
 Mark your calendars for Center for Life Safety Education and AFSA Upcoming Seminars.

NFPA 25 Update
August 23, 2006

NFPA 20 Update Sponsored by NFPA and AFSA
September 26, 2006

NFPA 14 Update
October 18, 2006

Variable Speed Fire Pump
November 15, 2006

 **Virtual Seminar**
AFSA "NFPA 13 Changes for 2007 Edition" - Sponsored by NFPA and Center for Life Safety Education
August 9, 2006

12:00 PM Eastern
11:00 AM Central
10:00 AM Mountain
9:00 AM Pacific

Earn: 0.15 CEU's / 1.5 CPD's.

To Register:

Event ID: 11660

By Phone: Call KRM Information Services, Inc. at 800-775-7654, please have your credit card information ready.
By Fax: 800-676-0734

2006 AFSA Design Schools
Beginning System Planning School
Enroll Early

December 4-15, 2006 - **ADDED**

Registration Prices:
Member \$1200
Non-Member \$1700

Seminars/Conventions
The Fire Sprinkler Contractors Association of Nebraska and AFSA Seminar Series
Lincoln, NE
August 7-9, 2006

Mon. Aug. 7 - NFPA 13, Ch. 8, 2002 Ed.
Tues. Aug. 8 - Plan Review
Wed. Aug. 9 - NFPA 25, 2002 Ed.

AFSA Annual Convention & Exhibition
Dallas/Ft. Worth, TX
September 6-10, 2006

Fire-Rescue International
Dallas, TX
September 14-16, 2006



American Fire
Sprinkler Association

Tech Talk

9696 Skillman, Suite 300 • Dallas, Texas 75243
Ph: (214) 349-5965 Fax: (214) 343-8898

July
2006

MAXIMUM PROTECTION AREA OF COVERAGE FOR UNOCCUPIED ATTICS

Table 8.6.2.2.1(a) has a note – “The smaller dimension shall be measured perpendicular to the slope.” There are several items to be clarified on what is meant by Table 8.6.2.2.1(a). Just reading the Table note leaves one wondering what is meant since it is applied to both the 8 ft x 15 ft and the 10 ft X 12 ft and the reference “perpendicular to the slope” is misunderstood by many. The annex material A.8.6.2.2.1 clarifies it a little by identifying what to do when the dimension is between 8 ft and 10 ft and why the change was made. To properly identify what direction the perpendicular is pointed, you need to think of going up the slope as being parallel to the slope. You then take the perpendicular path from this line. A better way to define the dimension is parallel to the ridge. When the fire is going up the channel, it does not spread out along the slope, so we wanted to minimize the distance from the fire to the line of sprinklers. If the distance is greater than 8 ft (which represents 4 ft from the fire when it is in the middle of the sprinklers), the stating pressure must be 20 psi. Keep in mind that when installing a dry pipe system, there is an allowance to use a 4.2 factor per 8.6.4.1.4.4, which supercedes 8.3.4.1. The smaller K factor allowance was expanded to all dry pipe systems during the changes to NFPA 13 for 2007.

IMPACT OF CEILING POCKETS LESS THAN 12-INCHES

Ceiling pocket less than 12-inches are used to break up a smooth ceiling. The ceiling is considered to be unobstructed construction according to section 3.7.2. According to section 8.6.4.1.1.1, the fire sprinkler deflector shall be placed 1-in. minimum to 12-in. maximum throughout the area of coverage. So if the distance between the sprinkler deflector and the top of the ceiling in the shallow pocket is maintained at less than 12-inches, it meets the intent for the limit be applied to the entire area of the coverage of the sprinkler. The ceiling irregularities will have some impact on the heat flow, but the committee felt it was not great enough to consider it as an issue. An example is the flat slab, pan type reinforced concrete construction. The ceiling is irregular (waffled), but considered unobstructed. The ceiling pocket rules or limitations of 8.6.7 and 8.8.7 really don't apply. Ceiling pocket measurements deviate from the standard by not considering the deflector location. Once again, if the maximum distance of 12-inches can be maintained over the area of the coverage of the sprinkler, it meets the intent. Although this type of construction is typically considered unobstructed, it is not considered a smooth, flat ceiling as required for sidewall or extended coverage sprinklers. Where sidewall heads are used and ceiling pockets are present, a sprinkler is required within the pocket.

FIRE DEPARTMENT CONNECTION DRAINAGE

The piping between the check valve and the outside hose coupling shall be quipped with an approved automatic drip in areas subject to freezing according to section 8.16.2.6. The drain should be located at the lowest point of the fire department connection piping to allow complete drainage. The drain can be located inside or outside the building. In the event that the check valve in the fire department connection leaks, the purpose of the automatic drip is to drain water to a safe location and to maintain the piping between the check valve and the hose couplings free of water. Without the automatic drip, any collected water could freeze and prevent the fire department from pumping into the system under fire conditions or rupture the pipe. This automatic drip also facilitates any maintenance of the fire department connection piping, because this portion of the pipe is already free of water. NFPA 25 requires ball maintenance every 5 years, but it may be worth tapping it on annual basis to make sure it moves and not stuck in place.

TechTalk is prepared by the Technical Services Department of the American Fire Sprinkler Association: Vice President of Engineering and Technical Services, Roland Huggins, a PE registered in fire protection engineering; Phill Brown, a CFPS and a NICET IV certified automatic sprinkler technician, and Tom Wellen, a Fire Protection Engineer. Opinions are provided with the understanding that AFSA assumes no liability for the opinions or actions taken on them and they are not to be considered the official interpretation of the NFPA or that of its technical committees.

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