



NFPA Modifies Antifreeze Position

The National Fire Protection Association (NFPA) issued a new series of Tentative Interim Amendments (TIA's) with an effective date of August 29, 2012 (but currently available on their website) regarding antifreeze. The TIA's effect the 2013 editions of NFPA 13, NFPA 13R and NFPA 13D as well as the 2011 edition of NFPA 25. Even though these TIA's on the installation standards do not officially effect the previous editions of these standards, they do represent the latest thinking on the subject and are important to pay attention to. The TIA on NFPA 25 affects all existing systems. Since all new systems will eventually become existing systems, it is important to pay attention to each of the TIA's.

The TIA's were published at the same time that the NFPA issued the 2013 editions of NFPA 13, NFPA 13R and NFPA 13D. This means that the actions of the TIA will be printed with the standards so that the users will not need to try and overlay the language of the TIA's with the previously approved text of the documents. Users of the 2013 editions of these standards will not need to download any additional material to have the TIA language; it will be built into the standard. However, users of NFPA 25 will need to download the TIA for that document because the TIA did not exist when that document was issued. The Technical Committee on Inspection, Testing and Maintenance of Water-Based Fire Suppression Systems is currently working on the next edition of NFPA 25 and will probably incorporate the language of the TIA into that edition.

The whole series of TIA's can be downloaded from the NFPA website at the following address:
http://www.nfpa.org/Assets/files/AboutTheCodes/13/SD12-8-25_to%2028_30_to_33_D12-3_Antifreeze_TIAs.pdf. The following is a summary of the important points of the TIA's:

NFPA 13

- Propylene glycol (premixed) will still be permitted to be used with ESFR sprinklers when the ESFR sprinklers are listed for use with the antifreeze and when the system is installed in accordance with the listing.
- Other than the use of propylene glycol discussed above, all new antifreeze systems will be required to use listed antifreeze solutions. (Note that at this time, there are no listed antifreeze solutions. Also note that NFPA 13 does not apply to existing systems.)
- Annex notes have been added that discuss the research on the subject to date, including the potential for certain antifreeze solutions to add to the heat release rate of a fire.

NFPA 13R

- This standard will reference NFPA 13 for antifreeze systems, so all of the rules of NFPA 13 will also apply to NFPA 13R systems.

NFPA 13D

- Existing systems are permitted to be one of the following:
 - Premixed glycerine at concentrations up to 50% by volume
 - Premixed propylene glycol at concentrations up to 40% by volume
 - Listed antifreeze products installed in accordance with their listing
- New systems are permitted to be one of the following:
 - Listed antifreeze products installed in accordance with their listing



- Premixed glycerine at concentrations up to 48% by volume in specific areas of the dwelling unit, but only where the Authority Having Jurisdiction (AHJ) approves. Documentation will need to be provided to the AHJ to justify the use of the antifreeze.
- Premixed propylene glycol at concentrations up to 38% by volume in specific areas of the dwelling unit, but only where the Authority Having Jurisdiction (AHJ) approves. Documentation will need to be provided to the AHJ to justify the use of the antifreeze.
- Annex notes have been added that discuss the research on the subject to date, including the potential for certain antifreeze solutions to add to the heat release rate of a fire.

Note that the language in NFPA 13D uses the phrase “in specific areas of the dwelling unit” where the propylene glycol and glycerine are permitted. This is because the committee is concerned with the use of antifreeze throughout the building, even in areas that have sufficient heat to protect water-filled pipe. The intent of the committee is to limit the use of antifreeze to those portions of the system that are subject to freezing conditions to the greatest extent possible. The problem is that this concept is difficult to write in enforceable text in such a manner that 75% of the committee will agree, which is what is necessary for a TIA to pass committee ballot.

NFPA 25 (Only applies to systems installed in accordance with NFPA 13 and NFPA 13R)

- An assumption (stated in the annex) that systems installed after September 30, 2012 will be in accordance with the antifreeze rules of NFPA 13 (2013 edition) as discussed above.
- Existing systems installed prior to September 30, 2012 will be permitted to remain with unlisted antifreeze solutions as long as all of the following conditions are met:
 - The solution will need to be replaced by September 30, 2012 with something else (a listed antifreeze solution or another kind of sprinkler system appropriate for the situation like a dry-pipe system).
 - The concentration of glycerine is limited to 50% by volume; however, solutions in excess of 38% by volume need to be justified using an approved deterministic risk assessment.
 - The concentration of propylene glycol is limited to 40% by volume; however, solutions in excess of 30% by volume need to be justified using an approved deterministic risk assessment.
 - All newly introduced solutions that are not listed will be required to be premixed.
- Propylene glycol (premixed) will still be permitted to be used with ESFR sprinklers when the ESFR sprinklers are listed for use with the antifreeze and when the system is installed in accordance with the listing.
- Annex notes have been added that discuss the research on the subject to date, including the potential for certain antifreeze solutions to add to the heat release rate of a fire.

Upcoming NFSA “Technical Tuesday” Seminar – September 11

Topic: Piping and Valve Installation

Instructors: Kevin J. Kelly

Date: Tuesday, September 11, 2012- 10:30 am EST

Pipe and valves are key components of any sprinkler system. They need to be installed correctly and with consideration of how they will be used over the life of the system, which includes the ability to perform maintenance. The detailed locations and trim for valves, including control valves, check valves, and pressure-reducing valves, will be discussed in this seminar. The protection of system piping will also be reviewed.

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

Layout Technician Training Course (2-week course)



Fishkill, NY – October 8-19, 2012

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

Upcoming In-Class Training Seminars

The NFSA training department also offers in-class training on a variety of subjects at locations across the country, and in recognition of the current recession has adopted a new reduced fee structure. Here are some upcoming seminars:

Aug 28	Colorado Springs, CO	Sprinkler System Installation Requirements
Aug 29	Colorado Springs, CO	Fire Service Mains & Their Appurtenances
Aug 30	Colorado Springs, CO	Inspection, Testing & Maintenance
Sept 4	Pagosa Springs, CO	Sprinkler System Installation Requirements
Sept 5	Pagosa Springs, CO	Fire Service Mains & Their Appurtenances
Sept 6	Pagosa Springs, CO	Inspection, Testing & Maintenance
Sept 11	Dayton, OH	Residential Sprinklers Homes to High-Rise
Sept 11	Keystone, CO	Sprinkler System Installation Requirements
Sept 12	Dayton, OH	Pumps for Fire Protection
Sept 12	Keystone, CO	Fire Service Mains & Their Appurtenances
Sept 13	Dayton, OH	Hydraulics for Fire Protection
Sept 13	Keystone, CO	Standpipe Systems/Commissioning & Acceptance Testing
Sept 14	Reading, PA	Inspection, Testing & Maintenance for the AHJ
Sept 19	Mashantucket, CT	Pumps for Fire Protection



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

To register for these in-class seminars, click [HERE](#). Or contact Michael Repko at (845) 878-4207 or e-mail to seminars@nfsa.org for more information.

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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.

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