



Tuesday e-Tech Alert

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Russell P. Fleming, P.E. – Editor

Clarify Tamper Requirements for Flow and Tamper Switch Covers

Recent problems of an alarm contractor on a project for the Army Corps of Engineers should encourage fire sprinkler contractors to clarify what is expected in the way of tamper resistance for flow switch and tamper switch covers. A reviewer for the Corps was recently able to insist that the wording of NFPA 72 requires internal tamper alarm switches for device covers of supervisory switches inside buildings. Although such devices are routinely provided in Canada due to a longstanding ULC requirement, they have not been traditionally provided for flow and tamper switches sold in the U.S. Instead, the manufacturers provide tamper resistant fasteners for the device covers.

While the internal tampers can be purchased and retrofit into the device covers fairly easily, running additional wiring to system control panels once construction is completed can be very costly, so it is important that there be a clear understanding relative to expectations.

The wording of the 2007 edition of NFPA 72 is as follows:

6.8.5.11 Trouble Signal Initiation

6.8.5.11.1 Automatic fire suppression alarm-initiating devices and supervisory signal-initiating devices and their circuits shall be designed and installed so that they cannot be subject to tampering, opening, or removal without initiating a signal. This provision shall include junction boxes installed outside of buildings to facilitate access to the initiating device circuit.

Exception No. 1: Covers of junction boxes inside of buildings

Exception 2: Tamper resistant screws or other approved mechanical means shall be permitted for preventing access to junction boxes and device covers installed outside buildings.

Prior to the 1999 edition of NFPA 72 the base paragraph simply required that the devices and their circuits “cannot be readily tampered with, opened, or removed without initiating a signal.” This was interpreted to allow the use of tamper resistant hardware, since it presumably satisfied the “readily” aspect of the requirement.

In the 1999 edition the paragraph was reformatted into a requirement with two exceptions. While the base requirement was made stronger, the exceptions seemed to provide a great deal of latitude, but only mentioned junction boxes. In the 2007 edition the allowance for “device covers” was made alongside “junction boxes” in the second exception, which served to point out that device covers were not specifically mentioned in the first exception.

A review of the committee records indicates that the addition of “device covers” in the 2007 edition was intended to liberalize the requirement for exterior device covers to be the same as for junction boxes. At least one committee member voted negatively on the change, pointing out that the wording appeared to impose a requirement for initiating devices inside buildings that was more severe than that for such devices outside buildings. During the public comment period the Technical Correlating Committee specifically asked the Technical Committee to give further consideration to the comments expressed during balloting, but no public comments were submitted, and no changes were made.

In other words, beginning with the 1999 edition, it appears that although junction boxes inside buildings were exempt from the alarm initiating requirement, device covers were not. Outside of buildings, tamper resistant screws could be used with junction boxes starting in 1999, but for device covers only beginning with the 2007 edition. This is at least how the record makes the intent appear. Asked by NFSA staff for clarification, NFPA 72 staff stated they did not believe the Technical Committee intended to make the requirement for device covers inside the building more severe than for those outside the building, but they agreed the wording could be interpreted in this manner.

As we move forward, NFSA will be working with NFPA staff and the device manufacturers to provide clarity for the requirement. It remains to be seen whether this can be accomplished through the current NFPA 72 revision cycle, through a formal interpretation, or through a TIA. In the meantime, contractors installing flow and tamper switches should seek clarification as to whether internal cover tampers are required or if tamper resistant cover fasteners will be sufficient.

Upcoming NFSA “Technical Tuesday” Seminar – May 6th

Topic: Standpipes, Pressures and Pumps

Instructor: Kenneth E. Isman, P.E, NFSA Vice President of Engineering

Date: May 6, 2008

NOTE: This seminar was originally scheduled for June 10, 2008, but the date has been switched with the “Exposure Protection Systems” online seminar originally scheduled for May 6th due to instructor scheduling conflicts.

Standpipe systems in very tall buildings have always been a challenge. Recent changes in NFPA 14 and NFPA 20 have made these systems more difficult to design and install. This seminar will cover the effect of decisions such as breaking up the system into multiple vertical zones, using pressure reducing valves, and using variable speed pumps. The new provisions of NFPA 14 for master pressure reducing valves will also be explored.

Upcoming NFSA “Business Thursday” Seminar – June 19th

Topic: Safety for Contractors

Instructor: Ray Lonabaugh, NFSA Mid-Atlantic Regional Manager

Date: June 19, 2008

As virtually every employer in the country is aware, the health, safety and welfare of a company's workforce are major concerns. An effective and comprehensive safety program can reduce risk to the company and help bring workers compensation costs down. This presentation will review some of the important aspects of an effective safety program and examine why it should be a high priority for every fire sprinkler contractor.

Information and registration for the above "Technical Tuesday" and "Business Thursday" seminars are available at www.nfsa.org or by calling Dawn Fitzmaurice at 845-878-4200 ext. 133.

Additional NFSA training opportunities include...

NFSA Two-Week Technician Training Classes

August 4-15, 2008	Providence, RI
October 13-24, 2008	Chicago, IL
November 10-21, 2008	Houston, TX

For more information, contact Nicole Sprague using Sprague@nfsa.org or by calling 845-878-4200 ext. 149.

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 2008:

Apr 29	McFarland, WI	Plan Review Policies & Procedures
Apr 30	McFarland, WI	Pumps for Fire Protection
May 1	McFarland, WI	Commissioning & Acceptance Testing (a.m.)
May 1	McFarland, WI	Fire Pump Layout & Sizing (p.m.)
May 6-7	Colorado Springs, CO	NFPA 13 Overview & Intro to Plan Review
May 7	Mundelein, IL	Introduction to Sprinklers (a.m.)
May 7	Mundelein, IL	NFPA 13 Update 2002 (p.m.)
May 8-9	Mundelein, IL	NFPA 13 Overview & Intro to Plan Review
May 8	Colorado Springs, CO	Sprinklers for Dwellings
May 13	Quincy, MA	Sprinklers for Dwellings
May 14	Quincy, MA	Basic Seismic (a.m.)
May 14	Quincy, MA	Standpipe Systems (p.m.)
May 15	Quincy, MA	Pumps for Fire Protection
May 20	Willoughby, OH	Plan Review Policies & Procedures
May 21	Willoughby, OH	Inspection, Testing & Maintenance
May 22	Willoughby, OH	Underground Piping (a.m.)
May 22	Willoughby, OH	Commissioning & Acceptance Testing (p.m.)
May 28-29	Reading, PA	NFPA 13 Overview & Intro to Plan Review
May 30	Reading, PA	Hydraulics for Fire Protection

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