



Tuesday e-Tech Alert
May 31, 2005

Hydrostatic Testing of Small Additions and Modifications

In the 1999 edition of NFPA 13, an exception was developed to Section 10-2.2.1, which appears as Section 16.2.1.4 in the 2002 edition. It states “Modifications affecting 20 or fewer sprinklers shall not require testing in excess of system working pressure.” Unfortunately, some Authorities Having Jurisdiction are interpreting this to not include additions of fewer than 20 sprinklers, since additions seem to be addressed separately from modifications in Section 16.2.1.5: “Where addition or modification is made to an existing system affecting more than 20 sprinklers, the new portion shall be isolated and tested at not less than 200 psi.”

Prior to the 1999 edition of the standard, NFPA 13 contained an exception allowing additions or modifications to existing systems to be isolated and tested at not less than 50 psi in excess of normal static pressure. When developing the 1999 edition, the Committee agreed with a proposal to delete the exception entirely. During the public comment period, however, the Committee acted on an NFSA comment to correlate with NFPA 25, which required a hydrostatic test only for repairs or replacement affecting more than 20 sprinklers. The NFSA intent was that additions were simply a type of system modification. The fact that 16.2.1.5 specifically requires the 200 psi test only for additions or modifications affecting more than 20 sprinklers would seem to confirm that this intent was accepted. Wording for both sections would be improved with the use of the phrase “additions or other modifications.”

Upcoming NFSA Technical Tuesday Online Seminar:

NFPA 13 Chapters 14, 15, 16 and 18 - Plans, Calculations, and Commissioning
Instructor: Cecil Bilbo, Director of Technical Services
Date: June 21, 2005

Sprinkler system plan approvals and acceptance depend on provision of all of the required information on working plans, compliance with all rules relating to hydraulic calculations, and proper system acceptance testing. The seminar also addresses the brief requirements within NFPA 13 for water supplies and system inspection, testing and maintenance, since both subject areas are mainly dealt with in other NFPA standards.

This is the last in the series of ten seminars dedicated to an in-depth review of the 2002 edition of NFPA 13. Participants develop an appreciation for the way in which the material is organized in the 2002 edition while learning more about the background of the rules themselves. The level of all seminar topics is considered intermediate.

Information and registration for these seminars are available at www.nfsa.org.

2nd Half 2005 Online Seminar Series Announced

The NFSA is announcing a new series of ten online seminars scheduled for the second half of 2005. The series begins with a virtual attendance at the 2005 NFPA World Safety Conference, including the historic vote on sprinklers in dwellings. The other nine seminars will delve more deeply into specific NFPA 13 issues introduced as part of the ongoing overview of the 2002 edition. As in the first half of 2005, a 30 percent savings will result from registration for all ten seminars. Go to www.nfsa.org for registration for the online seminars. Checking all ten boxes for the seminar series will result in the discount.

July 12, 2005 – **Fire Sprinkler Update from the 2005 NFPA World Safety Conference** – Russell P. Fleming, P.E., Executive Vice President – Intermediate

The NFPA has now merged its spring and fall meetings into a single annual World Safety Conference and Exposition, being held June 6-10, 2005 in Las Vegas, Nevada. For those unable to attend, this seminar provides a virtual attendance, including a review of highlights from dozens of technical presentations relating to fire sprinklers, the accompanying exhibition, and a summary of significant sprinkler-related changes to NFPA codes and standards processed at the technical committee report session, including the NFPA 101/NFPA 5000 proposed requirement for sprinkler protection of all dwellings.

August 2, 2005 – **Vertical Shafts** – Victoria B. Valentine, P.E., Manager of Product Standards – Intermediate

Stairways, escalator openings, trash chutes and linen chutes are all types of vertical shafts. These vertical openings between floors require special sprinkler protection. This program will review NFPA 13 and model building codes including draft stops and closely spaced sprinkler requirements.

August 23, 2005 – **Atria and High Ceilings** – Kevin J. Kelly, P.E., Manager of Codes – Intermediate

The concept of sprinkler protection located at very high ceilings or in open areas connecting multiple floors has been an area of study for many years and has the potential for future research. This seminar will cover the current rules from NFPA standards and the model building codes for sprinklers in these areas. This seminar will also cover research that has led to the current rules and recommendations.

September 13, 2005 – **Sprinkler Temperature Ratings** – Kenneth E. Isman, P.E., Assistant Vice President of Engineering – Beginner/Intermediate

Although ordinary temperature sprinklers are encouraged in most circumstances, there are a number of locations where higher temperature classification sprinklers are required or where their use would be advantageous to the design of the system. This program will cover the requirements of where higher temperature sprinklers are required and where they can be used to improve the design of the system.

September 27, 2005 – **Meters, Backflow Preventers, and Pressure Reducing Valves** – Russell P. Fleming, P.E., Executive Vice President – Intermediate

Meters, backflow preventers, and pressure reducing valves share a common feature: they are installed on water supply lines upstream of fire sprinklers. This seminar describes the function of these devices, the various types, laboratory requirements, and how they work. It also examines

how these devices are regulated with regard to installation in accordance with NFPA 13 and inspection in accordance with NFPA 25.

October 11, 2005 – **Pitching and Draining of Sprinkler Systems** – Cecil Bilbo, Director of Technical Services – Intermediate

This seminar will discuss the requirements for the proper Pitching and Draining of Automatic Fire Sprinkler Systems. The seminar will focus on the design, installation and testing requirements from NFPA 13 and NFPA 25. The requirements for material selection from NFPA 13 will also be covered.

October 25, 2005 – **Hose Stream and Hose Stations** – Kevin J. Kelly, P.E., Manager of Codes – Intermediate

NFPA 13 has specific criteria for hose connections supplied by sprinkler systems. The rules for the installation and use are different than those for standpipes. This seminar will cover the current installation rules from NFPA 13 as well as when these systems are required to be installed. Topics covered include; protection of storage, hose equipment, flow and pressure requirements, hose station location, proper use and training, plans and calculations.

November 8, 2005 – **Sloped Ceilings** – Victoria B. Valentine, P.E., Manager of Product Standards – Intermediate

Current installations involve a variety of sloped ceiling conditions and different types of sprinklers used under the sloped ceilings. This program will review sloped ceiling arrangements and the guidance provided by NFPA 13. Special attention will also be given to combustible concealed spaces of wood truss construction with members closely spaced and a slope having a pitch of 4 in 12 or greater.

November 22, 2005 – **Obstructions** – Kenneth E. Isman, P.E., Assistant Vice President of Engineering – Intermediate

This program will review the obstruction rules for standard spray sprinklers, extended coverage sprinklers, residential sprinklers and ESFR sprinklers. Basic clearance issues will be discussed along with the beam rule, three-times rule (four-times rule for extended coverage) and the partition rule. Isolated and continuous obstructions for ESFR sprinklers will be covered along with a discussion of specially listed ESFR sprinklers that are less susceptible to obstruction concerns.

December 6, 2005 – **Fire Department Connections** – Cecil Bilbo, Director of Technical Services – Intermediate

This seminar will discuss the requirements for Fire Department Connections on Automatic Fire Sprinkler Systems. The seminar will focus on the design and testing requirements from NFPA 13, NFPA 14 and NFPA 25. The requirements for material selection from NFPA 13 and NFPA 1963 will also be covered.