NATIONAL FIRE SPRINKLER ASSOCIATION, INC.

Tuesday e-Tech Alert
June 19, 2007
Number 86

NFPA 25 Survives Proposed Floor Amendments

On June 6th the proposed 2008 edition of NFPA 25 survived a series of attempted floor amendments at the NFPA World Safety Conference in Boston, and is expected to be issued by the NFPA Standards Council in July.

Two of the floor amendments involved last-ditch efforts to modify wording that is already in the standard. One, proposed by the Federal General Services Administration (GSA), would have eliminated the requirement (added in the 2002 edition of NFPA 25) that calls for the random pulling of a sprinkler and opening of an end cap on a cross main at least once every five years to look inside the pipe. The new wording of NFPA 25 will now refer to this as an "obstruction inspection" to differentiate it from a full "obstruction investigation." The need for this occasional look inside the piping was easily upheld by the voting membership in Boston.

The other proposed change to a longstanding rule failed in a surprisingly close vote – a proposal by FP&C Consultants to relax fire pump inspection and operation from a weekly to a monthly basis.

One floor amendment by GSA involved an attempt to require signage for all fire department connections indicating the areas served, a proposal that the NFPA 25 Committee had rejected on the basis that the subject was adequately addressed in system installation standards. The GSA also tried unsuccessfully to overturn a proposal by the NFSA Engineering and Standards Committee that was accepted into NFPA 25. This new Section 4.1.8 addresses valve location, stating "The owner shall ensure that responsible occupants are made aware of the location of the shutoff valves and the procedures for shutting down the system."

A number of significant new requirements made their way into the forthcoming 2008 edition of NFPA 25 without any challenge from the floor. A "top ten" list might include the following:

- The owner will be responsible for the retroactive provision of signs located at the control valve for each dry, preaction and antifreeze system and at each auxiliary valve identifying areas served, location of auxiliary and low point drains, and antifreeze and other auxiliary systems.
- A new air integrity test will be required for dry pipe systems once every 3 years to indicate the system's ability to meet the existing limitation of 10 psi air pressure loss per week. The requirement can be met using either a 2-hour test at 40 psi, with no more than 3 psi pressure loss, or an air source shut-off for four hours with no sounding of the low air pressure alarm. Air leaks resulting in test failure must be identified and corrected.
- For antifreeze systems with capacities exceeding 150 gallons, an additional test point will be required for each 100 gallons.
- Tables are being added to the standard to clarify the tests required to restore a system to service whenever a component is adjusted, repaired, rebuilt or replaced.

- For 2-inch drain testing, a threshold of 10 percent below original acceptance test results of residual pressure will trigger an investigation of water supply deterioration and adequacy.
- While the test frequency of mechanical alarm devices such as water motor gongs will remain quarterly, the frequency for testing pressure switches will go to semi-annually like that of vane type waterflow devices.
- Inspection of standpipe piping and hose connections will move to an annual frequency, although inspection of pressure regulating devices will remain quarterly.
- Inspection wording relative to sprinkler obstructions will be clarified to deal only with minimum clearance between sprinklers and stockpiles/storage.
- Existing requirements for record retention will be clarified to indicate that, along with permanent capture of original test results, records of an annual test are kept for an additional year, but records of a 5-year test are kept for 6 years.
- Annex language will clarify that temporary system shutdown for routine maintenance while under constant attendance by qualified personnel does not constitute an impairment if the system can quickly be restored

Upcoming NFSA "Business Thursday" Online Seminar – June 21st

Topic: Tort Law Reform
Instructor: Dominic Kasmauskas, NFSA Northeast Regional Manager
Date: June 21, 2007

Tort Law Reform has been taking place in some areas of the country and these areas have experienced economic growth. Coincidence? There are many areas in the U.S. that may be unfriendly to the business environment of a fire sprinkler contractor. This seminar will cover; what is a "tort" in regards to fire protection law, how it may be dangerous to business and local economics, plus review some examples of successful reform.

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.

Upcoming NFSA "Technical Tuesday" Online Seminar – July 17th

Topic: Multi-Purpose Piping Systems
Instructor: Russell P. Fleming, P.E., NFSA Executive Vice President
Date: July 17, 2007

See description below. 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.

Sign Up Now for July-December 2007 "Technical Tuesday" Seminars

Registration is under way for the series of ten "Technical Tuesday" online classes for the second half of 2007. As in the past, a discount of 30 percent is available when signing up for all ten seminars in the series:

Date	Topic	Instructor
July 17	Multipurpose Piping Systems	Russell P. Fleming, P.E.
Aug 7	Flammable and Combustible Liquids – Part 1	Victoria B. Valentine, P.E.
Aug 21	Concealed Space Area Calculations	Cecil Bilbo, Jr.
Sept 11	Smoke and Heat Vents	Michael Friedman, P.E.
Sept 25	Cloud Ceilings	Kenneth E. Isman, P.E.
Oct 9	Special Considerations for Dry Systems	Cecil Bilbo, Jr.
Oct 23	Flammable and Combustible Liquids – Part 2	Victoria B. Valentine, P.E.
Nov 6	Spec Buildings	Kenneth E. Isman, P.E.
Nov 20	NFPA 25 – 2007 Update	Russell P. Fleming, P.E.
Dec 11	Special Storage Sprinkler Systems	Cecil Bilbo, Jr.

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

The following are the descriptions for each class:

July 17, 2007 – **Multi-Purpose Piping Systems –** Russell P. Fleming, P.E, Executive Vice President – Basic/Intermediate

NFPA 13 specifically recognizes the use of sprinkler systems with non-fire protection connections, and NFPA 13D and NFPA 13R also contemplate some types of combined piping systems. This seminar will provide a historical review of combination system concepts, review the current applicable rules of the NFPA standards, and discuss the potential impacts of their use. Do these systems simply represent an available alternative or are they the future of the fire sprinkler industry?

August 7, 2007 – **Flammable and Combustible Liquids – Part 1** – Victoria B. Valentine, P.E., Manager of Product Standards – Basic/Intermediate

Flammable and combustible liquids offer a challenge to many fire protection systems. The amount of liquids and the storage arrangement can affect the ability of a fire to be controlled. NFPA 30, Flammable and Combustible Liquids Code, offers some guidelines on how to protect specific arrangements. This seminar will review the different types of systems that can be used to protect these hazardous liquids and some scenarios that fall outside the scope of the standardized protection schemes.

August 21, 2007 – **Concealed Space Area Calculations –** Cecil Bilbo, Jr., Director of Technical Services – Basic/Intermediate

There are many different requirements for defining the remote areas of a sprinkler system when concealed spaces are present. This seminar will discuss the calculation of sprinkler systems when there are concealed spaces present. It will define concealed spaces and explain the differences between the types of concealed spaces. In addition, the 3,000 sq ft rule and how eaves and

overhangs affect these decisions will be included. Also, optional methods of protection for these spaces will be reviewed.

September 11, 2007 – **Smoke Vents, Heat Vents, and Draft Curtains –** Michael J. Friedman, P.E., NFSA Consultant – Intermediate

While not the primary function of a sprinkler design technician, the effect of smoke vents, heat vents, and draft curtains on sprinkler performance is critical to proper sprinkler placement and integration of venting systems. This seminar will provide information a technician needs to know and the effect on sprinkler layout.

September 25, 2007 – **Cloud Ceilings** – Kenneth E. Isman, P.E, Vice President of Engineering – Intermediate

They have been called "Cloud Ceilings", "Non-continuous Ceilings" and even "Islands in the Sky" by architects. These architectural features can be described as any ceiling that is not continuous across an entire room or space creating multiple objects in between the observer on the floor and the eventual roof of the room or space. As far as fire sprinklers are concerned, the issues are whether to sprinkler above or below these features (or both). This seminar will address all of the relevant concerns of matching a sprinkler system to a variety of different architectural features that have the potential to block hot gasses from getting to sprinklers and the potential to block discharge from the sprinklers from getting to the floor below.

October 9, 2007 – **Special Considerations for Dry Systems** – Cecil Bilbo, Jr., Director of Technical Services – Intermediate

This seminar will discuss the special requirements that are often overlooked on dry systems. The discussion will include the calculation of water delivery times and the new manifolds for testing systems in this manner, as well as the new requirements for signs and information on a dry sprinkler system. Also, find out if the small room rule and the largest room method can be used on dry systems. More importantly, the TIA recently issued for dry systems and its affect on the development of the 2007 edition of NFPA 13 will be discussed. In addition, this seminar will take a look at the history of the requirements for water delivery in NFPA 13 over the last hundred years.

October 23, 2007 – **Flammable and Combustible Liquids – Part 2** – Victoria B. Valentine, P.E., Manager of Product Standards – Intermediate

Automatic fire protection for inside storage of flammable and combustible liquids is one of the most common topics that sprinkler contractors have to deal with in NFPA 30. There are many protection schemes that are laid out for the users based on testing data. This seminar will focus on the different arrangements of inside storage and the options put forth by NFPA 30 including the flow charts used for determining protection. In addition, where in-rack protection is needed the schemes will be reviewed.

November 6, 2007 – **Spec Buildings** – Kenneth E. Isman, P.E., Vice President of Engineering – Intermediate

A fundamental assumption of NFPA 13 is that the sprinkler system is designed to match the use of the building. But what do sprinkler contractors do if the use of the building has not been established by the owner? What if the owner does not know how the building is going to be used

and is just putting up the building in the hopes that someone else will buy or lease it? This seminar will provide strategies that sprinkler contractors can use to adequately protect these buildings that are being constructed without specific uses in mind.

November 20, 2007 – **NFPA 25 Update** – Russell P. Fleming, P.E., Executive Vice President – Basic/Intermediate

The 2008 edition of NFPA 25, presented at the June 2007 NFPA conference, includes new responsibilities for system inspectors. Among other items, the committee has been concerned about the lack of signage and the need for an air pressure integrity test for dry pipe systems. The committee has also attempted to address long-standing gray areas such as the degree to which a water supply can deteriorate before an investigation of adequacy is warranted, and the tests needed following component replacement or repair. Even in areas where older editions of NFPA 25 are enforced, the new provisions represent the state of the art that can impact the liability of companies performing inspection, testing and maintenance.

December 11, 2007 – **Special Storage Sprinkler Systems -** Cecil Bilbo, Jr., Director of Technical Services – Intermediate/Advanced

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.

Additional NFSA Training Opportunities

Two-Week Technician Training Seminar

September 24- October 5 ***Kansas City, MO***

This seminar, the last available for 2007, also serve as a starting point for the NFSA's two-year Certificate Program for Fire Sprinkler Technicians. For more information, contact Nicole Sprague at 845-878-4200 ext. 149 or email: Sprague@nfsa.org.

3-day Advanced Technician Training Classes

July 24-26	***Chicago, IL***
September 5-7	***St Louis, MO***

For more information, contact Nicole Sprague at 845-878-4200 ext. 149 or email: Sprague@nfsa.org.

NICET Inspector Certification Review Classes

August 14-16	***San Antonio, TX***
November 6-8	***Providence, RI***

For more information, contact Nicole Sprague at 845-878-4200 ext. 149 or email: Sprague@nfsa.org.

In-Class Training Seminars

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

July 31 Introduction to Sprinkler Systems (1/2 day)(AM)////Pataskala, OH
July 31 Underground Piping (1/2 day) (PM)////Pataskala, OH
Aug 1 Pumps for Fire Protection////Pataskala, OH
Aug 2 Sprinkler Protection for Rack Storage////Pataskala, OH
Aug 14-15 Two-day NFPA 13 Overview & Intro to Plan Review////Centerville, OH
Aug 16 Hydraulics for Fire Protection////Centerville, OH
Sept 18 Sprinkler Protection for General Storage////Seattle, WA
Sept 19 Sprinkler Protection for Rack Storage////Seattle, WA
Sept 20 Pumps for Fire Protection////Seattle, WA
Sept 18-19 Two-day NFPA 13 Overview & Intro to Plan Review////Baltimore, MD
Sept 20 Pumps for Fire Protection////Baltimore, MD
Sept 25 Sprinkler Protection for General Storage////Eugene, OR
Sept 26 Sprinkler Protection for General Storage////Eugene, OR
Sept 27 Inspection, Testing & Maintenance////Eugene, OR
Oct 23 Introduction to Sprinkler Systems (1/2 day)(AM)////Woodland, CA
Oct 23 Underground Piping (1/2 day)(PM)////Woodland, CA
Oct 24 Inspection, Testing & Maintenance////Woodland, CA
Oct 25 Basic Seismic Protection (1/2 day)(AM)////Woodland, CA
Oct 25 Advanced Seismic Protection (1/2 day)(PM)////Woodland, CA

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