



**Issue Number: 182**  
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### **Caution Urged with Rack Storage of Exposed Unexpanded Plastics**

The NFSA Engineering and Standards Committee recently urged caution with regard to the NFPA 13 protection criteria for rack storage of exposed unexpanded plastics. It was noted that the “Decision Tree” that appears as Figure 17.1.2.1 (2010 edition) creates a subdivision of Group A plastics that includes “Cartoned, expanded or unexpanded, and exposed, unexpanded” that is further divided into “Stable or “Free-flowing.”

The decision tree indicates that stored product that qualifies as free-flowing is to be protected as a Class IV commodity, while the figure simply states “(see Chapter 17)” for stored product that would be considered stable. This has led some users of NFPA 13 to conclude that all Chapter 17 protection criteria can be applied to exposed unexpanded Group A plastics as well as cartoned Group A plastics.

In fact, some of the protection criteria are specifically not intended for exposed unexpanded plastics. This is clear, for example, in the wording of Section 17.2.1.2 titled Ceiling Sprinkler Water Demand:

*17.2.1.2.1 For Group A plastic commodities in cartons, encapsulated or nonencapsulated in single-, double-, and multiple-row racks, ceiling sprinkler water demand in terms of density... and area of operation...shall be selected from Figure 17.2.1.2.1(a) through Figure 17.2.1.2.1(f).*

Nowhere does the standard give permission to use these figures for the protection of any noncartoned (exposed) Group A plastics, whether expanded or unexpanded.

Similarly, the reference to Table 17.3.1.1 criteria for rack storage of plastics over 25 ft in height is specified to apply to commodities in cartons within Section 17.3.1.1.

On the other hand, Section 17.3.1.4 refers to protection of exposed and unexpanded plastics using the in-rack options of Section 17.3.4.1.3, and some of the protection criteria in Tables 17.2.2.1 and 17.2.3.1 for CMSA (Control Mode Specific Application) and ESFR (Early Suppression Fast Response) sprinklers are clearly intended for protection of exposed unexpanded plastics.

The NFSA engineering staff has been asked to prepare proposals for the next edition of NFPA 13 that will help clarify the intent of the decision tree.

### **NFSA “Technical Tuesday” Seminar – July 20<sup>th</sup>**

**Topic: Calculating Sprinklers Under Obstructions**

**Instructor: Cecil Bilbo, Jr., CET**

**Date: July 20, 2010**

Design technicians frequently ask about the hydraulic calculation procedures for calculating sprinkler systems where additional sprinklers are added under obstructions. The 2010 Edition of NFPA 13 has clarified the rules for when to include sprinklers below obstructions in the sprinkler system demand. The proper hydraulic calculation procedures will vary based on the kind of sprinkler being used at the ceiling, such as spray sprinklers, control mode specific application sprinklers, and ESFR sprinklers. This seminar will discuss the different procedures that need to be followed for each type of ceiling sprinkler when additional sprinklers are added under obstructions.

### **New “Best Practices Thursday” to Debut in July**

In conjunction with Fire Sprinkler Industry – Best Practices, the NFSA is pleased to announce that its “Business Thursday” online seminar series will become “Best Practices Thursday” starting in July. The following dates and topics have been selected:

July 22 – Managing Job Costs  
August 19 – Information Technology Update  
September 16 – Budgeting for Success  
October 21 – The Insurance Market  
November 18 – Effective Sales Proposals  
December 16 – Contracting 101

The faculty will be from the Best Practices program. Each seminar will carry a registration fee of \$125 but will be free to companies participating in the Best Practices program. Look for additional information on the NFSA website at [www.nfsa.org](http://www.nfsa.org) or on the Best Practices website [www.fsi-bp.org](http://www.fsi-bp.org).

Additional training opportunities through the NFSA Engineering Department include the following...

### **Inspection & Testing for the Sprinkler Industry (3-day course)**

**New Castle, DE – September 28-30, 2010**  
**Delaware State Fire School’s Regional Center**  
**2311 McArthur Drive, New Castle, DE 19720**

### **Layout Technician Training Course (2-week course)**

**Champaign, IL – August 2-13, 2010**  
**Academy of Fire Sprinkler Technology, Inc.**  
**1617 Interstate Dr., Champaign, IL 61822**

For more information, contact Nicole Sprague using [Sprague@nfsa.org](mailto:Sprague@nfsa.org) or by calling 845-878-4200 ext. 149.

### **Additional 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 for 2010:

July 6	Denver, CO	Introduction to Sprinklers (1/2 day)
July 6	Denver, CO	Commissioning & Acceptance Testing (1/2 day)
July 7	Denver, CO	Sprinkler Protection for Rack Storage
July 8	Denver, CO	Sprinkler Protection for Special Storage
July 7	Rancho Cucamonga, CA	NFPA 13 Update 2007/2010
July 8	Rancho Cucamonga, CA	Sprinklers for Dwellings
July 20	Bettendorf, IA	Residential Homes to High-Rise
July 21	Bettendorf, IA	Sprinklers for Dwellings
July 22	Bettendorf, IA	Hydraulics for Fire Protection
Aug 24	Menasha, WI	NFPA 13 Update 2007
Aug 25	Menasha, WI	Sprinkler Protection for General Storage
Aug 26	Menasha, WI	Foam Water Systems (1/2 day)
Aug 26	Menasha, WI	Commissioning & Acceptance Testing (1/2 day)
Aug 31	Rochester Hills, MI	NFPA 13 Update 2007
Sept 1	Rochester Hills, MI	Plan Review Policies & Procedures
Sept 2	Rochester Hills, MI	Commissioning & Acceptance Testing (1/2 day)
Sept 2	Rochester Hills, MI	Introduction to Sprinklers (1/2 day)
Sept 16	Concord, NH	Sprinkler Protection for General Storage
Sept 17	Concord, NH	Sprinkler Protection for Rack Storage
Sept 18	Concord, NH	Plan Review Policies & Procedures

These seminars qualify for continuing education as required by NICET, and meet mandatory Continuing Education Requirements for Businesses and Authorities Having Jurisdiction.

To register or for more information, contact Michael Repko at (845) 878-4207 or e-mail to [seminars@nfsa.org](mailto:seminars@nfsa.org)

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**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](http://www.nfsa.org).*