinkler shall be permitted to be installed on the centerline of a truss or bar joist or directly above a beam provided that the truss chord or beam dimension is not more than 8 in. (203 mm) and the sprinkler deflector is located at least 6 in. (152 mm) above the structural member and where the sprinkler is positioned at a distance four times greater than the maximum dimension of the web members away from the web members.

Substantiation: The deletion of this section occurred as a result of proposals and comments that the NFSA submitted. We had never intended to make any change to this section of the standard. Our intent was to delete the allowance to put sprinklers halfway between wood trusses (old section 8.8.5.2.1.5) and renumber the allowance for putting sprinklers in the centerline of bar joists as new 8.8.5.2.1.5. When the committee decided to keep old 8.8.5.2.1.5 and modify it, there seems to be some confusion regarding which section was supposed to get modified. It is our firm belief that the wrong section was modified and the allowance for putting extended coverage sprinklers in the centerline of bar joists was inadvertently left out of the standard. We hope that the NFPA considers this an emergency because a standard installation practice that is both practical and functional has been removed without any justification and through what we believe to be a simple error in writing the committee statement.

Upcoming NFSA "Technical Tuesday" Seminar – December 11th

Topic: Special Storage Sprinkler Systems
Instructor: Cecil Bilbo, Jr., NFSA Director of Technical Services
Date: December 11, 2007

There have been numerous types of sprinklers listed for use in Storage Applications in recent years. Now there are entire systems listed for use in Storage Applications. This seminar will discuss the many options available and the history behind their development. From Large Orifice, to Large Drop, to ESFR, to Big Box, to Antifreeze, all of the available options on the market will be discussed. Also included will be a conversation about "surrounding and drowning" a fire. Understanding the limitations faced by all of these products will help you choose the best strategy for winning the next bid on a storage project.

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

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.
Feb 12	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	Exposure Protection Systems	Russell P. Fleming, P.E.
May 20	Water Cooling Towers	Michael Friedman, P.E.
Jun 10	Standpipes, Pressures and Pumps	Kenneth E. Isman, P.E.
Jun 24	The Extent of Systems	Jeff Hugo

The following are the descriptions for each class:

January 29, 2008 – **Wet Systems –** Victoria B. Valentine, P.E, Director of Product Standards – Basic/Intermediate

Wet-pipe sprinkler systems are the baseline type of sprinkler system. This seminar will review what makes a system a system. Common questions that arise such as how to define a system, how to define a riser and what are the functions of the system connections will also be addressed. Other items that will be included are system sizes, corrosion issues and pressure reducing valves.

February 12, 2008 – **Dry and Preaction Systems** – Russell P. Fleming, P.E., Executive Vice President – Intermediate

The 2007 edition of NFPA 13 incorporated some important new changes with regard to both dry pipe and preaction systems. The new rules affect water delivery times, pitching requirements, and freezer protection options. Discussion will also be included on system attributes that affect valve trip, water delivery time and other aspects of system performance. It will also address variations of preaction systems, including some that are not specifically addressed within NFPA 13.

February 26, 2008 – **Antifreeze System Updates –** Kenneth E. Isman, P.E, Vice President of Engineering – Intermediate

In the 2007 edition of NFPA 13, many changes were made regarding the use of antifreeze systems including the calculation techniques that are required to be used and the concentrations of solutions that are permitted. This seminar will provide an overview of antifreeze system requirements, review and explain the basis behind the changes in the 2007 edition, and provide examples of how to perform the new calculations.

March 11, 2008 – **NFPA 13R Systems – Outside the Dwelling Unit –** Cecil Bilbo, Jr., Director of Technical Services – Intermediate

NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, has two different levels of protection required. The protection requirements "inside the dwelling" can be less demanding than "areas outside the dwelling." Participants will learn what portions of a building need to follow the rules for areas outside of the dwelling. The correct type of sprinkler for these applications will be identified, as will the density and area requirements. There will be references to both NFPA 13 and NFPA 13R. Participants should be ready to move back-and-forth between these standards to gain a thorough understanding on when and how to identify these areas.

April 1, 2008 – **Foam Sprinkler Systems Update** – Russell P. Fleming, P.E., Executive Vice President – Intermediate

This seminar will focus on recent changes to the NFPA standards on foam and foam-water systems (NFPA 11 and 16). The presentation will include a discussion of the use of the Darcy-Weisbach formula for hydraulic calculations for piping carrying foam concentrate. Special attention will be given to the growing acceptance of fixed piping systems employing compressed air foam (CAF) technology.

April 22, 2008 – **Water Supply Systems** – Cecil Bilbo, Jr., Director of Technical Services – Basic/Intermediate

When a sprinkler system is called on to help control a fire in a building, the adequacy of the water supply can determine if property and lives will be saved. Understanding the different types of water supplies that can be used in the NFPA Standards will ensure the system works properly. Whether it is a city water supply, fire pump, tank, or a pond, you will need to know the rules that affect the installation, testing, use and inspection of the different types of water supply systems. This seminar will cover a broad review of the rules for each of the types of water supplies allowed for use in fire protection systems. It will also cover some of the federal regulations that have made it into each state and county in the United States.

May 6, 2008 – **Exposure Protection Systems** – Russell P. Fleming, P.E., Executive Vice President – Intermediate

Changes to the 2007 edition of NFPA 13 restored long-lost criteria to the standard that is necessary for proper installation of an exposure protection system. This seminar will not only review how that criteria is applied, but review the use of exposure protection systems in the context of the entire need for exposure protection based on the principles of NFPA 80A exposure protection recommended practice and corresponding provisions of model building codes in the United States and Canada.

May 20, 2008 – **Water Cooling Towers** – Michael J. Friedman, P.E., NFSA Consultant – Intermediate

Protection of cooling towers falls under the umbrella of "Special Hazards" in the fire protection industry. This seminar will provide an overview of design considerations such as type of cooling tower, materials of construction for towers and system piping. It shall also cover types of fire protection systems, devices, detection methods and design criteria and system testing based on NFPA 214, Standard on Water-Cooling Towers, 2005 Edition.

June 10, 2008 – **Standpipes, Pressures and Pumps** – Kenneth E. Isman, P.E, Vice President of Engineering – Intermediate

Standpipe systems in very tall buildings have always been a challenge. Recent changes in NFPA 14 and NFPA 20 have made these systems more difficult to design and install. This seminar will cover the effect of decisions such as breaking up the system into multiple vertical zones, using pressure reducing valves, and using variable speed pumps. The new provisions of NFPA 14 for master pressure reducing valves will also be explored.

June 24, 2008 – **The Extent of Systems –** Jeff Hugo, Manager of Codes – Basic

Are sprinklers required under a Porte-Cochere? When is an addition a separate building? Does the foundation of a building have anything to do with sprinklers? This seminar will answer those questions that stump the designer and can come out to haunt you in some jurisdictions. The Extent of Systems will go into detail on where to install sprinklers, where the codes and standards designate them, and how to justify their existence or non-existence. This seminar will also summarize the "Systems" theme for the first half of 2008.

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 www.nfsa.org or by calling Dawn Fitzmaurice at 845-878-4200 ext. 133 or email: dawn@nfsa.org.

Additional NFSA training opportunities include…

NFSA Two-Week Technician Training Classes

February 4-15, 2008 (waiting list only)	Centennial, CO
April 7-18, 2008	Orlando, FL
August 4-15, 2008	Providence, RI
October 13-24, 2008	Chicago, IL

November 10-21, 2008 Houston, TX

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

In-Class Training Seminars

The NFSA training department also offers in-class training on a variety of subjects at locations across the country. Here are some seminars scheduled between now and the end of 2007:

Dec 11 Pumps for Fire Protection////Marana, AZ
Dec 12 Fire Pump Layout & Sizing (1/2 Day) (A.M.)////Marana, AZ
Dec 12 Standpipe Systems (1/2 Day) (P.M.)////Marana, AZ
Dec 13 Inspection, Testing & Maintenance////Marana, AZ

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

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.