



Tuesday e-Tech Alert
July 5, 2005

Sprinkler Protection of Museums

The multi-million dollar six-alarm fire that destroyed the Biblical Arts Museum in Dallas on June 28, 2005 has raised awareness of the need for fire sprinkler protection of new and existing museums. According to Dr. John Hall of the NFPA, between 1999 and 2002 there were about 60 museum fires a year in the United States, resulting in an annual loss of about \$1 million per year. A local fire officer was quoted in the Dallas Morning News as saying it was not unusual for a museum to be without sprinkler protection, since there is always a chance that sprinklers could activate accidentally and that “sometimes water can damage things as much as heat.” Fortunately, newspaper accounts also noted that the Dallas Museum of Art has a sprinkler system that has never suffered an accidental discharge of water, and the Director of Operations and Finance of the Amos Carter Museum in nearby Fort Worth was quoted as saying his organization would be reluctant to loan works of art to museums that do not have adequate fire protection systems.

Are there special sprinkler protection issues for museums? The relevant document is NFPA 909 – *Code for the Protection of Cultural Resource Properties – Museums, Libraries and Places of Worship*. As referenced in the current 2002 edition of NFPA 13, NFPA 909 was a recommended practice document applicable only to places of worship. However it is now an expanded code available as a 2005 edition, and includes some special provisions relating to sprinkler protection. The most important is that, unless special performance-based analysis is applied, automatic sprinkler systems or alternative fire suppression systems are required for all new construction. As a special concession to the concerns for accidental discharge of sprinklers, however, NFPA 909 also makes an important exception to the rules of the sprinkler standard:

“12.4.4.2 Standard response sprinklers shall be permitted for use in light hazard areas.”

An accompanying annex section explains that standard response sprinklers employ more robust operating elements than quick response sprinklers and can be more appropriate for use in areas where concern for accidental discharge outweighs the advantages of thermal sensitivity.

Another section applicable to new construction that should prove interesting in its application:

“12.13 Water Control. Provisions shall be made for removal of accumulated water from manual and automatic fire-fighting operations.”

It is hoped that the changes to NFPA 13 for the next (2007) edition of the sprinkler standard can reference the new NFPA 909 document to avoid conflicts and potential misunderstandings.

Free SFPE Membership for NFSA Member Company Employees

The Society of Fire Protection Engineers has announced a special free trial membership available to employees of NFSA member companies. A form is attached to this issue of *Tuesday e-Tech Alert* that can be faxed to SFPE headquarters. During the 6-month trial period, you will receive

copies of SFPE publications such as *Fire Protection Engineering* magazine, the last two issues of which have addressed fire sprinkler economics, and the *Journal of Fire Protection Engineering*, the most recent issue of which contained a research paper on sprinkler skipping. You will also be able to keep up with other information being sent out regularly to the fire protection engineering community and avail yourself of membership discounts and benefits. Even if you are already affiliated with a local SFPE chapter, you may not be a member of the SFPE itself. This easy form allows you to find out what SFPE membership is all about. The offer is available only to individuals who are not currently members of SFPE. The response form must be faxed to SFPE by July 29, 2005.

Upcoming NFSA Technical Tuesday Online Seminar:

Fire Sprinkler Update from the 2005 NFPA World Safety Conference
Instructor: Russell P. Fleming, P.E., NFSA Executive Vice President
Date: July 12, 2005

The NFPA has now merged its spring and fall meetings into a single annual World Safety Conference and Exposition, held June 6-10, 2005 in Las Vegas, Nevada. 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. Even those who were at the NFPA conference could not have attended even half of the technical presentations covered in this seminar.

Information and registration for this seminar can be found at www.nfsa.org.

2nd Half 2005 Online Seminar Series Announced

The seminar noted above is the first of a new series of ten online seminars scheduled for the second half of 2005. 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 full descriptions and registration for the online seminars. Checking all ten boxes for the seminar series will result in the discount. Other seminars in the series:

August 2, 2005 – **Vertical Shafts**

August 23, 2005 – **Atria and High Ceilings**

September 13, 2005 – **Sprinkler Temperature Ratings**

September 27, 2005 – **Meters, Backflow Preventers, and Pressure Reducing Valves**

October 11, 2005 – **Pitching and Draining of Sprinkler Systems**

October 25, 2005 – **Hose Stream and Hose Stations**

November 8, 2005 – **Sloped Ceilings**

November 22, 2005 – **Obstructions**

December 6, 2005 – **Fire Department Connections**

NFSA Tuesday e-Tech Alert is c. 2005 National Fire Sprinkler Association, and is distributed to NFSA members on Tuesdays for which no NFSA Technical Tuesday Online Seminar is scheduled. Statements and conclusions are based on the best judgment of the NFSA Engineering staff, and

are not the official position of the NFPA or its technical committees except as noted. Please send comments to Russell P. Fleming, P.E. (fleming@nfsa.org).

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.

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Applicant Information:

- Yes, enroll me immediately in SFPE for a FRBE 6-month trial affiliate membership.
- I would also be interested in upgrading my FRBE membership to Associate or Professional Member.
- I would also be interested in information regarding my local chapter.

Professional Members are graduates of an engineering program with a minimum of three years engineering experience in responsible charge of fire protection engineering work, or equivalent. *Associates* are graduates of an engineering program, or equivalent in practice. *Affiliates* are entry-level members who support the goals and objectives of SFPE.

Who are SFPE members?

- Regarded as the best investment to advance your career in fire protection
- Opportunity to participate in the development of Engineering Guides
- Experts in the industry providing great continuing education opportunities
- Recognition of your professional qualifications within our Society
- Opportunity to participate in the development of Engineering Standards
- Substantial discounts on engineering publications and classes
- Annual Technology Showcase
- Annual Meeting with picnic - free to members
- Discounted professional liability and group insurance plans
- Opportunity to join a local SFPE Chapters

Benefits of SFPE Membership:

An Invitation for Free Trial Membership to Employees of Member Companies of the National Fire Sprinkler Association

Advancing the science and practice of Fire Protection Engineering Internationally



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