



Public Input No. 11-NFPA 13-2018 [Global Input]

See attached Public Comment held from A2018 Revision Cycle, Section No. 10.2.7.

Additional Proposed Changes

File Name	Description	Approved
NFPA_13_PC311_AUT-SSI.pdf	NFPA_13_PC311	

Statement of Problem and Substantiation for Public Input

NOTE: This Public Input appeared as “Reject but Hold” in Public Comment No. 311 of the (A2018) Second Draft Report for NFPA 13 and per the Regs. at 4.4.8.3.1.

The TC statement claimed the PI did not meet the definition of a global input. This a confusing reason for rejection since the PI identified the changes also needed to be applied to the old section 8.7.5, 8.8.5, 8.9.5, and 8.10.6. Isn't a global change one that affects multiple sections? The reason also provided no indication of the merits and/or shortcomings in the proposed badly needed clarifications. What better time to make such changes than with the effort to improve the ability to apply and understand the standard?. Hopefully the fact that there is much less time to review these changes will not be a basis for casually rejecting it again.

This change is just editorial but it does fix a couple of problems.

The flow of information on when to apply which section for obstructions less than 18 inches below the sprinkler is convoluted. 8.6.5.1 is titled performance objectives but the majority of the text is about obstructions close to the ceiling. These obstructions are also less than 18 inches below the deflector so technically belongs under the title of 8.6.5.2. This lead to previously adding 8.6.5.2.1.2 to attempt to differentiate between the two sections.

The new format more cleanly directs the user on which section is to be applied, makes some existing text unnecessary, and provides criteria in the correct locations (by title). I retained the interesting restriction that 4 ft wide obstructions less than 18 inches below the deflector are an issue only for light and ordinary hazard so this change would remain editorial.

If accepted:

A - the sections numbers for the Annex material needs to be modified and a very minor amount of editing such as Figure A.8.6.5.1.2 and associated text (another example of text in the wrong location)

B - the other sprinkler types need to be reformatted

Submitter Information Verification

Submitter Full Name: TC ON AUT-SSI

Organization: NFPA

Street Address:

City:

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Submittal Date: Mon Oct 29 14:06:58 EDT 2018

Committee: AUT-SSI

Committee Statement

Resolution: See changes made to Chapter 10 and related Annex.



Public Input No. 227-NFPA 13-2019 [Global Input]

Delete all references to metric units from NFPA 13 and publish a version of NFPA 13, possibly NFPA 13M, that applies when metric units are to be used. In addition, any technical requirements that rely on imperial units (such as an even numbered square protection area for extended coverage sprinklers in Paragraph 11.2.2.1.2) shall be revised accordingly.

Statement of Problem and Substantiation for Public Input

The 2019 Edition of NFPA 13 addresses metric units more comprehensively and better than previous editions. However, some tables have become far more complicated to use which can lead to errors. Calculation examples in the Annex should be done as metric calculations and not by converting certain values in the calculation. While other NFPA standards have been successful in using both units, the quantity of calculations in NFPA 13 and the detailed numerical tables make it more challenging to reference both units simultaneously. Lastly, when the metric version is created, care should be taken to make sure that all values are consistent with products manufactured to metric values.

Submitter Information Verification

Submitter Full Name: William Koffel
Organization: Koffel Associates Inc
Street Address:
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Submittal Date: Mon Apr 29 18:16:33 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The committee feels that the standard is not ready fro two editions.



Public Input No. 236-NFPA 13-2019 [Global Input]

May 7, 2019

RE: Obstructions to ESFR Sprinklers in Light and Ordinary Hazard Occupancies

In mixed occupancies where ESFR Sprinklers are directly above Light and/or Ordinary Hazard Occupancies, Obstruction rules for spray sprinklers may be applied when obstructions are 60" or greater below the sprinkler deflector.

Justification:

Many of the conditions that drive the restrictive obstruction requirements with Early Suppression Fast Response Sprinkler Systems do not exist in Light and Ordinary Hazard Occupancies. Provided all occupancy limitations are observed, the amount of Fuel available for consumption is not adequate to create a plume that would disrupt the trajectory or integrity of the sprinkler discharge.

The volume and velocity of an ESFR sprinkler can create an atomization effect when an obstruction is too close to the point of discharge. This has the potential to cool the temperature at the roof and/or cold soldering adjacent sprinklers. By ensuring that all obstructions between 0" and 60" below the deflector meet ESFR Obstruction rules and that all other obstructions are 60" or greater below the sprinkler deflector and meet obstruction rules for spray sprinklers, skipping becomes less likely. Additionally, the need for the surrounding ring of sprinklers is less critical for the relatively weak fire plume expected in Light and Ordinary Hazard Occupancies.

Statement of Problem and Substantiation for Public Input

It is common for there to be Light and Ordinary Hazard Occupancies In Storage Building protected by ESFR Sprinkler systems. Spaces above offices, processing and/or manufacturing areas do not pose the same risk for high challenge fires that exist in storage areas.

Where lighting, ducting, assembly lines and other obstructions over 2ft and less than 4ft in particular, technically required protection beneath them, it is difficult to defend with owners, tenants and other trades impacted by these requirements. It seems obvious to all that the amount of water discharging from an ESFR system, which can be up to 10 times of what is normally required for that occupancy, is more than adequate.

We realize that the sprinklers could be changed to non-storage type and the separation requirements observed, but it is hard to argue that there is really any direct improvement to life safety.

Submitter Information Verification

Submitter Full Name: Jeffrey Rovegno

Organization: Mr Sprinkler Fire Protection

Street Address:

City:

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Submission Date: Tue May 07 20:23:29 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: No specific proposed language was submitted.



Public Input No. 278-NFPA 13-2019 [Global Input]

Move Figures A.10.3.6.1.6, A.11.3.6.1.6, A.12.1.11.1.6 from the annex to the body of the standard. In the body of the standard for sidewall sprinklers are various figures in regards to spacing. There is no reason that these figures should be relegated to the annex.

Statement of Problem and Substantiation for Public Input

Move Figures A.10.3.6.1.6, A.11.3.6.1.6, A.12.1.11.1.6 from the annex to the body of the standard. In the body of the standard for sidewall sprinklers are various figures in regards to spacing. There is no reason that these figures should be relegated to the annex.

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
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City:
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Submittal Date: Tue May 28 09:52:31 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Figures are explanatory and should remain in the Annex.



Public Input No. 50-NFPA 13-2019 [Global Input]

Index, under -N-, add National Fire Alarm and Signaling Code, 2.2, 16.11.7.1

Index, Waterflow alarms/detection devices, add 27.1.3 (28)

Index, Waterflow alarms/detection devices, Mechanically operated, add 16.11.2.2

Index, Waterflow alarms/detection devices, delete 26.24.2.2.1, delete 30.12.2, replace with 30.4.12

Index, Water motor-operated devices, add 16.11.2.2

Table of Contents, add Index after Annex F

Statement of Problem and Substantiation for Public Input

Improved clarity.

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

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City:

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Zip:

Submittal Date: Fri Jan 11 11:12:05 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: The index is not part of the technical requirements of the standard.



Public Input No. 522-NFPA 13-2019 [Global Input]

Remove the terms “Standard for” or “Subject” from in front of all UL standards referenced in NFPA 13.

Statement of Problem and Substantiation for Public Input

The terms are redundant and unnecessary. All references to UL are standards.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello

Organization: UL LLC

Street Address:

City:

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Submittal Date: Fri Jun 07 12:20:22 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: More information is needed.



Public Input No. 523-NFPA 13-2019 [Global Input]

Remove ANSI from in front of all UL standards referenced in NFPA 13.

Statement of Problem and Substantiation for Public Input

Many years ago, UL preferred the ANSI/UL reference because there was a transition of traditional UL standards towards an ANSI standards development process.

Now, years later, a large majority of UL Standards are ANSI approved and follow the ANSI development and maintenance process. However, sometimes readers are confused because they don't understand the standards are actually UL standards, not developed by ANSI. There are many other references to standards promulgated by other standards development organizations where they are considered ANSI approved but do not include ANSI in the reference.

Submitter Information Verification

Submitter Full Name: Kelly Nicoletto

Organization: UL LLC

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City:

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Submittal Date: Fri Jun 07 12:22:40 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1091-NFPA 13-2019](#)

Statement: Many years ago, UL preferred the ANSI/UL reference because there was a transition of traditional UL standards towards an ANSI standards development process.

Now, years later, a large majority of UL Standards are ANSI approved and follow the ANSI development and maintenance process. However, sometimes readers are confused because they don't understand the standards are actually UL standards, not developed by ANSI. There are many other references to standards promulgated by other standards development organizations where they are considered ANSI approved but do not include ANSI in the reference.



Public Input No. 632-NFPA 13-2019 [Global Input]

The concept of using air in dry pipe and preaction systems is out of date. Multiple research projects have been presented at NFPA and SFPE that address corrosion in dry pipe and preaction systems, some as early as 2014. Corrosion within dry pipe and preaction system is similar to the fire triangle that we try to mitigate on a daily basis. Corrosion also has a three-sided triangle. To have corrosion, you have to have the following components: 1) moisture, 2) oxygen, and 3) a metal to corrode. Basic science. All dry pipe systems will have some level of moisture within the system. Generally, the cost of substituting or changing to a non-corrosive piping system is cost prohibitive. So the primary side of the corrosion triangle that can be efficiently and effectively controlled is the compressed gas used in the dry pipe and preaction systems.

Corrosion in dry pipe and preaction systems has been recognized by GSA, Department of Defense, and Factory Mutual. The GSA and DOD have each taken steps to require the use of nitrogen in dry pipe/preaction systems. GSA Public Building Service - P100, April 2017, now requires the use of nitrogen in dry pipe systems. Section 7.8 Automatic Sprinkler and Standpipe Systems, address the use of nitrogen as follows:

Dry-pipe sprinkler systems must incorporate a nitrogen inerting process that replaces air with nitrogen gas when used to charge, maintain, or supervise a dry-pipe sprinkler system.

The DoD has addressed corrosion in the Unified Facilities Criteria (UFC) 3-600-01, Change 2, March 2018 as follows:

9-7.8 Preaction System

9-7.8.1 Preaction system must utilize nitrogen complying with the "Nitrogen Generation Systems" section of this UFC.2V2/.

9-7.9 Dry Pipe Systems.

9-7.9.1 Dry pipe systems must utilize 2V2/nitrogen 2\complying with the "Nitrogen Generation Systems" section of this UFC./2/

Factory Mutual has addressed corrosion in FMDS 2-1, Corrosion in Automatic Sprinkler Systems, Interim Revision, October 2017 as follows:

2.2.1.12.1 Dry-Pipe and Preaction Systems Using Nitrogen

A. Pressurize the system using an FM Approved nitrogen generator. Alternatively, nitrogen cylinders may be used, or another suitable supply if compressed air is provided as backup.

or

2.2.1.11.2 Dry-Pipe and Preaction Systems Not Using Nitrogen, and Deluge Systems

A. Use galvanized steel pipe. **Black steel pipe can be used when an FM Approved vacuum system is used.**

This global input is for the Technical Committee to consider the use of nitrogen on dry pipe and preaction systems unless the AHJ approves the use of another compressed gas (likely air) or other technology to mitigate the corrosion (moisture control or vacuum).

The Technical Committee should also consider allowing a C-factor of 120 on new systems when installed with a nitrogen generation system. This is already allowed in UFC 3-600-01 as follows:

9-6.3.6 When nitrogen is utilized in dry or preaction sprinkler systems, a C-factor of 120 is permitted to be used in hydraulic calculations.

Now is the time for the Technical Committee to decide whether mitigation of corrosion in dry pipe and preaction systems is warranted.

Type your content here ...

Statement of Problem and Substantiation for Public Input

Corrosion in new dry pipe and preaction system can be mitigated with the use of nitrogen as the compressed gas of choice. The use of nitrogen removes one side of the corrosion triangle - oxygen, to mitigate the devastating effects of internal corrosion. Alternate methods of mitigating corrosion would be allowed to be approved by the AHJ.

Submitter Information Verification

Submitter Full Name: Tom Christman

Organization: [Not Specified]

Affiliation: None

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City:

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Submittal Date: Mon Jun 10 12:42:20 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Committee disagrees with air in dry pipe systems is out of date. No specific recommendation was made.



Task Group Public Input No. 692-NFPA 13-2019 [New Section after 1.1.3]

Temporary Systems

Where automatic sprinkler systems are installed in structures in the course of construction, alternation, or demolition. The systems shall be installed and maintained in accordance with an approved fire safety program as described in NFPA 241.

Automatic sprinkler systems shall be permitted to be positioned in a manner that anticipates the final state of construction or alternation at the time of occupancy.

Statement of Problem and Substantiation for Public Input

NFPA 13 does not currently address systems in building under construction. This change will correlate NFPA 241 & NFPA 13.

Submitter Information Verification

Submitter Full Name: Mark Fessenden

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Submittal Date: Mon Jun 10 18:16:24 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Each jurisdiction deals with building construction with their own methods and should not be specified in NFPA 13.



Task Group Public Input No. 674-NFPA 13-2019 [New Section after 1.2.2]

1.2.2.1 Personnel Qualifications.

1.2.2.1.1 System Designer

1.2.2.1.1 Plans and specifications shall be developed in accordance with this Code by persons who are experienced in the design, application, installation, and testing of the systems.

1.2.2.1.2 State or local licensure regulations shall be followed to determine qualified personnel.

1.2.2.1.3 Personnel shall provide documentation of their qualification by one or more of the following:

- (1) Registration, licensing, or certification by a state or local authority
- (2) Certification by an organization acceptable to the authority having jurisdiction
- (3) Manufacturer's certification for the specific type and brand of system provided

1.2.2.1.4 The system designer shall be identified on the system design documents.

1.2.2.1.5 System design trainees shall be under the supervision of a qualified system designer.

1.2.2.1.6 The system designer shall provide evidence of their qualifications and/or certifications when required by the authority having jurisdiction.

1.2.2.2 System Installer.

1.2.2.2.1 Installation personnel shall be qualified in the installation, inspection, and testing of the systems.

1.2.2.2.2 State or local licensure regulations shall be followed to determine qualified personnel.

1.2.2.2.3 Personnel shall provide documentation of their qualification by one or more of the following:

- (1) Registration, licensing, or certification by a state or local authority
- (2) Certification by an organization acceptable to the authority having jurisdiction
- (3) Manufacturer's certification for the specific type and brand of system provided

1.2.2.2.4 System installation trainees shall be under the supervision of a qualified system installer.

1.2.2.2.5 The system installer shall provide evidence of their qualifications and/or certifications when requested by the authority having jurisdiction.

Statement of Problem and Substantiation for Public Input

This provides guidance for the qualifications for designers and installers of these life safety systems to provide a reasonable degree of protection for life and property from fire through standardization of the requirements for designers and installers. The intent is to ensure that these personnel have been trained to provide these services as it relates to these specialized systems.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 664-NFPA 13-2019 [Section No. 1.2.2]	

Submitter Information Verification

Submitter Full Name: Kenneth Schneider

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Affiliation: United Association

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City:

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Zip:

Submittal Date: Mon Jun 10 16:24:40 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: State and local jurisdictions are charged with the responsibility to determine qualifications.



Public Input No. 664-NFPA 13-2019 [Section No. 1.2.2]

1.2.2

Sprinkler systems and private fire service mains are specialized fire protection systems and shall require design and installation by ~~knowledgeable and experienced personnel~~ qualified personnel .

Statement of Problem and Substantiation for Public Input

Replacing "knowledgeable and experienced" with "qualified" and creating a level of qualification recognized by the local authority, a national recognized program and/or certification such as PE, NICET, or Federally approved apprenticeship will produce a reasonable degree of protection of protection of life and property. NFPA 13 does a great job of making sure the components are listed and approved, seems only rational to ensure those designing, testing and installing meet similar guidelines

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 674-NFPA 13-2019 [New Section after 1.2.2]	

Submitter Information Verification

Submitter Full Name: Kenneth Schneider
Organization: UA - ITF
Affiliation: United Association
Street Address:
City:
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Submittal Date: Mon Jun 10 15:58:19 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not adequately address qualificaitons.



Public Input No. 18-NFPA 13-2018 [Section No. 1.6.2]

1.6.2 Hydraulic Symbols.

The standard abbreviations in Table 1.6.2 shall be used on the hydraulic calculation form discussed in Chapter 23.

Table 1.6.2 Hydraulic Symbols

Symbol or Abbreviation	Item
p	Pressure in psi
gpm	U.S. gallons per minute
q	Flow increment in gpm to be added at a specific location
Q	Summation of flow in gpm at a specific location
P_t	Total pressure in psi at a point in a pipe
P_f	Pressure loss due to friction between points indicated in location column
P_e	Pressure due to elevation difference between indicated points. This can be a plus value or a minus value. If minus, the (-) shall be used; if plus, no sign is needed.
P_v	Velocity pressure in psi at a point in a pipe
P_n	Normal pressure in psi at a point in a pipe
E	90-degree ell
EE	45-degree ell
Lt.E	Long-turn elbow
Cr	Cross
T	Tee-flow turned 90 degrees
GV	Gate valve
BV	Butterfly (wafer) check- valve
Del V	Deluge valve
ALV	Alarm valve
DPV	Dry pipe valve
CV	Swing check valve
WCV	Butterfly (wafer) check valve
St	Strainer
psi	Pounds per square inch
v	Velocity of water in pipe in feet per second
K	K-factor
C-factor	Friction loss coefficient

Additional Proposed Changes

File Name	Description	Approved
QIP_Shot_- _Screen_2018.11.12_08-49-18.png	Word "Check" is not applicable to the Shut-Off Valves	

Statement of Problem and Substantiation for Public Input

Word "Check" is not applicable to the Shut-Off Valves

Submitter Information Verification

Submitter Full Name: Aleksandr Bushuev

Organization: [Not Specified]

Committee Statement

City:

Resolution: [FR-1184-NFPA 13-2019](#)

State:

Statement: Word "Check" is not applicable to the Shut-Off Valves

Zip:

Submittal Date: Mon Nov 12 00:47:42 EST 2018

Committee: AUT-SSI



Task Group Public Input No. 276-NFPA 13-2019 [New Section after 1.7.1]

1.7.1.1

Nothing in this standard shall prohibit a testing laboratory from testing products that do not conform to the current standard.

Statement of Problem and Substantiation for Public Input

In many of the committee meetings I have participated in, I have heard the laboratory representatives state that they could not test a particular product because it violated the current requirements of this standard. I believe there are many requirements in this standard that could be improved upon with the ever developing and changing technologies.

Submitter Information Verification

Submitter Full Name: Peter Schwab

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Submittal Date: Tue May 28 09:25:33 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1001-NFPA 13-2019

Statement: In many of the committee meetings I have participated in, I have heard the laboratory representatives state that they could not test a particular product because it violated the current requirements of this standard. I believe there are many requirements in this standard that could be improved upon with the ever developing and changing technologies.



Public Input No. 8-NFPA 13-2018 [Section No. 2.3]

2.3 Other Publications.

2.3.1 ACI Publications.

American Concrete Institute, 38800 Country Club Drive, Farmington Hills, MI 48331-3439.

ACI 318, *Building Code Requirements for Structural Concrete and Commentary*, 2014, [errata 1, 2017, errata 2, 2018](#).

ACI 355.2, *Qualification of Post-Installed Mechanical Anchors in Concrete and Commentary*, 2007.

2.3.2 ASCE Publications.

American Society of Civil Engineers, 1801 Alexander Bell Drive, Reston, VA 20191-4400.

ASCE/SEI 7, *Minimum Design Loads for Buildings and Other Structures*, 2016.

2.3.3 ASME Publications.

ASME International, Two Park Avenue, New York, NY 10016-5990.

Boiler and Pressure Vessel Code, Section IX, "Welding, Brazing, and Fusing Qualifications," 2015 [201 7](#).

ASME A17.1, *Safety Code for Elevators and Escalators*, 2010 [201 6](#) /CSA B44-10 [1 6](#).

ASME B1.20.1, *Pipe Threads, General Purpose (Inch)*, 2013.

ASME B16.1, *Gray Iron Pipe Flanges and Flanged Fittings, Classes 25, 125, and 250*, 2015.

ASME B16.3, *Malleable Iron Threaded Fittings, Classes 150 and 300*, 2011 [201 6](#).

ASME B16.4, *Gray Iron Threaded Fittings, Classes 125 and 250*, 2011 [201 6](#).

ASME B16.5, *Pipe Flanges and Flanged Fittings, NPS ½ through NPS 24 Metric/Inch Standard*, 2013 [201 7](#).

ASME B16.9, *Factory-Made Wrought Buttwelding Fittings*, 2012.

ASME B16.11, *Forged Fittings, Socket-Welding and Threaded*, 2011 [201 6, errata, 2017](#).

ASME B16.15, *Cast Copper Alloy Threaded Fittings, Classes 125 and 250*, 2013 [201 8](#).

ASME B16.18, *Cast Copper Alloy Solder Joint Pressure Fittings*, 2012 [201 8](#).

ASME B16.22, *Wrought Copper and Copper Alloy Solder Joint Pressure Fittings*, 2013 [201 8](#).

ASME B16.25, *Buttwelding Ends*, 2012 [201 7](#).

ASME B31.1, *Power Piping*, 2014 [201 8](#).

ASME B36.10M, *Welded and Seamless Wrought Steel Pipe*, 2015 [201 8](#).

2.3.4 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM A53/A53M, *Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless*, 2012 201 8 .

ASTM A106/A106M, *Standard Specification for Seamless Carbon Steel Pipe for High Temperature Service*, 2015 201 8 .

ASTM A135/A135M, *Standard Specification for Electric-Resistance-Welded Steel Pipe*, 2009, reapproved 2014.

ASTM A153A/153M, *Standard Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware*, 2016a .

ASTM A312/A312M, *Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes*, 2017 201 8 .

ASTM A403/A403M, *Standard Specification for Wrought Austenitic Stainless Steel Piping Fittings*, 2016 201 8a .

ASTM A536, *Standard Specification for Ductile Iron Castings*, 2014.

ASTM A795/A795M, *Standard Specification for Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection Use*, 2013.

ASTM B32, *Standard Specification for Solder Metal*, 2008, reapproved 2014.

ASTM B43, *Standard Specification for Seamless Red Brass Pipe, Standard Sizes*, 2015.

ASTM B75/B75M, *Standard Specification for Seamless Copper Tube*, 2011.

ASTM B88, *Standard Specification for Seamless Copper Water Tube*, 2014 201 6 .

ASTM B251/**B251M**, *Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube*, 2010 201 7 .

ASTM B446, *Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625), Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219), and Nickel-Chromium-Molybdenum-Tungsten Alloy (UNS N06625) Rod and Bar*, 2003, reapproved 2014.

ASTM B813, *Standard Specification for Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube*, 2016.

ASTM B828, *Standard Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings*, 2002, reapproved 2010 2016 .

ASTM C635/C635M, *Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings*, 2013a 201 7 .

ASTM C636/C636M, *Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels*, 2013.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, 2016 201 8a .

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, 2016a 201 8b .

ASTM E136, *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C*, 2016a.

ASTM E2652, *Standard Test Method for Behavior of Materials in a Tube Furnace with a Cone-shaped Airflow Stabilizer, at 750°C*, 2016.

ASTM E2768, *Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test)*, 2011, **reapproved 2018** .

ASTM E2965, *Standard Test for Determination of Low Levels of Heat Release Rate for Materials and Products Using an Oxygen Combustion Calorimeter*, 2017.

ASTM F437, *Standard Specification for Threaded Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80*, 2015.

ASTM F438, *Standard Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40*, 2015 201 7 .

ASTM F439, *Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80*, 2013.

ASTM F442/F442M, *Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR)*, 2013e1.

ASTM F1121, *Standard Specification for International Shore Connections for Marine Fire Applications*, 1987, reapproved 2015.

ASTM SI10, *Standard for Use of the International System of Units (SI): The Modern Metric System*, 2010 201 6.

2.3.5 AWS Publications.

American Welding Society, 8669 NW 36 Street, #130, Miami, FL 33166-6672.

AWS A5.8M/A5.8, *Specification for Filler Metals for Brazing and Braze Welding*, 2011.

AWS B2.1/B2.1M, *Specification for Welding Procedure and Performance Qualification*, 2014.

2.3.6 AWWA Publications.

American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

AWWA C104/A21.4, *Cement-Mortar Lining for Ductile-Iron Pipe and Fittings*, 2013 201 6.

AWWA C105/A21.5, *Polyethylene Encasement for Ductile-Iron Pipe Systems*, 2010.

AWWA C110/A21.10, *Ductile Iron and Gray Iron Fittings*, 2012.

AWWA C111/A21.11, *Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings*, 2012 201 7.

AWWA C115/A21.15, *Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges*, 2011.

AWWA C116/A21.16, *Protective Fusion-Bonded Epoxy Coatings Internal and External Surface Ductile-Iron and Gray-Iron Fittings*, 2009, Erratum, 2010 2015.

AWWA C150/A21.50, *Thickness Design of Ductile-Iron Pipe*, 2014.

AWWA C151/A21.51, *Ductile-Iron Pipe, Centrifugally Cast*, 2009 20 17, errata, 2018.

AWWA C153/A21.53, *Ductile-Iron Compact Fittings*, 2011.

AWWA C200, *Steel Water Pipe 6 in. (150 mm) and Larger*, 2012, Errata, 2012 2017.

AWWA C203, *Coal-Tar Protective Coatings and Linings for Steel Water Pipe*, 2015.

AWWA C205, *Cement-Mortar Protective Lining and Coating for Steel Water Pipe 4 in. (100 mm) and Larger — Shop Applied*, 2012.

AWWA C206, *Field Welding of Steel Water Pipe*, 2011 201 7.

AWWA C300, *Reinforced Concrete Pressure Pipe, Steel-Cylinder Type*, 2011 201 6.

AWWA C301, *Prestressed Concrete Pressure Pipe, Steel-Cylinder Type*, 2014.

AWWA C302, *Reinforced Concrete Pressure Pipe, Non-Cylinder Type*, 2011 201 6.

AWWA C303, *Reinforced Concrete Pressure Pipe, Bar-Wrapped, Steel-Cylinder Type, Pretensioned*, 2008 20 17.

AWWA C600, *Installation of Ductile-Iron Mains and Their Appurtenances*, 2010 201 7.

AWWA C602, *Cement-Mortar Lining of Water Pipe Lines in Place, 4 in. (100 mm) and Larger*, 2011 201 7.

AWWA C900, *Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. Through 42 in. (100 mm Through 300 mm), for Water Transmission and Distribution*, 2007, Errata, 2008 Through 1,500 mm, 2016.

AWWA C905, *Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 14 in. Through 48 in. (350 mm Through 1200 mm), for Water Transmission and Distribution*, 2010, Erratum, 2013.

AWWA C906, *Polyethylene (PE) Pressure Pipe and Fittings, 4 in. Through 63 in. (100 mm Through 1,650 mm), for Waterworks*, 2015.

AWWA C909, *Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe, 4 in. Through 24 in. (100 mm Through 600 mm) for Water, Wastewater, and Reclaimed Water Service*, 2009 and Larger, 20 16.

AWWA M9, *Concrete Pressure Pipe*, 2008, errata, 2013.

AWWA M23, *PVC Pipe — Design and Installation*, 2002.

AWWA M55, *PE Pipe — Design and Installation*, 2006.

2.3.7 ICC-ES Publications.

ICC Evaluation Service, 900 Montclair Road, Suite A, Birmingham, AL 35213.

ICC-ES AC446, *Acceptance Criteria for Headed Cast-in Specialty Inserts in Concrete*, 2013.

2.3.8 IEEE Publications.

IEEE, Three Park Avenue, 17th Floor, New York, NY 10016-5997.

IEEE 45, *Recommended Practice for Electric Installations on Shipboard*, 2002.

2.3.9 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 62, *Flexible Cords and Cables*, 2010 **2018**.

UL 263, *Standard for Fire Tests of Building Construction and Materials*, 2011, **revised 2018**.

UL 723, *Standard for Test for Surface Burning Characteristics of Building Materials*, 2008, ~~revised 2013~~ **2018**.

UL 1581, *Reference Standard for Electrical Wires, Cables, and Flexible Cords*, 2011, **2001, revised 2017**.

2.3.10 U.S. Government Publications.

U.S. Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

Title 46, CFR, Parts 54.15-10 Safety and Relief Valves, 56.20 Valves, 56.20-5(a) Markings, 56.50-95 Overboard Discharges and Shore Connections, 56.60 Materials, and 58.01-40 Machinery, Angle of Inclination.

Title 46, CFR, Subchapter F, "Marine Engineering."

Title 46, CFR, Subchapter J, "Electrical Engineering."

2.3.11 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

Statement of Problem and Substantiation for Public Input

Referenced current national consensus standards editions.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 9-NFPA 13-2018 [Chapter F]	

Submitter Information Verification

Submitter Full Name: Aaron Adamczyk

Organization: [Not Specified]

Street Address:

City:

State:

Zip:

Submission Date: Sun Oct 28 18:49:23 EDT 2018

Committee: AUT-SSI

Committee Statement

Resolution:

Statement: Referenced current national consensus standards editions.



Task Group Public Input No. 260-NFPA 13-2019 [Section No. 2.3.3]

2.3.3 ASME Publications.

ASME International, Two Park Avenue, New York, NY 10016-5990.

Boiler and Pressure Vessel Code, Section IX, "Welding, Brazing, and Fusing Qualifications," 2015.

ASME A17.1, *Safety Code for Elevators and Escalators*, 2010 2019 /CSA B44-10 19 .

ASME B1.20.1, *Pipe Threads, General Purpose (Inch)*, 2013.

ASME B16.1, *Gray Iron Pipe Flanges and Flanged Fittings, Classes 25, 125, and 250*, 2015.

ASME B16.3, *Malleable Iron Threaded Fittings, Classes 150 and 300*, 2011.

ASME B16.4, *Gray Iron Threaded Fittings, Classes 125 and 250*, 2011.

ASME B16.5, *Pipe Flanges and Flanged Fittings, NPS ½ through NPS 24 Metric/Inch Standard*, 2013.

ASME B16.9, *Factory-Made Wrought Buttwelding Fittings*, 2012.

ASME B16.11, *Forged Fittings, Socket-Welding and Threaded*, 2011.

ASME B16.15, *Cast Copper Alloy Threaded Fittings, Classes 125 and 250*, 2013.

ASME B16.18, *Cast Copper Alloy Solder Joint Pressure Fittings*, 2012.

ASME B16.22, *Wrought Copper and Copper Alloy Solder Joint Pressure Fittings*, 2013.

ASME B16.25, *Buttwelding Ends*, 2012.

ASME B31.1, *Power Piping*, 2014.

ASME B36.10M, *Welded and Seamless Wrought Steel Pipe*, 2015.

Statement of Problem and Substantiation for Public Input

The next 2019 Edition of the ASME A17.1 code will be published in September of 2019 and it should be the referenced standard in the next 2022 edition of NFPA 13

Submitter Information Verification

Submitter Full Name: Sagiv Weiss-Ishai

Organization: San Francisco Fire Department

Affiliation: SFFD

Street Address:

City:

State:

Zip:

Submission Date: Sun May 19 21:19:56 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Editorial and refers to documents that are not referenced in the standard.



Task Group Public Input No. 524-NFPA 13-2019 [Section No. 2.3.9]

2.3.9 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 62, *Flexible Cords and Cables*, 2010 2018 .

UL 263, *Standard for Fire Tests of Building Construction and Materials*, 2011.

UL 515A, Outline of Investigation for Electrical Resistance Trace Heating and Associated Controls for Use In Sprinkler and Standpipe Systems, 2019

UL 723, *Standard for Test for Surface Burning Characteristics of Building Materials*, 2008 2011 , revised 2013 20119 .

UL 1581, *Reference Standard for Electrical Wires, Cables, and Flexible Cords*, 2011- 2017 .

UL 2901, Outline of Investigation for Antifreeze Solutions for Use in Fire Sprinkler Systems, 2018 .

UL 2901A, Outline of Investigation for Corrosion Control Additives for Use in Fire Sprinkler Systems, 2019 .

Statement of Problem and Substantiation for Public Input

Update the publishing dates for each of the UL standards listed to reflect the most up to date edition. Added UL 515A, UL 2901 and UL 2901A referencing additional standards brought forward from individual public inputs, reference the linked proposals.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 525-NFPA 13-2019 [Section No. 7.8.1]	
Public Input No. 526-NFPA 13-2019 [Section No. 8.6.2.1]	
Public Input No. 527-NFPA 13-2019 [Section No. 16.4.1.4]	
Public Input No. 528-NFPA 13-2019 [Section No. 29.1.8]	

Submitter Information Verification

Submitter Full Name: Kelly Nicoletto

Organization: UL LLC

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 12:24:42 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Editorial proposed standqards are not referenced in the main body of the document.



Task Group Public Input No. 486-NFPA 13-2019 [New Section after 3.1]

3.3.XX Vertical Fire Protection Zone.

A vertical zone within a high-rise building that is supplied from a fire pump(s) and /or water storage tank(s) with a separate riser from the standpipe system.

Statement of Problem and Substantiation for Public Input

High rise building construction is regulated by several codes and standards. A zone is described in many ways from the International Building Code (IBC), NFPA 13, NFPA 14, and NFPA 20. This public input starts to attempt to correlate the terminology of what a vertical zone is across all the codes and standards.

This PI uses modified definitions from NFPA 14 and NFPA 20 to introduce these terms into NFPA 13 and adds in a new subsection to 7.1.2.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 444-NFPA 13-2019 [New Section after 7.1.2]	
Public Input No. 404-NFPA 13-2019 [New Section after 3.3]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: On behalf of NFSA Engineering and Standards (E&S) committee
Street Address:
City:
State:
Zip:
Submission Date: Thu Jun 06 18:45:21 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Term is not used in the standard.



Public Input No. 404-NFPA 13-2019 [New Section after 3.3]

3.3.XX Vertical Combined Standpipe System Zone.

A vertical subdivision of a combined standpipe system limited or determined by the pressure limitations of the system components. In a high-rise building, it is supplied from a fire pump(s) and/or water storage tank(s)

Statement of Problem and Substantiation for Public Input

"High rise building construction is regulated by several codes and standards. A zone is described in many ways from the International Building Code (IBC), NFPA 13, NFPA 14, and NFPA 20. This public input starts to attempt to correlate the terminology of what a vertical zone is across all the codes and standards.

This PI uses modified definitions from NFPA 14 and NFPA 20 to introduce these terms into NFPA 13. It is used in a new section, 7.1.2.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 444-NFPA 13-2019 [New Section after 7.1.2]	
Public Input No. 486-NFPA 13-2019 [New Section after 3.1]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: On behalf of NFSA Engineering and Standards (E&S) committee.
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 04 13:19:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Term is not used iun the standard.



Public Input No. 646-NFPA 13-2019 [Section No. 3.3.9]

3.3.9 Automated Inspection and Testing.

The performance of inspections and tests at a ~~distance~~ distant location from the system or component being inspected or tested through the use of electronic devices or equipment installed for the purpose.

Statement of Problem and Substantiation for Public Input

The definition in NFPA 13 is slightly different than the one in NFPA 14, 20, and 25. This change correlates this definition with NFPA 25 - 2022.

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 14:12:52 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1345-NFPA 13-2019](#)

Statement: The definition in NFPA 13 is slightly different than the one in NFPA 14, 20, and 25. This change correlates this definition with NFPA 25 - 2022.

**Task Group Public Input No. 479-NFPA 13-2019 [New Section after 3.3.11]****TITLE OF NEW CONTENT**

3.3.12 Auxiliary Drain. A drain located after an offset or drop in elevation of system pipe.

Statement of Problem and Substantiation for Public Input

For thirty years I have always assumed that it was understood what the different types of drains were on systems, I no longer do that. If there is another definition in any of the NFPA standards then that definition should be used and added to this standard. I do believe this should be in the definitions section as auxiliary drain is used in chapters 8,16 and 26 at least.

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 16:58:35 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Well covered in Chapter 16.10.5.



Task Group Public Input No. 344-NFPA 13-2019 [Section No. 3.3.16]

3.3.16* Bathroom.

Within a dwelling unit, ~~any room or compartment~~ any compartment dedicated to personal hygiene, containing a toilet, sink, or bathing capability such as a shower or tub.

Statement of Problem and Substantiation for Public Input

Remove room as it is an undefined term in NFPA 13

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 14:58:37 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Resolve at the request of the submitter.



Public Input No. 128-NFPA 13-2019 [Section No. 3.3.25]

3.3.25* Ceiling Pocket.

An architectural ceiling feature that consists of a bounded area of ceiling located at a higher elevation than the attached lower ceiling, where sprinkler(s) in the upper ceiling level is/are obstructed or where placing sprinklers in the lower ceiling (only) would violate the allowable deflector distance from the upper level ceiling .

Statement of Problem and Substantiation for Public Input

Expanding the definition will make the application of ceiling pocket rules more clear to users of the standard.

Submitter Information Verification

Submitter Full Name: Robert Caputo
Organization: Fire & Life Safety America
Street Address:
City:
State:
Zip:
Submittal Date: Wed Feb 27 11:24:01 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1004-NFPA 13-2019 Proposed language is added to the annex.](#)
Statement: Expanding the definition will make the application of ceiling pocket rules more clear to users of the standard.



Task Group Public Input No. 266-NFPA 13-2019 [Section No. 3.3.26.4]

3.3.26.4 Smooth Ceiling.

A continuous ceiling free from significant irregularities, lumps, or indentations extending more than 4 in. (100 mm) below the ceiling surface

Statement of Problem and Substantiation for Public Input

The current NFPA 13 standard does not specify how big indentation could be for the ceiling to still be considered smooth. The definition of the smooth ceiling is clarified with wording coming from the NFPA 72 definition for the smooth ceiling.

Submitter Information Verification

Submitter Full Name: Jason Ryckman

Organization: Canadian Automatic Sprinkler Association

Affiliation: Canadian Automatic Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 22 15:17:03 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The annex covers this issue in 3.3.26.4(3).

**Public Input No. 653-NFPA 13-2019 [Section No. 3.3.34]**

3.3.34 Combined Dry Pipe ~~Reaction~~ Pipe-Preaction Sprinkler System.

See 3.3.206.2.

Statement of Problem and Substantiation for Public Input

delete Reaction and replace it with Preaction.

Submitter Information Verification

Submitter Full Name: Kevin Kelly

Organization: Victaulic

Affiliation: NFSA

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 15:27:47 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1005-NFPA 13-2019](#)

Statement: delete Reaction and replace it with Preaction.



Task Group Public Input No. 552-NFPA 13-2019 [Section No. 3.3.38]

3.3.38 Compartment.

A space completely enclosed by walls and a ceiling. ~~Each wall in the compartment is permitted to have openings to an adjoining space if the openings have a minimum lintel depth of 8 in. (200 mm) from the ceiling and the total width of the openings in each wall does not exceed 8 ft (2.4 m). A single opening of 36 in. (900 mm) or less in width without a lintel is permitted where there are no other openings to adjoining spaces. See 9.2.~~

Statement of Problem and Substantiation for Public Input

This definition has several requirements that apply to its use in the standard. These requirements should be explained elsewhere in the standard and not in the definition.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 551-NFPA 13-2019 [New Section after 3.3.57]	Definitions used together in a PI.
Public Input No. 553-NFPA 13-2019 [New Section after 9.1.1]	
Public Input No. 554-NFPA 13-2019 [Section No. 9.4.3]	

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 15:38:37 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [CI-1007-NFPA 13-2019 Pending action in Chapter 9.](#)

Statement: This definition has several requirements that apply to its use in the standard. These requirements should be explained elsewhere in the standard and not in the definition.

**Task Group Public Input No. 405-NFPA 13-2019 [Section No. 3.3.46]****3.3.46* Control Valve.**

A valve ~~controlling flow~~ capable of shutting off flow to water-based fire protection systems and devices.

Statement of Problem and Substantiation for Public Input

Modify definitions of control valve and shut off valve to align with the definitions in 13/13R/13D

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Tue Jun 04 16:00:13 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1008-NFPA 13-2019 Clarifies the meaning of control valve.](#)

Statement: Modify definitions of control valve and shut off valve to align with the definitions in 13/13R/13D

**Task Group Public Input No. 648-NFPA 13-2019 [Section No. 3.3.55]****3.3.55** Distance Monitoring.

The monitoring of various conditions of a system or component from a ~~location~~ distant from ~~location from~~ the system or component through the use of electronic devices, meters, or equipment installed for the purpose.

Statement of Problem and Substantiation for Public Input

The definition of Distance Monitoring varied slightly between NFPA 13, 14, and 20. This change will help correlate to a common definition.

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 14:24:08 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1009-NFPA 13-2019](#)

Statement: The definition of Distance Monitoring varied slightly between NFPA 13, 14, and 20. This change will help correlate to a common definition.



Public Input No. 333-NFPA 13-2019 [New Section after 3.3.57]

Define Drop

3.3.58 Drop. A vertical pipe supplying a single sprinkler from above.

[Renummer remaining sections]

Statement of Problem and Substantiation for Public Input

Undefined term that when combined with a nipple and arm-over will constitute a return bend. Return bends are called out in this standard, however they are not defined.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 334-NFPA 13-2019 [New Section after 3.3.179]	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 14:29:45 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1010-NFPA 13-2019](#)

Statement: Undefined term that when combined with a nipple and arm-over will constitute a return bend. Return bends are called out in this standard, however they are not defined.



Public Input No. 551-NFPA 13-2019 [New Section after 3.3.57]

Draft Stop

A continuous membrane used to trap heat when subdividing a compartment or when providing separation around an unenclosed vertical opening when used in combination with closed spaced sprinklers. See 9.2.1.2 and 9.3.5.2.

Statement of Problem and Substantiation for Public Input

The term is currently used in NFPA 13 but is not defined. The definition of draft stop in the NFPA Glossary of Terms doesn't apply to its application in NFPA 13. The term draft stop is also used in a proposal to allow the subdivision of compartments and needs to be defined.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 552-NFPA 13-2019 [Section No. 3.3.38]	
Public Input No. 553-NFPA 13-2019 [New Section after 9.1.1]	
Public Input No. 554-NFPA 13-2019 [Section No. 9.4.3]	

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 15:35:19 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1010-NFPA 13-2019](#)

Statement: Undefined term that when combined with a nipple and arm-over will constitute a return bend. Return bends are called out in this standard, however they are not defined.



Public Input No. 569-NFPA 13-2019 [Section No. 3.3.57]

3.3.57* Draft Curtain.

~~A continuous material protruding fixed or deployable barrier that protrudes downward from the ceiling to create a reservoir for collecting smoke and heat channel, contain, or prevent the migration of smoke .~~

Statement of Problem and Substantiation for Public Input

In the Annex section it directs the user to NFPA 204. This is the definition found in NFPA 204. The definitions should be the same in both standards

Submitter Information Verification

Submitter Full Name: John Deutsch
Organization: Shambaugh and Sons
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 09 10:30:16 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1010-NFPA 13-2019](#)

Statement: Undefined term that when combined with a nipple and arm-over will constitute a return bend. Return bends are called out in this standard, however they are not defined.

**Public Input No. 376-NFPA 13-2019 [New Section after 3.3.63]****Electrical Equipment Room**

A room primarily dedicated to housing electrical equipment such as switchgear, meters and panels.

Statement of Problem and Substantiation for Public Input

Some AHJ's are mandating the requirements for electrical equipment rooms simply because a house panel is located in the room.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 31 15:20:03 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1012-NFPA 13-2019](#)

Statement: Some AHJ's are mandating the requirements for electrical equipment rooms simply because a house panel is located in the room.



Public Input No. 497-NFPA 13-2019 [New Section after 3.3.64]

Electrically Operated Sprinkler.

A sprinkler that is equipped with an integral means of activation using electricity. [25 , 2020]

Statement of Problem and Substantiation for Public Input

A new type of sprinkler is available on the market and new requirements are proposed to be included in NFPA 13. This definition is needed to guide the user of the standard.

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 09:07:45 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1013-NFPA 13-2019 Accept heading only and refer to Sprinkler section.

Statement: A new type of sprinkler is available on the market and new requirements are proposed to be included in NFPA 13. This definition is needed to guide the user of the standard.



Public Input No. 547-NFPA 13-2019 [New Section after 3.3.68]

TITLE OF NEW CONTENT

3.3.XX Exterior Projection. Any substantial construction that extends the footprint of a building, attached to the primary structure, capable of collecting heat to aid in the operation of sprinklers, where a fire originating in the footprint of the exterior projection is capable of transferring products of combustion .

Statement of Problem and Substantiation for Public Input

Exterior projections are not currently defined in NFPA 13 and this leads to confusion. Questions often come up such as; is an open trellis structure an exterior projection, or are ornamental feature on top of buildings considered an exterior projection?

This definition will provide clarity when applying the exterior projection rules.

If accepted it may be beneficial to create annex language for this definition for the 2nd draft meeting

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 15:04:00 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1015-NFPA 13-2019

Statement: Exterior projections are not currently defined in NFPA 13 and this leads to confusion. Questions often come up such as; is an open trellis structure an exterior projection, or are ornamental feature on top of buildings considered an exterior projection?

This definition will provide clarity when applying the exterior projection rules.

If accepted it may be beneficial to create annex language for this definition for the 2nd draft meeting



Task Group Public Input No. 310-NFPA 13-2019 [Sections 3.3.133.1, 3.3.133.2]

Sections 3.3.133.1, 3.3.133.2

3.3.133.1 Continuous Obstruction.

An obstruction located ~~at or below the level of sprinkler deflectors that affect~~ that affects the discharge pattern of two or more adjacent sprinklers.

3.3.133.2 Noncontinuous Obstruction.

An obstruction ~~at or below the level of the sprinkler deflector that~~ obstruction that affects the discharge pattern of a single sprinkler.

Statement of Problem and Substantiation for Public Input

This definition conflicts with the obstruction criteria. Obstructions exist above the plane of the deflector as indicated by 10.2.7.2.1.2 that states "where the top of the obstruction is level with OR ABOVE the plane of the deflector" and by the entire section 10.2.7.1.2.

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:54:48 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarificaion.



Task Group Public Input No. 462-NFPA 13-2019 [Section No. 3.3.134.1]

3.3.134.1 Extra Hazard (Group 1) (EH1).

Occupancies or portions of other occupancies where the quantity and combustibility of contents are very high and ~~high~~ or dust, lint, or other materials are present, introducing the probability of rapidly developing fires with high rates of heat release but with little or no combustible or flammable liquids.

Statement of Problem and Substantiation for Public Input

The use of the word and would indicate both conditions are needed.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 15:11:25 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1016-NFPA 13-2019](#)

Statement: The use of the word and would indicate both conditions are needed.



Task Group Public Input No. 113-NFPA 13-2019 [New Section after 3.3.134.3]

3.3.134.4* Ordinary Harard Occupancies

Statement of Problem and Substantiation for Public Input

Allows for introduction of deleted Annex materials related to defining what moderate and high rates of heat release rate commodities are and what a stockpile is.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Tue Feb 19 16:13:41 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: See PI 166. No language was submitted.



Task Group Public Input No. 166-NFPA 13-2019 [Section No. 3.3.134.4]

3.3.134.4 Ordinary Hazard (Group 1) (OH1).

Occupancies or portions of other occupancies where ~~the quantity and combustibility of the contents does not exceed the amount of miscellaneous storage of Class 2, 3, 4, plastics, tires, and roll paper provided in Table 4.3.1.7.1~~ : combustibility is low, quantity of combustibles is moderate, stockpiles of combustibles do not exceed 8 ft (2.4 m), and fires with moderate rates of heat release are expected.

Statement of Problem and Substantiation for Public Input

The definition for OH1 was revised during the previous revision cycle, but there is no substantiation or explanation for the change. Despite the new verbiage, FR No. 866 just says that the occupancy definitions were being relocated from Chapter 5 to Chapter 3.

As it is currently written, the definition is not correct. It compares an OH1 occupancy to the combustible contents of miscellaneous storage of Class 2, 3, 4, plastics, tires, and roll paper provided in Table 4.3.1.7.1. However, review of the Table indicates that OH1 design criteria for miscellaneous storage is only appropriate for Class 1 commodities stored to 12 ft and Class 2 commodities to 10 ft. All other miscellaneous storage configurations require a greater level of protection, such as OH2, EH1 and EH2.

The previous definition for OH1 occupancies has stood the test of time, since it was first introduced to NFPA 13, approximately 45 years ago, so it should be retained going forward.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Fri Mar 15 22:45:08 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1017-NFPA 13-2019

Statement: The definition for OH1 was revised during the previous revision cycle, but there is no substantiation or explanation for the change. Despite the new verbiage, FR No. 866 just says that the occupancy definitions were being relocated from Chapter 5 to Chapter 3.

As it is currently written, the definition is not correct. It compares an OH1 occupancy to the combustible contents of miscellaneous storage of Class 2, 3, 4, plastics, tires, and roll paper provided in Table 4.3.1.7.1. However, review of the Table indicates that OH1 design criteria for miscellaneous storage is only appropriate for Class 1 commodities stored to 12 ft and Class 2 commodities to 10 ft. All other miscellaneous storage configurations require a greater level of protection, such as OH2, EH1 and EH2.

The previous definition for OH1 occupancies has stood the test of time, since it was first introduced to NFPA 13, approximately 45 years ago, so it should be retained going forward.



Task Group Public Input No. 78-NFPA 13-2019 [Section No. 3.3.134.4]

3.3.134.4 Ordinary Hazard (Group 1) (OH1).

Occupancies or portions of other occupancies where the combustibility is low, quantity and combustibility of the contents does not exceed the amount of miscellaneous storage of Class 2, 3, 4, plastics, tires, and roll paper provided in Table 4.3.1.7.1, of combustibles is moderate, stockpiles of contents do not exceed 8 ft (2.4 m), and fires with moderate rates of heat release are expected.

Statement of Problem and Substantiation for Public Input

The definition provided for OH1 does not match the parameters provided in 4.3.3 and represent a disconnect in allowances for stockpiles in OH1 designed occupancies. The proposed change brings 3.3.134.4 and 4.3.3 into alignment with one another and match that previously allowed by the 2016 Edition.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 112-NFPA 13-2019 [Section No. 4.3.3]	

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Wed Feb 13 15:11:39 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1017-NFPA 13-2019

Statement: The definition for OH1 was revised during the previous revision cycle, but there is no substantiation or explanation for the change. Despite the new verbiage, FR No. 866 just says that the occupancy definitions were being relocated from Chapter 5 to Chapter 3.

As it is currently written, the definition is not correct. It compares an OH1 occupancy to the combustible contents of miscellaneous storage of Class 2, 3, 4, plastics, tires, and roll paper provided in Table 4.3.1.7.1. However, review of the Table indicates that OH1 design criteria for miscellaneous storage is only appropriate for Class 1 commodities stored to 12 ft and Class 2 commodities to 10 ft. All other miscellaneous storage configurations require a greater level of protection, such as OH2, EH1 and EH2.

The previous definition for OH1 occupancies has stood the test of time, since it was first introduced to NFPA 13, approximately 45 years ago, so it should be retained going forward.

**Task Group Public Input No. 345-NFPA 13-2019 [Section No. 3.3.168]**

3.3.168 – Quick-Response Early Suppression (QRES) Sprinkler.

See 3.3.205.4.14 .

Statement of Problem and Substantiation for Public Input

Delete. Not used in this standard and there is no sprinkler with this designation

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 346-NFPA 13-2019 [Section No. 3.3.205.4.14]	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 15:00:06 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1018-NFPA 13-2019](#)

Statement: Delete. Not used in this standard and there is no sprinkler with this designation



Task Group Public Input No. 334-NFPA 13-2019 [New Section after 3.3.179]

Define Return Bend

3.3.180 Return Bend. A pipe arrangement consisting of a nipple installed in the top of a branch line, an arm-over, and a drop to supply a single sprinkler. A tee may be installed on the run to connect to a sprig and upright to support above and below coverage.

[Renummer remaining sections]

Statement of Problem and Substantiation for Public Input

This is an undefined term used in this standard with requirements in dry and double-interlock preaction systems.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 333-NFPA 13-2019 [New Section after 3.3.57]	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 14:31:32 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Definition is not needed, a return bend is illustrated in Chapter 16.



Public Input No. 640-NFPA 13-2019 [New Section after 3.3.187]

Shadow Area

The dry floor area within the protection area of a sprinkler created by the portion of sprinkler discharge that is blocked by a wall or partition.

-

Statement of Problem and Substantiation for Public Input

An allowance for maximum shadow area was added to the 2019 edition for residential sprinklers, based on provisions of NFPA 13R and NFPA 13. No definition of "shadow area" was added, although there is a definition in NFPA 13R. This proposed definition is identical to that in NFPA 13R. As the term is now used in the standard, it should be defined.

Submitter Information Verification

Submitter Full Name: Christopher Born
Organization: Clark Nexsen, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 13:40:03 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1020-NFPA 13-2019

Statement: An allowance for maximum shadow area was added to the 2019 edition for residential sprinklers, based on provisions of NFPA 13R and NFPA 13. No definition of "shadow area" was added, although there is a definition in NFPA 13R. This proposed definition is identical to that in NFPA 13R. As the term is now used in the standard, it should be defined.



Task Group Public Input No. 347-NFPA 13-2019 [Section No. 3.3.189]

3.3.189 Shop-Welded.

~~As used in this standard, *shop* in the term *shop-welded* means either (1) a~~ A sprinkler contractor's or fabricator's premise or (2) an area specifically designed or authorized for welding, such as a detached outside location, maintenance shop, or other area (either temporary or permanent) of noncombustible or fire-resistive construction free of combustible and flammable contents and suitably segregated from adjacent areas.

Statement of Problem and Substantiation for Public Input

Deletes unnecessary text. Definitions used in section 3.3 are already specific to this standard.

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 15:03:38 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1021-NFPA 13-2019](#)

Statement: Deletes unnecessary text. Definitions used in section 3.3 are already specific to this standard.

**Public Input No. 633-NFPA 13-2019 [Section No. 3.3.205]****3.3.205** Sprinkler Definitions.**3.3.205.1** Automatic Sprinkler.

A fire suppression or control device that operates automatically when its heat-activated element is heated to its thermal rating or above, allowing water to discharge over a specified area.

3.3.205.2 * General Sprinkler Characteristics.

The following are characteristics of a sprinkler that define its ability to control or extinguish a fire. (1) Thermal sensitivity. A measure of the rapidity with which the thermal element operates as installed in a specific sprinkler or sprinkler assembly. One measure of thermal sensitivity is the response time index (RTI) as measured under standardized test conditions. (a) Sprinklers defined as fast response have a thermal element with an RTI of 50 (meters-seconds)^{1/2} or less. (b) Sprinklers defined as standard response have a thermal element with an RTI of 80 (meters-seconds)^{1/2} or more. (2) Temperature rating. (3) K-factor (*see Chapter 7*). (4) Installation orientation (*see 3.3.205.3*). (5) Water distribution characteristics (i.e., application rate, wall wetting). (6) Special service conditions.

3.3.205.3 Installation Orientation.

The following sprinklers are defined according to orientation.

3.3.205.3.1 Concealed Sprinkler.

A recessed sprinkler with cover plate.

3.3.205.3.2 Flush Sprinkler.

A sprinkler in which all or part of the body, including the shank thread, is mounted above the lower plane of the ceiling.

3.3.205.3.3 Pendant Sprinkler.

A sprinkler designed to be installed in such a way that the water stream is directed downward against the deflector.

3.3.205.3.4 Recessed Sprinkler.

A sprinkler in which all or part of the body, other than the shank thread, is mounted within a recessed housing.

3.3.205.3.5 Sidewall Sprinkler.

A sprinkler having special deflectors that are designed to discharge most of the water away from the nearby wall in a pattern resembling one-quarter of a sphere, with a small portion of the discharge directed at the wall behind the sprinkler.

3.3.205.3.6 Upright Sprinkler.

A sprinkler designed to be installed in such a way that the water spray is directed upwards against the deflector.

3.3.205.4 Sprinkler Types.

The following sprinklers are defined according to design and/or performance characteristics.

3.3.205.4.1 .1 Attic Sprinkler A specific application type of sprinkler designed to provide protection in combustible and non-combustible attic spaces.

3.3.205.4.1.2 Attic Upright Sprinkler An upright sprinkler specifically designed to develop a spray pattern capable of extending along the roof line.

3.3.205.4.1.3 Back-to-Back Attic Sprinkler A type of attic sprinkler that is positioned near the peak or ridge that provides coverage in both directions along the slope of the attic.

3.3.205.4.1.4 Hip Attic Sprinkler A type of attic sprinkler which provides protection for the hip area of the attic, with coverage that sprays in two directions at a 90 degree spray pattern.

3.3.205.4.1.5 Single Directional Attic Sprinkler A type of attic sprinkler that is positioned near the peak or ridge that provides coverage along the slope of the attic in a single direction.

3.3.205.4.1 * Control Mode Density/Area (CMDA) Sprinkler.

A type of spray sprinkler intended to provide fire control in storage applications using the design density/area criteria described in this standard.

3.3.205.4.2 * Control Mode Specific Application (CMSA) Sprinkler.

A type of spray sprinkler that is capable of producing characteristic large water droplets and that is listed for its capability to provide fire control of specific high-challenge fire hazards.

3.3.205.4.3 Corrosion-Resistant Sprinkler.

A sprinkler fabricated with corrosion-resistant material, or with special coatings or platings, to be used in an atmosphere that would normally corrode sprinklers.

3.3.205.4.4 * Dry Sprinkler.

A sprinkler secured in an extension nipple that has a seal at the inlet end to prevent water from entering the nipple until the sprinkler operates.

3.3.205.4.5 * Early Suppression Fast-Response (ESFR) Sprinkler.

A type of fast-response sprinkler that has a thermal element with an RTI of 50 (meters-seconds)^{1/2} or less and is listed for its capability to provide fire suppression of specific high-challenge fire hazards.

3.3.205.4.6 Extended Coverage Sprinkler.

A type of spray sprinkler with maximum coverage areas as specified in Sections 11.2 and 11.3.

3.3.205.4.7 Institutional Sprinkler.

A sprinkler specially designed for resistance to load-bearing purposes and with components not readily converted for use as weapons.

3.3.205.4.8 Intermediate-Level Sprinkler/Rack Storage Sprinkler.

A sprinkler equipped with integral shields to protect its operating elements from the discharge of sprinklers installed at higher elevations.

3.3.205.4.9 Nozzle.

A device for use in applications requiring special water discharge patterns, directional spray, or other unusual discharge characteristics.

3.3.205.4.10 Old-Style/Conventional Sprinkler.

A sprinkler that directs from 40 percent to 60 percent of the total water initially in a downward direction and that is designed to be installed with the deflector either upright or pendent.

3.3.205.4.11 Open Sprinkler.

A sprinkler that does not have actuators or heat-responsive elements.

3.3.205.4.12 Ornamental/Decorative Sprinkler.

A sprinkler that has been painted or plated by the manufacturer.

3.3.205.4.13 Pilot Line Detector.

A standard spray sprinkler or thermostatic fixed-temperature release device used as a detector to pneumatically or hydraulically release the main valve, controlling the flow of water into a fire protection system.

3.3.205.4.14 * Quick-Response Early Suppression (QRES) Sprinkler.

A type of quick-response sprinkler that has a thermal element with an RTI of 50 (meter-seconds)^{1/2} or less and is listed for its capability to provide fire suppression of specific fire hazards.

3.3.205.4.15 Quick-Response Extended Coverage Sprinkler.

A type of quick-response sprinkler that has a thermal element with an RTI of 50 (meter-seconds)^{1/2} or less and complies with the extended protection areas defined in Chapter 11.

3.3.205.4.16 * Quick-Response (QR) Sprinkler.

A type of spray sprinkler that has a thermal element with an RTI of 50 (meter-seconds)^{1/2} or less and is listed as a quick-response sprinkler for its intended use.

3.3.205.4.17 Residential Sprinkler.

A type of fast-response sprinkler having a thermal element with an RTI of 50 (meters-seconds)^{1/2} or less that has been specifically investigated for its ability to enhance survivability in the room of fire origin and that is listed for use in the protection of dwelling units.

3.3.205.4.18 Special Sprinkler.

A sprinkler that has been tested and listed as prescribed in Section 15.2.

3.3.205.4.19 Spray Sprinkler.

A type of sprinkler listed for its capability to provide fire control for a wide range of fire hazards.

3.3.205.4.20 Standard Spray Sprinkler.

A spray sprinkler with maximum coverage areas as specified in Sections 10.2 and 10.3.

Statement of Problem and Substantiation for Public Input

Attic Sprinklers are not currently defined in the standard. The definitions are necessary to accompany changes proposed for Chapter 15 and the design and installation of sprinklers protecting attic spaces.

Submitter Information Verification

Submitter Full Name: James Lake

Organization: Viking Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 13:04:28 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1014-NFPA 13-2019 PI 633 add the proposed definitions except QRES. Attic sprinkler is accepted but not the sub-definitions for attic sprinklers.

Statement: New types of sprinklers (electrically activated sprinklers and sprinklers with monitoring of activation) appeared and their definitions introduced to ISO 6182-1



Public Input No. 161-NFPA 13-2019 [New Section after 3.3.205.4.5]

3.3.205.4.6 Electrically Activated Sprinkler (EAS).

A sprinkler which is equipped with an integral means of activation using electricity.

Statement of Problem and Substantiation for Public Input

New types of sprinklers (electrically activated sprinklers and sprinklers with monitoring of activation) appeared and their definitions introduced to ISO 6182-1

Submitter Information Verification

Submitter Full Name: Leonid Tanklevskiy
Organization: Gefest Enterprise Group
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 12 03:52:09 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1014-NFPA 13-2019 PI 633 add the proposed definitions except QRES. Attic sprinkler is accepted but not the sub-definitions for attic sprinklers.

Statement: New types of sprinklers (electrically activated sprinklers and sprinklers with monitoring of activation) appeared and their definitions introduced to ISO 6182-1



Task Group Public Input No. 346-NFPA 13-2019 [Section No. 3.3.205.4.14]

3.3.205.4.14 * – Quick-Response Early Suppression (QRES) Sprinkler.

A type of quick-response sprinkler that has a thermal element with an RTI of 50 (meter-seconds)^{1/2} or less and is listed for its capability to provide fire suppression of specific fire hazards.

Statement of Problem and Substantiation for Public Input

Delete. Not used in this standard and there is no sprinkler with this designation

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 345-NFPA 13-2019 [Section No. 3.3.168]	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 15:01:44 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1019-NFPA 13-2019](#)

Statement: Delete. Not used in this standard and there is no sprinkler with this designation



Public Input No. 162-NFPA 13-2019 [New Section after 3.3.205.4.19]

3.3.205.4.20 Sprinkler with Monitoring of Activation (SMA).

A sprinkler which is equipped with integral means of monitoring of activation using electricity.

Statement of Problem and Substantiation for Public Input

New types of sprinklers (electrically activated sprinklers and sprinklers with monitoring of activation) appeared and their definitions introduced to ISO 6182-1

Submitter Information Verification

Submitter Full Name: Leonid Tanklevskiy
Organization: Gefest Enterprise Group
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 12 03:53:32 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See action on PI 422



Task Group Public Input No. 654-NFPA 13-2019 [Section No. 3.3.206.2]

3.3.206.2 Combined Dry Pipe–~~Reaction~~–Pipe–Preaction Sprinkler System.

A sprinkler system employing automatic sprinklers attached to a piping system containing air under pressure with a supplemental detection system installed in the same areas as the sprinklers. Operation of the detection system actuates tripping devices that open dry pipe valves simultaneously and without loss of air pressure in the system. The detection system also serves as an automatic fire alarm system.

Statement of Problem and Substantiation for Public Input

delete Reaction and replace it with Preaction.

Submitter Information Verification

Submitter Full Name: Kevin Kelly

Organization: Victaulic

Affiliation: NFSA

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 15:30:00 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1006-NFPA 13-2019](#)

Statement: delete Reaction and replace it with Preaction.



Task Group Public Input No. 163-NFPA 13-2019 [New Section after 3.3.206.4.1]

3.3.206.4.2 Electrically activated sprinkler system.

A sprinkler system employing electrically activated sprinklers attached to a piping system, which contains water or air which might or might not be under pressure, with a supplemental detection devices installed in the same areas as the sprinklers.

Statement of Problem and Substantiation for Public Input

Sprinkler system with electrical activation differs from other sprinklers systems in its contents, sprinkler activation and fire detection methods.

Submitter Information Verification

Submitter Full Name: Leonid Tanklevskiy
Organization: Gefest Enterprise Group
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 12 03:54:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Enough information is not yet available to accept the definition of a system. New technology is already permitted.



Public Input No. 187-NFPA 13-2019 [Section No. 3.3.206.4.1]

3.3.206.4.1 Differential Dry Pipe Valve.

A valve that is held in the closed position by the system gas pressure exposed to the larger surface area on the air/nitrogen side of the clapper where it is at least 4.5 times that of the surface area on the water supply side.

Statement of Problem and Substantiation for Public Input

The revision aligns the surface area ratio of the air/water side to be consistent with what is permitted by UL 260 (Dry Pipe and Deluge Valves for Fire-Protection Service), which is 4.5:1 for differential type dry pipe valves.

Submitter Information Verification

Submitter Full Name: Jeff Hebenstreit

Organization: UL LLC

Street Address:

City:

State:

Zip:

Submittal Date: Wed Mar 20 12:51:32 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1022-NFPA 13-2019 The "5 times" figure in the current definition does not correlate with product approval standards, is not relevant to the rules of NFPA 13, and is not needed. The key definition of the differential dry valve is that it employs a differential to hold the clapper in the closed position. Section 8.2.6.7.1 refers to the dry valve's instruction sheet when establishing the correct air pressure for the system. PI 187 is resolved.

Statement: The "5 times" figure in the current definition does not correlate with product approval standards, is not relevant to the rules of NFPA 13, and is not needed. The key definition of the differential dry valve is that it employs a differential to hold the clapper in the closed position. Section 8.2.6.7.1 refers to the dry valve's instruction sheet when establishing the correct air pressure for the system.



Public Input No. 635-NFPA 13-2019 [Section No. 3.3.206.4.1]

3.3.206.4.1 Differential Dry Pipe Valve.

A valve that is held in the closed position by the system gas pressure exposed to ~~the larger surface~~ the surface area on the air/nitrogen side of the clapper where ~~it is at least 5 times that of~~ such surface area is larger than the surface area on the water supply side, ~~with an intermediate chamber between the~~ two surface areas that is open to atmosphere .

Statement of Problem and Substantiation for Public Input

The "5 times" figure in the current definition does not correlate with product approval standards, is not relevant to the rules of NFPA 13, and is not needed. The key definition of the differential dry valve is that it employs a differential to hold the clapper in the closed position. Section 8.2.6.7.1 refers to the dry valve's instruction sheet when establishing the correct air pressure for the system.

Submitter Information Verification

Submitter Full Name: Russell Fleming
Organization: Northeast Fire Suppression Associates
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 13:14:01 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1022-NFPA 13-2019 The "5 times" figure in the current definition does not correlate with product approval standards, is not relevant to the rules of NFPA 13, and is not needed. The key definition of the differential dry valve is that it employs a differential to hold the clapper in the closed position. Section 8.2.6.7.1 refers to the dry valve's instruction sheet when establishing the correct air pressure for the system. PI 187 is resolved.

Statement: The "5 times" figure in the current definition does not correlate with product approval standards, is not relevant to the rules of NFPA 13, and is not needed. The key definition of the differential dry valve is that it employs a differential to hold the clapper in the closed position. Section 8.2.6.7.1 refers to the dry valve's instruction sheet when establishing the correct air pressure for the system.



Public Input No. 408-NFPA 13-2019 [New Section after 3.3.217]

Definition of "Test Blanks"

3.3.XXX Test Blanks. A temporary blind fitting attached to a sprinkler system for testing purposes that is easily identified by markings required by this standard.

Statement of Problem and Substantiation for Public Input

Requirements for test blanks are detailed in section 28.2.1.11, This definition clarifies that these fittings are temporary with the intent to change out. This would eliminate the need to have a tapped grooved cap or threaded fitting from following the requirements of section 28.2.1.11 as these fittings are not intended to be temporary for testing,

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 04 16:21:18 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Definition is not needed.



Public Input No. 44-NFPA 13-2019 [Section No. 3.3.226]

3.3.226 Waterflow Alarm Device.

An attachment to the sprinkler system that detects a predetermined water flow and is connected to a fire alarm system to initiate an alarm condition or is used to mechanically or electrically initiate a fire pump or local audible or visual- audible/visual alarm.

Statement of Problem and Substantiation for Public Input

Improved clarity.

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jan 11 10:28:59 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: EXISTING DEFINITION IS ADEQUATE.



Task Group Public Input No. 444-NFPA 13-2019 [New Section after 7.1.2]

7.1.2.1 Rated pressure in high-rise buildings.

Components in a system that are attached to vertical combined standpipe system zone or a vertical fire protection zone shall be rated for maximum system working pressure per Section 7.1.2.

Statement of Problem and Substantiation for Public Input

High rise building construction is regulated by several codes and standards. A zone is described in many ways from the International Building Code (IBC), NFPA 13, NFPA 14, and NFPA 20. This public input starts to attempt to correlate the terminology of what a vertical zone is across all the codes and standards.

This PI adds a new subsection to 7.1.2 to provide some correlation of terms from NFPA 14 and NFPA 20 when sprinklers are installed in high-rise buildings. It also introduces two of these new terms (and defined in other PIs), modified from NFPA 14 and NFPA 20 into NFPA 13.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 404-NFPA 13-2019 [New Section after 3.3]	
Public Input No. 486-NFPA 13-2019 [New Section after 3.1]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: On behalf of the NFSA Engineering and Standards (E&S) committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 12:02:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: 7.1.2 addresses the requirement for system pressure. Additional statement is not necessary.



Public Input No. 65-NFPA 13-2019 [Section No. 7.2.2.3]

7.2.2.3 K-Factors Greater than K-28.0 (400).

Sprinklers listed with nominal K-factors greater than K-28.0 (400) shall increase the flow by 100 percent increments when compared with a nominal K-5.6 (80) sprinkler.

Statement of Problem and Substantiation for Public Input

Editorial: Revising to the correct nominal value for the non-metric units.

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: Strickland Fire Protection, Incorporated

Affiliation: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue Jan 22 13:30:20 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1024-NFPA 13-2019](#)

Statement: Editorial: Revising to the correct nominal value for the non-metric units.



Public Input No. 290-NFPA 13-2019 [Section No. 7.2.4]

7.2.4* Temperature Characteristics.

7.2.4.1

Automatic sprinklers shall have their frame arms, deflector, coating material, or liquid bulb colored in accordance with the requirements of Table 7.2.4.1 or the requirements of 7.2.4.2, 7.2.4.3, 7.2.4.4, or 7.2.4.5.

Table 7.2.4.1 Temperature Ratings, Classifications, and Color Codings

Maximum Ceiling Temperature		-	Temperature Rating		Temperature Classification	Color Code	Glass Bulb Colors
°F	°C		°F	°C			
100	38	-	135–170	57–77	Ordinary	Uncolored or black	Orange or red
150	66	-	175–225	79–107	Intermediate	White	Yellow or green
225	107	-	250–300	121–149	High	Blue	Blue
300	149	-	325–375	163–191	Extra high	Red	Purple
375	191	-	400–475	204–246	Very extra high	Green	Black
475	246	-	500–575	260–302	Ultra high	Orange	Black
625	329	-	650	343	Ultra high	Orange	Black

7.2.4.2

A dot on the top of the deflector, the color of the coating material, or colored frame arms shall be permitted for color identification of corrosion-resistant sprinklers.

7.2.4.3

Color identification shall not be required for ornamental sprinklers such as factory-plated or factory-painted sprinklers or for recessed, flush, or concealed sprinklers.

7.2.4.4

The frame arms of bulb-type sprinklers shall not be required to be color coded.

7.2.4.5

The liquid in bulb-type sprinklers shall be color coded in accordance with Table 7.2.4.1.

7.2.4.6 Electronic Sprinklers

7.2.4.6.1

Color identification shall not be required for electronic sprinklers that do not have a means of thermal activation.

7.2.4.6.2

Electronic sprinklers that include an automatic means of thermal activation shall provide color identification in accordance with 7.2.4.1.

Statement of Problem and Substantiation for Public Input

Electronic sprinklers are a new technology in which the primary means of operation is through an electrical signal provided by an electronic control system using specialized detection and control algorithms. These types of sprinklers do not have a specific temperature rating and therefore do not require color identification. However, it is possible to have electronic sprinklers that include a thermal means of activation as a backup and should be marked accordingly.

Submitter Information Verification

Submitter Full Name: Zachary Magnone

Organization: Johnson Controls

Committee Statement

City:

Resolution: Electric sprinklers do not need a color code since the operating temperature is based on the detection system.

State:

Zip:

Submission Date: Tue May 28 15:27:13 EDT 2019

Committee: AUT-SSI



Public Input No. 30-NFPA 13-2018 [Section No. 7.2.4.1]

7.2.4.1

Automatic sprinklers shall have their frame arms, deflector, coating material, or liquid bulb colored in accordance with the requirements of ~~Table 7.2.4.1 or~~ the requirements of 7.2.4.2, 7.2.4.3, 7.2.4.4, or 7.2.4.5.

~~Table 7~~ Table A 7.2.4.1 Temperature Ratings, Classifications, and Color Codings

<u>Maximum Ceiling Temperature</u>					
<u>Temperature Rating</u>					
<u>°F</u>	<u>°C</u>	<u>Temperature Classification</u>	<u>Color Code</u>	<u>Glass Bulb Colors</u>	
<u>°F</u>			<u>°C</u>		
100	38				
135–170	57–77	Ordinary	Uncolored or black	Orange or red	
150	66				
175–225	79–107	Intermediate	White	Yellow or green	
225	107				
250–300	121–149		High	Blue	Blue
300	149				
325–375	163–191	Extra high	Red	Purple	
375	191				
400–475	204–246	Very extra high	Green	Black	
475	246				
500–575	260–302	Ultra high	Orange	Black	
625	329				
650	343	Ultra high	Orange	Black	

Statement of Problem and Substantiation for Public Input

Revise section 7.2.4.1 to omit reference to the Table 7.2.4.1 and move the table to the annex section because this table appears to require sprinklers of a specific temperature rating to be installed based on the ambient temperature in the compartment or space, when in fact, we allow intermediate temperature rated sprinklers to be installed throughout a light or ordinary hazard occupancy. For example, in a residential or light hazard environment, we require quick response or residential sprinklers. Intermediate temperature, quick response or residential sprinklers are permitted throughout the occupied space in order to minimize the allowable distance from diffusers or other heat producing devices. Some AHJ's have not allowed this because the table indicates a requirements to use ordinary temperature rated sprinklers where the maximum ceiling temperature is 100°F maximum.

Related Public Inputs for This Document

Related Input**Relationship**

[Public Input No. 32-NFPA 13-2018 \[New Section after 7.2.4.5\]](#)

Submitter Information Verification

Submitter Full Name: Robert Caputo

Organization: Fire & Life Safety America

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 19 19:44:32 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1025-NFPA 13-2019Breaks out the temperature ratings for glass bulb and fusible link elements individually and revises the temperature ranges accordingly. This change was vetted by the UL/FM/NFSA committee and approved by the NFSA Engineering and Standards Committee. All changes are shown in the attached excel file. The new annex section clarifies the use of intermediate temperature ratings for areas where ceiling temperatures are less than 100F.](#)

Statement: Breaks out the temperature ratings for glass bulb and fusible link elements individually and revises the temperature ranges accordingly. This change was vetted by the UL/FM/NFSA committee and approved by the NFSA Engineering and Standards Committee. All changes are shown in the attached excel file.



Public Input No. 361-NFPA 13-2019 [Section No. 7.2.4.1]

7.2.4.1

Automatic sprinklers shall have their frame arms, deflector, coating material, or liquid bulb colored in accordance with the requirements of Table 7.2.4.1 or the requirements of 7.2.4.2, 7.2.4.3, 7.2.4.4, or 7.2.4.5.

Table 7.2.4.1 Temperature Ratings, Classifications, and Color Codings

Maximum Ceiling Temperature		Temperature Rating		Temperature Classification	Color Code	Glass Bulb Colors
°F	°C	°F	°C			
100	38	135–170	57–77	Ordinary	Uncolored or black	Orange or red
150	66	175–225	79–107	Intermediate	White	Yellow or green
225	107	250–300	121–149	High	Blue	Blue
300	149	325–375	163–191	Extra high	Red	Purple
375	191	400–475	204–246	Very extra high	Green	Black
475	246	500–575	260–302	Ultra high	Orange	Black
625	329	650	343	Ultra high	Orange	Black

Additional Proposed Changes

File Name	Description Approved
Table_7.2.4.1.xlsx	Table 7.2.4.1

Statement of Problem and Substantiation for Public Input

Breaks out the temperature ratings for glass bulb and fusible link elements individually and revises the temperature ranges accordingly. This change was vetted by the UL/FM/NFSA committee and approved by the NFSA Engineering and Standards Committee. All changes are shown in the attached excel file.

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 16:15:57 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1025-NFPA 13-2019 Breaks out the temperature ratings for glass bulb and fusible link elements individually and revises the temperature ranges accordingly. This change was vetted by the UL/FM/NFSA committee and approved by the NFSA Engineering and Standards Committee. All changes are shown in the attached excel file. The new annex section clarifies the use of intermediate temperature ratings for areas where ceiling temperatures are less than 100F.

Statement: Breaks out the temperature ratings for glass bulb and fusible link elements individually and revises the temperature ranges accordingly. This change was vetted by the UL/FM/NFSA committee and approved by the NFSA Engineering and Standards Committee. All changes are shown in the attached excel file.



Public Input No. 32-NFPA 13-2018 [New Section after 7.2.4.5]

Listed residential sprinklers of any temperature rating shall be permitted to be installed throughout areas where residential sprinklers are required or permitted.

Listed quick response sprinklers of any temperature rating shall be permitted to be installed throughout areas where quick response sprinklers are required or permitted.

Statement of Problem and Substantiation for Public Input

NFPA 13 currently requires quick response or residential sprinklers in light hazard occupancies and permits QR sprinklers in ordinary hazard occupancies. There should not be any restriction on utilizing intermediate temperate rated sprinklers throughout these occupancies to avoid locating sprinklers closer to heat producing devices and proximity to diffusers. Some AHJ's have not allowed this because Table 7.2.4.1 (separate PI to move this table to annex) indicates a requirement to use ordinary temperature rated sprinklers where the maximum ceiling temperature is 100°F maximum. There is no reason a contractor cannot install intermediate residential or QR sprinklers throughout the occupancy or space.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 30-NFPA 13-2018 [Section No. 7.2.4.1]	same issue

Submitter Information Verification

Submitter Full Name: Robert Caputo
Organization: Fire & Life Safety America
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 19 19:55:03 EST 2018
Committee: AUT-SSI

Committee Statement

Resolution: FR-1026-NFPA 13-2019

Statement: NFPA 13 currently requires quick response or residential sprinklers in light hazard occupancies and permits QR sprinklers in ordinary hazard occupancies. There should not be any restriction on utilizing intermediate temperate rated sprinklers throughout these occupancies to avoid locating sprinklers closer to heat producing devices and proximity to diffusers. Some AHJ's have not allowed this because Table 7.2.4.1 (separate PI to move this table to annex) indicates a requirement to use ordinary temperature rated sprinklers where the maximum ceiling temperature is 100°F maximum. There is no reason a contractor cannot install intermediate residential or QR sprinklers throughout the occupancy or space.

**Public Input No. 605-NFPA 13-2019 [New Section after 7.3.2.2]****7.3.2.3**

Where nonmetallic pipe is run vertically in wood and metal stud walls the provisions of 7.3.2.3 shall apply:

- (1) Nailplates shall be provided where the face of the piping is less than 1 inch (25 mm) from the nearest edge of the member.
- (2) Nailplates shall be a steel shield with a minimum thickness of 0.0575 inch (1.463 mm) (No. 16 gauge).
- (3) Nailplates shall cover the area of the pipe where the member is notched or bored.
- (4) Nailplates shall extend a minimum of 1 inch (25 mm) above sole plates and 1 inch (25 mm) below top plates.

-

Statement of Problem and Substantiation for Public Input

There are currently no requirements for protection of nonmetallic piping vertically in walls or studs. There is a requirement in the IPC that sometimes is forced on the sprinkler contractor by mechanical, plumbing or building inspectors. This provides similar guidance for protection of sprinkler piping from nails or screws.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 606-NFPA 13-2019 [New Section after 7.3.2.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submission Date: Mon Jun 10 09:24:12 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Moved to Chapter 16 in 16.4.0.4



Public Input No. 606-NFPA 13-2019 [New Section after 7.3.2.2]

7.3.2.3

Nail Plates or metal shields shall not be required for the protection of nonmetallic piping running vertically in walls or studs.

Statement of Problem and Substantiation for Public Input

There are currently no requirements for protection of nonmetallic piping vertically in walls or studs. There is a requirement in the IPC that sometimes is forced on the sprinkler contractor by mechanical, plumbing or building inspectors. This PI exempts sprinkler piping from these protective components.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 605-NFPA 13-2019 [New Section after 7.3.2.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 09:25:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See PI 605

**Public Input No. 277-NFPA 13-2019 [New Section after 7.5.2.2.1]****7.5.2.1.1.1**

Repair of weld leaks on site shall be permitted provided the repairs are performed in accordance with NFPA 51B.

Statement of Problem and Substantiation for Public Input

The sprinkler industry has changed in the methods and means that companies use when installing sprinkler systems. There has been a major shift from using threaded connections to using pre fabricated welded lines. Even though the welding is to performed in a stable environment, there can be weld leaks. Many times a fitter will "ping" a weld shut. However, why should the standard not allow a company to bring a welder in to run an additional pass over a weld to repair the leak. Granted we need to be cognizant of the hazards associated with hot work on construction sites which is why the repairs should be performed in accordance with hot work standards. We have been made aware of 2 projects where the AHJ found out that weld leaks had been repaired on site. This AHJ cited section 7.5.2.2.5 and required the contractor to remove the system.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 28 09:31:40 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1028-NFPA 13-2019

Statement: The sprinkler industry has changed in the methods and means that companies use when installing sprinkler systems. There has been a major shift from using threaded connections to using pre fabricated welded lines. Even though the welding is to performed in a stable environment, there can be weld leaks. Many times a fitter will "ping" a weld shut. However, why should the standard not allow a company to bring a welder in to run an additional pass over a weld to repair the leak. Granted we need to be cognizant of the hazards associated with hot work on construction sites which is why the repairs should be performed in accordance with hot work standards. We have been made aware of 2 projects where the AHJ found out that weld leaks had been repaired on site. This AHJ cited section 7.5.2.2.5 and required the contractor to remove the system.



Public Input No. 357-NFPA 13-2019 [Section No. 7.5.2.4.8]

7.5.2.4.8

When welding is performed, the following shall apply:

- (1) Holes in piping for outlets shall be cut to the full inside diameter of fittings prior to welding in place of the fittings.
- (2) ~~Dises~~ Coupons shall be retrieved.
- (3) Openings cut into piping shall be smooth bore, and all internal slag and welding residue shall be removed.
- (4) Fittings shall not penetrate the internal diameter of the piping.
- (5) Steel plates shall not be welded to the ends of piping or fittings.
- (6) Fittings shall not be modified.
- (7) Nuts, clips, eye rods, angle brackets, or other fasteners shall not be welded to pipe or fittings, except as permitted in 7.5.2.2.3 and 7.5.2.4.7.
- (8) Completed welds shall be free from cracks, incomplete fusion, surface porosity greater than $\frac{1}{16}$ in. (1.6 mm) diameter, and undercut deeper than 25 percent of the wall thickness or $\frac{1}{32}$ in. (0.8 mm), whichever is less.
- (9) Completed circumferential butt weld reinforcement shall not exceed $\frac{3}{32}$ in. (2 mm).

Statement of Problem and Substantiation for Public Input

Keeps consistent language through out NFPA standard terminology/national testing lab terminology

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 358-NFPA 13-2019 [Section No. 7.5.5.2]	
Public Input No. 359-NFPA 13-2019 [Section No. 28.1]	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 16:06:21 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1029-NFPA 13-2019 Include change in PI 445 Add the text "loose welding slag or residue should be removed from piping, but a small amount should be acceptable as it is impossible to remove all the slag especially in long runs of pipe." to better help the user understand the requirements of 7.5.2.4.8

Statement: Keeps consistent language through out NFPA standard terminology/national testing lab terminology



Public Input No. 445-NFPA 13-2019 [Section No. 7.5.2.4.8]

7.5.2.4.8

When welding is performed, the following shall apply:

- (1) Holes in piping for outlets shall be cut to the full inside diameter of fittings prior to welding in place of the fittings.
- (2) Discs shall be retrieved.
- (3) Openings cut into piping shall be smooth bore, and all internal slag ~~and welding residue~~ shall be removed.
- (4) Fittings shall not penetrate the internal diameter of the piping.
- (5) Steel plates shall not be welded to the ends of piping or fittings.
- (6) Fittings shall not be modified.
- (7) Nuts, clips, eye rods, angle brackets, or other fasteners shall not be welded to pipe or fittings, except as permitted in 7.5.2.2.3 and 7.5.2.4.7.
- (8) Completed welds shall be free from cracks, incomplete fusion, surface porosity greater than $\frac{1}{16}$ in. (1.6 mm) diameter, and undercut deeper than 25 percent of the wall thickness or $\frac{1}{32}$ in. (0.8 mm), whichever is less.
- (9) Completed circumferential butt weld reinforcement shall not exceed $\frac{3}{32}$ in. (2 mm).

Statement of Problem and Substantiation for Public Input

Item #3 is more about prep and adds confusion Remove the wording "and welding residue" and adding an annex section stating that loose welding slag or residue should be removed from piping, but a small amount should be acceptable as it is impossible to remove all the slag especially in long runs of pipe.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 446-NFPA 13-2019 [New Section after A.7.5.2.4.3]	

Submitter Information Verification

Submitter Full Name: Thomas Noble
Organization: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submission Date: Thu Jun 06 13:47:35 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1029-NFPA 13-2019 Include change in PI 445 Add the text "loose welding slag or residue should be removed from piping, but a small amount should be acceptable as it is impossible to remove all the slag especially in long runs of pipe." to better help the user understand the requirements of 7.5.2.4.8

Statement: Keeps consistent language through out NFPA standard terminology/national testing lab terminology

**Public Input No. 267-NFPA 13-2019 [New Section after 7.5.3.1.1]****7.5.3.1.2**

Roll grooves shall not be permitted on dry pipe or double-interlock preaction sprinkler systems.

Statement of Problem and Substantiation for Public Input

Roll grooving thinwall sprinkler piping creates moisture barriers that do not allow all of the moisture to drain from the pipe with the pitch of pipe requirements elsewhere in this standard. This moisture (oxygen and water) from hydrostatic tests, three-year trip testing, and system operations causes corrosion. Corrosion causes air compressors to run more frequently adding more oxygen and moisture. Corrosion then shortens the life expectancy of these thinwall dry systems to as little as eight years, but more commonly to approximately ten to twelve years. This causes unnecessary stress and expense to owners in, first, pipe replacement, second, water damage from associated freeze failures, and third, system replacement costs. Often, when these systems are in interstitial spaces it is not possible to replace the pipe (24-30" truss spaces) and then the systems are removed from service entirely.

Removing the ability to use roll grooves will significantly increase system life expectancy and will also reduce unnecessary costs to building owners.

Removing the ability to use roll grooves will also decrease the possibility and probability of fire sprinkler system failures, a necessary component for the effectiveness of fire sprinkler systems.

This type of corrosion identification and mitigation is NOT addressed in NFPA 25 so it needs to be addressed in this design standard.

Original owners/developers often choose the most cost-effective, short-term options for construction and then the building is sold with the second or third unknowing owner faced with the unanticipated costs of replacing thinwall pipe with roll grooves.

Submitter Information Verification

Submitter Full Name: Scott Futrell

Organization: Futrell Fire Consult & Design, Inc.

Street Address:

City:

State:

Zip:

Submission Date: Thu May 23 10:52:51 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: This is a minimum standard and other methods exist to deal with corrosion.



Public Input No. 34-NFPA 13-2018 [New Section after 7.5.3.2]

TITLE OF NEW CONTENT

Listed flexible grooved couplings shall be differentiated from listed non-flexible couplings in a manner visible from the floor level.

Statement of Problem and Substantiation for Public Input

This PI has been submitted and rejected in the past however, we continue to hear concerns from AHJ's that it is impossible to confirm the requirements of section 18.2 solely based on the embossed model number of grooved couplings. As noted in the past, the committee requires sprinklers of various temperature ratings to be color coded for visual identification and clearly, since we require flexible couplings in specific locations and additional sway bracing where more flexible couplings are installed, we should assist installers and inspectors in ensuring each find the correct locations by having the manufacturer add some method of visible identification other than a model number which cannot be seen from the floor level during rough/hydro inspections

Submitter Information Verification

Submitter Full Name: Robert Caputo
Organization: Fire & Life Safety America
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 19 20:22:05 EST 2018
Committee: AUT-SSI

Committee Statement

Resolution: FR-1191-NFPA 13-2019

Statement: This PI has been submitted and rejected in the past however, we continue to hear concerns from AHJ's that it is impossible to confirm the requirements of section 18.2 solely based on the embossed model number of grooved couplings. As noted in the past, the committee requires sprinklers of various temperature ratings to be color coded for visual identification and clearly, since we require flexible couplings in specific locations and additional sway bracing where more flexible couplings are installed, we should assist installers and inspectors in ensuring each find the correct locations by having the manufacturer add some method of visible identification other than a model number which cannot be seen from the floor level during rough/hydro inspections



Public Input No. 358-NFPA 13-2019 [Section No. 7.5.5.2]

7.5.5.2 Outlet Fittings.

Rubber-gasketed outlet fittings that are used on sprinkler systems shall meet the following requirements:

- (1) Be installed in accordance with the listing and manufacturer's installation instructions
- (2) Have all disks- coupons retrieved
- (3) Have smooth bores cut into the pipe, with all cutting residue removed
- (4) Not be modified

Statement of Problem and Substantiation for Public Input

Keeps consistent language through out NFPA standard terminology/national testing lab terminology

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 357-NFPA 13-2019 [Section No. 7.5.2.4.8]	Terminology
Public Input No. 359-NFPA 13-2019 [Section No. 28.1]	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 16:10:12 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1032-NFPA 13-2019](#)

Statement: Keeps consistent language through out NFPA standard terminology/national testing lab terminology

**Public Input No. 168-NFPA 13-2019 [New Section after 7.6.1]****TITLE OF NEW CONTENT**

Type your content here ...

[16.9.4.7.6.2 Automated Valves.](#) [16.9.4.1 A listed indicating valve with automated controls shall be permitted.](#)

[16.9.4.2.7.6.2.1 A listed automated water control valve assembly with a reliable position indication connected to a remote supervisory station shall be permitted.](#)

[16.9.4.3.7.6.2.2 An automated water control valve shall be able to be operated manually as well as automatically.](#)

Statement of Problem and Substantiation for Public Input

Chapter 16 covers installation criteria, but there are no installation instructions contained in 16.9.4. Therefore, the provisions should be deleted from Chapter 16, as proposed in a corresponding PI.
The text for the Automated Valves are actually requirements for system components, so they belong in Chapter 7, as proposed here.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 169-NFPA 13-2019 [Section No. 16.9.4]	
Public Input No. 169-NFPA 13-2019 [Section No. 16.9.4]	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Fri Mar 15 22:56:43 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1033-NFPA 13-2019 PI 312 insert word control and include with FR 1033](#)

Statement: Chapter 16 covers installation criteria, but there are no installation instructions contained in 16.9.4. Therefore, the provisions should be deleted from Chapter 16, as proposed in a corresponding PI.

The text for the Automated Valves are actually requirements for system components, so they belong in Chapter 7, as proposed here.



Public Input No. 312-NFPA 13-2019 [Section No. 7.6.1]

7.6.1 Valve Closure Time.

Listed indicating control valves shall not close in less than 5 seconds when operated at maximum possible speed from the fully open position.

Statement of Problem and Substantiation for Public Input

This section applies to control valves and should indicate such.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 11:31:19 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1033-NFPA 13-2019 PI 312 insert word control and include with FR 1033

Statement: Chapter 16 covers installation criteria, but there are no installation instructions contained in 16.9.4. Therefore, the provisions should be deleted from Chapter 16, as proposed in a corresponding PI.

The text for the Automated Valves are actually requirements for system components, so they belong in Chapter 7, as proposed here.



Public Input No. 217-NFPA 13-2019 [Section No. 7.7]

7.7 Waterflow Alarm Devices.

Waterflow alarm devices shall be listed for the service and so constructed and installed that any flow of water from a sprinkler system equal to or greater than that from a single automatic sprinkler of the smallest K-factor installed on the system will result in an audible alarm on the premises within ~~5 minutes~~ 90 seconds after such flow begins and until such flow stops.

Statement of Problem and Substantiation for Public Input

The five minute time allowance is out of date and no longer recognized by many authorities having jurisdiction for new installations, regardless of whether NFPA 72 is being used or not. Reducing the allowed time in this Standard just makes sense, even if it's not 90 seconds the committee should reduce this antiquated idea of five minutes being an acceptable time to warn occupants in a structure of a possible fire. The back up for this is clearly within the existing NFPA 72 Standard.

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 11 15:48:00 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Both are resolved, the issue of fire alarm monitoring is different than on-site notification and is addressed in Chapter 28.



Public Input No. 599-NFPA 13-2019 [Section No. 7.7]

7.7 Waterflow Alarm Devices.

Waterflow alarm devices shall be listed for the service and so constructed and installed that any flow of water from a sprinkler system equal to or greater than that from a single automatic sprinkler of the smallest K-factor installed on the system will result in an audible alarm on the premises within 5 minutes after such flow begins and until such flow stops. Where a fire alarm system is monitoring waterflow, an alarm signal shall activate in accordance with the requirements of the adopted fire alarm code.

Statement of Problem and Substantiation for Public Input

This added requirement is copied from 28.2.3.1.1. This will bring these two sections in conformance.

Submitter Information Verification

Submitter Full Name: John Denhardt
Organization: Strickland Fire Protection, Incorporated
Affiliation: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 00:05:18 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Both are resolved, the issue of fire alarm monitoring is different than on-site notification and is addressed in Chapter 28.



Public Input No. 525-NFPA 13-2019 [Section No. 7.8.1]

7.8.1

Additives to the water supply intended for control of microbiological or other corrosion shall be listed for use within fire sprinkler systems *in accordance with UL 2901, Outline of Investigation for Antifreeze Solutions for Use in Fire Sprinkler Systems* .

Statement of Problem and Substantiation for Public Input

The reference to the requirements used to establish a listing is being added to this section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 524-NFPA 13-2019 [Section No. 2.3.9]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 12:28:19 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Proposed wording adds reference to a UL standard which is not needed. The proposed UL Standard is not appropriate to this topic.

**Public Input No. 170-NFPA 13-2019 [New Section after 7.8.2]****TITLE OF NEW CONTENT**

Type your content here ...

[28.3 7.9 Automated Inspection and Testing Devices and Equipment.](#)

[28.3.1.4 7.9.1 Automated inspection devices and equipment shall be shown to be as effective as a visual examination.](#)

[28.3.1.2 7.9.2 Automated testing devices and equipment shall produce the same action required by this standard to test a device.](#)

[28.3.2 7.9.3 Failure of automated inspection and testing devices and equipment shall not impair the operation of the system unless indicated by an audible and visual trouble signal in accordance with NFPA 72.](#)

[28.3.3 7.9.4 Failure of a system or component to pass automated inspection and testing devices and equipment shall result in an audible and visual trouble signal in accordance with NFPA 72.](#)

[28.3.4 7.9.5 Failure of automated inspection and testing devices and equipment shall result in an audible and visual trouble signal in accordance with NFPA 72.](#)

Statement of Problem and Substantiation for Public Input

Most of the current text of Section 28.3 does not contain instruction regarding Acceptance Testing. Therefore, the provisions should be deleted from Chapter 28, as proposed in a corresponding PI. Instead, the verbiage contains requirements for system components, so they belong in Chapter 7, as proposed here.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 171-NFPA 13-2019 [Section No. 28.3]	
Public Input No. 171-NFPA 13-2019 [Section No. 28.3]	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Fri Mar 15 23:07:05 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1371-NFPA 13-2019](#)

Statement: Move text to Chapter 7. Most of the current text of Section 28.3 does not contain instruction regarding Acceptance Testing. Therefore, the provisions should be deleted from Chapter 28, as proposed in a corresponding PI. Instead, the verbiage contains requirements for system components, so they belong in Chapter 7, as proposed here.

**Public Input No. 214-NFPA 13-2019 [Section No. 8.1.2.1]****8.1.2.1**

Unless the requirements of 8.1.2.2 are met, a wet pipe system shall be provided with a listed relief valve not less than ½ in. (15 mm) in size ~~and set to operate at 175 psi (12~~ , set at 185 psi (13 bar) or 10 psi (0.7 bar) in excess of the maximum system pressure, whichever is greater.

Statement of Problem and Substantiation for Public Input

The UL listing for a pressure relief valve allows the opening pressure to be as low as 95% of the stated pressure; for a 175 psi relief valve that pressure could be around 166 psi. By raising the minimum pressure to 185 psi, the minimum opening pressure would raise to 175 psi.

Submitter Information Verification

Submitter Full Name: Cary Webber

Organization: Reliable Automatic Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed Mar 27 16:05:39 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: This exceeds the limits of the components without justification.



Public Input No. 77-NFPA 13-2019 [Section No. 8.1.2.1]

8.1.2.1

Unless the requirements of 8.1.2.2 are met, a wet pipe system shall be provided with a listed relief valve not less than ½ in. (15 mm) in size and set to operate at ~~175 psi~~ 185 psi (~~12- 13~~ bar) or 10 psi (0.7 bar) in excess of the maximum system pressure, whichever is greater.

Statement of Problem and Substantiation for Public Input

Listed relief valves are required to open at between 95% and 105% of their set pressure. Thus, a relief valve set at 175 psi could operate at 166 psi. For 175 psi sprinkler systems a 185 psi relief valve should be used to avoid opening at normal system pressures. This change is consistent with the requirement that relief valves be set to operate at 10 psi in excess of the maximum system pressure.

Submitter Information Verification

Submitter Full Name: Steven Wolin

Organization: Reliable Automatic Sprinkler Co., Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Sun Feb 10 11:12:15 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: This exceeds the limits of the components without justification.



Public Input No. 215-NFPA 13-2019 [New Section after 8.1.2.3]

8.1.2.4

Where located in areas not secured against vandalism or tampering, adjustable pressure relief valves shall incorporate a means to prevent malicious or unauthorized pressure adjustment.

Statement of Problem and Substantiation for Public Input

Adjustable pressure relief valves that are not secured against malicious or unauthorized adjustment present a grave safety issue. If intentionally or accidentally set too low system demands may not be met. If adjusted too high, pressure rating of components on the system could be exceeded.

Submitter Information Verification

Submitter Full Name: Cary Webber

Organization: Reliable Automatic Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed Mar 27 16:16:56 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Lack of supporting documentation to justify this change.



Public Input No. 76-NFPA 13-2019 [Section No. 8.1.5]

8.1.5 Air Venting.

A single air vent with a connection conforming to Section 16.7 shall be provided on each wet pipe system utilizing metallic pipe. (See A. 16.7.)

8.1.5.1

Venting from multiple points on each system shall not be required.

The Vent required by 8.1.5 shall be a remote inspectors test piped from a location near a high point in the system. In a multi-story occupancy the inspectors test piping shall be run back to the express drain for proper venting. Justification: Inspector's tests have a proven track record. To my knowledge there is no documentation proving the other methods address the problem.

Additional Proposed Changes

File Name	Description	Approved
.1549643484649	NFPA 13 8.1.5 Air venting Change	

Statement of Problem and Substantiation for Public Input

My proposal on 8.1.5 Air Venting, addresses the problem of pipe corrosion in realistic and proven manner

Submitter Information Verification

Submitter Full Name: Michael Walsh

Organization: N/A

Affiliation: N/A

Street Address:

City:

State:

Zip:

Submittal Date: Fri Feb 08 10:55:13 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: No technical substantiation was submitted to justify this change.

**Public Input No. 226-NFPA 13-2019 [Section No. 8.1.5 [Excluding any Sub-Sections]]**

A

-

New and existing systems shall be provided with a single air vent with a connection conforming to

Section-

Section 16.7

shall be provided on

for each wet pipe system utilizing metallic pipe.

(See A.16.7.)

Statement of Problem and Substantiation for Public Input

The Technical Committee has recognized that corrosion is a significant issue for wet pipe systems. The 2016 edition provided a new requirement in Section 7.1.5 that required an air vent to be installed on wet pipe systems. Wet pipe systems that were installed in accordance with the 2013 or 2010 edition were not required to be provide this vent and consequently, significant corrosion issues have occurred on systems that were not provided with an alarm test connect at the upper story. Because the corrosion issue causes so much damage to a wet pipe sprinkler system, the existing requirement to install air venting needs to be applicable to new and existing wet pipe systems. Many of the existing systems will not be effected by this retroactive requirement as the systems were installed with an alarm line connection in the upper story which would be compliant with the existing requirements Section 16.7. For those systems that were designed and installed without a means to remove most of the air as noted in Section 16.7, internal corrosion with the failure of the piping system are highly likely over the service life of the wet pipe system.

Submitter Information Verification

Submitter Full Name: Tom Christman

Organization: [Navarro Engineering and Research]

Affiliation: NA

Street Address:

City:

State:

Zip:

Submission Date: Sun Apr 28 13:08:05 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: References existing systems, does not apply to NFPA 13 which is an installation standard.

**Public Input No. 197-NFPA 13-2019 [New Section after 8.2.2]****8.2.2.1**

Residential sprinklers shall be listed for dry pipe applications.

Statement of Problem and Substantiation for Public Input

Current location of this statement (8.2.6.3.4 Dry Pipe System Water Delivery) appears incorrect.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 198-NFPA 13-2019 [Section No. 8.2.3.6.4]	

Submitter Information Verification

Submitter Full Name: Cary Webber

Organization: Reliable Automatic Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed Mar 27 11:13:14 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1035-NFPA 13-2019 Places text in the appropriate section and removes from water delivery time.](#)

Statement: Current location of this statement under Dry Pipe System Water Delivery appears incorrect. PI 197 proposes relocation to new section 8.2.2.1.



Public Input No. 387-NFPA 13-2019 [Section No. 8.2.3.5]

8.2.3.5

System size shall be based on dry pipe systems being calculated for water delivery in accordance with 8.2.3.6, provided that initial water is discharged from the system test connection or manifold in not more than 110% of the time required by 8.2.3.1.1 for dry pipe systems protecting dwelling units and 8.2.3.2 or 8.2.3.6.1 for dry pipe systems protecting other occupancies.

Statement of Problem and Substantiation for Public Input

As currently written NFPA 13 does not limit the actual water delivery time of dry pipe sprinkler systems where the water delivery time is calculated using a program or method listed by a nationally recognized testing laboratory. The water delivery time calculation helps avoid waiting until the system is installed to determine the water delivery time; however, the calculation does not improve a dry pipe sprinkler system's ability to control a fire when the system has an actual water delivery time that exceed the water delivery times specified in NFPA 13. The change would simply provide a requirement for the actual water delivery time of a dry pipe sprinkler system, even when a water delivery time calculation is conducted. The allowance is for a 10% increase in the water delivery time, which is based on the requirements in UL Outline of Investigation for Dry System Water Delivery Time Calculation Programs, Subject 2432 that require listed water delivery time programs to provide results that do not exceed sample water delivery time data by more than 10%.

Submitter Information Verification

Submitter Full Name: Steven Wolin

Organization: Reliable Automatic Sprinkler Co., Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 03 11:34:26 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The committee does not believe that systems with a calculated water delivery time need no further testing.

**Public Input No. 655-NFPA 13-2019 [Section No. 8.2.3.6.1]****8.2.3.6.1**

Calculations for dry pipe system water delivery shall be based on the hazard shown in Table 8.2.3.6.1.

Table 8.2.3.6.1 Dry Pipe System Water Delivery

Hazard	Number of Most Remote Sprinklers Initially Open	Maximum Time of Water Delivery (seconds)
Residential <u>1</u>		<u>15</u>
Light <u>1</u>		<u>60</u>
Ordinary I <u>2</u>		50
Ordinary II <u>2</u>		50
Extra I <u>4</u>		45
Extra II <u>4</u>		45
High piled <u>4</u>		40

Statement of Problem and Substantiation for Public Input

Adding the 15 second residential dry sprinkler delivery time to Table 8.2.3.6.1 will make it easier for the user to find this 15 second delivery time requirement.

Submitter Information Verification

Submitter Full Name: Kevin Kelly

Organization: Victaulic

Affiliation: NFSA

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 15:32:36 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1037-NFPA 13-2019

Statement: Adding the 15 second residential dry sprinkler delivery time to Table 8.2.3.6.1 will make it easier for the user to find this 15 second delivery time requirement.

**Public Input No. 198-NFPA 13-2019 [Section No. 8.2.3.6.4]****8.2.3.6.4 –**

~~Residential sprinklers shall be listed for dry pipe applications.~~

Statement of Problem and Substantiation for Public Input

Current location of this statement under Dry Pipe System Water Delivery appears incorrect. PI 197 proposes relocation to new section 8.2.2.1.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 197-NFPA 13-2019 [New Section after 8.2.2]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Wed Mar 27 11:17:46 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1035-NFPA 13-2019 Places text in the appropriate section and removes from water delivery time.](#)
Statement: Current location of this statement under Dry Pipe System Water Delivery appears incorrect. PI 197 proposes relocation to new section 8.2.2.1.



Public Input No. 249-NFPA 13-2019 [New Section after 8.2.5.1]

TITLE OF NEW CONTENT

8.2.5.1.1 Dry pipe valves shall be installed not closer than 12" from the back of the valve body to the wall behind the valve.

Statement of Problem and Substantiation for Public Input

Trim on the dry valves that discharges from the back of the valve needs to be removed to facilitate cleaning of the 3/4" pipe and outlet from the valve body. Minimum clearances have not been mandated by this standard or the manufacturer's and currently it is very difficult, at best, to adequately and appropriately dismantle the trim and clean the piping and outlets. This clearance will facilitate maintenance as well operational quality of dry pipe valves.

Submitter Information Verification

Submitter Full Name: Scott Futrell

Organization: Futrell Fire Consult & Design, Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 13 14:17:41 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Distances from the valve to a wall should be based on the manufacturers data sheet and the size of the valve.



Public Input No. 172-NFPA 13-2019 [Section No. 8.2.5.4]

8.2.5.4 High Water Level Protection.

8.2.5.4.1

Where it is possible to reseal the dry valve after actuation without first draining the system, protection against occurrence of water above the clapper shall be permitted in accordance with 8.2.5.4.3.

8.2.5.4.2

– Differential Dry Pipe Valve.

~~Protection against accumulation of water above the clapper shall be provided for differential dry pipe valves in accordance with 8.2.5.4.3 .~~

~~8.2.5.4.3 –~~

~~– High Water Level Device.~~

~~An automatic high water level signaling device or an automatic drain shall be permitted.~~

Statement of Problem and Substantiation for Public Input

This proposal is asking that the mandate, for all differential type dry pipe valves to have protection against water accumulation, be deleted.

From when it was first inserted over 50 years ago, as Article 5295 into the 1966 edition of NFPA 13, the requirement to protect against water columning was applicable only to low differential dry pipe valves. At that time, the standard also had definitions for both a differential DPV (with 6 to 1 ratio) and a low differential DPV (with 1.0 or 1.2 to 1 ratio).

However, during the revision last cycle SR No. 416 extended the requirement to apply to all differential type DPVs. The substantiation for this was because a definition was added for a differential dry pipe valve, so the “low” was not required. This is an invalid reason for such a drastic expansion of the scope of the original provision.

While water accumulation can slow the operation of a differential DPV and protection against such water accumulation can be beneficial, no evidence was presented to show that high differential dry pipe valves are failing due to water columning. Therefore, the NFPA 25 requirement, to test the priming water level on a quarterly basis, is a sufficient guard against the problem. Since NFPA 13 is supposed to be providing the minimum requirements for sprinkler systems, the added expense of requiring a signaling device or an automatic drain should not have been so arbitrarily imposed.

Since the low differential dry pipe valves are now virtually obsolete, such that the TC could not even agree on what such a device actually is, rather than reverting to the previous text from the 2016 edition of the standard, the whole of 8.5.2.4.2 can be deleted.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Fri Mar 15 23:15:58 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Existing wording is needed.



Public Input No. 137-NFPA 13-2019 [Section No. 8.2.5.4.1]

8.2.5.4.1

Where it is possible to reseal the dry valve after actuation without first draining the system, protection against occurrence of water above the clapper shall be ~~permitted~~ provided in accordance with 8.2.5.4.3.

Statement of Problem and Substantiation for Public Input

As written the provisions of 8.2.5.4.1 currently do not provide a requirement to install high water level protection on dry pipe valves that can be reset externally. Similar to 8.2.5.4.2 this section should include mandatory language to install high water level protection and refer to 8.2.5.4.3 for the options permitted for such.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Thu Mar 07 13:34:12 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1038-NFPA 13-2019 PI 137 & 201 are resolved based on action on PI 637.

Statement: The current wording of 8.2.5.4.1 is permissive but should be mandatory as a means of protecting against water accumulation above the dry valve to the point that freezing could become a problem or, in the case of a differential dry valve, water columning.



Public Input No. 201-NFPA 13-2019 [Section No. 8.2.5.4.1]

8.2.5.4.1

~~Where it is possible to reseal the dry valve after actuation without first draining the system, protection against occurrence of~~ Protection against accumulation of excess water above the dry valve clapper shall be ~~permitted~~ provided in accordance with 8.2.5.4.3 2 .

Statement of Problem and Substantiation for Public Input

Priming water and/or small amounts of water accumulation are common in all dry valves; excess accumulation must be protected against with both differential and mechanical dry valves.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 202-NFPA 13-2019 [Section No. 8.2.5.4.2]	
Public Input No. 203-NFPA 13-2019 [Section No. 8.2.5.4.3]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Wed Mar 27 11:48:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1038-NFPA 13-2019 PI 137 & 201 are resolved based on action on PI 637.](#)

Statement: The current wording of 8.2.5.4.1 is permissive but should be mandatory as a means of protecting against water accumulation above the dry valve to the point that freezing could become a problem or, in the case of a differential dry valve, water columning.



Public Input No. 637-NFPA 13-2019 [Section No. 8.2.5.4.1]

8.2.5.4.1

Where it is possible to reseal the dry valve after actuation without first draining the system, ~~protection against occurrence of water above the clapper shall be permitted~~ a high level water device in accordance with 8.2.5.4.3 shall be provided .

Statement of Problem and Substantiation for Public Input

The current wording of 8.2.5.4.1 is permissive but should be mandatory as a means of protecting against water accumulation above the dry valve to the point that freezing could become a problem or, in the case of a differential dry valve, water columning.

Submitter Information Verification

Submitter Full Name: Russell Fleming
Organization: Northeast Fire Suppression Associates
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 13:26:53 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1038-NFPA 13-2019 PI 137 & 201 are resolved based on action on PI 637.

Statement: The current wording of 8.2.5.4.1 is permissive but should be mandatory as a means of protecting against water accumulation above the dry valve to the point that freezing could become a problem or, in the case of a differential dry valve, water columning.



Public Input No. 202-NFPA 13-2019 [Section No. 8.2.5.4.2]

8.2.5.4.2 – Differential Dry Pipe Valve.

~~Protection against accumulation of water above the clapper shall be provided for differential dry pipe valves in accordance with 8.2.5.4.3 .~~

Statement of Problem and Substantiation for Public Input

Section becomes redundant if PI 201 is accepted.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 201-NFPA 13-2019 [Section No. 8.2.5.4.1]	
Public Input No. 203-NFPA 13-2019 [Section No. 8.2.5.4.3]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Wed Mar 27 11:52:30 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: A means to test for warter column is needed.



Public Input No. 638-NFPA 13-2019 [Section No. 8.2.5.4.2]

8.2.5.4.2 – Differential Dry Pipe Valve.

~~Protection against accumulation of water above the clapper shall be provided for differential dry pipe valves in accordance with 8.2.5.4.3 .~~

Statement of Problem and Substantiation for Public Input

Prior to the 2019 edition of the standard, this requirement applied only to low-differential dry pipe valves, which were essentially alarm check valves used as dry pipe valves. Such valves did not have an intermediate chamber open to atmosphere, which serves as an automatic drain for water that might leak past the water seat of the clapper. With the 2019 edition, the committee eliminated reference to the low-differential dry valve, such that this requirement is no longer needed.

Submitter Information Verification

Submitter Full Name: Russell Fleming
Organization: Northeast Fire Suppression Associates
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 13:31:17 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: A means to check water column is necessary



Public Input No. 203-NFPA 13-2019 [Section No. 8.2.5.4.3]

8.2.5.4.3 2 High Water Level Device.

An automatic high water level signaling device ~~or an~~ an automatic drain or a manual drain shall be permitted.

Statement of Problem and Substantiation for Public Input

Clarifies method of detecting and/or removing accumulation of excess water above dry valve clapper required in 8.2.5.4.1.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 201-NFPA 13-2019 [Section No. 8.2.5.4.1]	
Public Input No. 202-NFPA 13-2019 [Section No. 8.2.5.4.2]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Wed Mar 27 11:56:49 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: A means to check water column is necessary

**Public Input No. 199-NFPA 13-2019 [Section No. 8.2.6.6.3 [Excluding any Sub-Sections]**

]

The automatic air supply to more than one dry pipe system shall ~~be~~ incorporate an air or nitrogen receiver and be connected to enable individual maintenance of air pressure in each system.

Statement of Problem and Substantiation for Public Input

Clarifies that a tank-less compressor cannot be used to supply multiple systems.

Submitter Information Verification

Submitter Full Name: Cary Webber

Organization: Reliable Automatic Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed Mar 27 11:24:13 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Already provided in Section 8.2.6.6.1.

**Public Input No. 135-NFPA 13-2019 [New Section after 8.2.6.7.1]**

8.2.6.7.2 Each dry pipe valve shall have a low/high supervisory pressure switch that provides a supervisory signal when the air pressure within the system is out of the ranges specified in 8.2.6.7.2.1 and 8.2.6.7.2.2.

8.2.6.7.2.1 The low pressure signal shall be set at a minimum of 5 psi above the calculated trip pressure of the dry pipe valve.

8.2.6.7.2.2 The high pressure signal shall be set at 5 psi above the system air pressure specified in 8.2.6.7.1

8.2.6.7.2.3 When a low or high air pressure condition is detected, notification shall be either by:

_____ (a) an audible signal at a location that will be heard by building maintenance staff.

_____ (b) through the fire alarm control unit as a supervisory condition.

Statement of Problem and Substantiation for Public Input

A dry pipe system with air pressure that is either too low or too high is at risk. If the air pressure is too low, the dry pipe valve could trip due to the continuing loss of air pressure or from a surge in pressure from the water supply. When the dry pipe valve trips a water flow alarm signal will be initiated, the fire department will be dispatched, and the evacuation of the building takes place. During freezing conditions, the system will fill with water, freeze, and cause a system impairment and possible system damage. If the air pressure is too high, the dry pipe valve will be delayed in tripping in a fire event resulting in a longer water delivery time and possible spread of the fire beyond the system designed remote area. A low/high air pressure switch installed on the system side of the dry pipe valve can monitor the system air pressure and alert those responsible for the system maintenance of either condition that exists.

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submission Date: Mon Mar 04 11:11:34 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1039-NFPA 13-2019

Statement: A dry pipe system with air pressure that is either too low or too high is at risk. If the air pressure is too low, the dry pipe valve could trip due to the continuing loss of air pressure or from a surge in pressure from the water supply. When the dry pipe valve trips a water flow alarm signal will be initiated, the fire department will be dispatched, and the evacuation of the building takes place. During freezing conditions, the system will fill with water, freeze, and cause a system impairment and possible system damage. If the air pressure is too high, the dry pipe valve will be delayed in tripping in a fire event resulting in a longer water delivery time and possible spread of the fire beyond the system designed remote area. A low/high air pressure switch installed on the system side of the dry pipe valve can monitor the system air pressure and alert those responsible for the system maintenance of either condition that exists.



Public Input No. 38-NFPA 13-2018 [New Section after 8.2.6.8]

TITLE OF NEW CONTENT

8.2.6.8 Supervision

8.2.6.8.1* Each dry pipe system shall have a dedicated High/Low Air alarm pressure switch installed.

A 8.2.6.8.1 The alarm pressure switch shall be able to notify of any off normal air pressure. The switch shall be set to notify of both high and low pressure conditions which can either delay water delivery time or provide warning before system trip point and unnecessary flooding of a system in a non-fire condition.

Statement of Problem and Substantiation for Public Input

There is currently no requirement for a Hi/low air pressure alarm switch on dry systems except for those in refrigerated spaces in 8.8.2.2. While a high air pressure condition can potentially delay or prevent the timely proper operation of a system, the accidental operation or tripping and flooding of a dry valve can lead to the impairment of a system leaving areas or entire buildings unprotected. The false trip of a dry valve in cold or freezing temperatures can impair a system for hours, days, weeks or longer or even lead to the need for complete replacement of the system pipe and sprinkler heads. Even in warm weather it may lead to a very expensive service call and damage that could have been avoided. If a dry system is being installed and there is a potential for water to freeze if it enters the system pipe, then every precaution should be taken to prevent water from entering the pipe unless there is a fire, as well as ensuring that excessive pressure will not delay the proper operation of the equipment.

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Fri Dec 28 09:48:45 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: See FR 1039.



Public Input No. 7-NFPA 13-2018 [Section No. 8.3.2.4.4]

8.3.2.4.4

All preaction system types described in 8.3.2.1(2) and 8.3.2.1(3) shall maintain a minimum supervising air or nitrogen pressure of 7 psi (0.5 bar). The air and nitrogen levels (both low and high) must be supervised electrically as perscribed and detailed in NFPA 72.

Statement of Problem and Substantiation for Public Input

Further clarification and the requirement details must be met as stated in another section of the code as it applies here.

Submitter Information Verification

Submitter Full Name: Stuart Gilbert

Organization: Superior Prot Svcs

Street Address:

City:

State:

Zip:

Submittal Date: Sat Oct 27 16:57:20 EDT 2018

Committee: AUT-SSI

Committee Statement

Resolution: FR-1040-NFPA 13-2019 Consistent with supervision of dry pipe systems.

Statement: Further clarification and the requirement details must be met as stated in another section of the code as it applies here.



Public Input No. 298-NFPA 13-2019 [Section No. 8.6.1.2]

8.6.1.2

Antifreeze shall not be used in ESFR systems unless the ESFR sprinkler is listed for use with the antifreeze solution. The antifreeze solution shall be listed for use in fire sprinkler systems.

Statement of Problem and Substantiation for Public Input

For consistency with the use of antifreeze in fire sprinkler systems, all antifreezes shall be required to be listed for use in fire sprinkler systems to ensure its safe and effective use.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 09:25:10 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: No known issues with ESFR systems and options are very limited when using anti-freeze at this time.

**Public Input No. 299-NFPA 13-2019 [Section No. 8.6.1.3 [Excluding any Sub-Sections]]**

Where pendent sprinklers are utilized, the water shall be drained from the entire system after hydrostatic testing with water. Drop nipples connectiing pendent sprinklers to branchlines may be removed and replaced in order to remove water from the sprinkler drops. Re-hydrostatic testing is not required.

Statement of Problem and Substantiation for Public Input

Clarify the method of draining water from the drops and state that re-hydrostatic testing is not required.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 09:47:36 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1350-NFPA 13-2019 the committee agrees that an additional hydrotest is not required. Proposed language is not mandatory and was moved to the annex. Antifreeze solutions are not allowed to be mixed. Clarified that a listed antifreeze shall be used.

Statement: Clarify the method of draining water from the drops and state that re-hydrostatic testing is not required.



Public Input No. 300-NFPA 13-2019 [Section No. 8.6.1.3.1]

8.6.1.3.1

The requirements of 8.6.1.3 shall not apply where the system is hydrostatically tested with ~~properly mixed~~ a listed antifreeze solution.

Statement of Problem and Substantiation for Public Input

Antifreeze solutions are not allowed to be mixed. Clarified that a listed antifreeze shall be used.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:06:10 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1350-NFPA 13-2019 the committee agrees that an additional hydrotest is not required. Proposed language is not mandatory and was moved to the annex. Antifreeze solutions are not allowed to be mixed. Clarified that a listed antifreeze shall be used.

Statement: Clarify the method of draining water from the drops and state that re-hydrostatic testing is not required.



Public Input No. 301-NFPA 13-2019 [Section No. 8.6.1.5]

8.6.1.5

A placard shall be placed on the antifreeze system main valve that indicates the manufacture type and brand of the antifreeze solution, the ~~concentration by volume~~ minimum use temperature of the antifreeze solution used, and the volume of the antifreeze solution used in the system.

Statement of Problem and Substantiation for Public Input

Antifreeze solutions are not allowed to be mixed therefore concentration is not required. Minimum use temperature is an important attribute to note to ensure that the solution is being used in an environment that will not have temperatures below the minimum use temperature.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:07:38 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1043-NFPA 13-2019

Statement: Antifreeze solutions are not allowed to be mixed therefore concentration is not required. Minimum use temperature is an important attribute to note to ensure that the solution is being used in an environment that will not have temperatures below the minimum use temperature.



Public Input No. 302-NFPA 13-2019 [Section No. 8.6.2.1]

8.6.2.1*

Except as permitted in 8.6.2.2, ~~antifreeze~~ Antifreeze solutions shall be listed for use in sprinkler systems.

Statement of Problem and Substantiation for Public Input

There is insufficient testing to demonstrate the long term effectiveness of unlisted antifreezes. As part of the listing process, antifreezes are tested for long term stability, material compatibility, resistance to leakage, fire fighting effectiveness and exposure to fire in order to validate safe and effective use in fire sprinkler systems. All antifreezes used in sprinkler systems shall be required to be tested and listed for use.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:12:05 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: PI 302 and 526 are resolved the solution listed is not approved for ESFR sprinklers.



Public Input No. 526-NFPA 13-2019 [Section No. 8.6.2.1]

8.6.2.1 *

Except as permitted in 8.6.2.2, antifreeze solutions shall be listed for use in sprinkler systems *in accordance with UL 2901, Outline of Investigation for Antifreeze Solutions for Use in Fire Sprinkler Systems* .

Statement of Problem and Substantiation for Public Input

The reference to the requirements used to establish a listing is being added to this section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 524-NFPA 13-2019 [Section No. 2.3.9]	
Public Input No. 529-NFPA 13-2019 [Section No. A.7.1.1]	

Submitter Information Verification

Submitter Full Name: Kelly Nicoello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submission Date: Fri Jun 07 12:32:50 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: PI 302 and 526 are resolved the solution listed is not approved for ESFR sprinklers.



Public Input No. 303-NFPA 13-2019 [Section No. 8.6.2.2]

8.6.2.2 –

~~Premixed antifreeze solutions of propylene glycol shall be permitted to be used with ESFR sprinklers where the ESFR sprinklers are listed for such use in a specific application.~~

Statement of Problem and Substantiation for Public Input

There is insufficient testing to demonstrate the long term effectiveness of unlisted antifreezes. As part of the listing process, antifreezes are tested for long term stability, material compatibility, resistance to leakage, fire fighting effectiveness and exposure to fire in order to validate safe and effective use in fire sprinkler systems. All antifreezes used in sprinkler systems shall be required to be tested and listed for use.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:20:49 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See Committee action on PI 298.

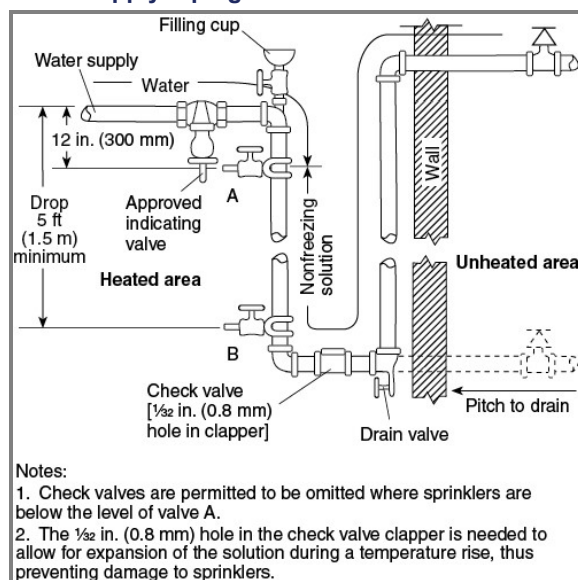


Public Input No. 494-NFPA 13-2019 [Section No. 8.6.3.1]

8.6.3.1

Where the connection between the antifreeze system and the ~~wet pipe system~~ supply piping does not incorporate a backflow prevention device, and the conditions of 8.6.3.5 are not met, piping and valves shall be installed as illustrated in Figure 8.6.3.1.

Figure 8.6.3.1 Arrangement of Supply Piping and Valves.



Statement of Problem and Substantiation for Public Input

The proposed wording change was incorporated in paragraph 8.6.3.2 in the 2019 edition. The rationale for the change is that the wording in the existing language for 8.6.3.1 implies that the required arrangement would only be applicable to an auxiliary antifreeze system that is fed from a wet pipe system. The proposed language would include the requirements of 8.6.3.1 to apply to a stand-alone antifreeze system as well. This will make the language consistent.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submission Date: Fri Jun 07 08:52:44 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1044-NFPA 13-2019

Statement: The proposed wording change was incorporated in paragraph 8.6.3.2 in the 2019 edition. The rationale for the change is that the wording in the existing language for 8.6.3.1 implies that the required arrangement would only be applicable to an auxiliary antifreeze system that is fed from a wet pipe system. The proposed language would include the requirements of 8.6.3.1 to apply to a stand-

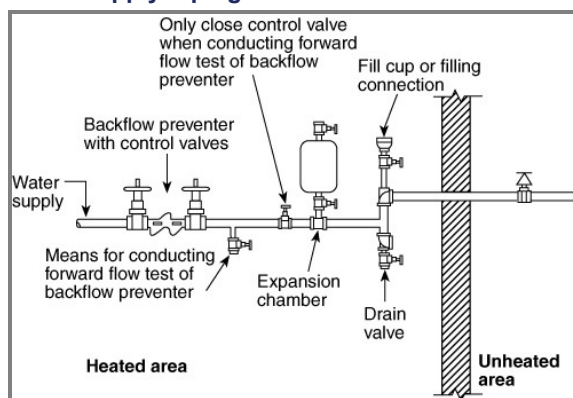
alone antifreeze system as well. This will make the language consistent.

**Public Input No. 367-NFPA 13-2019 [Section No. 8.6.3.3]****8.6.3.3***

Where the connection between the antifreeze system and the wet pipe system incorporates a backflow prevention device, and the conditions of 8.6.3.5 are not met, a listed expansion chamber shall be provided to compensate for thermal expansion of the antifreeze solution as illustrated in Figure 8.6.3.3.

Change figure 8.6.3.3 to add a tee and three way gauge connection valve, gauge and plug between the tank and the tank isolation valve for all bladder and diaphragm type expansion tanks.

Figure 8.6.3.3 Arrangement of Supply Piping with Backflow Device.

**8.6.3.3.1**

When determining the size of the expansion chamber, the precharge air temperature and precharge air pressure shall be included.

8.6.3.3.2

The size of the expansion chamber shall be such that the maximum system pressure does not exceed the rated pressure for any components of the antifreeze system.

Additional Proposed Changes

File Name	Description Approved
New_Figure_8.6.3.3.pdf	

Statement of Problem and Substantiation for Public Input

The existing configuration is unsafe to inspect or test the gas charge of the expansion tank after installation, and removal of the tank if needed must also allow anti-freeze to bleed from the threads as the tank is being removed as there is no other way to drain pressure from the inlet after closing the isolation valve. In order to check the gas pressure the solution must be removed from the bladder or diaphragm type expansion tanks as well, all of which can be accomplished by simply adding this gauge connection.

Submitter Information Verification

Submitter Full Name: David Baron
Organization: Global Fire Protection Company
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 31 09:45:35 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1045-NFPA 13-2019](#) All three PI's are accepted and included in the language.

Statement: The existing configuration is unsafe to inspect or test the gas charge of the expansion tank after installation, and removal of the tank if needed must also allow anti-freeze to bleed from the threads as the tank is being removed as there is no other way to drain pressure from the inlet after closing the isolation valve. In order to check the gas pressure the solution must be removed from the bladder or diaphragm type expansion tanks as well, all of which can be accomplished by simply adding this gauge connection.

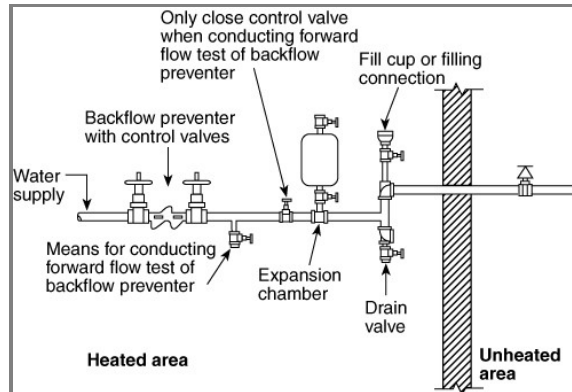


Public Input No. 495-NFPA 13-2019 [Section No. 8.6.3.3]

8.6.3.3*

Where the connection between the antifreeze system and the wet pipe system incorporates supply piping incorporates a backflow prevention device, and the conditions of 8.6.3.5 are not met, a listed expansion chamber shall be provided to compensate for thermal expansion of the antifreeze solution as illustrated in Figure 8.6.3.3 when this configuration is utilized.

Figure 8.6.3.3 Arrangement of Supply Piping with Backflow Device.



8.6.3.3.1

When determining the size of the expansion chamber, the precharge air temperature and precharge air pressure shall be included.

8.6.3.3.2

The size of the expansion chamber shall be such that the maximum system pressure does not exceed the rated pressure for any components of the antifreeze system.

Statement of Problem and Substantiation for Public Input

The proposed wording change was incorporated in paragraph 8.6.3.2 in the 2019 edition. The rationale for the change is that the wording in the existing language for 8.6.3.1 implies that the required arrangement would only be applicable to an auxiliary antifreeze system that is fed from a wet pipe system. The proposed language would include the requirements of 8.6.3.3 to apply to a stand-alone antifreeze system as well. This will make the language consistent. In addition, section 8.6.3.2 allows two configuration options when there is a backflow preventer. The language added at the end of this section clarifies that the listed expansion tank is used when the configuration shown in figure 8.6.3.3 is used.

Submitter Information Verification

Submitter Full Name: Manuel Silva

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submission Date: Fri Jun 07 08:57:22 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1045-NFPA 13-2019 All three PI's are accepted and included in the language.

Statement: The existing configuration is unsafe to inspect or test the gas charge of the expansion tank after installation, and removal of the tank if needed must also allow anti-freeze to bleed from the threads as the tank is being removed as there is no other way to drain pressure from the inlet after closing the isolation valve. In order to check the gas pressure the solution must be removed from the bladder or diaphragm type expansion tanks as well, all of which can be accomplished by simply adding this gauge connection.



Public Input No. 625-NFPA 13-2019 [New Section after 8.6.3.3.1]

TITLE OF NEW CONTENT

8.6.3.3.2 A sign or tag shall be attached to the chamber noting both initial system operating pressure and expansion chamber pre-charge pressure.

Statement of Problem and Substantiation for Public Input

This information is required to properly size and initially charge the unit to function as intended upon installation, and is necessary information to check and properly maintain the unit. It also allows for quick visual confirmation to determine if the unit should be functioning within the proper range of use or if any adjustments should be made. This also allows a point of reference for annual inspection or annual maintenance without performing calculations for required pressure that are already required for the initial installation. Since this info is already required, why not require it to be written on a tag and maintained at the device, and this is rarely if ever found on systems now.

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 11:56:15 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1045-NFPA 13-2019 All three PI's are accepted and included in the language.

Statement: The existing configuration is unsafe to inspect or test the gas charge of the expansion tank after installation, and removal of the tank if needed must also allow anti-freeze to bleed from the threads as the tank is being removed as there is no other way to drain pressure from the inlet after closing the isolation valve. In order to check the gas pressure the solution must be removed from the bladder or diaphragm type expansion tanks as well, all of which can be accomplished by simply adding this gauge connection.

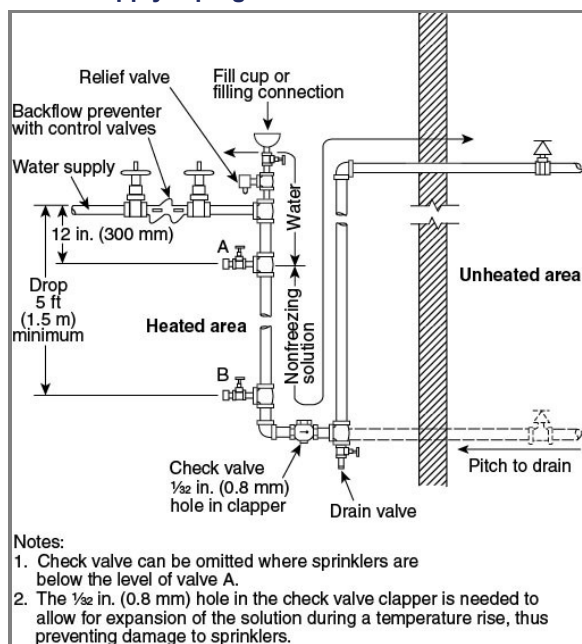


Public Input No. 688-NFPA 13-2019 [Section No. 8.6.3.4]

8.6.3.4 –

A listed $\frac{1}{2}$ -in. (15 mm) relief valve shall be permitted in lieu of the expansion chamber required in 8.6.3.3, and as illustrated in Figure 8.6.3.4, provided the antifreeze system volume does not exceed 40 gal (150 L).

Figure 8.6.3.4 Arrangement of Supply Piping with Relief Valve and Backflow Device.



Statement of Problem and Substantiation for Public Input

Dilution (not only reduces the concentration) but more critical it contributes to the biological breakdown of the glycerin (as short as 2 years before needing to be replaced). Such a short life span is unacceptable. This issue is not well known within the industry.

Deleting the allowance to use a check with a $\frac{1}{32}$ " hole should have been considered when using glycerin.

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 17:13:35 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Insufficient substantiation and dilution is not occurring.



Public Input No. 164-NFPA 13-2019 [New Section after 8.7.9.7.2]

8.8 EAS Systems.

8.8.1 General

8.8.1.1 Requirements to pipes, pressure gauges, valves and other components of EAS system shall be adhered as for the corresponded systems (8.1 – 8.7) with standard sprinklers.

8.8.1.2 Control shall be implemented via fire detection devices needed for a certain use. EAS with monitoring of activation (EAS-M) can be used as fire detection devices.

8.8.1.3 Connection lines of sprinkler electrical activation devices and connection lines of activation monitoring devices shall be automatically monitored.

8.8.1.4 Cables and wires to EASs, EAS-Ms, and fire detectors can be laid through pipelines with fastening right to a pipeline by fastening elements approved for usage by national regulations.

8.8.2 Detectors.

8.8.2.1 Location of fire detectors in correspondence with NFPA 72.

8.8.2.2 It is recommended to locate fire detectors in such manner, that the distance between the center of a detection zone of a monitored sign of fire and the center of EAS discharge zone does not exceed 0,5 m.

8.8.2.3 Detectors are allowed to be installed directly to a fire pipeline for provision of needed proximity to EAS. Therewith their steady position, orientation in space and protection from external water influence shall be provided.

8.8.3 EAS and EAS with monitoring of activation (EAS-M) location

8.8.3.1 EASs and EAS-Ms are placed as standard sprinklers according to 9.5.

8.8.3.2 In the case implementation of addressable automatic fire detectors monitoring signs of fire in EAS discharge zone the distances between the EAS deflector and the ceiling are not regulated.

Statement of Problem and Substantiation for Public Input

Sprinkler system with electrical activation differs from other sprinkler systems (other types of sprinklers, other fire detection devices, availability of wires and cables) that is why requirements to their use need to be described.

Submitter Information Verification

Submitter Full Name: Leonid Tanklevskiy

Organization: Gefest Enterprise Group

Street Address:

City:

State:

Zip:

Submission Date: Tue Mar 12 03:57:37 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Non enforceable language and insufficient technical substantiation.

**Public Input No. 234-NFPA 13-2019 [New Section after 8.8.2.1]****TITLE OF NEW CONTENT 8.8.2.1**

When a dry type system is to be utilized to protect a refrigerated space maintained at a temperature below 32 degree F or below the system must be of a preaction type of single or double interlock

Statement of Problem and Substantiation for Public Input

Allowing the option of installing a standard dry system with only a low air alarm to cover a refrigerated space that is maintained at a temperature below freezing 100% of the time is wrong. Not only to protect against physical pipe damage and subsequent water flow but also for any loss of air pressure and system flooding that should not happen with a preaction type system. Even with an immediate response in some cases the only resolution to a false trip is to remove all of the system pipe and either thaw it in a warm area or replace it complete to ensure proper fire protection. That could mean a lengthy impairment at best, and a complete system replacement at worst. Many contractors shy away from that type of installation but more than a few times I've heard the excuse "Well, it's not against code to install a dry system so that's what is being quoted." Just not good fire protection in my opinion.

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 01 14:22:25 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Lack of technical substantiation to support this change.

**Public Input No. 233-NFPA 13-2019 [Section No. 8.8.2.3]****8.8.2.3** Piping Pitch.

Piping in refrigerated spaces shall be installed with pitch as outlined in 16.10.3.3.

Statement of Problem and Substantiation for Public Input

If P.I's 228-231 are accepted, this will need to be revised

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 228-NFPA 13-2019 [Section No. 16.10.3.1]	

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 01 14:02:06 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Editorial and no change to piping pitch was made in Chapter 16.



Public Input No. 21-NFPA 13-2018 [New Section after 8.10]

Facilitation of internal assessments/flushing

All main end of lines shall be equipped with removeable drain cap and valve to facilitate draining of system to perform internal pipe assessment or to allow to end of line flushing if obstructions are present--locations to be added to General Information Sign

Minimum of 4-90 degree elbows on system mains shall be replaced with tee having drain cap to allow for internal assessment or flushing connection-per system-locations to be listed on General or System Information Sign

Minimum of 4 end of branch lines shall be equipped with caps or plugs-per system- to allow for better inspection of branch lines-Locations to be added to General Information Sign

Statement of Problem and Substantiation for Public Input

Currently, 5 year internal assessments are made by opening sections of cross main and branch line piping which may have substantial trapped water or are located in buildings where it is not feasible to remove elbow from looped systems. If all end of mains were equipped with drain caps/valves then the technician could be sure that piping does not have large amounts of water. On looped systems, having elbow on main replaced with tees having drain/valves on side, this would allow for a better inspection of mains. Additionally, if obstructions were found in the system, having drain caps on the ends of lines and elbows replaced with tees would provide points to flush through.

Submitter Information Verification

Submitter Full Name: Ben Schultz

Organization:

Street Address:

City:

State:

Zip:

Submittal Date: Wed Nov 28 20:57:27 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: PI #21 is resolved, internal inspections is addressed in NFPA 25. PI #421 is resolved, the submitters content is premature and lacks substance in technical details.

**Public Input No. 421-NFPA 13-2019 [New Section after 8.10]****8.X Electronic Sprinkler Systems.****8.X.1 General****8.X.1.1**

All components of electrical systems shall be compatible.

8.X.1.2 Supervision.

All detection and control equipment including the specific devices used for electronic sprinkler actuation shall be automatically supervised in accordance with the requirements of NFPA72.

8.X.1.3

Testing apparatus capable of producing the heat or impulse necessary to operate any normal detection device shall be furnished to the owner of the property with each installation.

Statement of Problem and Substantiation for Public Input

Electronic sprinklers are a new technology in which the primary means of operation is through an electrical signal provided by an electronic control system using specialized detection and control algorithms. In construction they are similar to pre-action sprinkler systems, consisting of electronic detection and actuation components that must be compatible to ensure proper system operation. In addition, it is important that all electrical wiring and connections are supervised for open circuit, ground fault, and short circuit conditions to ensure system integrity and operational readiness. Finally, because of the unique nature of these systems, it's important that the proper equipment is provided to ensure that regular testing and maintenance can be conducted safely in accordance with product listings and manufacturer guidelines.

Related Public Inputs for This Document

Related Input	Relationship
<u>Public Input No. 549-NFPA 13-2019 [New Section after 28.2.3.3.2]</u>	Adds requirement for acceptance testing

Submitter Information Verification

Submitter Full Name: Zachary Magnone
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submission Date: Wed Jun 05 16:38:49 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: PI #21 is resolved, internal inspections is addressed in NFPA 25. PI #421 is resolved, the submitters content is premature and lacks substance in technical details.



Public Input No. 553-NFPA 13-2019 [New Section after 9.1.1]

9.2 Compartments.

9.2.1 Where sprinklers are required to be of the same type within a compartment, the compartment shall meet the requirements of 9.2.1.1 or 9.2.1.2

9.2.1.1 The space shall be completely enclosed by walls and a ceiling with openings permitted in each wall that comply with the following:

(1) Each wall in the compartment is permitted to have openings to an adjoining space if the openings have a minimum lintel depth of 8 in. (200 mm) from the ceiling and the total width of the openings in each wall does not exceed 8 ft (2.4 m).

(2) A single opening of 36 in. (900 mm) or less in width without a lintel is permitted where there are no other openings to adjoining spaces.

9.2.1.2 In light hazard and residential occupancies a compartment shall be allowed to be subdivided by one or more draft stops that meet all of the following criteria:

(1) The draft stop shall be securely attached to the ceiling, with no gap at the ceiling, and shall follow all ceiling contours.

(2) The draft stop shall be at least 12 in. deep as measured down from the ceiling.

(3) The draft stop shall be of noncombustible or limited combustible material that will stay in place before and during sprinkler operation.

Statement of Problem and Substantiation for Public Input

These requirements were deleted from the definition and moved to chapter 9. An allowance was added to permit the subdivision of compartments when needed to use the proper sprinkler type for the application.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 551-NFPA 13-2019 [New Section after 3.3.57]	New definition used in proposed new section
Public Input No. 552-NFPA 13-2019 [Section No. 3.3.38]	Revised definition used in proposed new section

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submission Date: Fri Jun 07 15:43:56 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: No technical substantiation was submitted to justify the use of draft stops.



Public Input No. 616-NFPA 13-2019 [Section No. 9.1.1]

9.1.1*

The requirements for spacing, location, and position of sprinklers shall be based on the following principles:

- (1) Sprinklers- Where sprinklers are required by NFPA 101 or the applicable building code, sprinklers shall be installed throughout the premises.
- (2) Sprinklers shall be located so as not to exceed the maximum protection area per sprinkler.
- (3) * Sprinklers shall be positioned and located so as to provide satisfactory performance with respect to activation time and distribution.
- (4) Sprinklers shall be permitted to be omitted from areas specifically allowed by this standard.
- (5) When sprinklers are specifically tested and test results demonstrate that deviations from clearance requirements to structural members do not impair the ability of the sprinkler to control or suppress a fire, their positioning and locating in accordance with the test results shall be permitted.
- (6) Clearance between sprinklers and ceilings exceeding the maximums specified in this standard shall be permitted, provided that tests or calculations demonstrate comparable sensitivity and performance of the sprinklers to those installed in conformance with these sections.

Statement of Problem and Substantiation for Public Input

Proposed revision will allow only portions of a building to be provided with an automatic sprinkler system where NFPA 101 or the applicable building code does not require the building to be sprinklered, due to its limited size or other circumstances. There are known situations where building owners wanted to provide partial sprinkler protection in buildings not required to be sprinklered by NFPA 101 and the applicable building code only to have their plans rejected by code officials citing Section 9.1.1(1) requiring sprinklers throughout the premises. In these known situations, the owners opted not to install sprinklers. These situations involved a small Control Room Building where sprinkler protection was not required, but the owner desired to have sprinklers installed in all areas except in an electronic analysis lab and in a mercantile building with basement storage areas where the owner desired to install sprinklers in the basement storage areas.

Submitter Information Verification

Submitter Full Name: Anthony Ordile

Organization: Haines Fire & Risk Consulting

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 10:46:05 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Proposes a code requirement this is an enforcement issue and does not belong in a standard. The standard currently allows a limited area system.



Public Input No. 493-NFPA 13-2019 [New Section after 9.2.1.1.2]

TITLE OF NEW CONTENT

Noncombustible spaces with non fuel fired equipment and access panels shall be considered a concealed space and shall not require sprinkler protection.

Statement of Problem and Substantiation for Public Input

This is a common question asked of NFSA. Noncombustible spaces with non fuel fired equipment (such an electric appliance) where the only access is a panel for maintenance is still considered a non combustibile space and sprinkler protection is not required. Due to the confusion regarding this issue clarification should be added to the standard.

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: On behalf of NFSA Engineering and Standard Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 08:52:17 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1351-NFPA 13-2019 Better suited for annex to clarify the intent.

Statement: This is a common question asked of NFSA. Noncombustible spaces with non fuel fired equipment (such an electric appliance) where the only access is a panel for maintenance is still considered a non combustibile space and sprinkler protection is not required. Due to the confusion regarding this issue clarification should be added to the standard.

**Public Input No. 429-NFPA 13-2019 [New Section after 9.2.1.10]****9.2.1.11***

Soffits of combustible construction containing ductwork below drywall ceilings.

9.2.1.11.1

The depth of the soffit shall not exceed 16 in (405 mm)

9.2.1.11.1

The area of the soffit shall not exceed 55 ft² (5.1 m²)

9.2.1.11.2

The room that the soffit is located in is protected with sprinklers.

A.9.2.1.11

See figures A.9.2.1.11 (a) & (b)

Additional Proposed Changes

File Name	Description Approved
A.9.2.1.11_A.pdf	
A.9.2.1.11_B.pdf	

Statement of Problem and Substantiation for Public Input

In buildings of wood truss and TJI construction, many times soffits are built below the sheetrock membrane to facilitate the installation of ductwork. These soffits are usually constructed with combustible wood framing members thus creating a combustible concealed space. The room these soffits are located in may exceed 55 FT² so that section will not apply. These soffits are usually full of ductwork and a sprinkler installed in that space will be obstructed. This PI reasonably allows omission of sprinklers in these spaces.

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submission Date: Thu Jun 06 08:16:46 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The allowable omissions in this section allow for omission of sprinkler protection.

**Public Input No. 656-NFPA 13-2019 [New Section after 9.2.1.15.2]**

A single quick response automatic sprinkler shall be permitted to be installed in the chase at each floor in lieu of fire stopping.

Statement of Problem and Substantiation for Public Input

This provides an alternative to fire stopping in small pipe chases.

Submitter Information Verification

Submitter Full Name: Mark Fessenden

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 15:33:34 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: This is a building code issue.



Public Input No. 375-NFPA 13-2019 [New Section after 9.2.1.19]

9.2.1.20

Non combustible concealed spaces containing non fuel fired ventilation equipment and associated ductwork.

9.2.1.20.1

Concealed spaces indicated in 9.2.1.20 shall be permitted to have access openings for maintenance on the ventilation equipment.

Statement of Problem and Substantiation for Public Input

In many hotels, HVAC equipment is located within concealed spaces (no doors so it is not a closet). There is usually an access panel which allows access to the HVAD equipment. These spaces should not be required to be protected if they are non combustible.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 31 15:06:24 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Proposed language does not contain a requirement.

**Public Input No. 374-NFPA 13-2019 [New Section after 9.2.1.19.1]****9.2.1.19.1.1**

Eaves associated with roof structures shall not be required to comply with section 9.2.1.19.

Statement of Problem and Substantiation for Public Input

There could be confusion that this section also applies to the normal eave that is part of a roofing system.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 31 14:59:36 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Sprinkler requirements for eaves are located in 9.2.1.19



Public Input No. 489-NFPA 13-2019 [Section No. 9.2.2]

9.2.2 Spaces Under Ground Floors, Exterior Docks, and Exterior Platforms.

Sprinklers shall be permitted to be omitted from spaces under ground floors, exterior docks, and exterior platforms where all of the following conditions exist:

- (1) The space is not accessible for storage purposes and is protected against accumulation of wind-borne debris.
- (2) The space contains no equipment such as conveyors or fuel-fired heating units.
- (3) The floor over the space is of tight construction.
- (4) No combustible or flammable liquids or materials that under fire conditions would convert into combustible or flammable liquids are processed, handled, or stored on the floor above the space.

Statement of Problem and Substantiation for Public Input

This section applies to exterior spaces, however the way it is currently written with a comma before ",and platforms" could be read as applying to all platforms (interior or exterior). See section 9.3.18 which clarifies that this section is intended to apply to exterior platforms.

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: on behalf of the NFSA E&S Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 08:17:56 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1093-NFPA 13-2019](#)

Statement: This section applies to exterior spaces, however the way it is currently written with a comma before ",and platforms" could be read as applying to all platforms (interior or exterior). See section 9.3.18 which clarifies that this section is intended to apply to exterior platforms.

**Public Input No. 430-NFPA 13-2019 [New Section after 9.2.3.2]****9.2.3.2.1**

Sprinklers shall be required for porte-cocheres that are located below occupiable floor(s) above.

Statement of Problem and Substantiation for Public Input

Porte-cocheres are generally used for unloading/ loading of occupants. Due to this transient nature, NFPA allows omission of sprinkler protection for these areas. Having spent many years travelling to various occupancies, I have found that there are many times where these porte-cocheres are used for long term parking. I have seen countless times where the hotel shuttle is parked under the porte-cochere overnight. Many times the "nicer" cars are parked underneath for valet parking. The majority of porte-cocheres are projected from or detached from the building. The allowance to omit sprinklers makes good sense in these situations. However, when there are occupants located above, protection should be provided below. Especially since the parking is overnight and a fire situation could occur in the middle of the night.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 431-NFPA 13-2019 [New Section after 9.2.3.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 09:02:52 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1094-NFPA 13-2019 PI 431 is resolved. Without a prescribed distance from the building this proposed language could create an issue with the building code. Porte cocheres that are not connected to the structure could create an exposure.](#)

Statement: Porte-cocheres are generally used for unloading/ loading of occupants. Due to this transient nature, NFPA allows omission of sprinkler protection for these areas. Having spent many years travelling to various occupancies, I have found that there are many times where these porte-cocheres are used for long term parking. I have seen countless times where the hotel shuttle is parked under the porte-cochere overnight. Many times the "nicer" cars are parked underneath for valet parking. The majority of porte-cocheres are projected from or detached from the building. The allowance to omit sprinklers makes good sense in these situations. However, when there are occupants located above, protection should be provided below. Especially since the parking is overnight and a fire situation could occur in the middle of the night.



Public Input No. 431-NFPA 13-2019 [New Section after 9.2.3.2]

9.2.3.2.1

Combustible porte-cocheres that are not physically attached to the building shall not be required to be protected.

Statement of Problem and Substantiation for Public Input

The issue of porte-cochere protection is a big one that needs more clarification. I do not believe that this is a building code issue. This is the committee for sprinkler system installation and I believe that this topic needs to be addressed by this committee.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 430-NFPA 13-2019 [New Section after 9.2.3.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submission Date: Thu Jun 06 09:11:55 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1094-NFPA 13-2019 PI 431 is resolved. Without a prescribed distance from the building this proposed language could create an issue with the building code. Porte cocheres that are not connected to the structure could create an exposure.

Statement: Porte-cocheres are generally used for unloading/ loading of occupants. Due to this transient nature, NFPA allows omission of sprinkler protection for these areas. Having spent many years travelling to various occupancies, I have found that there are many times where these porte-cocheres are used for long term parking. I have seen countless times where the hotel shuttle is parked under the porte-cochere overnight. Many times the "nicer" cars are parked underneath for valet parking. The majority of porte-cocheres are projected from or detached from the building. The allowance to omit sprinklers makes good sense in these situations. However, when there are occupants located above, protection should be provided below. Especially since the parking is overnight and a fire situation could occur in the middle of the night.

**Public Input No. 473-NFPA 13-2019 [New Section after 9.2.3.5]****9.2.3.6**

Sprinklers shall not be required beneath trellis overhangs.

Statement of Problem and Substantiation for Public Input

This one kind of speaks for itself. Yes we are seeing AHJ's requiring sprinklers under trellis overhangs.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 15:50:30 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1352-NFPA 13-2019](#)

Statement: This one kind of speaks for itself. Yes we are seeing AHJ's requiring sprinklers under trellis overhangs.



Public Input No. 173-NFPA 13-2019 [Section No. 9.2.3.5]

9.2.3.5

Sprinklers shall be installed under all exterior projections greater than 2 ft (600 mm, [4 ft \(1.2 m\)](#)) where combustibles are stored.

Statement of Problem and Substantiation for Public Input

This proposal is offered to rectify a conflict that currently exists in the standard. As now written, 9.2.3.5 calls for sprinklers when the projection exceeds 2 ft whereas the similar text in 9.3.19.2 specifies 4 ft.

Section 9.2.3.5 was added as part of SR No. 425 and it was stated in the substantiation that “Additionally, while the width of overhang was debated, no action was proposed to delete the requirement for sprinklers under overhangs with storage below. This text too should be re-inserted.”, but that was not true, action had been taken.

During the First Revision period, PI No. 464 proposed a change from 2 ft to 4 ft for Section 8.15.7.5 (2016 numbering) and that change was implemented as 9.3.20.2 under FR No. 714 (subsequently edited to become 9.3.19.2). The substantiation for this change was that it was the result of task group considerations. It was verbally explained during the First Draft Meeting that the change was needed because some AHJs were unnecessarily calling for sprinklers under loading bay rain guards/shields, which often exceed the 2 ft limit.

With the proposed change to 9.2.3.5, it will be the same as 9.3.19.2 and the conflict will have been rectified, since the two sections will contain identical text.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Fri Mar 15 23:20:23 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1096-NFPA 13-2019 PI 661 is resolved see FR1096

Statement: This proposal is offered to rectify a conflict that currently exists in the standard. As now written, 9.2.3.5 calls for sprinklers when the projection exceeds 2 ft whereas the similar text in 9.3.19.2 specifies 4 ft.

Section 9.2.3.5 was added as part of SR No. 425 and it was stated in the substantiation that “Additionally, while the width of overhang was debated, no action was proposed to delete the requirement for sprinklers under overhangs with storage below. This text too should be re-inserted.”, but that was not true, action had been taken.

During the First Revision period, PI No. 464 proposed a change from 2 ft to 4 ft for Section 8.15.7.5 (2016 numbering) and that change was implemented as 9.3.20.2 under FR No. 714 (subsequently edited to become 9.3.19.2). The substantiation for this change was that it was the result of task group considerations. It was verbally explained during the First Draft Meeting that the change was needed because some AHJs were unnecessarily calling for sprinklers under loading bay rain guards/shields, which often exceed the 2 ft limit.

With the proposed change to 9.2.3.5, it will be the same as 9.3.19.2 and the conflict will have been rectified, since the two sections will contain identical text.



Public Input No. 661-NFPA 13-2019 [Section No. 9.2.3.5]

9.2.3.5

Sprinklers shall be installed under all exterior projections greater ~~than 2 ft~~ than 4 ft (600 mm 1200 mm) where combustibles are stored.

Statement of Problem and Substantiation for Public Input

The other sections were changed to 4 feet. Did this section not get updated?

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 15:47:03 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1096-NFPA 13-2019 PI 661 is resolved see FR1096

Statement: This proposal is offered to rectify a conflict that currently exists in the standard. As now written, 9.2.3.5 calls for sprinklers when the projection exceeds 2 ft whereas the similar text in 9.3.19.2 specifies 4 ft.

Section 9.2.3.5 was added as part of SR No. 425 and it was stated in the substantiation that "Additionally, while the width of overhang was debated, no action was proposed to delete the requirement for sprinklers under overhangs with storage below. This text too should be re-inserted.", but that was not true, action had been taken.

During the First Revision period, PI No. 464 proposed a change from 2 ft to 4 ft for Section 8.15.7.5 (2016 numbering) and that change was implemented as 9.3.20.2 under FR No. 714 (subsequently edited to become 9.3.19.2). The substantiation for this change was that it was the result of task group considerations. It was verbally explained during the First Draft Meeting that the change was needed because some AHJs were unnecessarily calling for sprinklers under loading bay rain guards/shields, which often exceed the 2 ft limit.

With the proposed change to 9.2.3.5, it will be the same as 9.3.19.2 and the conflict will have been rectified, since the two sections will contain identical text.

**Public Input No. 68-NFPA 13-2019 [Section No. 9.2.4]****9.2.4 Dwelling Units.****9.2.4.1 Bathrooms.****9.2.4.1.1***

Unless sprinklers are required by 9.2.4.1.2 or 9.2.4.1.3, sprinklers shall not be required in bathrooms that are located within dwelling units, that do not exceed 55 ft² (5.1 m²) in area, and that have walls and ceilings of noncombustible or limited-combustible materials with a 15-minute thermal barrier rating, including the walls and ceilings behind any shower enclosure or tub.

9.2.4.1.2

Sprinklers shall be required in bathrooms of limited care facilities and nursing homes, as defined in NFPA 101.

9.2.4.1.3

Sprinklers shall be required in bathrooms opening directly onto public corridors or exitways.

9.2.4.2 Mechanical equipment spaces

Sprinklers are not required in noncombustible spaces containing listed or certified mechanical equipment that service a single dwelling unit where the space is only accessible from that unit or directly outside the unit. This space shall not be readily accessible and shall not be used for storage including personal belongings or maintenance items.

9.2.4.3* Closets and Pantries.

Sprinklers are not required in clothes closets, linen closets, and pantries within dwelling units in hotels and motels where the area of the space does not exceed 24 ft² (2.2 m²) and the walls and ceilings are surfaced with noncombustible or limited-combustible materials.

Statement of Problem and Substantiation for Public Input

In many jurisdictions mechanical closets like those often found in hotels and apartments are hotly contested. Handbook and annex material has long asserted that it is not the intent of the standard to require sprinklers in these spaces. It seems prudent to add this information to the standard in a concrete manner that requires reasonable control (access restrictions) and reasonable protection (access and storage requirements). The terms listed and certified were used as UL listing and CSA certification both apply in the western hemisphere, the primary aim is to prevent the installation of garage engineered systems without sprinkler protection.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 69-NFPA 13-2019 [Section No. A.9.2.4.2]	

Submitter Information Verification

Submitter Full Name: MIKE MOREY
Organization: Shambaugh and Son LP
Street Address:
City:
State:
Zip:
Submission Date: Fri Jan 25 14:13:36 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: See PI 493.



Public Input No. 325-NFPA 13-2019 [New Section after 9.2.4.1.1]

9.2.4.1.1.1

Bathrooms in accordance with section 9.2.4.1.1 that are located under stairs that are part of the path of egress shall not be required to be protected provided that the bathroom is separated from the stairs by fire resistive construction per the local building code.

Statement of Problem and Substantiation for Public Input

As the standard is currently written, I would feel that section 9.2.4.1.1 is clear that it exempts bathrooms in dwelling units less than 55 square feet. Many times, a small half bath or powder room (Sink and toilet) is place underneath stairs from an adjoining dwelling unit. We have encountered many AHJ's that require sprinklers in these bathrooms. This new section will make it clear that these bathrooms are also exempt.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 13:36:09 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1098-NFPA 13-2019](#)

Statement: As the standard is currently written, I would feel that section 9.2.4.1.1 is clear that it exempts bathrooms in dwelling units less than 55 square feet. Many times, a small half bath or powder room (Sink and toilet) is place underneath stairs from an adjoining dwelling unit. We have encountered many AHJ's that require sprinklers in these bathrooms. This new section will make it clear that these bathrooms are also exempt.



Public Input No. 490-NFPA 13-2019 [New Section after 9.2.4.2]

9.2.4.3* Balconies and Decks

9.2.4.3.1 Where a roof, deck, or balcony, greater than 2 ft. wide is provided above, sprinklers shall be installed to protect attached exterior balconies, attached exterior decks, and ground floor patios directly serving dwelling units in buildings of Construction Type V.

9.2.4.3.2 Where sprinklers are installed beneath roofs, overhangs, decks, or balconies sprinklers shall be permitted to be installed with deflectors positioned in accordance Sections 9.2.4.3.2.1 or 9.2.4.3.2.2 or in accordance with the manufacturer's installation instructions.

9.2.4.3.2.1 Sidewall sprinklers shall not be less than 4 in. (25 mm) or more than 6 in. (150 mm) below structural members under a smooth ceiling and not less than 1 in. (25 mm) or more than 6 in. (150 mm) below exposed structural members, provided that the deflector is not more than 14 in. (350 mm) below the underside surface of the deck above the exposed structural members.

9.2.4.3.2.2 Pendent sprinklers shall be positioned in accordance with the requirements of NFPA 13 for the sprinkler type installed..

Statement of Problem and Substantiation for Public Input

NFPA 13R and the IBC require sprinkler protection on exterior balconies and similar structures in buildings serving dwelling units of Type V construction. This Public Input will align the requirements between the NFPA 13 and 13R documents.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 491-NFPA 13-2019 [New Section after A.9.2.4.2]	related
Public Input No. 491-NFPA 13-2019 [New Section after A.9.2.4.2]	
Public Input No. 550-NFPA 13-2019 [Section No. 10.3.2]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: On behalf of NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 08:27:17 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1099-NFPA 13-2019](#)

Statement: NFPA 13R and the IBC require sprinkler protection on exterior balconies and similar structures in buildings serving dwelling units of Type V construction. This Public Input will align the requirements between the NFPA 13 and 13R documents.

**Public Input No. 652-NFPA 13-2019 [Section No. 9.2.4.2]**

Move existing 9.2.4.2 * and associated annex to 9.2.5.1 and move existing 9.2.5 text and associated annex to 9.2.5.2

9.2.5 Closets and Pantries.

9.2.5.1 Sprinklers are not required in clothes closets, linen closets, and pantries within dwelling units in hotels and motels where the area of the space does not exceed 24 ft² (2.2 m²) and the walls and ceilings are surfaced with noncombustible or limited-combustible materials.

A.9.2.5.1 Portable wardrobe units, such as those typically used in nursing homes and mounted to the wall, do not require sprinklers to be installed in them. Although the units are attached to the finished structure, this standard views those units as pieces of furniture rather than as a part of the structure; thus, sprinklers are not required.

9.2.5.2 Sprinklers shall not be required in clothes closets of patient sleeping rooms in hospitals where the area of the closet does not exceed 6 ft² (.6 m²).

provided the distance from the sprinkler in the patient sleeping room to the back wall of the closet does not exceed the maximum distance permitted by 9.5.3.2.

A.9.2.5.2 This exception is limited to hospitals as nursing homes, and many limited-care facilities can have more combustibles within the closets. The limited amount of clothing found in the small clothes closets in hospital patient rooms is typically far less than the amount of combustibles in casework cabinets

that do not require sprinkler protection, such as nurse servers. In many hospitals, especially new hospitals, it is difficult to make a distinction between clothes closets and cabinet work. The exception is far more restrictive than similar exceptions for hotels and apartment buildings. NFPA 13 already permits

the omission of sprinklers in wardrobes [see 9.2.9]. It is not the intent of this paragraph to affect the wardrobe provisions of NFPA 13. It is the intent that the sprinkler protection in the room covers the closet as if there was no door on the closet (see 9.5.3.2).

Add New

9.2.5.3 Sprinklers shall not be required in closets where NFPA 101 permits their omission.

Statement of Problem and Substantiation for Public Input

NFPA 101 and NFPA 13 are sometimes at odds on when sprinklers are required in closets. This serves to clarify the requirements.

Submitter Information Verification

Submitter Full Name: Mark Fessenden

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 15:14:41 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1353-NFPA 13-2019

Statement: NFPA 101 and NFPA 13 are sometimes at odds on when sprinklers are required in closets. This serves to clarify the requirements.



Public Input No. 138-NFPA 13-2019 [Section No. 9.2.6]

9.2.6*– Electrical Equipment Rooms.

Sprinklers shall not be required in electrical equipment rooms where all of the following conditions are met:

- (1) The room is dedicated to electrical equipment only.
- (2) Only dry-type or liquid-type with listed K-class fluid electrical equipment is used.
- (3) Equipment is installed in a 2-hour fire-rated enclosure including protection for penetrations.
- (4) Storage is not permitted in the room.

Statement of Problem and Substantiation for Public Input

Provide a Title for this section the same as the other 9.2.X sections to make it easier to location criteria.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Thu Mar 07 13:46:25 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1101-NFPA 13-2019 PI 270 is resolved - electric equipment covers more than power service equipment PI 4 is resolved - telecom/data should not be considered electrical equipment.

Statement: Provide a Title for this section the same as the other 9.2.X sections to make it easier to location criteria.



Public Input No. 270-NFPA 13-2019 [Section No. 9.2.6]

9.2.6*

Sprinklers shall not be required in electrical equipment rooms where all of the following conditions are met:

- (1) The room is dedicated to electrical power service and distribution equipment only.
- (2) Only dry-type or liquid-type with listed K-class fluid electrical equipment is used.
- (3) Equipment is installed in a 2-hour fire-rated enclosure including protection for penetrations.
- (4) Storage is not permitted in the room.

Statement of Problem and Substantiation for Public Input

Current language does not define which kind of electrical equipment could be in the electrical equipment rooms, so clarification is required. There were interpretations that Server Rooms, UPS Rooms or similar are also electrical equipment rooms, and sprinklers protection could be omitted, which I do not think is the intent of this section.

Submitter Information Verification

Submitter Full Name: Alex Hoffman

Organization: Viking Fire Protection Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 24 21:38:59 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1101-NFPA 13-2019 PI 270 is resolved - electric equipment covers more than power service equipment PI 4 is resolved - telecom/data should not be considered electrical equipment.

Statement: Provide a Title for this section the same as the other 9.2.X sections to make it easier to location criteria.



Public Input No. 4-NFPA 13-2018 [Section No. 9.2.6]

9.2.6*

Sprinklers shall not be required in electrical equipment rooms where all of the following conditions are met:

- (1) The room is dedicated to electrical equipment only. Electrical equipment is defined as... (does this apply to telecom/data equipment in a small room to serve only that building; what is the extent of electrical equipment).
- (2) Only dry-type or liquid-type with listed K-class fluid electrical equipment is used.
- (3) Equipment is installed in a 2-hour fire-rated enclosure including protection for penetrations.
- (4) Storage is not permitted in the room.

Statement of Problem and Substantiation for Public Input

I would like "electrical equipment" to be defined somewhere whether within the section revised, or in the definitions section.

Submitter Information Verification

Submitter Full Name: Jennifer Olson

Organization: STV Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Thu Oct 25 11:11:45 EDT 2018

Committee: AUT-SSI

Committee Statement

Resolution: FR-1101-NFPA 13-2019 PI 270 is resolved - electric equipment covers more than power service equipment PI 4 is resolved - telecom/data should not be considered electrical equipment.

Statement: Provide a Title for this section the same as the other 9.2.X sections to make it easier to location criteria.

**Public Input No. 464-NFPA 13-2019 [New Section after 9.2.8]****9.2.9**

Sprinklers shall not be required to protect areas used for water retention.

Statement of Problem and Substantiation for Public Input

Many times in parking garages, underneath the lower level ramps there are areas that are utilized for water retention. This is usually for rain water overflow. These spaces are usually dry until there is a substantial rain event. Some AHJ's are requiring these areas o be protected.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 15:18:53 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Areas that are used for water retention may also have other equipment. These areas can take many different forms.

**Public Input No. 265-NFPA 13-2019 [New Section after 9.2.9]****9.2.10 Small Temporary Occupied Spaces**

Sprinklers shall not be required in isolated small temporary occupied spaces, like hearing testing booths, phone booths or similar, which do not extend to the ceiling protected with sprinklers. The maximum horizontal dimension of the small temporary occupied space shall not exceed 4 ft (1.2 m) ..

Additional Proposed Changes

File Name	Description	Approved
Small_Occupied_Spaces.pdf	Example of Small Occupied Space Pictures	

Statement of Problem and Substantiation for Public Input

The current NFPA 13 standard does not address small occupied spaces, so some AHJ's require sprinkler protection because they are occupied spaces. They are usually installed in open office spaces and bringing a pipe feeding a sprinkler in the booth from the ceiling sprinkler system is a problem for aesthetic reasons. Most of these booths are mobile, so once the sprinkler pipe is installed they lose this feature. Some booths require to be sound proofed and the pipe penetration for sprinkler installation could create a problem. Due to limited size (maximum 4 ft horizontal length) and sprinkler protection above they do not increase fire hazard.

Submitter Information Verification

Submitter Full Name: Jason Ryckman
Organization: Canadian Automatic Sprinkler Association
Affiliation: Canadian Automatic Sprinkler Association
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 22 14:55:21 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1102-NFPA 13-2019

Statement: The current NFPA 13 standard does not address small occupied spaces, so some AHJ's require sprinkler protection because they are occupied spaces. They are usually installed in open office spaces and bringing a pipe feeding a sprinkler in the booth from the ceiling sprinkler system is a problem for aesthetic reasons. Most of these booths are mobile, so once the sprinkler pipe is installed they lose this feature. Some booths require to be sound proofed and the pipe penetration for sprinkler installation could create a problem. Due to limited size (maximum 4 ft horizontal length) and sprinkler protection above they do not increase fire hazard.



Public Input No. 139-NFPA 13-2019 [Section No. 9.2.9]

9.2.9– Installed Furniture

Sprinklers shall not be required to be installed in furniture such as portable wardrobe units, cabinets, trophy cases, and similar items not intended for occupancy. This type of feature shall be permitted to be attached to the finished structure.

Statement of Problem and Substantiation for Public Input

Provide a Title for this section the same as the other 9.2.X sections to make it easier to location criteria.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 13:48:58 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1103-NFPA 13-2019 PI 369 becomes an FR moving list to the annex.](#)

Statement: Provide a Title for this section the same as the other 9.2.X sections to make it easier to location criteria.



Public Input No. 369-NFPA 13-2019 [Section No. 9.2.9]

9.2.9

Sprinklers shall not be required to be installed in furniture such as portable wardrobe units, cabinets, ~~trophy lockers~~, trophy cases, and similar items not intended for occupancy. This type of feature shall be permitted to be attached to the finished structure.

Statement of Problem and Substantiation for Public Input

Lockers are another commonly found example that should be added to this list.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 368-NFPA 13-2019 [Section No. 9.5.3.2.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 31 13:42:36 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1103-NFPA 13-2019 PI 369 becomes an FR moving list to the annex.](#)
Statement: Provide a Title for this section the same as the other 9.2.X sections to make it easier to location criteria.

**Public Input No. 476-NFPA 13-2019 [Section No. 9.2.13]****9.2.13** Elevator Hoistways and Machine Rooms.

Sprinklers shall not be required in locations complying with 9.3.6.4 2 , 9.3.6.5 3 , ~~or 9.3.6.6, or 9.3.6.7.2~~

Statement of Problem and Substantiation for Public Input

9.3.6.4, 9.3.6.5 and 9.3.6.6 are incorrect references. This public input provides the the correct references

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: On behalf of the NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 16:23:35 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1104-NFPA 13-2019](#)

Statement: 9.3.6.4, 9.3.6.5 and 9.3.6.6 are incorrect references. This public input provides the the correct references



Public Input No. 174-NFPA 13-2019 [Section No. 9.2.17]

9.2.17 Skylights.

Sprinklers shall not be required in skylights complying with 9.3.16.

9.2.17.1

Skylights that allow venting, other than smoke and heat venting per 42 20 .4 6 .4 6.2 , shall be provided with sprinkler protection installed in the skylight.

Statement of Problem and Substantiation for Public Input

Editorial. The reference to 12.1.1 is from NFPA 13-2016. In the current edition the reference should be to 20.6.6.2.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Fri Mar 15 23:26:32 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1354-NFPA 13-2019](#)

Statement: Editorial. The reference to 12.1.1 is from NFPA 13-2016. In the current edition the reference should be to 20.6.6.2.



Public Input No. 51-NFPA 13-2019 [New Section after 9.2.17.1]

9.2.18 Athletic Facilities

9.2.18.1 Sprinklers shall not be required for protection of racquetball or squash courts.

9.2.18.2 Sprinklers shall not be required directly above swimming pools.

TITLE OF NEW CONTENT

Type your content here ...

Statement of Problem and Substantiation for Public Input

There are no combustible contents or ignition sources, other than ceiling lighting in racquetball or squash courts. When sprinklers are provided in these areas they are typically damaged almost immediately and the drops plugged off. Should these spaces be used for other purposes, such as storage, this would constitute a change in occupancy.

Sprinklers are not needed directly above swimming pools since there are no combustible contents to be protected.

Submitter Information Verification

Submitter Full Name: Pat Brock

Organization: Oklahoma State University

Street Address:

City:

State:

Zip:

Submittal Date: Tue Jan 15 15:12:42 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: Fires are known to occur in these locations and sprinklers are required. These facilities are known to have alternative uses that can present fire hazards.

**Public Input No. 477-NFPA 13-2019 [Section No. 9.2.17.1]****9.2.17.1**

Skylights that allow venting, other than smoke and heat venting per ~~12.20.4.6.4.5~~, shall be provided with sprinkler protection installed in the skylight.

Statement of Problem and Substantiation for Public Input

Section 12.1.1 is the incorrect reference and should read section 20.6.5.

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: On behalf of NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 16:28:27 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See PI 174



Public Input No. 5-NFPA 13-2018 [New Section after 9.3]

Alternative Fire Suppression

Automatic sprinklers are not required in rooms where an alternative fire suppression system is installed to provide protection for the entire room in accordance with the appropriate listing (clean agents- NFPA 2001, etc). The AHJ has final determination of the omission of sprinklers in those spaces.

Statement of Problem and Substantiation for Public Input

The IBC allows for alternative protection to be installed instead of sprinklers in certain circumstances. If you go by IBC and do not install a sprinkler system in those areas, then you are then not considered "fully sprinklered" in accordance with NFPA 13 since they do not have any sections on eliminating sprinkler protection in those spaces.

Submitter Information Verification

Submitter Full Name: Jennifer Olson

Organization: STV Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Thu Oct 25 11:18:13 EDT 2018

Committee: AUT-SSI

Committee Statement

Resolution: All special suppression systems do not provide the level of protection expected from sprinklers, see Section A.9.1.1.



Public Input No. 221-NFPA 13-2019 [Section No. 9.3.2 [Excluding any Sub-Sections]]

Unless the requirements of 9.2.1.18 are met, sprinklers used in horizontal combustible concealed spaces (with a slope not exceeding 2 in 12) with ~~combustible~~ wood truss construction , wood joist construction, composite wood joist construction, or bar joist construction ~~having a combustible upper surface~~ , and where the depth of the space is less than 36 in. (900 mm) from deck to deck, from deck to ceiling, ~~or with double wood joist construction with a maximum of 36 in. (900 mm) between or between~~ the top of the bottom joist and the bottom of the upper joist, shall be listed for such use, and shall include all draft curtains, blocking, and insulation required to achieve listing of the sprinkler .

Statement of Problem and Substantiation for Public Input

1. Adds word "construction" to various descriptions for consistency.
2. Adds composite wood joist construction to the types of combustible concealed spaces that require specially listed sprinklers. Currently, 9.3.2.3 "permits" but does not require specially listed sprinklers.
3. First part of the section references sprinklers in combustible concealed spaces; subsequent uses of the word combustible are redundant.
4. Clarifies that draft curtains, blocking, and insulation necessary to achieve sprinkler listing must be installed in these spaces.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 222-NFPA 13-2019 [Section No. 9.3.2.3]	
Public Input No. 222-NFPA 13-2019 [Section No. 9.3.2.3]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 23 13:50:40 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1355-NFPA 13-2019](#)

Statement:

1. Adds word "construction" to various descriptions for consistency.
2. Adds composite wood joist construction to the types of combustible concealed spaces that require specially listed sprinklers. Currently, 9.3.2.3 "permits" but does not require specially listed sprinklers.
3. First part of the section references sprinklers in combustible concealed spaces; subsequent uses of the word combustible are redundant.
4. Clarifies that draft curtains, blocking, and insulation necessary to achieve sprinkler listing must be installed in these spaces.



Public Input No. 292-NFPA 13-2019 [Section No. 9.3.2 [Excluding any Sub-Sections]]

Unless the requirements of 9.2.1.18 are met, sprinklers used in horizontal combustible concealed spaces (with a slope not exceeding 2 in 12) with ~~combustible wood truss, wood joist construction, or bar joist construction having~~ having a combustible upper surface and where the depth of the space is less than 36 in. (900 mm) from deck to deck, from deck to ceiling, or with double wood joist construction with a maximum of 36 in. (900 mm) between the top of the bottom joist and the bottom of the upper joist shall be listed for such use.

Statement of Problem and Substantiation for Public Input

The way this is written, this requirement applies only to these three structural members (along with the base 3 conditions). These structural members incorporate both obstructed and unobstructed construction so that is not a limiting factor. Bar joist is not defined as combustible so having combustible structural members is not a requirement. The driving question is does this requirement apply to all construction where the upper deck is combustible, the slope is no more than 2 in 12, and the height is less than 36 inches?

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 28 16:43:01 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1355-NFPA 13-2019

Statement:

1. Adds word "construction" to various descriptions for consistency.
2. Adds composite wood joist construction to the types of combustible concealed spaces that require specially listed sprinklers. Currently, 9.3.2.3 "permits" but does not require specially listed sprinklers.
3. First part of the section references sprinklers in combustible concealed spaces; subsequent uses of the word combustible are redundant.
4. Clarifies that draft curtains, blocking, and insulation necessary to achieve sprinkler listing must be installed in these spaces.



Public Input No. 390-NFPA 13-2019 [Section No. 9.3.2.1]

9.3.2.1 –

~~Sprinklers specifically listed to provide protection of combustible concealed spaces described in 9.3.2 shall be permitted to be used in accordance with 9.4.1.2 where the space is less than 12 in. (300 mm) from deck to deck or deck to ceiling.~~

Statement of Problem and Substantiation for Public Input

Section 9.3.2 requires specially listed sprinklers in spaces less than 36". Any space that requires sprinklers, including the 12" space referenced in 9.3.2.1 is therefore already covered by 9.3.2.

Submitter Information Verification

Submitter Full Name: Cary Webber

Organization: Reliable Automatic Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 03 14:17:27 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See FR 1007



Public Input No. 391-NFPA 13-2019 [New Section after 9.3.2.2]

9.3.2.2

Sprinklers listed to protect spaces described in 9.3.2, including all draft curtains, blocking, and insulation required to achieve listing of the sprinkler, shall be permitted to be used in spaces where the depth of the space is greater than 36 in. (900 mm) from deck to deck, from deck to ceiling, or between the top of the bottom joist and bottom of the upper joist.

Statement of Problem and Substantiation for Public Input

Sprinklers specifically tested and listed to protect shallow (36" and less) combustible concealed spaces, and which discharge at a minimum density of .10 gpm/sf, should not be prohibited in deeper combustible spaces.

Submitter Information Verification

Submitter Full Name: Cary Webber

Organization: Reliable Automatic Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 03 14:44:45 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: the Pi would allow the use of sprinklers beyond their listing.



Public Input No. 222-NFPA 13-2019 [Section No. 9.3.2.3]

9.3.2.3 –

~~Sprinklers specifically listed to provide protection of combustible concealed spaces described in 9.3.2 shall be permitted to be used in accordance with 9.4.1.2 to protect composite wood joist construction.~~

Statement of Problem and Substantiation for Public Input

PI 221 seeks to move composite wood joist construction to 9.3.2 as a type of combustible concealed space construction that requires specially listed sprinklers.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 221-NFPA 13-2019 [Section No. 9.3.2 [Excluding any Sub-Sections]]	
Public Input No. 221-NFPA 13-2019 [Section No. 9.3.2 [Excluding any Sub-Sections]]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 23 14:02:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See PI 221

**Public Input No. 371-NFPA 13-2019 [Section No. 9.3.4.1 [Excluding any Sub-Sections]]**

Sprinklers shall be installed beneath all ~~stairways of~~ stair landings of combustible construction.

Statement of Problem and Substantiation for Public Input

This language needs to be modified. A stairway would include all the landings as part of the stairway. One could argue that only 1 sprinkler would be needed at the bottom of this stairway.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 31 14:02:01 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Existing language requires coverage thruout the atir.



Public Input No. 66-NFPA 13-2019 [New Section after 9.3.4.2.1]

9.3.4.2.1.1

The sprinkler(s) at the top of the shaft shall protect the entire plan view of the stair shaft and not just the floor area of the highest landing.

Statement of Problem and Substantiation for Public Input

There is confusion regarding the purpose of the sprinklers at the top of the shaft and whether protection is required for just the highest landing or the whole stair shaft. I personally believe that the whole stair shaft needs to be protected because it is possible for hot gasses to get into the stairwell and rise, exposing the structure to potential damage. If sprinklers are only protecting the top landing, the spray will not protect the structure over the rest of the shaft.

If the committee disagrees with this position, then it should clarify that the sprinklers only need to protect the floor area of the highest landing.

Submitter Information Verification

Submitter Full Name: Kenneth Isman

Organization: University of Maryland

Street Address:

City:

State:

Zip:

Submittal Date: Wed Jan 23 16:05:47 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1356-NFPA 13-2019](#)

Statement: There is confusion regarding the purpose of the sprinklers at the top of the shaft and whether protection is required for just the highest landing or the whole stair shaft. I personally believe that the whole stair shaft needs to be protected because it is possible for hot gasses to get into the stairwell and rise, exposing the structure to potential damage. If sprinklers are only protecting the top landing, the spray will not protect the structure over the rest of the shaft.

If the committee disagrees with this position, then it should clarify that the sprinklers only need to protect the floor area of the highest landing.

**Public Input No. 372-NFPA 13-2019 [Section No. 9.3.4.2.3.1]****9.3.4.2.3.1 ***

Sprinklers shall be permitted to be omitted from the bottom of the stairwell when the space under the stairs at the bottom is blocked off so that storage cannot occur.

A.9.3.4.2.3.1

There are several methods of preventing storage under the bottom landing/ riser of stairs. These can be permanent walls separating the space or railings installed to prevent storage. Simply placing a sign indicating no storage allowed is insufficient.

Statement of Problem and Substantiation for Public Input

Provides clarification in regards to storage under stairs.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 31 14:04:40 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1110-NFPA 13-2019

Statement: Provides clarification in regards to storage under stairs.



Public Input No. 400-NFPA 13-2019 [Sections 9.3.5.1, 9.3.5.2, 9.3.5.3, 9.3.5.4]

Sections 9.3.5.1, 9.3.5.2, 9.3.5.3, 9.3.5.4

9.3.5.1* General.

Unless the requirements of 9.3.5.4 are met, where moving stairways, staircases, or similar floor openings are unenclosed and where sprinkler protection is serving as the alternative to enclosure of the vertical opening, the floor openings involved shall be protected by closely spaced sprinklers in combination with draft stops ~~in~~ curtains in accordance with 9.3.5.2 and 9.3.5.3.

9.3.5.2 Draft Stops Curtains .

Draft stops ~~curtains~~ shall meet all of the following criteria:

- (1) The draft stops ~~curtains~~ shall be located immediately adjacent to the opening.
- (2) The draft stops ~~curtains~~ shall be at least 18 in. (450 mm) deep.
- (3) The draft stops ~~curtainss~~ shall be of noncombustible or limited-combustible material that will stay in place before and during sprinkler operation.

9.3.5.3 Sprinklers.

9.3.5.3.1

Sprinklers shall be spaced not more than 6 ft (1.8 m) apart and placed 6 in. to 12 in. (150 mm to 300 mm) from the draft stop ~~on~~ curtain on the side away from the opening.

9.3.5.3.2

Where sprinklers are closer than 6 ft (1.8 m), cross baffles shall be provided in accordance with 10.2.5.4.2.

9.3.5.4 Large Openings.

Closely spaced sprinklers and draft stops ~~curtains~~ are not required around large openings such as those found in shopping malls, atrium buildings, and similar structures where all adjoining levels and spaces are protected by automatic sprinklers in accordance with this standard and where the openings have all horizontal dimensions between opposite edges of 20 ft (6.1 m) or greater and an area of 1000 ft² (93 m²) or greater.

Statement of Problem and Substantiation for Public Input

These changes are not technical in nature but a correlation of terms throughout the NFPA codes and standards. The term draft stop is not appropriate here as a draft stop, draftstop, or draftstopping is used to separate a concealed space such as an attic or floor/ceiling assembly. A draft curtain is defined by NFPA 13 (3.3.8) as, "A continuous material protruding downward from the ceiling to create a reservoir for collecting smoke and heat." Draft curtains are typically 18 to 24 inches in depth, descending from the uppermost portion of the ceiling or deck and are meant to bank heat to operate sprinklers. The root of the NFPA 13 definition above comes from NFPA 204 which further describes a draft curtain as, "...a solid fixed obstruction, such as beam, girder, soffit or similar material..."

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 403-NFPA 13-2019 [Section No. A.9.3.5.1]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo

Organization: National Fire Sprinkler Associ

Affiliation: NFSA Engineering and Standards Committee (E&S)

Street Address:

City:

State:**Zip:****Submittal Date:** Tue Jun 04 09:44:23 EDT 2019**Committee:** AUT-SSI

Committee Statement

Resolution: [FR-1111-NFPA 13-2019](#)

Statement: These changes are not technical in nature but a correlation of terms throughout the NFPA codes and standards. The term draft stop is not appropriate here as a draft stop, draftstop, or draftstopping is used to separate a concealed space such as an attic or floor/ceiling assembly.

A draft curtain is defined by NFPA 13 (3.3.8) as, "A continuous material protruding downward from the ceiling to create a reservoir for collecting smoke and heat." Draft curtains are typically 18 to 24 inches in depth, descending from the uppermost portion of the ceiling or deck and are meant to bank heat to operate sprinklers. The root of the NFPA 13 definition above comes from NFPA 204 which further describes a draft curtain as, "...a solid fixed obstruction, such as beam, girder, soffit or similar material..."



Public Input No. 256-NFPA 13-2019 [Section No. 9.3.6.1]

9.3.6.1 * –

Sidewall spray sprinklers shall be installed at the bottom of each elevator hoistway not more than 2 ft (600 mm) above the floor of the pit.

Additional Proposed Changes

File Name	Description	Approved
A2018_Floor_Actions_Tech_Session.pdf	Floor Action 2018 Tech Session - Cam 13-6	
CAM_13-6_Final_TC_Ballot.pdf	CAM 13-6 Final Ballot 14-12 agree	
NFPA-13_Sagiv_s_NITMAMs.pdf	NITMAM	
CAM_13-6_-_Sagiv_Weiss-Ishai.pdf	CAM 13-6 Appeal	
NEII_Letter_to_NFPA_13_Members_6-21-18.pdf	NEII Support Letter	
BOMA_letter_-_SR_No_428.pdf	BOMA Support Letter	
AFAA_SR_428_Ballot_Letter.pdf	AFAA Support Letter	
Elevator_accident_index_-_Sagiv.pdf	Elevator Accidents examples	

Statement of Problem and Substantiation for Public Input

This issue was discussed during the last cycle - It was requested by the SIG-AUT TC to provide examples for elevators associated injuries and fatalities (See attached Accidents Examples PDF)

1. It was presented by the NEII's representative (Mr. Lawrence Taylor) during the 2018 Tech-Session that in the last 150 years of elevators data gathering, there is not even one documented hydraulic elevator pit fire that caused the sidewall pit sprinkler to activate.
2. It is evident that the elevator hoistways and pits are extremely dangerous locations for elevator and non-elevator workers. There are many injuries and fatalities of elevator personnel and non-elevator personnel performing work in elevator pits. See the attached Elevator Accident Examples for Crushing, Falling, Shock and miscellaneous accidents
3. Removing the pit sprinkler requirement for hydraulic elevators from NFPA 13 will increase safety by not requiring elevator and non-elevator workers to service the sprinklers and their associated fire alarm initiating devices located in those pits.
4. The vast majority of NFPA members supported this proposal with overwhelming majority - See attached PDF with the 2018 Tech-Session results for CAM 13-6
5. Three National Organizations: NEII, BOMA and AFAA support the removal of the pit sprinklers requirement from NFPA-13 in order to increase safety
6. The Majority of the SIG-AUT committee members (14-12 vote) were in favor of this proposal (CAM 13-6) during the last Ballot after the Tech-Session (See attached Ballot results) . However, CAM 13-6 failed because it did not achieve the required 2/3 majority

It will be the right thing to do for the next edition to delete the pit sprinkler requirement from NFPA 13 and to increase safety.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 257-NFPA 13-2019 [Section No. 9.3.6.2]	Same issue - Delete the pit sprinkler requirement from NFPA 13
Public Input No. 257-NFPA 13-2019 [Section No. 9.3.6.2]	
Public Input No. 412-NFPA 13-2019 [Section No. A.9.3.6.1]	

Submitter Information Verification

Submitter Full Name: Sagiv Weiss-Ishai

Organization: San Francisco Fire Department

Committee Statement:

Street Address:

Resolution: FR-1112-NFPA 13-2019 PI 700 is resolved - see FR 1112 Delete section including related annex material.

City:

State:

Statement: This issue was discussed during the last cycle - It was requested by the SIG-AUT TC to provide examples for elevators associated injuries and fatalities (See attached Accidents Examples PDF)

Zip:

Submission Date: Sun May 19 18:13:16 EDT 2019

Committee: 1. It was presented by the NEII's representative (Mr. Lawrence Taylor) during the 2018 Tech-Session that in the last 150 years of elevators data gathering, there is not even one documented hydraulic elevator pit fire that caused the sidewall pit sprinkler to activate.

2. It is evident that the elevator hoistways and pits are extremely dangerous locations for elevator and non-elevator workers. There are many injuries and fatalities of elevator personnel and non-elevator personnel performing work in elevator pits. See the attached Elevator Accident Examples for Crushing, Falling, Shock and miscellaneous accidents

3. Removing the pit sprinkler requirement for hydraulic elevators from NFPA 13 will increase safety by not requiring elevator and non-elevator workers to service the sprinklers and their associated fire alarm initiating devices located in those pits.

4. The vast majority of NFPA members supported this proposal with overwhelming majority - See attached PDF with the 2018 Tech-Session results for CAM 13-6

5. Three National Organizations: NEII, BOMA and AFAA support the removal of the pit sprinklers requirement from NFPA-13 in order to increase safety

6. The Majority of the SIG-AUT committee members (14-12 vote) were in favor of this proposal (CAM 13-6) during the last Ballot after the Tech-Session (See attached Ballot results) . However, CAM 13-6 failed because it did not achieve the required 2/3 majority

It will be the right thing to do for the next edition to delete the pit sprinkler requirement from NFPA 13 and to increase safety.



Public Input No. 700-NFPA 13-2019 [Section No. 9.3.6.1]

9.3.6.1 * –

Sidewall spray sprinklers shall be installed at the bottom of each elevator hoistway not more than 2 ft (600 mm) above the floor of the pit.

Statement of Problem and Substantiation for Public Input

See Public Input 256.

NEII supports the proposed change and rationale of PI 256.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 699-NFPA 13-2019 [Section No. 9.3.6.2]	Same Issue

Submitter Information Verification

Submitter Full Name: David McColl

Organization: Otis Canada Inc

Affiliation: National Elevator Industry Inc. (NEII)

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 21:47:38 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1112-NFPA 13-2019 PI 700 is resolved - see FR 1112 Delete section including related annex [material](#).

Statement: This issue was discussed during the last cycle - It was requested by the SIG-AUT TC to provide examples for elevators associated injuries and fatalities (See attached Accidents Examples PDF)

1. It was presented by the NEII's representative (Mr. Lawrence Taylor) during the 2018 Tech-Session that in the last 150 years of elevators data gathering, there is not even one documented hydraulic elevator pit fire that caused the sidewall pit sprinkler to activate.

2. It is evident that the elevator hoistways and pits are extremely dangerous locations for elevator and non-elevator workers. There are many injuries and fatalities of elevator personnel and non-elevator personnel performing work in elevator pits. See the attached Elevator Accident Examples for Crushing, Falling, Shock and miscellaneous accidents

3. Removing the pit sprinkler requirement for hydraulic elevators from NFPA 13 will increase safety by not requiring elevator and non-elevator workers to service the sprinklers and their associated fire alarm initiating devices located in those pits.

4. The vast majority of NFPA members supported this proposal with overwhelming majority - See attached PDF with the 2018 Tech-Session results for CAM 13-6

5. Three National Organizations: NEII, BOMA and AFAA support the removal of the pit sprinklers requirement from NFPA-13 in order to increase safety

6. The Majority of the SIG-AUT committee members (14-12 vote) were in favor of this proposal (CAM

13-6) during the last Ballot after the Tech-Session (See attached Ballot results) . However, CAM 13-6 failed because it did not achieve the required 2/3 majority

It will be the right thing to do for the next edition to delete the pit sprinkler requirement from NFPA 13 and to increase safety.

**Public Input No. 257-NFPA 13-2019 [Section No. 9.3.6.2]****9.3.6.2 –**

~~The sprinkler required at the bottom of the elevator hoistway by 9.3.6.1 shall not be required for enclosed, noncombustible elevator shafts that do not contain combustible hydraulic fluids.~~

Statement of Problem and Substantiation for Public Input

This section is proposed to be removed together with the previous section 9.6.3.1 per PI 256 - Same rational

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 256-NFPA 13-2019 [Section No. 9.3.6.1]	Same issue - Removal of pit sprinklers
Public Input No. 256-NFPA 13-2019 [Section No. 9.3.6.1]	
Public Input No. 412-NFPA 13-2019 [Section No. A.9.3.6.1]	

Submitter Information Verification

Submitter Full Name: Sagiv Weiss-Ishai
Organization: San Francisco Fire Department
Affiliation: SFFD
Street Address:
City:
State:
Zip:
Submittal Date: Sun May 19 19:24:50 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1113-NFPA 13-2019 PI 699 is resolved see FR 1113](#)

Statement: This section is proposed to be removed together with the previous section 9.6.3.1 per PI 256 - Same rational

**Public Input No. 699-NFPA 13-2019 [Section No. 9.3.6.2]****9.3.6.2**

~~The sprinkler required at the bottom of the elevator hoistway by 9.3.6.1 shall not be required for enclosed, noncombustible elevator shafts that do not contain combustible hydraulic fluids.~~

Additional Proposed Changes

File Name	Description	Approved
NFPA_13_2021_proposal_changes_D_McColl.pdf	Proposed changes to NFPA 13-19 D McColl	

Statement of Problem and Substantiation for Public Input

See Public Input 257.

NEII supports the comments and rationale submitted under PI 257.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 700-NFPA 13-2019 [Section No. 9.3.6.1]	

Submitter Information Verification

Submitter Full Name: David McColl

Organization: Otis Canada Inc

Affiliation: National Elevator Industry Inc. (NEII)

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 21:37:47 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1113-NFPA 13-2019 PI 699 is resolved see FR 1113](#)

Statement: This section is proposed to be removed together with the previous section 9.6.3.1 per PI 256 - Same rational



Public Input No. 258-NFPA 13-2019 [Section No. 9.3.6.3]

9.3.6.3

Automatic fire sprinklers shall not be required in elevator machine rooms, elevator machinery spaces, control spaces, or hoistways of traction elevators installed in accordance with the applicable provisions in NFPA 101, or the applicable building code, where all of the following conditions are met:

- (1) The elevator machine room, machinery space, control room, control space, or hoistway of traction elevator is dedicated to elevator equipment only.
- (2) The elevator
~~machine room, machine room,~~
- (3) machinery space, control room, control space, or hoistway of traction elevators
~~are protected by smoke detectors, or other automatic fire detection, installed in accordance with NFPA 72 .~~
- (4) ~~The elevator machinery space, control room, control space, or hoistway of traction elevators~~ is separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire resistance rating of not less than that specified by the applicable building code.
- (5) No materials unrelated to elevator equipment are permitted to be stored in elevator machine rooms, machinery spaces, control rooms, control spaces, or hoistways of traction elevators.
- (6) The elevator machinery is not of the hydraulic type.

Statement of Problem and Substantiation for Public Input

Subsection (2) should be deleted from NFPA 13 Section 9.3.6.3 since it creates major conflicts with the elevator code ASME A17.1 and confusion to enforcement agencies:

Following are the issues:

1. General Note: Smoke detectors are not "Protecting" anything as indicated in this sub-section (2) - They just detect smoke and provide a signal to their associated Fire Alarm control unit - so this code language is incorrect.

2. It should not be the jurisdiction or role of NFPA 13 to require smoke detectors for elevator spaces/areas since all elevator spaces/areas are governed by the ASME A17.1 Code. Only the A17.1 Code should specify where "Fire Alarm Initiating Devices" (FAID) are required for elevator spaces and no other code. The first major conflict is that the A17.1 Code permits the use of other fire detectors (such as heat detectors) if the ambient conditions are not suitable for smoke detectors See A17.1-2016 Section 2.27.3.2.1 below. This creates conflict with the current NFPA 13 section which only requires smoke detectors. The second major conflict between the A17.1 Code and NFPA 13 is that all the FAIDs required by the A17.1 Code are required to perform Phase I emergency Recall operation per A17.1-2016 Section 2.27.3.2.1 and they cannot be provided in elevator spaces/areas per NFPA 72 just for local detection and/or for general alarm activation (without generating Phase I recall) purposes as it required by NFPA 13 Section 9.3.6.3 (2) which does not require these smoke detectors to generate Phase I Emergency Recall. Even NFPA 72 does NOT require elevator FAIDs (NFPA 72 only has installation requirements for FAIDs only if they are required by the A17.1 Code). Therefore, the reference in NFPA 13 Section 9.3.6.3(2) to NFPA 72 does not require the smoke detectors to generate Phase I Emergency Recall Operation which creates conflict with the A17.1 Code.

3. All Passenger traction elevators in compliance with the A17.1 Code, are not required to have sprinklers at their tops of hoistways per NFPA 13 Section 9.3.6.6. However, many people and AHJs interpret Section 9.3.6.3 as it requires Smoke Detection at the top of the hoistway in lieu of the sprinkler that is not installed/required at the top of the hoistway per Section 9.3.6.6. Therefore, this code is broken and must be corrected. It creates major enforcement issues and great confusion for many people and conflicts with the A17.1 Code which does not require smoke detection for tops of hoistways of passenger traction elevators if the driving machine or motor controller are not located in those hoistways (See A17.1-2016 Section 2.27.3.2.1 (b). Per this item (b) - Only elevators which are having their motor controller or driving machines in the hoistway (Machine-Room-Less Elevators) are required to have associated FAID per this A17.1 section.

4. This section also creates potential conflict with NFPA 13 Section 9.3.6.7 since this section specifically requires Sprinklers at the top and bottom of hoistway if the suspension belts do not have FT-1 rating. Could these sprinklers

be removed and be replaced with smoke detectors per Section 9.3.6.3 (2) ? It is unclear. Therefore, deleting this subsection will eliminate this conflict as well.

5. The current ASME A17.1-2016 specifies all the Elevators associated spaces/areas which are required to have FAIDs, even if these spaces are not sprinklered. It specifically requires these FAIDs to be installed in accordance with NFPA 72 and to generate Phase I Emergency Recall Operation, therefore, if Sub-Section 9.3.6.3 (2) will be deleted, it will resolve all the conflicting issues between these codes and the FAIDs will only be required per the A17.1 Code and not per any other code including NFPA 13.

This is Section 2.27.3.2 from ASME A17.1 -2016 - The Note at the end of this section indicates the requirement for FAIDs regardless if the hoistway is sprinklered.

2.27.3.2 Phase I Emergency Recall Operation by Fire Alarm Initiating Devices

2.27.3.2.1 In jurisdictions not enforcing the NBCC, smoke detectors or other automatic fire detectors in environments not suitable for smoke detectors (fire alarm initiating devices) used to initiate Phase I Emergency Recall Operation shall be installed in conformance with the requirements of NFPA 72, and shall be located

- (a) at each elevator lobby served by the elevator
- (b) in the associated elevator machine room, machinery space containing a motor controller or driving machine, control space, or control room
- (c) in the elevator hoistway, when sprinklers are located in those hoistways

NOTE [2.27.3.2.1(b)]: A machinery space containing a motor controller or driving machine located in the elevator hoistway, or a control space located in the elevator hoistway requires a fire alarm initiating device regardless of the presence of sprinklers.

Submitter Information Verification

Submitter Full Name: Sagiv Weiss-Ishai

Organization: San Francisco Fire Department

Affiliation: SFFD

Street Address:

City:

State:

Zip:

Submission Date: Sun May 19 19:34:19 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Elimination of NFPA 72 requirements lowers the level of safety too far.

**Public Input No. 702-NFPA 13-2019 [Section No. 9.3.6.3]****9.3.6.3**

Automatic fire sprinklers shall not be required in elevator machine rooms, elevator machinery spaces, control spaces, or hoistways of traction elevators installed in accordance with the applicable provisions in NFPA 101, or the applicable building code, where all of the following conditions are met:

- (1) The elevator machine room, machinery space, control room, control space, or hoistway of traction elevator is dedicated to elevator equipment only.
- (2) The elevator machine room, machine room, machinery space, control room, control space, or hoistway of traction elevators are protected by smoke detectors, or other automatic fire detection, installed in accordance with NFPA 72.
- (3) The elevator machinery space, control room, control space, or hoistway of traction elevators is separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire resistance rating of not less than that specified by the applicable building code.
- (4) No materials unrelated to elevator equipment are permitted to be stored in elevator machine rooms, machinery spaces, control rooms, control spaces, or hoistways of traction elevators.
- (5) The elevator machinery is not of the hydraulic type.

Additional Proposed Changes

File Name	Description	Approved
NFPA_13_2021_proposal_changes_D_McColl.pdf	Revision to 9.3.6.3 D McColl	

Statement of Problem and Substantiation for Public Input

See Public Input 258.

The proposed change and rationale is supported by NEII.

Submitter Information Verification

Submitter Full Name: David McColl

Organization: Otis Canada Inc

Affiliation: National Elevator Industry Inc.

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 22:07:48 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Elimination of NFPA 72 requirements lowers the level of safety too far.

**Public Input No. 259-NFPA 13-2019 [Section No. 9.3.6.4]****9.3.6.4***

Automatic sprinklers in elevator machine rooms- ~~or at the tops of~~ , elevator machinery spaces, control spaces or hoistways shall ~~be of ordinary-~~ not be permitted to be quick-response sprinklers and they shall have ordinary- or intermediate-temperature rating.

Statement of Problem and Substantiation for Public Input

1. Since it is permitted by the ASME A17.1 Code Section 2.8.3.3 (See Section below) to install automatic sprinklers in ALL elevators' associated spaces (Machine rooms, Control Rooms, Control Spaces, Machinery Spaces and Hoistways) This NFPA 13 Section must be consistent with the Elevator code and include all indicated elevator associated spaces.

2. When sprinklers are installed in those elevator associated spaces they may cause unsafe elevator operation and the elevator main-line power will be required to shutdown upon or prior to the application of water from those sprinklers per A17.1 Section 2.8.3.3.2. Therefore, these sprinklers should not be permitted to be Quick-Response Type sprinklers with RTI less than 50. This will allow more time for an elevator Shunt-Trip function to operate as intended, upon or prior the activation of a higher RTI heat detector located within 24 inches of each sprinkler per NFPA 72.

These are the reference applicable sections from ASME A17.1-2016

2.8.3.3 Sprinkler systems conforming to NFPA 13 or the NBCC, whichever is applicable (see Part 9), shall be permitted to be installed in the hoistway, machinery space, machine room, control space, or control room subject to 2.8.3.3.1 through 2.8.3.3.4.

2.8.3.3.2 In jurisdictions not enforcing the NBCC, where elevator equipment is located or its enclosure is configured such that application of water from sprinklers could cause unsafe elevator operation, means shall be provided to automatically disconnect the main line power supply to the affected elevator and any other power supplies used to move the elevator upon or prior to the application of water.

Submitter Information Verification

Submitter Full Name: Sagiv Weiss-Ishai
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Affiliation: SFFD
Street Address:
City:
State:
Zip:
Submittal Date: Sun May 19 20:50:01 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1114-NFPA 13-2019

Statement: 1. Since it is permitted by the ASME A17.1 Code Section 2.8.3.3 (See Section below) to install automatic sprinklers in ALL elevators' associated spaces (Machine rooms, Control Rooms, Control Spaces, Machinery Spaces and Hoistways) This NFPA 13 Section must be consistent with the Elevator code and include all indicated elevator associated spaces.

2. When sprinklers are installed in those elevator associated spaces they may cause unsafe elevator operation and the elevator main-line power will be required to shutdown upon or prior to the application of water from those sprinklers per A17.1 Section 2.8.3.3.2. Therefore, these sprinklers should not be permitted to be Quick-Response Type sprinklers with RTI less than 50. This will allow more time for an elevator Shunt-Trip function to operate as intended, upon or prior the activation of a higher RTI heat detector located within 24 inches of each sprinkler per NFPA 72.

These are the reference applicable sections from ASME A17.1-2016

2.8.3.3 Sprinkler systems conforming to NFPA 13

or the NBCC, whichever is applicable (see Part 9), shall

be permitted to be installed in the hoistway, machinery

space, machine room, control space, or control room

subject to 2.8.3.3.1 through 2.8.3.3.4.

2.8.3.3.2 In jurisdictions not enforcing the

NBCC, where elevator equipment is located or its enclosure

is configured such that application of water from

sprinklers could cause unsafe elevator operation, means

shall be provided to automatically disconnect the main

line power supply to the affected elevator and any other

power supplies used to move the elevator upon or prior

to the application of water.

**Public Input No. 29-NFPA 13-2018 [Section No. 9.3.6.7.2]****9.3.6.7.2**

The sprinklers in the elevator hoistway shall not be required when the suspension means provide not less than an FT-1 rating when tested to the vertical burn test requirements of UL 62, *Flexible Cords and Cables*, and UL 1581, *Reference Standard for Electrical Wires, Cables, and Flexible Cords*.

9.3.6.7 Combustible Suspension in Elevators

9.3.6.7.1 Sprinklers shall be installed at the top and bottom of elevator hoistways where elevators utilize combustible suspension means such as noncircular elastomeric-coated or polyurethane-coated steel belts.

9.3.6.7.2 The sprinklers in the elevator hoistway shall not be required when the suspension means provide not less than an FT-1 rating when tested to the vertical burn test requirements of ~~UL 62, *Flexible Cords and Cables*~~, and UL 1581, *Reference Standard for Electrical Wires, Cables, and Flexible Cords* **UL2556 Wire and Cable Test Methods (Tri-national standard, with NMX-J-556-ANCE- 2013 and CSA 22.2 NO. 2556-13). The suspension means shall not continue to burn for more than 60 seconds, nor shall the indicator flag be burned more than 25%.**

Rationale: The current requirements make reference to the FT1 rating when tested to vertical burn test requirements of UL 62 and UL 1581 standards. Since UL62 and UL1581 standards are more applicable to Flexible Electrical Wire & Cables and there are no design criteria for noncircular elastomeric-coated or polyurethane-coated steel belts addressed by ASME A17.1, a reference to UL 2556 is more appropriate for the FT1 rating.

Additional Proposed Changes

File Name	Description Approved
NFPA_2019_Proposed_Changes_and_Proposed_Errata_to_2016-2013_and_2010.docx	This document outlines NEII's proposed revision to NFPA 13-2019 and proposed errata to NFPA 13-2016-2013 and 2010.

Statement of Problem and Substantiation for Public Input

The current requirements make reference to the FT1 rating when tested to vertical burn test requirements of UL 62 and UL 1581 standards. Since UL62 and UL1581 standards are more applicable to Flexible Electrical Wire & Cables and there are no design criteria for noncircular elastomeric-coated or polyurethane-coated steel belts addressed by ASME A17.1, a reference to UL 2556 is more appropriate for the FT1 rating.

Submitter Information Verification

Submitter Full Name: Lawrence Taylor
Organization: Schindler Elevator and NEII
Street Address:
City:
State:
Zip:
Submittal Date: Fri Dec 14 06:38:32 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: The current language meets the submitters intent.

**Public Input No. 492-NFPA 13-2019 [Section No. 9.3.13.2]****9.3.13.2**

Where proscenium opening protection is required, a deluge system shall be provided with open sprinklers located not more than 3 ft (900 mm) away from the stage side of the proscenium arch and spaced up to a maximum of 6 ft (1.8 m) on center. (See *Chapter 11 - 19* for design criteria.)

Statement of Problem and Substantiation for Public Input

Chapter 11 is from 2016 edition of NFPA 13. Correct chapter in 2019 is Chapter 19 for Design Approaches

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: on behalf of NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 08:40:59 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1115-NFPA 13-2019

Statement: Chapter 11 is from 2016 edition of NFPA 13. Correct chapter in 2019 is Chapter 19 for Design Approaches

**Public Input No. 72-NFPA 13-2019 [Section No. 9.3.14.3]****9.3.14.3***

Where there is a noncombustible space above a noncombustible or limited-combustible drop ceiling that is sprinklered because it is open to an adjacent sprinklered space, and where there is no possibility for storage above the drop ceiling, the sprinkler system shall be ~~permitted to extend only as far into the space as~~ required to extend into the space above the ceiling either 0.6 times the square root of the design area of the sprinkler system in the adjacent space.

9.3.14.3.1 –

~~The sprinkler system shall extend at least 24 ft~~

~~, or 24 feet (7.~~

~~3 m) into the space above the ceiling~~

~~3 m), whichever is greater .~~

Statement of Problem and Substantiation for Public Input

Confusion is avoided over the word "permitted", when "required" would more accurately reflect the intent. Combining the two criteria (0.6 times... and 24 feet) into a single clause resolves the conflict when 0.6 times the square foot of the design area is less than 24 feet.

Submitter Information Verification

Submitter Full Name: Liane Ozmun

Organization: Frankfurt Short Bruza

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jan 31 14:31:27 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: The language proposed was not appropriate.

**Public Input No. 584-NFPA 13-2019 [Section No. 9.3.16.1.1]****9.3.16.1.1**

When a sprinkler is installed directly beneath a skylight that does not allow venting and does not exceeding 32 ft² (3.0 m²), the distance to the ceiling shall be measured to the plane of the ceiling as if the skylight was not present.

Statement of Problem and Substantiation for Public Input

This ties in with section 9.2.17.1. There has been no test submitted to show that a sprinkler located under a venting skylight will operate as intended.

Submitter Information Verification

Submitter Full Name: John Deutsch
Organization: Shambaugh and Sons
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 09 20:31:53 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1116-NFPA 13-2019](#)

Statement: This ties in with section 9.2.17.1. There has been no test submitted to show that a sprinkler located under a venting skylight will operate as intended.



Public Input No. 40-NFPA 13-2019 [Section No. 9.4.2.1]

9.4.2.1 *

Unless the requirements of 9.4.2.2, 9.4.2.3, 9.4.2.4, or 9.4.2.5 are met, ~~ordinary and~~ ordinary or intermediate-temperature sprinklers shall be permitted to be used throughout buildings.

Statement of Problem and Substantiation for Public Input

Reworded to make it more clear that intermediate temperature sprinklers could be used throughout a building that does not have ambient temperatures greater than 100 degrees.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 39-NFPA 13-2019 [Section No. 14.2.6]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jan 03 08:16:12 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1117-NFPA 13-2019 pi 435 is resolved See FR 1117.

Statement: Reworded to make it more clear that intermediate temperature sprinklers could be used throughout a building that does not have ambient temperatures greater than 100 degrees.



Public Input No. 435-NFPA 13-2019 [Section No. 9.4.2.1]

9.4.2.1*

Unless the requirements of 9.4.2.2, 9.4.2.3, 9.4.2.4, or 9.4.2.5 are met, ordinary- ~~and~~ or intermediate-temperature sprinklers shall be permitted to be used throughout buildings.

Statement of Problem and Substantiation for Public Input

Per UL/FM/NFSA Committee: It was unclear whether all sprinklers had to be the same temperature rating. Additional language added to keep temperature ratings consistent throughout the building.

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: UL/FM/NFSA Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 09:41:30 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1117-NFPA 13-2019 pi 435](#) is resolved See [FR 1117](#).

Statement: Reworded to make it more clear that intermediate temperature sprinklers could be used throughout a building that does not have ambient temperatures greater than 100 degrees.



Public Input No. 140-NFPA 13-2019 [Section No. 9.4.2.5]

9.4.2.5*

The following practices shall be observed to provide sprinklers of other than ordinary-temperature classification unless other temperatures are determined or unless high-temperature sprinklers are used throughout, and temperature selection shall be in accordance with Table 9.4.2.5(a), Table 9.4.2.5(b), Table 9.4.2.5(c), and Figure 9.4.2.5:

- (1) * Sprinklers in the high-temperature zone shall be of the high-temperature classification, and sprinklers in the intermediate-temperature zone shall be of the intermediate-temperature classification.
- (2) Sprinklers located within 12 in. (300 mm) to one side or 30 in. (750 mm) above an uncovered steam main, heating coil, or radiator shall be of the intermediate-temperature classification.
- (3) Sprinklers within 7 ft (2.1 m) of a low-pressure blowoff valve that discharges free in a large room shall be of the high-temperature classification.
- (4) Sprinklers under glass or plastic skylights exposed to the direct rays of the sun shall be of the intermediate-temperature classification.
- (5) Sprinklers in ~~an unventilated~~, a concealed space, under an uninsulated roof, or in an ~~unventilated~~ attic shall be of the intermediate-temperature classification.
- (6) Sprinklers in unventilated show windows having high-powered electric lights near the ceiling shall be of the intermediate-temperature classification.
- (7) Sprinklers protecting commercial-type cooking equipment and ventilation systems shall be of the high- or extra high-temperature classification as determined by use of a temperature-measuring device. (See 8.9.6.)
- (8) Sprinklers protecting residential areas installed near specific heat sources identified in Table 9.4.2.5(c) shall be installed in accordance with Table 9.4.2.5(c).
- (9) Ordinary-temperature sprinklers located adjacent to a heating duct that discharges air that is less than 100°F (38°C) are not required to be separated in accordance with Table 9.4.2.5(a) or Table 9.4.2.5(c).
- (10) Sprinklers in walk-in type coolers and freezers with automatic defrosting shall be of the intermediate-temperature classification or higher.
- (11) Sprinklers in closets containing ventless clothes dryers shall be of the intermediate-temperature classification or higher.

Table 9.4.2.5(a) Temperature Ratings of Sprinklers Based on Distance from Heat Sources

<u>Type of Heat Condition</u>	<u>Ordinary-Temperature Rating</u>	<u>Intermediate-Temperature Rating</u>	<u>High-Temperature Rating</u>
<u>(1) Heating ducts</u>			

<u>(a) Above</u>	More than 2 ft 6 in. (750 mm)	2 ft 6 in. or less (750 mm)	
-			
<u>(b) Side and below</u>	More than 1 ft 0 in. (300 mm)	1 ft 0 in. or less (300 mm)	

<u>(c) Diffuser</u>	Any distance except as shown under Intermediate-Temperature Rating column	<u>Downward discharge:</u> Cylinder with 1 ft 0 in. (300 mm) radius from edge extending 1 ft 0 in. (300 mm) below and 2 ft 6 in. (750 mm) above	
-			
<u>Horizontal discharge:</u> Semicylinder or cylinder with 2 ft 6 in. (750 mm) radius in direction of flow extending 1 ft 0 in. (300 mm) below and 2 ft 6 in. (750 mm) above			
-			
<u>(2) Unit heater and radiant heater</u>			

<u>(a) Horizontal discharge</u>			
-			
	<u>Discharge side:</u> 7 ft 0 in. (2.1 m) to 20 ft 0 in. (6.1 m) radius pie-shaped cylinder (see Figure 9.4.2.5) extending 7 ft 0 in. (2.1 m) above and 2 ft 0 in. (600 mm) below	7 ft 0 in. (2.1 m) radius cylinder extending	

heater; also 7 ft 0 in. (2.1 m) radius cylinder more than 7 ft 0 in. (2.1 m) above unit heater

7 ft 0 in. (2.1 m) above and 2 ft 0 in. (600 mm) below unit heater

(b) Vertical downward discharge (for sprinklers below unit heater, see Figure 9.4.2.5)

7 ft 0 in. (2.1 m) radius cylinder extending upward from an elevation 7 ft 0 in. (2.1 m) above unit heater

7 ft 0 in. (2.1 m) radius cylinder extending from the top of the unit heater to an elevation 7 ft 0 in. (2.1 m) above unit heater

(3) Steam mains (uncovered)

(a) Above More than 2 ft 6 in. (750 mm) 2 ft 6 in. or less (750 mm)

-

(b) Side and below More than 1 ft 0 in. (300 mm) 1 ft 0 in. or less (300 mm)

-

(c) Blowoff valve More than 7 ft 0 in. (2.1 m)

-

7 ft 0 in. or less (2.1 m)

Table 9.4.2.5(b) Temperature Ratings of Sprinklers in Specified Locations

<u>Location</u>	<u>Ordinary-Temperature Rating</u>	<u>Intermediate-Temperature Rating</u>	<u>High-Temperature Rating</u>
<u>Skylights</u>			
-			
Glass or plastic			
-			
Attics (Flat or Peaked)	Do not use	Ventilated or unventilated	
- Peaked roof			
Exposed roof (Flat or Peaked) : metal or thin boards,			
concealed or not concealed, insulated or uninsulated	Ventilated	Unventilated	
- Flat roof: metal, not concealed	Flat roof: metal, concealed, insulated or uninsulated	Ventilated	Unventilated
- uninsulated	Do not use	Ventilated or unventilated	
Note: For uninsulated roof, climate and insulated or uninsulated occupancy can necessitate intermediate sprinklers. Check on job. -			

Show windows Ventilated Unventilated

-

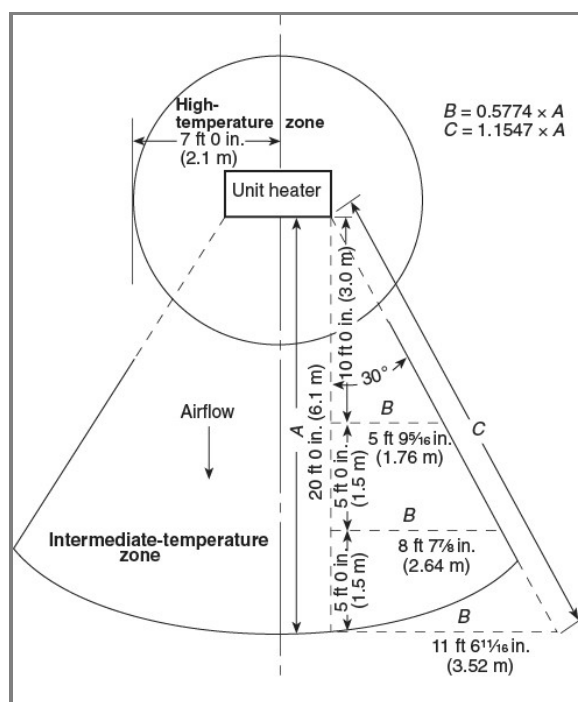
Note: A check of job condition by means of thermometers might be necessary.

Table 9.4.2.5(c) Temperature Ratings of Sprinklers in Specified Residential Areas

<u>Heat Source</u>	<u>Minimum Distance from Edge of Source to Ordinary-Temperature Sprinkler</u>
-	
	<u>Minimum Distance from Edge of Source to Intermediate-Temperature Sprinkler</u>
<u>in.</u>	<u>mm</u>
-	

	<u>in.</u>	<u>mm</u>
<u>Side of open or recessed fireplace</u>	<u>36</u>	<u>900</u>
-		
	<u>12</u>	<u>300</u>
<u>Front of recessed fireplace</u>	<u>60</u>	<u>1500</u>
-		
	<u>36</u>	<u>900</u>
<u>Coal- or wood-burning stove</u>	<u>42</u>	<u>1050</u>
-		
	<u>12</u>	<u>300</u>
<u>Kitchen range</u>	<u>18</u>	<u>450</u>
-		
	<u>9</u>	<u>225</u>
<u>Wall oven</u>	<u>18</u>	<u>450</u>
-		
	<u>9</u>	<u>225</u>
<u>Hot air flues</u>	<u>18</u>	<u>450</u>
-		
	<u>9</u>	<u>225</u>
<u>Uninsulated heat ducts</u>	<u>18</u>	<u>450</u>
-		
	<u>9</u>	<u>225</u>
<u>Uninsulated hot water pipes</u>	<u>12</u>	<u>300</u>
-		
	<u>6</u>	<u>150</u>
<u>Side of ceiling- or wall-mounted hot air diffusers</u>	<u>24</u>	<u>600</u>
-		
	<u>12</u>	<u>300</u>
<u>Front of wall-mounted hot air diffusers</u>	<u>36</u>	<u>900</u>
-		
	<u>18</u>	<u>450</u>
<u>Hot water heater or furnace</u>	<u>6</u>	<u>150</u>
-		
	<u>3</u>	<u>75</u>
<u>Light fixture:</u>		
- - - - -		
<u>0 W–250 W</u>	<u>6</u>	<u>150</u>
-		
	<u>3</u>	<u>75</u>
<u>250 W–499 W</u>	<u>12</u>	<u>300</u>
-		
<u>6</u>	<u>150</u>	

Figure 9.4.2.5 High-Temperature and Intermediate-Temperature Zones at Unit Heaters and Radiant Heaters.



Statement of Problem and Substantiation for Public Input

The use of the terms ventilated and unventilated are not defined. In a earlier revision the allowance for differing temperature ratings for sprinklers in an attic that was ventilated and unventilated was modified to no longer allow the use of ordinary temperature sprinklers for ventilated attic since there is no defined provision for how ventilated is ventilated; however, there are still differences in the base section and Table that allow for the use of ordinary temperature sprinklers when the space is ventilated. This needs to be cleaned up

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 14:03:43 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: CI-1118-NFPA 13-2019 The committee has established a Task Group to further investigate ventilated versus unventilated and to consider consolidating the Tables into a comprehensive list of heat sources and required clearances.

Statement: The use of the terms ventilated and unventilated are not defined. In a earlier revision the allowance for differing temperature ratings for sprinklers in an attic that was ventilated and unventilated was modified to no longer allow the use of ordinary temperature sprinklers for ventilated attic since there is no defined provision for how ventilated is ventilated; however, there are still differences in the base section and Table that allow for the use of ordinary temperature sprinklers when the space is ventilated. This needs to be cleaned up

**Public Input No. 554-NFPA 13-2019 [Section No. 9.4.3]****9.4.3 Thermal Sensitivity.****9.4.3.1***

Sprinklers in light hazard occupancies shall be one of the following:

- (1) Quick-response type as defined in 3.3.205.4.16
- (2) Residential sprinklers in accordance with the requirements of Chapter 12
- (3) Quick response CMSA sprinklers
- (4) ESFR sprinklers
- (5) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
- (6) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

9.4.3.2

Where quick-response sprinklers are installed, all sprinklers within a compartment or subdivision within a compartment shall be quick-response unless otherwise permitted in 9.4.3.3, 9.4.3.4, or 9.4.3.5.

9.4.3.3

Where there are no listed quick-response sprinklers in the temperature range required, standard-response sprinklers shall be permitted to be used.

9.4.3.4

The provisions of 9.4.3.2 shall not apply to in-rack sprinklers.

9.4.3.5

In other than light hazard occupancies, where a sprinkler carries a listing for both standard-response protection and quick-response protection at different coverage areas, that sprinkler shall be permitted to be installed within a compartment or subdivision within a compartment at the spacing for both the quick-response and standard-response listings without any separation between the areas so covered.

9.4.3.6

When existing light hazard systems are converted to use quick-response or residential sprinklers, all sprinklers in a compartment or subdivision within a compartment shall be changed.

9.4.3.6.1 An existing compartment shall be allowed to be subdivided with a draft stop that complies with 9.2.1.2

Statement of Problem and Substantiation for Public Input

The standard requires that every sprinkler in a compartment in light hazard or residential occupancies be the same response type no matter how large the compartment. Based on the current requirements, for example, a large open area with various ceiling levels and an atrium, unless subdivided by walls and doors, is considered one "compartment". When converting to quick response or residential sprinklers, all sprinklers within the "compartment" would have to be changed, even those in the high atrium area. Allowing the compartment to be subdivided using a draft stop would provide flexibility to allow standard response sprinklers in areas where it makes sense, and quick response or residential in other areas within the "compartment".

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 551-NFPA 13-2019 [New Section after 3.3.57]	Definition used for this change.
Public Input No. 552-NFPA 13-2019 [Section No. 3.3.38]	Revised definition used for this change.

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Committee Statement

City:

Resolution: Based on action taken on PI 553.

State:

Zip:

Submittal Date: Fri Jun 07 15:50:55 EDT 2019

Committee: AUT-SSI

**Public Input No. 450-NFPA 13-2019 [Section No. 9.4.3.1]****9.4.3.1 ***

Sprinklers in light hazard occupancies shall be one of the following:

- (1) Quick-response type as defined in 3.3.205.4.16
- (2) Residential sprinklers in accordance with the requirements of Chapter 12
- (3) Quick response CMSA sprinklers
- (4) ESFR sprinklers
- (5) ~~Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers~~
Standard-response sprinklers used
- (6) where individual standard-response sprinklers are replaced in existing light hazard systems

Statement of Problem and Substantiation for Public Input

The benefits of quick response over standard response are proven. If we are reworking a system, we should be upgrading the space to the current proven technology.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 14:29:34 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: All sprinklers should be changed not just a small number.



Public Input No. 452-NFPA 13-2019 [New Section after 9.4.3.6]

9.4.3.7

Standard coverage spray sprinklers and extended coverage spray sprinklers shall be permitted to be used in the same compartment provided the thermal response of all sprinklers are in the same category.

Statement of Problem and Substantiation for Public Input

Many AHJ's and Engineers have prohibited the mixing of standard coverage and extended coverage sprinklers in the same compartment. I agree that the standard does not currently prohibit this. However, this new section will add clarity.

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 14:32:23 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The standard currently allows SSP and extended coverage of the same RTI to be installed in the same compartment.



Public Input No. 459-NFPA 13-2019 [New Section after 9.4.3.6]

9.4.3.7

Where existing systems are being modified for a new residential occupancy, all sprinklers in dwelling units shall be changed to residential or quick response.

Statement of Problem and Substantiation for Public Input

As the population moves back to the urban center, many older buildings are being repurposed and converted into apartments and hotels. Some of these occupancies could be old mills or warehouses with older standard response sprinklers. In the residential environment, response time is crucial. Some of the standard response sprinklers can take 4-5 minutes to activate. Based on the testing done with current day furnishings, this could be too long to provide life safety in these environments.

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 15:01:58 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The standard currently allows SSP and extended coverage of the same RTI to be installed in the same compartment.



Public Input No. 457-NFPA 13-2019 [Section No. 9.4.3.6]

9.4.3.6

When existing light hazard systems are converted to use quick-response or residential sprinklers, all sprinklers in a compartment shall being modified shall be changed.

Statement of Problem and Substantiation for Public Input

This requirement should only apply to compartments where sprinklers are being changed.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 14:58:40 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The standard currently allows SSP and extended coverage of the same RTI to be installed in the same compartment.



Public Input No. 165-NFPA 13-2019 [New Section after 9.4.5]

9.4.6 SMA application.

9.4.6.1 SMA can be implemented instead of any type of standard sprinklers when it is needed to detect a location of an actuated sprinkler, and also in EAS system.

9.4.6.2 Connection lines between SMA and a fire control panel shall be automatically monitored.

Statement of Problem and Substantiation for Public Input

New sections explain implementation of a new type of sprinklers

Submitter Information Verification

Submitter Full Name: Leonid Tanklevskiy

Organization: Gefest Enterprise Group

Street Address:

City:

State:

Zip:

Submittal Date: Tue Mar 12 04:00:41 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The committee is requesting details on the following topics to better understand this new technology:
System size System backup / duration Design criteria Density Duration Area of operation
Obstructions to discharge Obstructions to sensitivity Sprinkler spacing

**Public Input No. 618-NFPA 13-2019 [Section No. 9.5.2.1.1]****9.5.2.1.1**

The protection area of coverage per sprinkler (A_S) shall be determined as follows:

(1) Along branch lines as follows:

(2) Determine distance between sprinklers (or to wall or obstruction

in the case of the end sprinkler on the branch line

(a)) upstream and downstream

(b) Choose the larger of either twice the distance to the wall or the distance to the next sprinkler

(c) Define dimension as S

(3) Between branch lines as follows:

(4) Determine perpendicular distance to the sprinkler on the adjacent branch line (or to a wall or obstruction

in the case of the last branch line

(a)) on each side of the branch line on which the subject sprinkler is positioned

(b) Choose the larger of either twice the distance to the wall or obstruction or the distance to the next sprinkler

(c) Define dimension as L

Statement of Problem and Substantiation for Public Input

As currently written, this section seems to state that the distance to an obstruction is only relevant for the last sprinkler on a branch line. Consider obstructed construction with deep beams and sprinklers in some if not all of the beam pockets. The "area of coverage" for the sprinkler should be the limits of what that sprinkler is intended to cover. For example, if there are sprinklers in two adjacent beam pockets, neither sprinkler is covering to the adjacent sprinkler but instead to the edge of the beam. By removing the reference to "last sprinkler" the language is both simplified and less subject to misinterpretation.

Submitter Information Verification

Submitter Full Name: Christopher Born

Organization: Clark Nexsen, Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 10:58:48 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The issue of the end sprinkler on the branchline should remain.



Public Input No. 134-NFPA 13-2019 [Section No. 9.5.3.1.2]

9.5.3.1.2

The maximum distance shall be measured along the slope of the ceiling for ceilings exceeding 2 in 12 .
The maximum distance shall be measured along the floor dimension for all ceilings where the slope does not exceed 2 in 12.

Statement of Problem and Substantiation for Public Input

This section as written was designed to apply for "slope" ceilings. When you have a ceiling that is not sloped, the small difference in the maximum distance when measured on the slope is not warranted to be considered.

Submitter Information Verification

Submitter Full Name: John Denhardt
Organization: Strickland Fire Protection, Incorporated
Affiliation: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submittal Date: Mon Mar 04 10:48:07 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: Already addressed in the standard.

**Public Input No. 368-NFPA 13-2019 [Section No. 9.5.3.2.2]****9.5.3.2.2**

The distance from the wall to the sprinkler shall be measured to the wall behind furniture, such as wardrobes, cabinets, and lockers and trophy cases.

Statement of Problem and Substantiation for Public Input

Lockers are another example that should be in this list.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 369-NFPA 13-2019 [Section No. 9.2.9]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 31 13:41:05 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1120-NFPA 13-2019
Statement: Lockers are another example that should be in this list.



Public Input No. 560-NFPA 13-2019 [Section No. 9.5.3.4]

9.5.3.4 Minimum Distance Between Sprinklers.

9.5.3.4.1

A minimum distance shall be maintained between sprinklers to prevent operating sprinklers from wetting adjacent sprinklers and to prevent skipping of sprinklers.

9.5.3.4.2

The minimum distance permitted between sprinklers shall comply with the value indicated in the applicable section for each type or style of sprinkler.

9.5.3.4.3 The minimum distance to be maintained between sprinklers shall not apply when either one of the affected sprinklers is capable of protecting the room or space without the other sprinkler having to operate.

Statement of Problem and Substantiation for Public Input

There are instances, especially in residential occupancies, when an obstruction such as a light will require an additional sprinkler in a room. However, if the light is moved or is changed from being surface mounted to being on a stem or chain hanging from the ceiling, the sprinklers would not comply with the minimum distance rule. As long as each sprinkler on its own can protect the room or space, it doesn't matter if one cold-solders the other.

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 16:17:39 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1121-NFPA 13-2019

Statement: There are instances, especially in residential occupancies, when an obstruction such as a light will require an additional sprinkler in a room. However, if the light is moved or is changed from being surface mounted to being on a stem or chain hanging from the ceiling, the sprinklers would not comply with the minimum distance rule. As long as each sprinkler on its own can protect the room or space, it doesn't matter if one cold-solders the other.



Public Input No. 422-NFPA 13-2019 [New Section after 9.5.4.1.1]

Electronic sprinklers

9.5.4.1.1.X Where electronic sprinklers are used in conjunction with separate electronic detection, the distance between the ceiling and the detector shall be determined based on the manufacturers guidelines in lieu of the sprinkler deflector to ceiling distance.

Statement of Problem and Substantiation for Public Input

Electronic sprinklers are a new technology in which the primary means of operation is through an electrical signal provided by an electronic control system using specialized detection and control algorithms. One key feature of electronic sprinklers is the fact that the heat sensitive device can be separate from the sprinkler itself. In these cases, it's important to ensure the heat sensitive equipment is located near the ceiling to ensure proper thermal response to the fire plume. Additionally, a beneficial feature of this approach is the ability to expand sprinkler installation flexibility to allow them to be placed further from or below obstructions or closer to protected hazards. Where separate detection is utilized, deflector to ceiling distance is much less important than the distance from the deflector to the protected hazard.

Submitter Information Verification

Submitter Full Name: Zachary Magnone
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jun 05 16:41:22 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The committee is requesting details on the following topics to better understand this new technology:
System size System backup / duration Design criteria Density Duration Area of operation
Obstructions to discharge Obstructions to sensitivity Sprinkler spacing



Public Input No. 73-NFPA 13-2019 [Section No. 9.5.5.3.1.2]

9.5.5.3.1.2 *

Sprinklers located ~~under~~ below obstructions shall comply with one of the following, regardless of the geometry of obstruction :

- (1) Installed below the obstruction
- (2) Installed adjacent to the obstruction not more than 3 in. (75 mm) from the outside edge of the obstruction

Statement of Problem and Substantiation for Public Input

Figure A.9.5.5.3.1.2 Sprinkler Location Below Obstruction shows a rectangular obstruction. City Inspectors have interpreted that this only applies to rectangular obstructions.

I suggest adding information that indicates that the obstruction can be any shape.

9.5.5.3.1.2 Sprinklers located "under" obstruction ;;; Being allowed to be 3 inches from the outside edge technically isn't under the obstruction, it is below.

Submitter Information Verification

Submitter Full Name: Ray Lambert

Organization: Schmidt Fire Protection

Street Address:

City:

State:

Zip:

Submittal Date: Mon Feb 04 13:10:20 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1122-NFPA 13-2019

Statement: Figure A.9.5.5.3.1.2 Sprinkler Location Below Obstruction shows a rectangular obstruction. City Inspectors have interpreted that this only applies to rectangular obstructions.

I suggest adding information that indicates that the obstruction can be any shape.

9.5.5.3.1.2 Sprinklers located "under" obstruction ;;; Being allowed to be 3 inches from the outside edge technically isn't under the obstruction, it is below.



Public Input No. 273-NFPA 13-2019 [Section No. 10.2.7]

10.2.7 Obstructions to Sprinkler Discharge (Standard Pendent and Upright Spray Sprinklers).

10.2.7.1 ~~Performance Objective~~ General .

10.2.7.1.1

Sprinklers shall be located so as to minimize obstructions to discharge as defined in 10.2.7-2 and 10.2.7.3 , or additional sprinklers shall be provided to ensure adequate coverage of the hazard.

10.2.7.1. 2*— Obstructions Above the Sprinkler Deflector

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.4- 2, and Figure 10.2.7.4- 2(a) shall be followed.
- (2) Sprinklers shall be permitted to be spaced on opposite sides of obstructions not exceeding 4 ft (1.2 m) in width, provided the distance from the centerline of the obstruction to the sprinklers does not exceed one-half the allowable distance permitted between sprinklers.
- (3) Obstructions located against the wall and that are not over 30 in. (750 mm) in width shall be permitted to be protected in accordance with Figure 10.2.7.4- 2(b).
- (4) Obstructions located against the wall and that are not over 24 in. (600 mm) in width shall be permitted to be protected in accordance with Figure 10.2.7.4- 2(c). The maximum distance between the sprinkler and the wall shall be measured from the sprinkler to the wall behind the obstruction and not to the face of the obstruction.

Table 10.2.7.4- 2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

Distance from Sprinklers to Side of Obstruction (A)	Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B) [in. (mm)]
Less than 1 ft (300 mm)	0 (0)
1 ft (300 mm) to less than 1 ft 6 in. (450 mm)	2½ (65)
1 ft 6 in. (450 mm) to less than 2 ft (600 mm)	3½ (90)
2 ft (600 mm) to less than 2 ft 6 in. (750 mm)	5½ (140)
2 ft 6 (750 mm) in. to less than 3 ft (900 mm)	7½ (190)
3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)	9½ (240)
3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)	12 (300)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	14 (350)
4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)	16½ (415)
5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)	18 (450)
5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)	20 (500)
6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)	24 (600)
6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)	30 (750)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	35 (875)

For SI units, 1 in. = 25.4 mm; 1 ft = 0.3048 m.

Note: For A and B, refer to Figure 10.2.7.1.2(a).

Figure 10.2.7.4- 2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

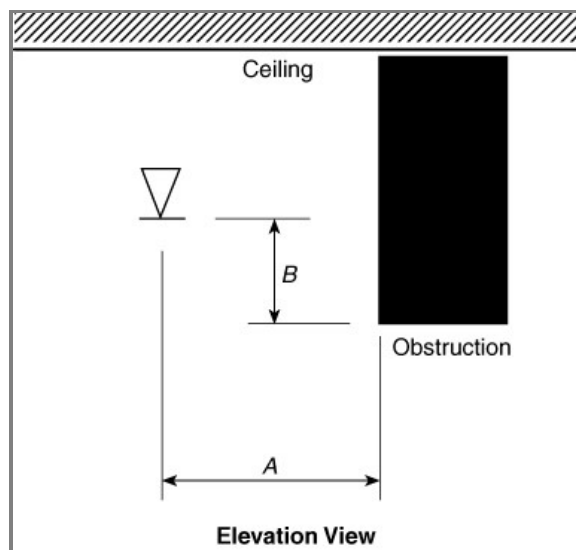


Figure 10.2.7.4. 2(b) Obstruction Against Wall (SSU/SSP).

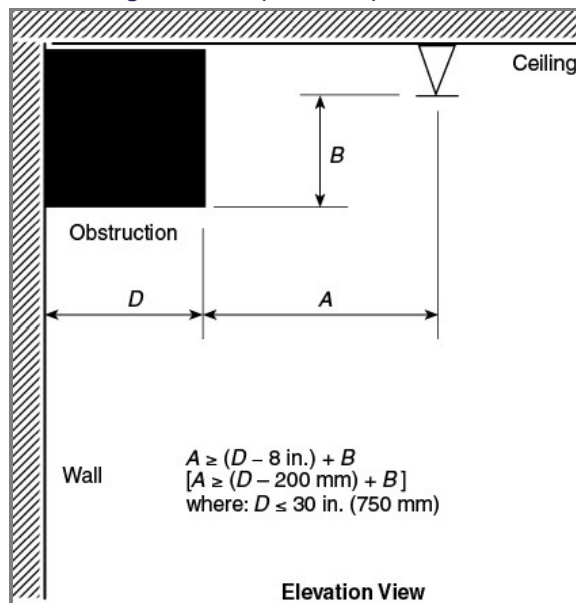
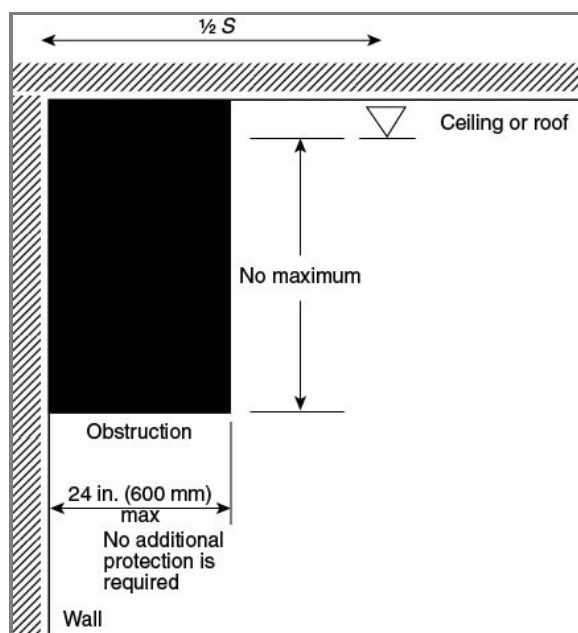


Figure 10.2.7.4. 2(c) Obstructions Against Walls (SSU/SSP).



10.2.7.2.3 Obstructions to Sprinkler Discharge Pattern Development.

10.2.7.2.3.1 General.

10.2.7.2.3.1.1

Continuous or noncontinuous obstructions less than or equal to 18 in. (450 mm) below the sprinkler deflector that prevent the pattern from fully developing shall comply with 10.2.7.2.

10.2.7.2.3.1.2

Regardless of the rules of 10.2.7.2, solid continuous obstructions, where the top of the obstruction is level with or above the plane of the deflector, shall meet the applicable requirements of 10.2.7.1.2.

10.2.7.2.3.1.3* Minimum Distance from Obstructions.

Unless the requirements of 10.2.7.2.1.4 through 10.2.7.2.1.9 are met, sprinklers shall be positioned away from obstructions a minimum distance of three times the maximum dimension of the obstruction (e.g., structural members, pipe, columns, and fixtures) in accordance with Figure 10.2.7.2.1.3(a) and Figure 10.2.7.2.1.3(b).

Figure 10.2.7.2.3.1.3(a) Minimum Distance from an Obstruction in the Vertical Orientation (SSU/SSP).

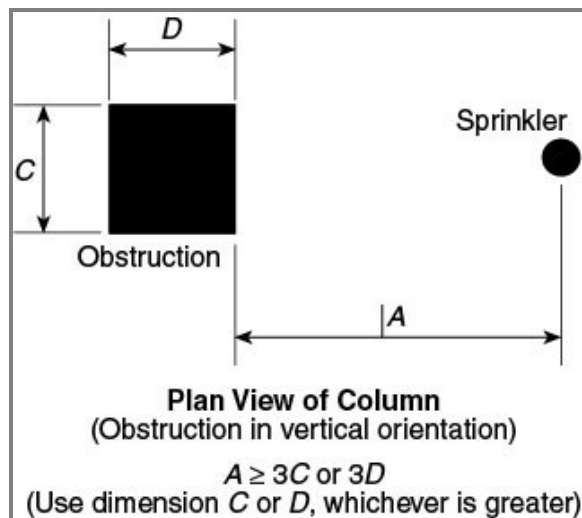
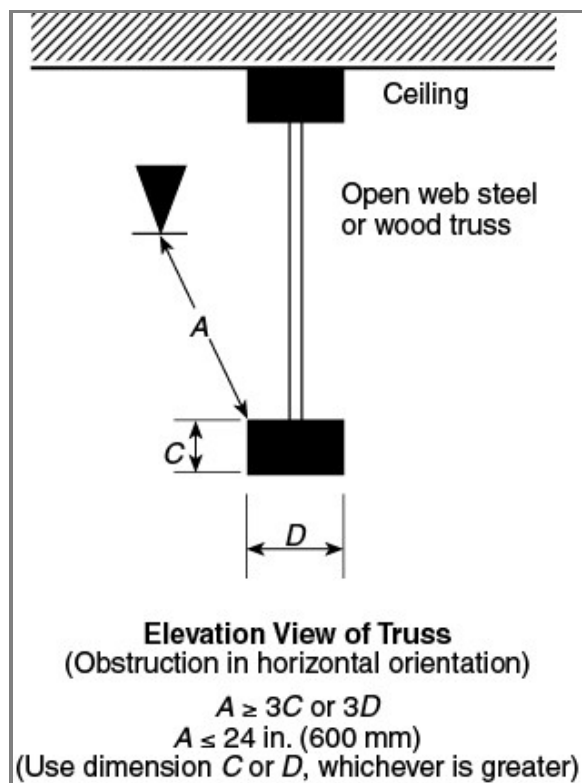


Figure 10.2.7.2.3.1.3(b) Minimum Distance from an Obstruction in the Horizontal Orientation (SSU/SSP).



(A)

The maximum clear distance required shall be 24 in. (600 mm).

(B)

The maximum clear distance shall not be applied to obstructions in the vertical orientation (e.g., columns).

10.2.7.2 3 .1.4*

For light and ordinary hazard occupancies, structural members only shall be considered when applying the requirements of 10.2.7.2 3 .1.3.

10.2.7.2 3 .1.5

Sprinklers shall be permitted to be spaced on opposite sides of the obstruction not exceeding 4 ft (1.2 m) in width, where the distance from the centerline of the obstruction to the sprinklers does not exceed one-half the allowable distance between sprinklers.

10.2.7.2 3 .1.6

Sprinklers shall be permitted to be located one-half the distance between the obstructions where the obstruction consists of open trusses 20 in. (500 mm) or greater apart [24 in. (600 mm) on center], provided that all truss members are not greater than 4 in. (100 mm) (nominal) in width.

10.2.7.2 3 .1.7

Sprinklers shall be permitted to be installed on the centerline of a truss or bar joist or directly above a beam, provided that the truss chord or beam dimension is not more than 8 in. (200 mm) and the sprinkler deflector is located at least 6 in. (150 mm) above the structural member and where the sprinkler is positioned at a distance three times greater than the maximum dimension of the web members away from the web members.

10.2.7.2 3 .1.8

The requirements of 10.2.7.2 3 .1.3 shall not apply to sprinkler system piping less than 3 in. (80 mm) in diameter.

10.2.7.2 3 .1.9

The requirements of 10.2.7.2 3 .1.3 shall not apply to sprinklers positioned with respect to obstructions in accordance with 10.2.7.4. 2.

10.2.7.2 3 .1.10*

Sprinklers shall be permitted to be placed without regard to the blades of ceiling fans less than 60 in. (1.5 m) in diameter, provided the plan view of the fan is at least 50 percent open.

10.2.7.2 3 .2 Suspended or Floor-Mounted Vertical Obstructions.

The distance from sprinklers to privacy curtains, freestanding partitions, room dividers, and similar obstructions in light hazard occupancies shall be in accordance with Table 10.2.7.2.3.2 and Figure 10.2.7.2.3.2.

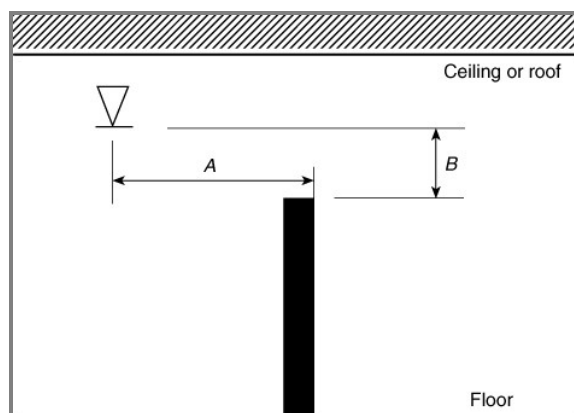
Table 10.2.7.2.3.2 Suspended or Floor-Mounted Obstructions in Light Hazard Occupancies Only (SSU/SSP)

Horizontal Distance (A)	Minimum Vertical Distance Below Deflector (B)
	[in. (mm)]
6 in. (150 mm) or less	3 (75)
More than 6 in. (150 mm) to 9 in. (225 mm)	4 (100)
More than 9 in. (225 mm) to 12 in. (300 mm)	6 (150)
More than 12 in. (300 mm) to 15 in. (375 mm)	8 (200)
More than 15 in. (375 mm) to 18 in. (450 mm)	9½ (240)
More than 18 in. (450 mm) to 24 in. (600 mm)	12½ (315)
More than 24 in. (600 mm) to 30 in. (750 mm)	15½ (390)
More than 30 in. (750 mm)	18 (450)

For SI units, 1 in. = 25.4 mm.

Note: For A and B, refer to Figure 10.2.7.2.3.2.

Figure 10.2.7.2.3.2 Suspended or Floor-Mounted Obstruction in Light Hazard Occupancies Only (SSU/SSP).



10.2.7.2.3.2.1*

In light hazard occupancies, privacy curtains, as shown in Figure 10.2.7.2.3.2, shall not be considered obstructions where all of the following are met:

- (1) The curtains are supported by fabric mesh on ceiling track.
- (2) Openings in the mesh are equal to 70 percent or greater.
- (3) The mesh extends a minimum of 22 in. (550 mm) down from ceiling.

10.2.7.3.4* Obstructions that Prevent Sprinkler Discharge from Reaching Hazard.

10.2.7.3.4.1

Continuous or noncontinuous obstructions that interrupt the water discharge in a horizontal plane more than 18 in. (450 mm) below the sprinkler deflector in a manner to limit the distribution from reaching the protected hazard shall comply with 10.2.7.3.4.

10.2.7.3.4.2*

Sprinklers shall be installed under fixed obstructions over 4 ft (1.2 m) wide.

10.2.7.3 4 .3

Sprinklers installed under open gratings shall be of the intermediate level/rack storage type or otherwise shielded from the discharge of overhead sprinklers.

10.2.7.3 4 .4

The deflector of automatic sprinklers installed under fixed obstructions shall be positioned no more than 12 in. (300 mm) below the bottom of the obstruction.

10.2.7.3 4 .5

Sprinklers installed under round ducts shall be of the intermediate level/rack storage type or otherwise shielded from the discharge of overhead sprinklers.

Statement of Problem and Substantiation for Public Input

We identify obstructions based upon just 2 zones - above and below the plane 18 inches below the deflector. Since there are actually 3 zones, they should all be cleanly identified and not have the first zone (near the ceiling) stuck in a a section titled Performance. These changes should be compiled with a second PI identifying providing a new section stating when to go to which section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 274-NFPA 13-2019 [New Section after 10.2.7.1]	need to be combined
Public Input No. 275-NFPA 13-2019 [New Section after 10.2.7.1.2]	need to be combined
Public Input No. 274-NFPA 13-2019 [New Section after 10.2.7.1]	
Public Input No. 275-NFPA 13-2019 [New Section after 10.2.7.1.2]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 27 10:46:06 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1123-NFPA 13-2019 Use minimum "A" dimension for all beam tables - see attached excel files for new tables. PI 274 is part of FR 1123 with added figures 1\) Horizontal, 2\) pattern development 3\) discharge PI 275 is part of FR 1123 and proposed language is added as item #4 PI 282 is part of FR 1123 adding item #5 New Section 10.2.7.3.2.1 was added based on changes in FR 1132](#)

Statement: We identify obstructions based upon just 2 zones - above and below the plane 18 inches below the deflector. Since there are actually 3 zones, they should all be cleanly identified and not have the first zone (near the ceiling) stuck in a a section titled Performance. These changes should be compiled with a second PI identifying providing a new section stating when to go to which section.



Public Input No. 274-NFPA 13-2019 [New Section after 10.2.7.1]

10.2.7.1.2 Sprinklers shall be arranged to comply with one of the following sections:

(1) 10.2.7.2 when the top of continuous and noncontinuous obstructions are above the deflector

(2) 10.2.7.3 when the top of continuous and noncontinuous obstructions are on the same plane or less than or equal to 18 inches below the deflector

(3) 10.2.7.4 when the top of continuous and noncontinuous obstructions are greater than 18 inches below the sprinkler deflector

Statement of Problem and Substantiation for Public Input

This PI when combined with PI-273 cleanly identifies the 3 zones for obstructions and states when to go to which. Currently, nothing states when to go to the section for obstructions close to the ceiling.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 273-NFPA 13-2019 [Section No. 10.2.7]	need to be combined
Public Input No. 273-NFPA 13-2019 [Section No. 10.2.7]	
Public Input No. 275-NFPA 13-2019 [New Section after 10.2.7.1.2]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
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Submission Date: Mon May 27 11:05:22 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1123-NFPA 13-2019 Use minimum "A" dimension for all beam tables - see attached excel files for new tables. PI 274 is part of FR 1123 with added figures 1) Horizontal, 2) pattern development 3) discharge PI 275 is part of FR 1123 and proposed language is added as item #4 PI 282 is part of FR 1123 adding item #5 New Section 10.2.7.3.2.1 was added based on changes in FR 1132

Statement: We identify obstructions based upon just 2 zones - above and below the plane 18 inches below the deflector. Since there are actually 3 zones, they should all be cleanly identified and not have the first zone (near the ceiling) stuck in a a section titled Performance. These changes should be compiled with a second PI identifying providing a new section stating when to go to which section.



Public Input No. 275-NFPA 13-2019 [New Section after 10.2.7.1.2]

10.2.7.1.2

(5) O bstructions that are non-continuous and in the vertical orientation shall be permitted to be protected using the three times rule in accordance with the requirements of 10.2.7.2.1.3.

Statement of Problem and Substantiation for Public Input

This change is needed in order to corrolate with the changes in PI 273 & 274 so that guidance for columns is identified for obstructions above the plane of the deflector

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 274-NFPA 13-2019 [New Section after 10.2.7.1]	need to be combined
Public Input No. 273-NFPA 13-2019 [Section No. 10.2.7]	need to be combined
Public Input No. 273-NFPA 13-2019 [Section No. 10.2.7]	

Submitter Information Verification

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Submittal Date: Mon May 27 11:23:42 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See FR 1123



Public Input No. 282-NFPA 13-2019 [Section No. 10.2.7.1.2]

10.2.7.1.2 *

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.1.2, and Figure 10.2.7.1.2(a) shall be followed.
- (2) Sprinklers shall be permitted to be spaced on opposite sides of obstructions not exceeding 4 ft (1.2 m) in width, provided the distance from the centerline of the obstruction to the sprinklers does not exceed one-half the allowable distance permitted between sprinklers.
- (3) Obstructions located against the wall and that are not over 30 in. (750 mm) in width shall be permitted to be protected in accordance with Figure 10.2.7.1.2(b).
- (4) Obstructions located against the wall and that are not over 24 in. (600 mm) in width shall be permitted to be protected in accordance with Figure 10.2.7.1.2(c). The maximum distance between the sprinkler and the wall shall be measured from the sprinkler to the wall behind the obstruction and not to the face of the obstruction.
- (5) Obstructions in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with figure 10.2.7.1.2(d) when the sprinkler is located in the allowable obstruction zone.

Table 10.2.7.1.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

<u>Distance from Sprinklers to Side of Obstruction (A)</u>	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B) [in. (mm)]</u>
Less than 1 ft (300 mm)	0 (0)
<u>1 ft (300 mm) to less than 1 ft 6 in. (450 mm)</u>	<u>2 1/2 (65)</u>
<u>1 ft 6 in. (450 mm) to less than 2 ft (600 mm)</u>	<u>3 1/2 (90)</u>
<u>2 ft (600 mm) to less than 2 ft 6 in. (750 mm)</u>	<u>5 1/2 (140)</u>
<u>2 ft 6 (750 mm) in. to less than 3 ft (900 mm)</u>	<u>7 1/2 (190)</u>
<u>3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)</u>	<u>9 1/2 (240)</u>
<u>3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)</u>	<u>12 (300)</u>
<u>4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)</u>	<u>14 (350)</u>
<u>4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)</u>	<u>16 1/2 (415)</u>
<u>5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)</u>	<u>18 (450)</u>
<u>5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)</u>	<u>20 (500)</u>
<u>6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)</u>	<u>24 (600)</u>
<u>6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)</u>	<u>30 (750)</u>
<u>7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)</u>	<u>35 (875)</u>

For SI units, 1 in. = 25.4 mm; 1 ft = 0.3048 m.

Note: For A and B, refer to Figure 10.2.7.1.2(a).

Figure 10.2.7.1.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

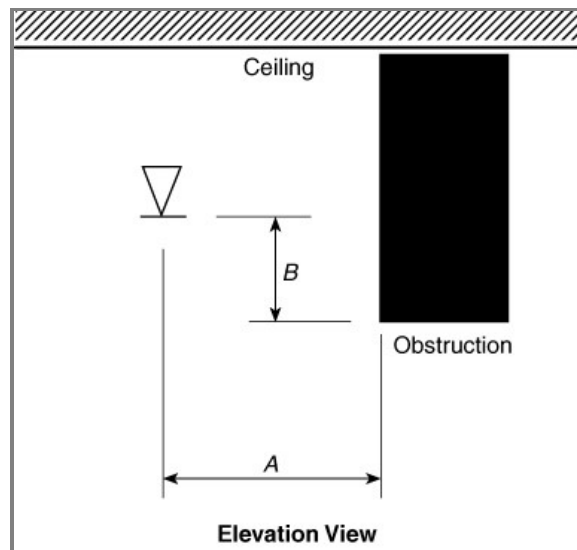


Figure 10.2.7.1.2(b) Obstruction Against Wall (SSU/SSP).

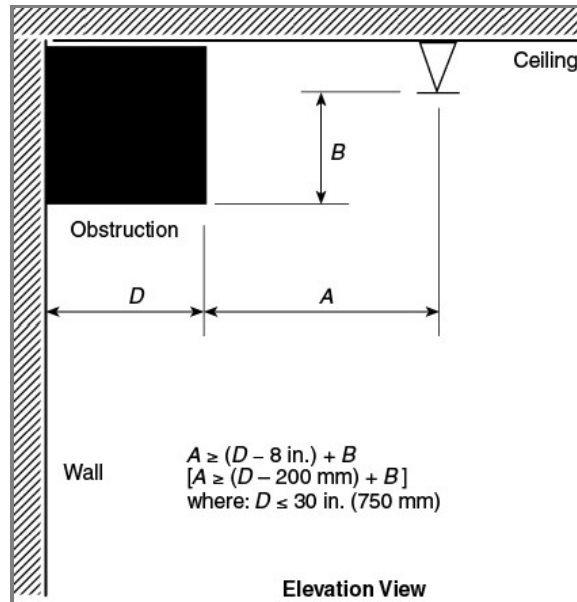
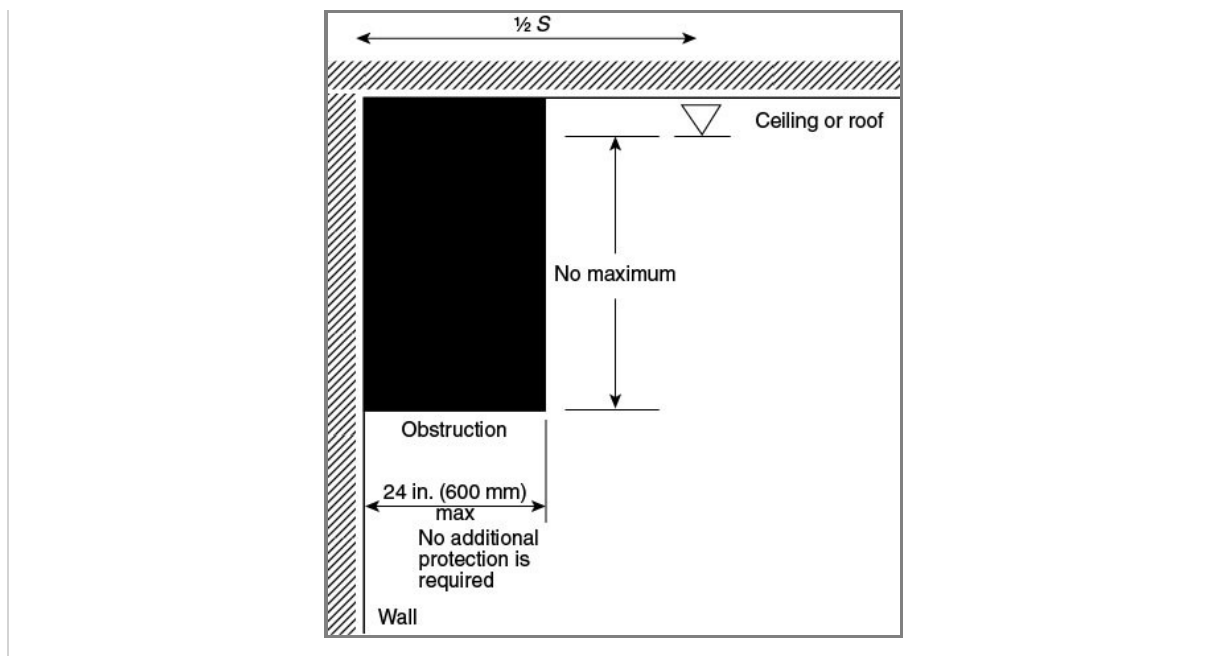


Figure 10.2.7.1.2(c) Obstructions Against Walls (SSU/SSP).



Additional Proposed Changes

File Name	Description Approved
2022_Standard_Pendent_Hallway.pdf	

Statement of Problem and Substantiation for Public Input

Adds another obstruction allowance for obstructions in hallways. This is being proposed for residential and EC pendants as well. This is also found in NFPA 13D & NFPA 13R.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 281-NFPA 13-2019 [Section No. 12.1.10.1.2]	
Public Input No. 283-NFPA 13-2019 [Section No. 11.2.5.1.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
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Zip:
Submittal Date: Tue May 28 10:36:23 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1123-NFPA 13-2019 Use minimum "A" dimension for all beam tables - see attached excel files for new tables. PI 274 is part of FR 1123 with added figures 1\) Horizontal, 2\) pattern development 3\) discharge PI 275 is part of FR 1123 and proposed language is added as item #4 PI 282 is part of FR 1123 adding item #5 New Section 10.2.7.3.2.1 was added based on changes in FR 1132](#)

Statement: We identify obstructions based upon just 2 zones - above and below the plane 18 inches below the deflector. Since there are actually 3 zones, they should all be cleanly identified and not have the first zone (near the ceiling) stuck in a a section titled Performance. These changes should be compiled

with a second PI identifying providing a new section stating when to go to which section.

**Public Input No. 619-NFPA 13-2019 [New Section after 10.2.7.2.1.2]****TITLE OF NEW CONTENT**

Regardless of the rules of 10.2.7.2, for a compartment with a single sprinkler solid obstructions where the top of the obstruction is level with or above the plane of the deflector shall meet the applicable requirements of 10.2.7.1.2.

Statement of Problem and Substantiation for Public Input

This revision would clearly state that an obstruction (commonly a surface mounted light fixture) that blocks discharge from the single sprinkler in a compartment is not acceptable. This is similar to the current 10.2.7.2.1.2, except that by removing the word "continuous" it is clear that this applies to an obstruction blocking a single sprinkler if that is the only sprinkler in the compartment. The current A.10.2.7.2.1.4 indicates that this situation shouldn't be permitted, but this is not enforceable language.

Submitter Information Verification

Submitter Full Name: Christopher Born

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Street Address:

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Submittal Date: Mon Jun 10 11:26:29 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See PI 274

**Public Input No. 10-NFPA 13-2018 [Section No. 10.2.7.2.1.2]****10.2.7.2.1.2**

Regardless of the rules of 10.2.7.2,

- a) solid continuous obstructions, where the top of the obstruction is level with or above the plane of the deflector, shall meet the applicable requirements of 10.2.7.1.2 and
- b) Sprinklers shall be installed under fixxed obstructions over 4 ft (1 .2 m) wide.

Additional Proposed Changes

File Name	Description	Approved
NFPA_13_PC65_AUT-SSI.pdf	NFPA_13_PC65	

Statement of Problem and Substantiation for Public Input

NOTE: This Public Input appeared as "Reject but Hold" in Public Comment No. 65 of the (A2018) Second Draft Report for NFPA 13 and per the Regs. at 4.4.8.3.1.

This criteria was deleted from section 8.6.5.3 due to being in the wrong section. It should have been relocated but does not appear to be in the sections on obstructions less than 18 inches below the deflector (9.5.5 , 10.2.7.1 or 10.2.7.2). A second item is that PI-477 attempted to remove the restriction that it applied only to Light and Ordinary hazard occupancies. It was rejected and the committee statement said it is intended to create a MORE restrictive requirement for LH and OH. Do these larger obstructions not poise a problem for extra hazard and storage (which present a more demanding fire scenario)?

Submitter Information Verification

Submitter Full Name: TC ON AUT-SSI
Organization: NFPA
Street Address:
City:
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Zip:
Submittal Date: Mon Oct 29 14:03:07 EDT 2018
Committee: AUT-SSI

Committee Statement

Resolution: FR-1123-NFPA 13-2019 Use minimum "A" dimension for all beam tables - see attached excel files for new tables. PI 274 is part of FR 1123 with added figures 1) Horizontal, 2) pattern development 3) discharge PI 275 is part of FR 1123 and proposed language is added as item #4 PI 282 is part of FR 1123 adding item #5 New Section 10.2.7.3.2.1 was added based on changes in FR 1132

Statement: We identify obstructions based upon just 2 zones - above and below the plane 18 inches below the deflector. Since there are actually 3 zones, they should all be cleanly identified and not have the first zone (near the ceiling) stuck in a a section titled Performance. These changes should be compiled with a second PI identifying providing a new section stating when to go to which section.



Public Input No. 323-NFPA 13-2019 [New Section after 10.2.7.2.2]

10.2.7.2.3

The distance from sprinklers to freestanding partitions, room dividers, and similar obstructions in ordinary hazard occupancies shall be in accordance with this section.

10.2.7.2.3.1

Sprinklers shall be located within 6 in (150 mm) of the centerline of the freestanding partition, room divider, or similar obstruction. (See figure 10.2.7.2.3.1)

10.2.7.2.3.2

Sprinkler deflectors shall be a minimum of 6" above the top of the freestanding partition, room divider, or similar obstruction.

Additional Proposed Changes

File Name	Description Approved
Divider_Standard.pdf	

Statement of Problem and Substantiation for Public Input

Currently the partition rule only applies to light hazard occupancies. When a sprinkler is centered over the obstruction, the obstruction to the distribution pattern is minimal. The most common scenario that utilizes partitions that do not extend to the ceiling are self storage occupancies. As the standard is currently written, a sprinkler must be provided for each storage space as defined by the partial height walls. Many of these storage units are as small as 4 feet square and can create many problems with spacing and cold solder issues. Sprinklers centered over the wall will still provide more than acceptable protection.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 324-NFPA 13-2019 [New Section after 11.2.5.2.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
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Submission Date: Thu May 30 13:03:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1123-NFPA 13-2019 Use minimum "A" dimension for all beam tables - see attached excel files for new tables. PI 274 is part of FR 1123 with added figures 1) Horizontal, 2) pattern development 3) discharge PI 275 is part of FR 1123 and proposed language is added as item #4 PI 282 is part of FR 1123 adding item #5 New Section 10.2.7.3.2.1 was added based on changes in FR 1132

Statement: We identify obstructions based upon just 2 zones - above and below the plane 18 inches below the deflector. Since there are actually 3 zones, they should all be cleanly identified and not have the first zone (near the ceiling) stuck in a section titled Performance. These changes should be compiled with a second PI identifying providing a new section stating when to go to which section.



Public Input No. 626-NFPA 13-2019 [New Section after 10.2.7.2.2.1]

10.2.7.2.3 Shadow Areas.

Shadow areas created by walls and partitions shall be permitted in the protection area of a sprinkler as long as the cumulative dry areas do not exceed 15 sq ft per sprinkler.

Statement of Problem and Substantiation for Public Input

An identical section was added to the 2019 edition for residential sprinklers. While this is identical to provisions in NFPA 13D and NFPA 13R, this allowance should be acceptable in other types of facilities. Additionally, there are circumstances where non-residential sprinklers may be used for a residential occupancy.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 628-NFPA 13-2019 [New Section after 11.2.5.2.2.1]	
Public Input No. 629-NFPA 13-2019 [New Section after 11.3.6.2.2.1]	

Submitter Information Verification

Submitter Full Name: Christopher Born
Organization: Clark Nexsen, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 12:06:05 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Larger shadow areas may exist and are allowed with existing spacing rules, see A.9.1.1.

**Public Input No. 533-NFPA 13-2019 [Section No. 10.2.8]**

10.2.8 Clearance to Storage- Contents of Room (Standard Pendent and Upright Spray Sprinklers).

10.2.8.1*

The clearance between the deflector and the ~~top~~ contents of storage- ~~the room~~ shall be 18 in. (450 mm) or greater.

10.2.8.2

The 18 in. (450 mm) dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 10.2.8, 10.3.7, 11.2.6, and Sections 11.3 and 12.1.

10.2.8.2.1

Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane located 18 in. (450 mm) below ceiling sprinkler deflectors.

10.2.8.2.2

Shelving, and any storage thereon, directly below the sprinklers shall not extend above a plane located 18 in. (450 mm) below the ceiling sprinkler deflectors.

10.2.8.3

Where other standards specify greater ~~clearance to storage minimums~~ clearances , they shall be followed.

Statement of Problem and Substantiation for Public Input

This is actually a Global PI but Terraview was not allowing Global input so you'll see the same justification in the linked PIs.

Historically, the criteria on clearance referenced only storage. Since that is a reference to a specific use (aka S occupancies), we technically had no guidance for the occupancy hazard approach. We started down the path of clarification in the 2013 edition when we added in one place (8.5.6.1) the reference to contents of the room. The title, though, still said just storage as did all the repeated criteria throughout the sections by sprinkler type. The recommended changes are more consistent and precise (since contents of the room also covers storage). Where appropriate the reference to storage was retained.

Additionally, despite repeating these criteria for most of the sprinkler types, there is no guidance in chapters 12 and 13. Seems appropriate for the sake of consistency to add some text.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 535-NFPA 13-2019 [Section No. 11.2.6]	
Public Input No. 536-NFPA 13-2019 [Section No. 11.3.7]	
Public Input No. 537-NFPA 13-2019 [Section No. 14.2.12]	
Public Input No. 538-NFPA 13-2019 [Section No. 20.6.6]	

Submitter Information Verification

Submitter Full Name: Roland Huggins

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City:

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Submittal Date: Fri Jun 07 13:42:49 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See action on PI 537



Public Input No. 143-NFPA 13-2019 [New Section after 10.2.8.1]

10.2.8.2

The clearance from the top of storage to sprinkler deflectors shall not be less than 36 in. (900 mm) where rubber tires are stored.

Statement of Problem and Substantiation for Public Input

Standard Spray Sprinklers can be used for protection of rubber tires (both miscellaneous and full storage). Criteria on clearance for rubber tires is needed for both.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
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Submittal Date: Thu Mar 07 15:33:02 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: This requirement exists in multiple sections of the standard.

**Public Input No. 141-NFPA 13-2019 [Section No. 10.2.8.2 [Excluding any Sub-Sections]**

]

The 18 in. (450 mm) dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 10.2.8, 10.3.7, 11.2.6, and Sections 11.3 and 12.1.

Statement of Problem and Substantiation for Public Input

The clearance criteria in Chapter 10 should not provide relief for criteria in other Chapters.

Submitter Information Verification

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Submittal Date: Thu Mar 07 15:25:45 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1124-NFPA 13-2019](#)

Statement: The clearance criteria in Chapter 10 should not provide relief for criteria in other Chapters.

**Public Input No. 488-NFPA 13-2019 [Section No. 10.2.9.2]****10.2.9.2**

Sprinklers shall not be required in ceiling pockets where all of the following are met:

- (1) The total volume of the unprotected ceiling pocket does not exceed 1000 ft³ (28 m³).
- (2) The depth of the unprotected ceiling pocket does not exceed 36 in. (900 mm).
- (3) The entire floor under the unprotected ceiling pocket is protected by sprinklers at the lower ceiling elevation.
- (4)* The total size of all unprotected ceiling pockets in the same compartment within 10 ft (3 m) of each other or separated by a line of sprinklers does not exceed 1000 ft³ (28 m³).
- (5) The unprotected ceiling pocket has noncombustible or limited-combustible finishes.
- (6) Quick-response sprinklers are utilized throughout the compartment.

Statement of Problem and Substantiation for Public Input

The original requirement to have a 10 ft separation between ceiling pockets was to ensure that the ceiling jet would encounter sprinklers before having to pass by another pocket. It was then determined that passing through several smaller pockets before encounter a sprinkler would not unduly delay the activation as compared to a single 1,000 ft³ pocket. The proposed clarification links the allowance of multiple pockets back to the issue of their impact on activation.

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc

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Submittal Date: Thu Jun 06 19:02:50 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Ambiguous.



Public Input No. 195-NFPA 13-2019 [New Section after 10.3.2]

10.3.2.1

For purposes of 10.3.2 (1) and 10.3.2 (2), corrugated metal deck with channel depths up to 3 in (76 mm) can be considered as smooth ceilings.

Statement of Problem and Substantiation for Public Input

Would provide relief for corrugated metal deck construction where sidewall sprinklers are desired or required.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 196-NFPA 13-2019 [New Section after 10.3.5.1.1.2]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
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Submittal Date: Wed Mar 27 10:45:55 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1125-NFPA 13-2019](#)

Statement: Clarification for subsections (1) and (2): HSW sprinklers are allowed to be installed in smooth, horizontal ceilings OR sloped, flat ceilings OH only smooth flat. There has been confusion over the interpretation of this item and splitting the requirement into two bullets will avoid misinterpretation



Public Input No. 330-NFPA 13-2019 [Section No. 10.3.2]

10.3.2 Sidewall Spray Sprinklers.

Sidewall sprinklers shall only be installed as follows:

- (1) Light hazard occupancies with smooth, horizontal or ceilings
- (2) Light hazard occupancies with sloped, flat ceilings
- (3) Ordinary hazard occupancies with smooth, flat ceilings where specifically listed for such use
- (4) To protect areas below overhead doors
- (5) At the top and bottom of elevator hoistways
- (6) For the protection of steel building columns
- (7) Under obstructions that require sprinklers

Statement of Problem and Substantiation for Public Input

Clarification for subsections (1) and (2): HSW sprinklers are allowed to be installed in smooth, horizontal ceilings OR sloped, flat ceilings OH only smooth flat. There has been confusion over the interpretation of this item and splitting the requirement into two bullets will avoid misinterpretation

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
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Submittal Date: Thu May 30 14:13:47 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1125-NFPA 13-2019

Statement: Clarification for subsections (1) and (2): HSW sprinklers are allowed to be installed in smooth, horizontal ceilings OR sloped, flat ceilings OH only smooth flat. There has been confusion over the interpretation of this item and splitting the requirement into two bullets will avoid misinterpretation

**Public Input No. 550-NFPA 13-2019 [Section No. 10.3.2]****10.3.2 Sidewall Spray Sprinklers.**

Sidewall sprinklers shall only be installed as follows:

- (1) Light hazard occupancies with smooth, horizontal or sloped, flat ceilings
- (2) Ordinary hazard occupancies with smooth, flat ceilings where specifically listed for such use
- (3) To protect areas below overhead doors
- (4) At the top and bottom of elevator hoistways
- (5) For the protection of steel building columns
- (6) Under obstructions that require sprinklers
- (7) For the protection of exterior projections and similar structures
- (8) Under cars in car stackers and car lift systems with cars stacked vertically placed under each level of cars

Statement of Problem and Substantiation for Public Input

The purpose of this public input is twofold.

The proposed (7) would allow sidewall sprinklers to be used to protect exterior projections, such as dwelling unit balconies, where the construction of the deck would otherwise not allow due to the fact that the roof on these balconies is often open joist construction and not smooth flat ceiling construction. This will also correlate with NFPA 13R and PI-490 to NFPA 13.

The proposed (8) would specifically allow sidewall sprinklers to be used to protect under cars in a car stacker. This is important because parking garages are typically considered to be ordinary hazard (A.4.3.3) but the addition of cars stack vertically creates an obstruction. This will allow sidewall sprinklers to be installed under each level of cars while maintaining the typical ordinary hazard classification for the parking garage. The other option is no sprinklers under the cars and protect as an Extra Hazard Group 2 occupancy as suggested by section A.4.3.6(9)

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 490-NFPA 13-2019 [New Section after 9.2.4.2]	related

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submission Date: Fri Jun 07 15:33:20 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1125-NFPA 13-2019](#)

Statement: Clarification for subsections (1) and (2): HSW sprinklers are allowed to be installed in smooth, horizontal ceilings OR sloped, flat ceilings OH only smooth flat. There has been confusion over the interpretation of this item and splitting the requirement into two bullets will avoid

misinterpretation

**Public Input No. 474-NFPA 13-2019 [New Section after 10.3.4.1.4.1]****TITLE OF NEW CONTENT**

T10.3.4.1.4.2 The lintel or soffit shall project 4 in. below the deflector of the back-to-back horizontal sidewall sprinklers

Statement of Problem and Substantiation for Public Input

Guidance is needed on the required depth of a soffit or lintel separating back-to-back sidewall sprinklers. This is a common question submitted to NFSA and the standard currently does not provide any requirements.

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: On behalf of the Engineering and Standards Committee

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City:

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Submittal Date: Thu Jun 06 15:56:15 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1127-NFPA 13-2019](#)

Statement: Guidance is needed on the required depth of a soffit or lintel separating back-to-back sidewall sprinklers. This is a common question submitted to NFSA and the standard currently does not provide any requirements.

**Public Input No. 196-NFPA 13-2019 [New Section after 10.3.5.1.1.2]****10.3.5.1.1.3**

For corrugated metal decks permitted in 10.3.2.1, distances specified in 10.3.5.1.1.1 and 10.3.5.1.1.2 shall be measured from the bottom of the corrugated deck.

Statement of Problem and Substantiation for Public Input

Provides deflector distance measurement point if Public Input No. 195 is accepted; correlates with Section 9.5.4.1.2.1.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 195-NFPA 13-2019 [New Section after 10.3.2]	

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Wed Mar 27 10:53:08 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See action on PI 195

**Public Input No. 286-NFPA 13-2019 [New Section after 10.3.6.1.6]****10.3.6.1.7**

Obstructions in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with figure 10.3.6.1.6.7(d) when the sprinkler is located in the allowable obstruction zone.

Additional Proposed Changes

File Name	Description Approved
2022_hallway_obstruction_standard_sidewall.pdf	

Statement of Problem and Substantiation for Public Input

Adds another obstruction allowance for obstructions in hallways. This is being proposed for residential and EC sidewalls as well. This is also found in NFPA 13D & NFPA 13R. Note that this section on sidewalls does not follow the same format as the obstruction allowances in other sections.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 285-NFPA 13-2019 [Section No. 12.1.11.1.4]	
Public Input No. 289-NFPA 13-2019 [Section No. 11.3.6.1.4]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submission Date: Tue May 28 13:31:55 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1128-NFPA 13-2019](#)

Statement: Adds another obstruction allowance for obstructions in hallways. This is being proposed for residential and EC sidewalls as well. This is also found in NFPA 13D & NFPA 13R. Note that this section on sidewalls does not follow the same format as the obstruction allowances in other sections.



Public Input No. 627-NFPA 13-2019 [New Section after 10.3.6.2.2.1]

10.3.6.2.3 Shadow Areas.

Shadow areas created by walls and partitions shall be permitted in the protection area of a sprinkler as long as the cumulative dry areas do not exceed 15 sq ft per sprinkler.

Statement of Problem and Substantiation for Public Input

An identical section was added to the 2019 edition for residential sprinklers. While this is identical to provisions in NFPA 13D and NFPA 13R, this allowance should be acceptable in other types of facilities. Additionally, there are circumstances where non-residential sprinklers may be used for a residential occupancy.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 628-NFPA 13-2019 [New Section after 11.2.5.2.2.1]	
Public Input No. 629-NFPA 13-2019 [New Section after 11.3.6.2.2.1]	

Submitter Information Verification

Submitter Full Name: Christopher Born
Organization: Clark Nexsen, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 12:14:56 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See action on PI 626



Public Input No. 142-NFPA 13-2019 [Section No. 10.3.7.2 [Excluding any Sub-Sections]

]

The 18 in. (450 mm) dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 10.3.7.1.

Statement of Problem and Substantiation for Public Input

The allowance for storage on shelves against a wall is in 10.3.7.1 and should be referenced as such.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 15:29:01 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1129-NFPA 13-2019](#)

Statement: The allowance for storage on shelves against a wall is in 10.3.7.1 and should be referenced as such.

**Public Input No. 148-NFPA 13-2019 [New Section after 10.3.7.2.2]****10.3.7.3**

Where other standards specify greater clearance to storage minimums, they shall be followed.

Statement of Problem and Substantiation for Public Input

Needed for consistency among clearance to storage sections

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 16:05:38 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1130-NFPA 13-2019](#)

Statement: Needed for consistency among clearance to storage sections



Public Input No. 283-NFPA 13-2019 [Section No. 11.2.5.1.2]

11.2.5.1.2 *

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Sprinklers shall be in accordance with 9.5.5.2, Table 11.2.5.1.2, and Figure 11.2.5.1.2(a).
- (2) Sprinklers shall be permitted to be spaced on opposite sides of obstructions not exceeding 4 ft (1.2 m) in width provided the distance from the centerline of the obstruction to the sprinklers does not exceed one-half the allowable distance permitted between sprinklers.
- (3) Obstructions located against the wall and that are not over 30 in. (750 mm) in width shall be permitted to be protected in accordance with Figure 11.2.5.1.2(b).
- (4) Obstructions located against the wall and that are not over 24 in. (600 mm) in width shall be permitted to be protected in accordance with Figure 11.2.5.1.2(c). The maximum distance between the sprinkler and the wall shall be measured from the sprinkler to the wall behind the obstruction and not to the face of the obstruction.
- (5) Obstructions in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with figure 11.2.5.1.2(d) when the sprinkler is located in the allowable obstruction zone.

Table 11.2.5.1.2 Position of Sprinklers to Avoid Obstructions to Discharge (Extended Coverage Upright and Pendent Spray Sprinklers)

<u>Distance from Sprinklers to Side of Obstruction (A)</u>	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B) [in. (mm)]</u>
Less than 1 ft (300 m)	0 (0)
1 ft (300 m) to less than 1 ft 6 in. (450 m)	0 (0)
1 ft 6 in. (450 m) to less than 2 ft (600 m)	1 (25)
2 ft (600 m) to less than 2 ft 6 in. (750 m)	1 (25)
2 ft 6 in. (750 m) to less than 3 ft (900 m)	1 (25)
3 ft (900 m) to less than 3 ft 6 in. (1.1 m)	3 (75)
3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)	3 (75)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	5 (125)
4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)	7 (175)
5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)	7 (175)
5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)	7 (175)
6 ft (1.8 m) to less than 6 ft 6 in. (2 m)	9 (225)
6 ft 6 in. (2 m) to less than 7 ft (2.1 m)	11 (275)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	14 (350)
7 ft 6 in. (2.3 m) to less than 8 ft (2.4 m)	14 (350)
8 ft (2.4 m) to less than 8 ft 6 in. (2.6 m)	15 (375)
8 ft 6 in. (2.6 m) to less than 9 ft (2.7 m)	17 (425)
9 ft (2.7 m) to less than 9 ft 6 in. (2.9 m)	19 (475)
9 ft 6 in. (2.9 m) to less than 10 ft (3.0 m)	21 (525)

Note: For A and B, refer to Figure 11.2.5.1.2(a).

Figure 11.2.5.1.2(a) Position of Sprinkler to Avoid Obstruction to Discharge (Extended Coverage Upright and Pendent Spray Sprinklers).

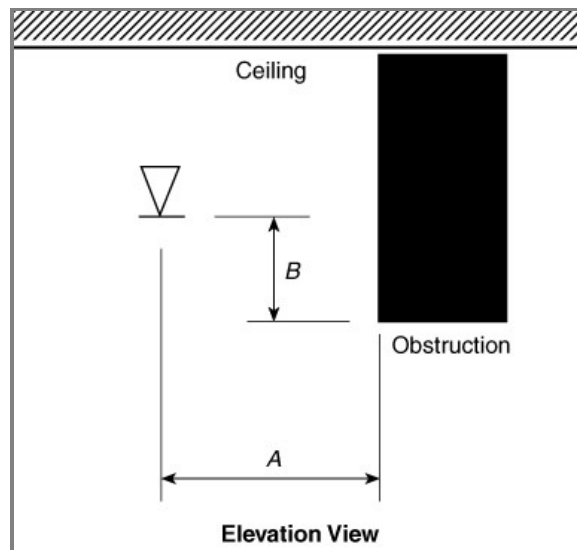


Figure 11.2.5.1.2(b) Obstructions Against Walls (Extended Coverage Upright and Pendent Spray Sprinklers).

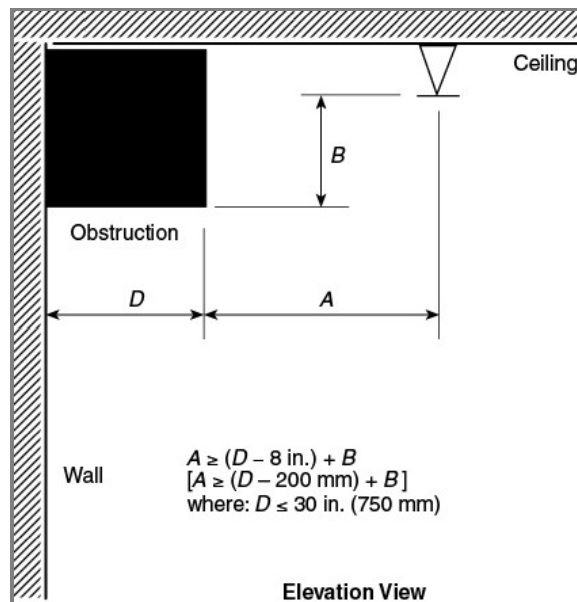
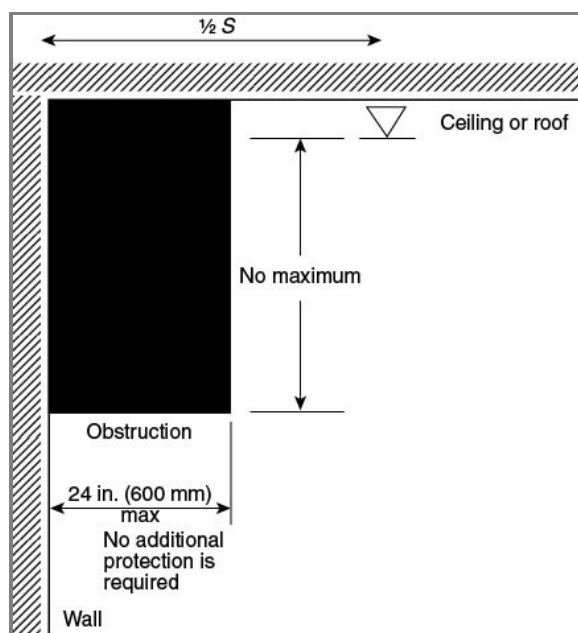


Figure 11.2.5.1.2(c) Obstructions Against Walls (Extended Coverage Upright and Pendent Spray Sprinklers).



Additional Proposed Changes

File Name	Description Approved
2022_EC_Pendent_Hallway.pdf	

Statement of Problem and Substantiation for Public Input

Adds another obstruction allowance for obstructions in hallways. This is being proposed for residential and standard pendants as well. This is also found in NFPA 13D & NFPA 13R.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 281-NFPA 13-2019 [Section No. 12.1.10.1.2]	
Public Input No. 282-NFPA 13-2019 [Section No. 10.2.7.1.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 28 10:42:25 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1131-NFPA 13-2019
Statement: Adds another obstruction allowance for obstructions in hallways. This is being proposed for residential and standard pendants as well. This is also found in NFPA 13D & NFPA 13R.

**Public Input No. 324-NFPA 13-2019 [New Section after 11.2.5.2.2]****11.2.5.2.3**

The distance from sprinklers to freestanding partitions, room dividers, and similar obstructions in ordinary hazard occupancies shall be in accordance with this section.

11.2.5.2.3.1

Sprinklers shall be located within 6 in (150 mm) of the centerline of the freestanding partition, room divider, or similar obstruction.(See figure 11.2.5.2.3.1)

11.2.5.2.3.2

Sprinkler deflectors shall be a minimum of 6" above the top of the freestanding partition, room divider, or similar obstruction.

Additional Proposed Changes

File Name	Description Approved
Divider_EC.pdf	

Statement of Problem and Substantiation for Public Input

Currently the partition rule only applies to light hazard occupancies. When a sprinkler is centered over the obstruction, the obstruction to the distribution pattern is minimal. The most common scenario that utilizes partitions that do not extend to the ceiling are self storage occupancies. As the standard is currently written, a sprinkler must be provided for each storage space as defined by the partial height walls. Many of these storage units are as small as 4 feet square and can create many problems with spacing and cold solder issues. Sprinklers centered over the wall will still provide more than acceptable protection.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 323-NFPA 13-2019 [New Section after 10.2.7.2.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submission Date: Thu May 30 13:18:28 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1132-NFPA 13-2019 Fix diagram and include a 12 in max wall. Make this global. PI 628 is resolved based on action in FR1132](#)

Statement: Currently the partition rule only applies to light hazard occupancies. When a sprinkler is centered over the obstruction, the obstruction to the distribution pattern is minimal. The most common scenario that utilizes partitions that do not extend to the ceiling are self storage occupancies. As the standard is currently written, a sprinkler must be provided for each storage space as defined by the partial height walls. Many of these storage units are as small as 4 feet square and can create many problems with spacing and cold solder issues. Sprinklers centered over the wall will still provide more than

acceptable protection.



Public Input No. 628-NFPA 13-2019 [New Section after 11.2.5.2.2.1]

11.2.5.2.3 Shadow Areas.

Shadow areas created by walls and partitions shall be permitted in the protection area of a sprinkler as long as the cumulative dry areas do not exceed 15 sq ft per sprinkler.

Statement of Problem and Substantiation for Public Input

An identical section was added to the 2019 edition for residential sprinklers. While this is identical to provisions in NFPA 13D and NFPA 13R, this allowance should be acceptable in other types of facilities. Additionally, there are circumstances where non-residential sprinklers may be used for a residential occupancy.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 626-NFPA 13-2019 [New Section after 10.2.7.2.2.1]	
Public Input No. 627-NFPA 13-2019 [New Section after 10.3.6.2.2.1]	
Public Input No. 629-NFPA 13-2019 [New Section after 11.3.6.2.2.1]	
Public Input No. 629-NFPA 13-2019 [New Section after 11.3.6.2.2.1]	

Submitter Information Verification

Submitter Full Name: Christopher Born
Organization: Clark Nexsen, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 12:17:20 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1132-NFPA 13-2019 Fix diagram and include a 12 in max wall. Make this global. PI 628 is resolved based on action in FR1132](#)

Statement: Currently the partition rule only applies to light hazard occupancies. When a sprinkler is centered over the obstruction, the obstruction to the distribution pattern is minimal. The most common scenario that utilizes partitions that do not extend to the ceiling are self storage occupancies. As the standard is currently written, a sprinkler must be provided for each storage space as defined by the partial height walls. Many of these storage units are as small as 4 feet square and can create many problems with spacing and cold solder issues. Sprinklers centered over the wall will still provide more than acceptable protection.



Public Input No. 514-NFPA 13-2019 [Section No. 11.2.6]

~~11.2.6 * – Clearance to Storage (Extended Coverage Upright and Pendent Spray Sprinklers).~~

~~11.2.6.1 –~~

~~The clearance between the deflector and the top of storage shall be 18 in. (450 mm) or greater.~~

~~11.2.6.2 –~~

~~Where other standards specify greater clearance to storage minimums, they shall be followed.~~

Statement of Problem and Substantiation for Public Input

Redundancy. Repeated in section 11.2.7 with the exception of 11.2.6.2. Section 11.2.6.2 will be added to 11.2.7 in separate PI

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 515-NFPA 13-2019 [New Section after 11.2.7.2.2]	related
Public Input No. 515-NFPA 13-2019 [New Section after 11.2.7.2.2]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 11:07:26 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1133-NFPA 13-2019 A.11.2.6 moves to the current section addressing clearance to storage. PI 535 is resolved based on FR 1133.](#)

Statement: Redundancy. Repeated in section 11.2.7 with the exception of 11.2.6.2. Section 11.2.6.2 will be added to 11.2.7 in separate PI



Public Input No. 535-NFPA 13-2019 [Section No. 11.2.6]

11.2.6* Clearance to Storage- Contents of Room (Extended Coverage Upright and Pendent Spray Sprinklers).

11.2.6.1

The clearance between the deflector and the top of storage- contents of the room shall be 18 in. (450 mm) or greater.

11.2.6.2

Where other standards specify greater clearance to storage minimums clearances , they shall be followed.

Statement of Problem and Substantiation for Public Input

This is actually a Global PI but Terraview was not allowing Global input so you'll see the same justification in the linked PIs.

Historically, the criteria on clearance referenced only storage. Since that is a reference to a specific use (aka S occupancies), we technically had no guidance for the occupancy hazard approach. We started down the path of clarification in the 2013 edition when we added in one place (8.5.6.1) the reference to contents of the room. The title, though, still said just storage as did all the repeated criteria throughout the sections by sprinkler type. The recommended changes are more consistent and precise (since contents of the room also covers storage). Where appropriate the reference to storage was retained.

Additionally, despite repeating these criteria for most of the sprinkler types, there is no guidance in chapters 12 and 13. Seems appropriate for the sake of consistency to add some text.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 533-NFPA 13-2019 [Section No. 10.2.8]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 13:51:48 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1133-NFPA 13-2019 A.11.2.6 moves to the current section addressing clearance to storage. PI 535 is resolved based on FR 1133.](#)

Statement: Redundancy. Repeated in section 11.2.7 with the exception of 11.2.6.2. Section 11.2.6.2 will be added to 11.2.7 in separate PI

**Public Input No. 145-NFPA 13-2019 [New Section after 11.2.6.1]****11.2.6.2**

The clearance from the top of storage to sprinkler deflectors shall not be less than 36 in. (900 mm) where rubber tires are stored.

Statement of Problem and Substantiation for Public Input

Extended Coverage Standard Spray sprinklers can protect tire storage (miscellaneous and full storage). Clearance criteria is needed for both.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 15:56:08 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: Based on action in FR 1133

**Public Input No. 144-NFPA 13-2019 [Section No. 11.2.7]****11.2.**

~~7. Clearance to Storage (Extended Coverage Upright and Pendent Spray Sprinklers).~~

11.2.7.1 * –

~~The clearance between the deflector and top of storage shall be~~

6.2 –

~~The 18 in. (460 mm)~~

~~The 18 in. (460 mm)~~

~~or greater.~~

11.2.7.2 –

~~dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 11.2.~~

~~7~~

~~6.2.1.~~

11.2.

~~7~~

6.2.1 –

~~Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane located 18 in. (460 mm) below ceiling sprinkler deflectors.~~

11.2.

~~7~~

6.2.2 –

~~Shelving, and any storage thereon, directly below the sprinklers shall not extend above a plane located 18 in. (460 mm) below the ceiling sprinkler deflectors.~~

Statement of Problem and Substantiation for Public Input

11.2.7 needs to be combined with 11.2.6 to form one section on clearance to storage. Associated Annex Language with 11.2.7 is not correctly located and needs to go elsewhere.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 15:53:42 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: See FR 1133

**Public Input No. 515-NFPA 13-2019 [New Section after 11.2.7.2.2]****TITLE OF NEW CONTENT**

11.2.7.3 Where other standards specify greater clearance to storage minimums, they shall be followed.

Statement of Problem and Substantiation for Public Input

This PI retains section 11.2.6.2 that was deleted as part of PI 415 which deleted redundant info

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 514-NFPA 13-2019 [Section No. 11.2.6]	related
Public Input No. 514-NFPA 13-2019 [Section No. 11.2.6]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 11:10:10 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1134-NFPA 13-2019](#)

Statement: This PI retains section 11.2.6.2 that was deleted as part of PI 415 which deleted redundant info

**Public Input No. 26-NFPA 13-2018 [Section No. 11.3.4.1]****11.3.4.1 Maximum Distance Between Sprinklers.****11.3.4.1.1**

The maximum distance permitted between sprinklers shall be based on the centerline distance between sprinklers on the branch line along the wall.

11.3.4.1.2

Where sprinklers are installed along the length of a single wall of rooms or bays, they shall be spaced in accordance with the maximum spacing provisions of Table 11.3.3.2.1.

11.3.4.1.3

Sidewall sprinklers shall not be installed back-to-back without being separated by a continuous lintel, soffit, or baffle.

11.3.4.1.4

Sidewall sprinklers shall be permitted to be installed on opposing or adjacent walls, provided no sprinkler is located within the maximum protection area of another sprinkler.

11.3.4.1.5

Where sidewall extended spray sprinklers are installed to protect areas below overhead doors within ordinary hazard occupancy spaces or rooms, protection area and maximum sprinkler spacing for light hazard as specified in Table 11.3.3.2.1 shall be permitted under the overhead doors.

Statement of Problem and Substantiation for Public Input

Many overhead doors are larger than 14ft by 14ft (ex: 16ft x 16ft). Currently to protect these areas four standard 5.6K HSW sprinklers or one 11.2K ECHSW. The standard already recognizes that the hazard under these doors can be treated as Light Hazard as identified by the allowance in 10.3.4.1.7, so an 11.2K sprinkler is unnecessary. No Light Hazard allowance exists in the ECHSW section and all 8K ECHSW sprinklers on the market are listed as Light Hazard only. This revision would enable those 8K ECHSW sprinklers to be installed under overhead doors and protection could be provided via one 8K ECHSW sprinkler rather than four standard 5.6K HSW or the unnecessary 11.2K ECHSW.

Submitter Information Verification

Submitter Full Name: Sean Van Gaal

Organization: Aero Automatic Sprinkler Company

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 12 10:04:19 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1135-NFPA 13-2019](#)

Statement: Many overhead doors are larger than 14ft by 14ft (ex: 16ft x 16ft). Currently to protect these areas four standard 5.6K HSW sprinklers or one 11.2K ECHSW. The standard already recognizes that the hazard under these doors can be treated as Light Hazard as identified by the allowance in 10.3.4.1.7, so an 11.2K sprinkler is unnecessary. No Light Hazard allowance exists in the ECHSW section and all 8K ECHSW sprinklers on the market are listed as Light Hazard only. This revision would enable those 8K ECHSW sprinklers to be installed under overhead doors and protection could be provided via one 8K ECHSW sprinkler rather than four standard 5.6K HSW or the unnecessary 11.2K ECHSW.



Public Input No. 516-NFPA 13-2019 [Section No. 11.3.4.1.4]

11.3.4.1.4

Sidewall sprinklers shall be permitted to be installed on opposing or adjacent walls, provided no sprinkler is located within the maximum protection area 8 ft of another sprinkler.

Statement of Problem and Substantiation for Public Input

The wording "maximum protection area" has caused confusion. It is unclear as if this means maximum listed spacing or is it the calculated spacing. 8 ft is the standard minimum distance between sprinklers

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 11:20:54 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1135-NFPA 13-2019](#)

Statement: Many overhead doors are larger than 14ft by 14ft (ex: 16ft x 16ft). Currently to protect these areas four standard 5.6K HSW sprinklers or one 11.2K ECHSW. The standard already recognizes that the hazard under these doors can be treated as Light Hazard as identified by the allowance in 10.3.4.1.7, so an 11.2K sprinkler is unnecessary. No Light Hazard allowance exists in the ECHSW section and all 8K ECHSW sprinklers on the market are listed as Light Hazard only. This revision would enable those 8K ECHSW sprinklers to be installed under overhead doors and protection could be provided via one 8K ECHSW sprinkler rather than four standard 5.6K HSW or the unnecessary 11.2K ECHSW.



Public Input No. 289-NFPA 13-2019 [Section No. 11.3.6.1.4]

11.3.6.1.4

Continuous obstructions projecting from the same wall as the one on which the sidewall sprinkler is mounted shall be in accordance with one of the following arrangements:

- (1) Sprinklers shall be installed in accordance with Table 11.3.6.1.4 and Figure 11.3.6.1.4(a).
- (2) Sprinklers shall be permitted to be spaced on opposite sides of obstructions less than 4 ft (1.2 m) in width where the distance from the centerline of the obstruction to the sprinklers does not exceed one-half the allowable distance between sprinklers.
- (3) Obstructions located against the wall and that are not over 30 in. (750 mm) in width shall be permitted to be protected in accordance with Figure 11.3.6.1.4(b).
- (4) Obstructions located against the wall and that are not over 24 in. (600 mm) in width shall be permitted to be protected in accordance with Figure 11.3.6.1.4(c). The maximum distance between the sprinkler and the wall shall be measured from the sprinkler to the wall behind the obstruction and not to the face of the obstruction.
- (5) Obstructions in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with figure 11.3.6.1.4(d) when the sprinkler is located in the allowable obstruction zone.

Table 11.3.6.1.4 Positioning of Sprinklers to Avoid Obstructions Along Wall (Extended Coverage Sidewall Spray Sprinklers)

<u>Distance from Sidewall Sprinkler to Side of Obstruction (A)</u>	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B) [in. (mm)]</u>
Less than 1 ft 6 in. (450 mm)	0 (0)
1 ft 6 in. (450 mm) to less than 3 ft (900 mm)	1 (25)
3 ft (900 mm) to less than 4 ft (1.2 m)	3 (75)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	5 (125)
4 ft 6 in. (1.4 m) to less than 6 ft (1.5 m)	7 (175)
6 ft (1.5 m) to less than 6 ft 6 in. (2.0 m)	9 (225)
6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)	11 (275)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	14 (350)

Note: For A and B, refer to Figure 11.3.6.1.4(a).

Figure 11.3.6.1.4(a) Positioning of Sprinkler to Avoid Obstruction Along Wall (Extended Coverage Sidewall Spray Sprinklers).

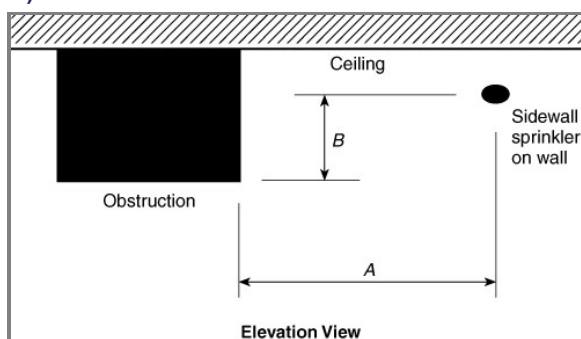


Figure 11.3.6.1.4(b) Obstruction Against Wall (Extended Coverage Sidewall Spray Sprinklers).

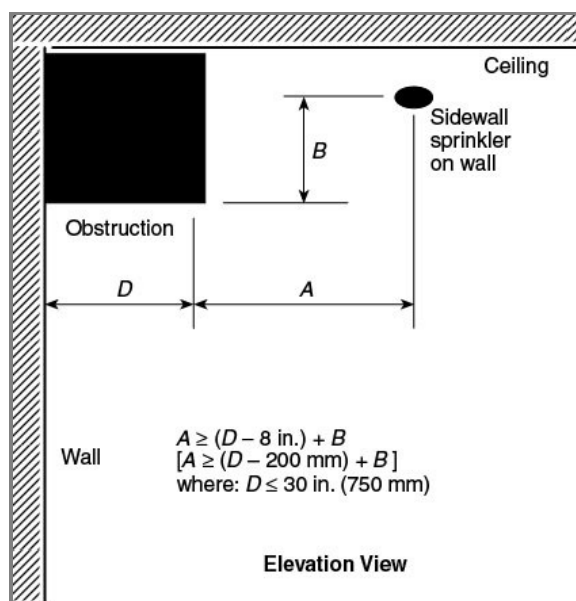
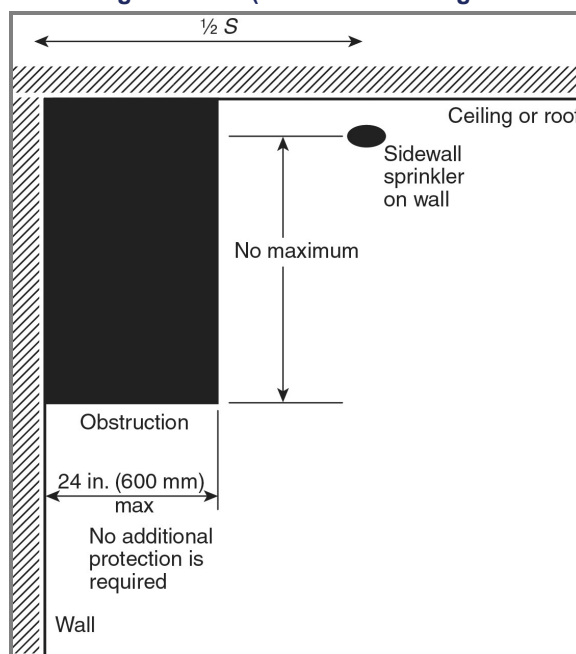


Figure 11.3.6.1.4(c) Obstruction Against Wall (Extended Coverage Sidewall Spray Sprinklers).



Additional Proposed Changes

File Name	Description Approved
2022_hallway_obstruction_EC_sidewall.pdf	

Statement of Problem and Substantiation for Public Input

Adds another obstruction allowance for obstructions in hallways. This is being proposed for residential and standard sidewalls as well. This is also found in NFPA 13D & NFPA 13R.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 285-NFPA 13-2019 [Section No. 12.1.11.1.4]	
Public Input No. 286-NFPA 13-2019 [New Section after 10.3.6.1.6]	

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 28 14:08:08 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1137-NFPA 13-2019](#)

Statement: Adds another obstruction allowance for obstructions in hallways. This is being proposed for residential and standard sidewalls as well. This is also found in NFPA 13D & NFPA 13R.



Public Input No. 629-NFPA 13-2019 [New Section after 11.3.6.2.2.1]

11.3.6.2.3 Shadow Areas.

Shadow areas created by walls and partitions shall be permitted in the protection area of a sprinkler as long as the cumulative dry areas do not exceed 15 sq ft per sprinkler.

Statement of Problem and Substantiation for Public Input

An identical section was added to the 2019 edition for residential sprinklers. While this is identical to provisions in NFPA 13D and NFPA 13R, this allowance should be acceptable in other types of facilities. Additionally, there are circumstances where non-residential sprinklers may be used for a residential occupancy.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 626-NFPA 13-2019 [New Section after 10.2.7.2.2.1]	
Public Input No. 627-NFPA 13-2019 [New Section after 10.3.6.2.2.1]	
Public Input No. 628-NFPA 13-2019 [New Section after 11.2.5.2.2.1]	
Public Input No. 628-NFPA 13-2019 [New Section after 11.2.5.2.2.1]	

Submitter Information Verification

Submitter Full Name: Christopher Born
Organization: Clark Nexsen, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 12:19:52 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Current spacing rules allow potentially larger shadow areas.



Public Input No. 149-NFPA 13-2019 [New Section after 11.3.7]

11.3.7.1

The 18 in. (450 mm) dimension shall not limit the height of shelving on a wall in accordance with 11.3.7.1.1

11.3.7.1.1

Where shelving is installed on a wall and is not directly below the sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane located 18 in. (450 mm) below the sprinkler deflectors.

11.3.7.1.2

Shelving, and any storage thereon, directly below the sprinklers shall not extend above a plane located 18 in. (450 mm) below the ceiling sprinkler deflectors.

11.3.7.2

Where other standards specify greater clearance to storage minimums, they shall be followed.

Statement of Problem and Substantiation for Public Input

Needed for consistent allowance for clearance to storage.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 16:08:18 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1139-NFPA 13-2019 PI 536 is resolved based on FR 1139

Statement: Needed for consistent allowance for clearance to storage.

**Public Input No. 536-NFPA 13-2019 [Section No. 11.3.7]****11.3.7 Clearance to Storage- Contents of teh Room (Extended Coverage Sidewall Spray Sprinklers).**

The clearance between the deflector and the top of storage- contents of the room shall be 18 in. (450 mm) or greater.

Statement of Problem and Substantiation for Public Input

This is actually a Global PI but Terraview was not allowing Global input so you'll see the same justification in the linked PIs.

Historically, the criteria on clearance referenced only storage. Since that is a reference to a specific use (aka S occupancies), we technically had no guidance for the occupancy hazard approach. We started down the path of clarification in the 2013 edition when we added in one place (8.5.6.1) the reference to contents of the room. The title, though, still said just storage as did all the repeated criteria throughout the sections by sprinkler type. The recommended changes are more consistent and precise (since contents of the room also covers storage). Where appropriate the reference to storage was retained.

Additionally, despite repeating these criteria for most of the sprinkler types, there is no guidance in chapters 12 and 13. Seems appropriate for the sake of consistency to add some text.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 533-NFPA 13-2019 [Section No. 10.2.8]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 13:54:38 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1139-NFPA 13-2019 PI 536](#) is resolved based on [FR 1139](#)

Statement: Needed for consistent allowance for clearance to storage.



Public Input No. 434-NFPA 13-2019 [New Section after 12.1.1]

12.1.1.1

Residential sprinklers shall be permitted to be used in corridors of residential occupancies outside of rooms that are not dwelling units provided the doors are self closing in accordance with 19.3.3.3.5.

Statement of Problem and Substantiation for Public Input

There should be an allowance to use residential sprinklers in the corridors that are accessing rooms such as laundry, mechanical, non-residential provided the doors are self closing.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 436-NFPA 13-2019 [Section No. A.12.1.1]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 09:36:25 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: This allowance is already addressed in the annex.



Public Input No. 432-NFPA 13-2019 [New Section after 12.1.4]

12.1.4.1

Residential sprinklers shall be permitted to be installed adjacent to quick response sprinklers in corridors of residential occupancies.

Statement of Problem and Substantiation for Public Input

In many hotels and apartment buildings protected with NFPA 13, residential sprinklers are used in corridors/hallways outside of the dwelling units. Once the corridor is servicing rooms such as maintenance, laundry, lobbies, etc. then standard spray sprinklers are required. There is usually not the appropriate compartmentalization separating these areas.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 09:28:29 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Based on action taken on EC and standard coverage sprinklers.



Public Input No. 433-NFPA 13-2019 [Section No. 12.1.6.2]

12.1.6.2 –

~~Residential sprinklers shall not be permitted to be used on ceilings with slopes greater than 8 in 12 or ceiling with heights greater than 24 ft (7.3 m) unless specifically listed for this purpose.~~

Statement of Problem and Substantiation for Public Input

Conflicts with Section 12.1.2

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 09:33:09 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1142-NFPA 13-2019](#)

Statement: Conflicts with Section 12.1.2



Public Input No. 690-NFPA 13-2019 [Section No. 12.1.8.1.2]

12.1.8.1.2

Pendent-type residential sprinklers located under or adjacent to beams shall be installed in accordance with one of the following:

- (1) Pendent, recessed pendent, concealed, and flush-type pendent sprinklers shall be permitted to be installed directly under a beam having a maximum depth of 14 in. (350 mm) with the sprinkler deflector 1 in. to 2 in. (25 mm to 50 mm) below the beam, or in accordance with the manufacturer's instructions for recessed or flush sprinklers if the deflector is less than 1 in. (25 mm) below the beam, as shown in Figure 12.1.8.1.2(a).
- (2) Pendent sprinklers shall be permitted to be installed adjacent to beams where the vertical centerline of the sprinkler is no greater than 2 in. (50 mm) from the edge of the beam and with the sprinkler deflector 1 in. to 2 in. (25 mm to 50 mm) below the beam, or in accordance with the manufacturer's instructions for flush sprinklers if the deflector is less than 1 in. (25 mm) below the beam, as shown in Figure 12.1.8.1.2(b).

Figure 12.1.8.1.2(a) Position of Sprinkler Under Beam.

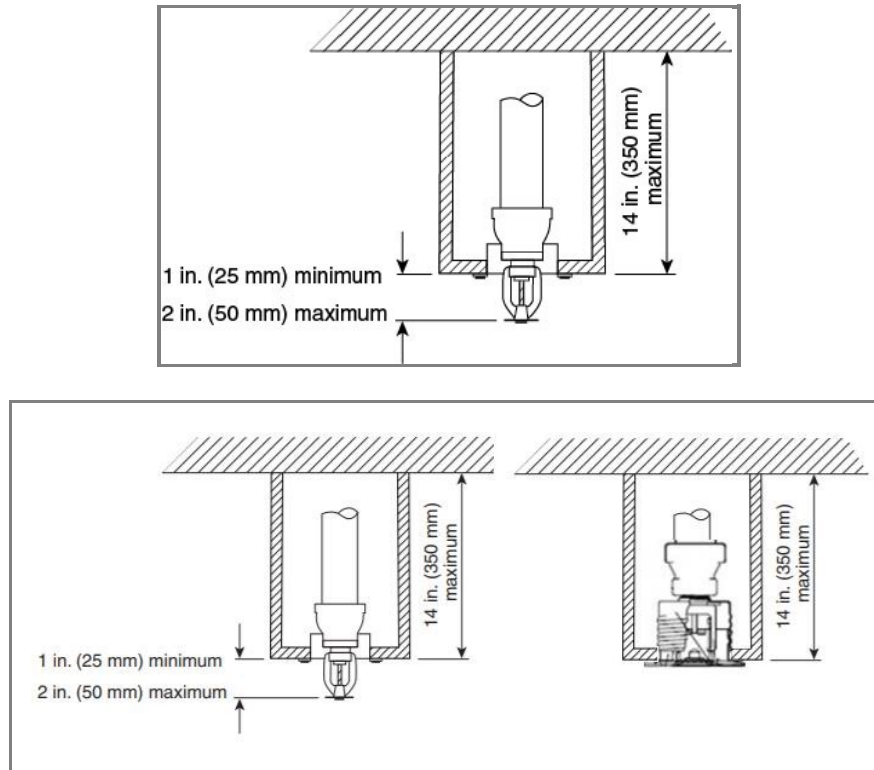
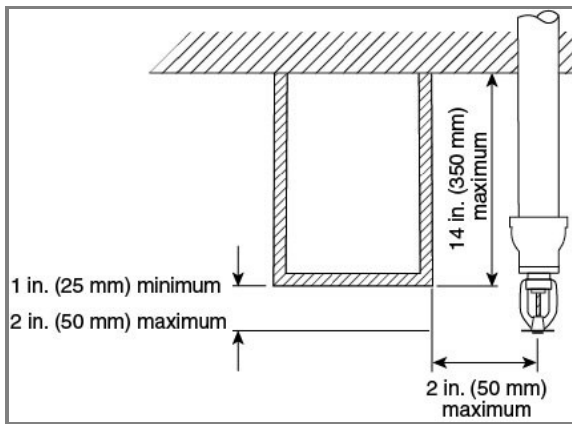


Figure 12.1.8.1.2(b) Position of Sprinkler Adjacent to Beam.



Statement of Problem and Substantiation for Public Input

This change serves to allow concealed sprinklers on the face on beams. Testing at UL have showed that there are conditions where installation of a sprinkler on the face of a beam results in faster sprinkler activation time than installation of the same sprinkler in a bay.

Submitter Information Verification

Submitter Full Name: Mark Fessenden
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 18:11:44 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1144-NFPA 13-2019](#)

Statement: This change serves to allow concealed sprinklers on the face on beams. Testing at UL have showed that

there are conditions where installation of a sprinkler on the face of a beam results in faster sprinkler activation time than installation of the same sprinkler in a bay.

**Public Input No. 691-NFPA 13-2019 [Section No. 12.1.8.1.3]****12.1.8.1.3 –**

~~Concealed sprinklers shall be permitted to be installed in beams not greater than 4 in. (100 mm) in depth.~~

Statement of Problem and Substantiation for Public Input

See related PI 690

Submitter Information Verification

Submitter Full Name: Mark Fessenden

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 18:14:40 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1145-NFPA 13-2019

Statement: See related PI 690



Public Input No. 281-NFPA 13-2019 [Section No. 12.1.10.1.2]

12.1.10.1.2

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Sprinklers shall be in accordance with 9.5.5.2, Table 12.1.10.1.2, and Figure 12.1.10.1.2(a).
- (2) Sprinklers shall be permitted to be spaced on opposite sides of obstructions not exceeding 4 ft (1.2 m) in width, provided the distance from the centerline of the obstruction to the sprinklers does not exceed one-half the allowable distance permitted between sprinklers.
- (3) Obstructions located against the wall and that are not over 30 in. (750 mm) in width shall be permitted to be protected in accordance with Figure 12.1.10.1.2(b).
- (4) Obstructions that are located against the wall and that are not over 24 in. (600 mm) in width shall be permitted to be protected in accordance with Figure 12.1.10.1.2(c). The maximum distance between the sprinkler and the wall shall be measured from the sprinkler to the wall behind the obstruction and not to the face of the obstruction.
- (5) Obstructions in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with figure 12.1.10.1.2(d) when the sprinkler is located in the allowable obstruction zone.

Table 12.1.10.1.2 Positioning of Sprinklers to Avoid Obstructions to Discharge (Residential Upright and Pendent Spray Sprinklers)

<u>Distance from Sprinklers to Side of Obstruction (A)</u>	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B) [in. (mm)]</u>
Less than 1 ft (300 mm)	0 (0)
<u>1 ft (300 mm) to less than 1 ft 6 in. (450 mm)</u>	<u>0 (0)</u>
<u>1 ft 6 in. (450 mm) to less than 2 ft (600 mm)</u>	<u>1 (25)</u>
<u>2 ft (600 mm) to less than 2 ft 6 in. (750 mm)</u>	<u>1 (25)</u>
<u>2 ft 6 in. (750 mm) to less than 3 ft (900 mm)</u>	<u>1 (25)</u>
<u>3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)</u>	<u>3 (75)</u>
<u>3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)</u>	<u>3 (75)</u>
<u>4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)</u>	<u>5 (125)</u>
<u>4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)</u>	<u>7 (175)</u>
<u>5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)</u>	<u>7 (175)</u>
<u>5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)</u>	<u>7 (175)</u>
<u>6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)</u>	<u>9 (225)</u>
<u>6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)</u>	<u>11 (275)</u>
<u>7 ft (2.1 m) and greater</u>	<u>14 (350)</u>

Note: For A and B, refer to Figure 12.1.10.1.2(a).

Figure 12.1.10.1.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (Residential Upright and Pendent Spray Sprinklers).

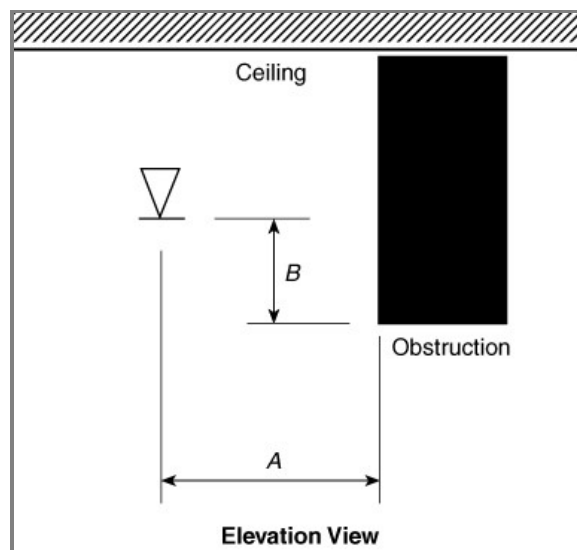


Figure 12.1.10.1.2(b) Obstructions Against Wall (Residential Upright and Pendent Spray Sprinklers).

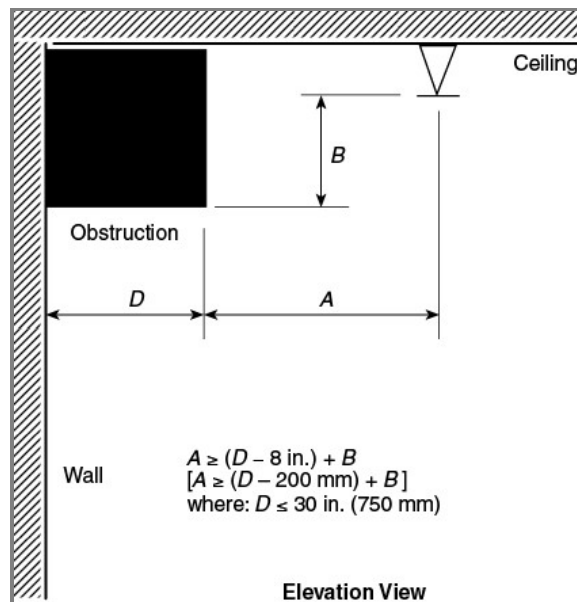
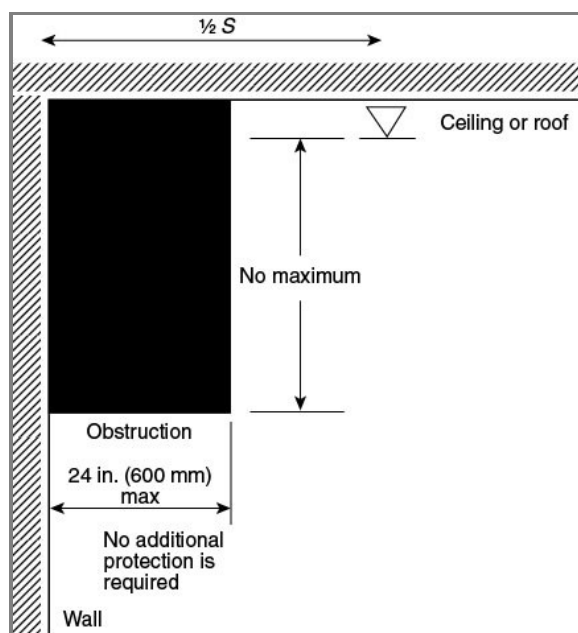


Figure 12.1.10.1.2(c) Obstructions Against Wall (Measurements for Residential Upright and Pendent Spray Sprinklers).



Additional Proposed Changes

File Name	Description Approved
2022_Residential_Pendent_Hallway.pdf	

Statement of Problem and Substantiation for Public Input

Add obstruction allowance for residential pendants in hallways. Correlates with NFPA 13d & NFPA 13R

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 282-NFPA 13-2019 [Section No. 10.2.7.1.2]	
Public Input No. 283-NFPA 13-2019 [Section No. 11.2.5.1.2]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submission Date: Tue May 28 10:26:36 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1146-NFPA 13-2019](#)
Statement: Add obstruction allowance for residential pendants in hallways. Correlates with NFPA 13d & NFPA 13R



Public Input No. 152-NFPA 13-2019 [New Section after 12.1.10.3.3]

12.1.10.4 Clearance to Storage (Residential Sprinklers).

12.1.10.4.1 The clearance between the sprinkler deflector and the top of storage shall be 18 in. (450 mm) or greater.

12.1.10.4.2 The 18 in. (450 mm) dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 12.1.10.4.

12.1.10.4.2.1 Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane located 18 in. (450 mm) below the ceiling sprinkler deflectors.

12.1.10.4.2.2 Shelving, and any storage thereon, directly below sprinklers shall not extend above a plane located 36 in. (900 mm) below the ceiling sprinkler deflectors.

12.1.10.4.3 Where other standards specify greater clearance to storage minimums, they shall be followed.

Statement of Problem and Substantiation for Public Input

The clearance to storage criteria for each type of sprinkler should be consistent.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon Mar 11 11:44:21 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Storage is not contemplated in residential occupancies.



Public Input No. 285-NFPA 13-2019 [Section No. 12.1.11.1.4]

12.1.11.1.4

Continuous obstructions projecting from the same wall as the one on which the sidewall sprinkler is mounted shall be in accordance with one of the following arrangements:

- (1) Sprinklers shall be in accordance with Table 12.1.11.1.4 and Figure 12.1.11.1.4(a).
- (2) Sprinklers shall be permitted to be spaced on opposite sides of obstructions less than 4 ft (1.2 m) in width where the distance from the centerline of the obstruction to the sprinklers does not exceed one-half the allowable distance between sprinklers.
- (3) Obstructions located against the wall and that are not over 30 in. (750 mm) in width shall be permitted to be protected in accordance with Figure 12.1.11.1.4(b).
- (4) Obstructions located against the wall and that are not over 24 in. (600 mm) in width shall be permitted to be protected in accordance with Figure 12.1.11.1.4(c). The maximum distance between the sprinkler and the wall shall be measured from the sprinkler to the wall behind the obstruction and not to the face of the obstruction.
- (5) Obstructions in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with figure 12.1.11.1.4(d) when the sprinkler is located in the allowable obstruction zone.

Table 12.1.11.1.4 Positioning of Sprinklers to Avoid Obstructions Along Wall (Residential Sidewall Sprinklers)

<u>Distance from Sidewall Sprinkler to Side of Obstruction (A)</u>	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>
	<u>[in. (mm)]</u>
Less than 1 ft 6 in. (450 mm)	0 (0)
1 ft 6 in. (450 mm) to less than 3 ft (900 mm)	1 (25)
3 ft (900 mm) to less than 4 ft (1.2 m)	3 (75)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	5 (125)
4 ft 6 in. (1.4 m) to less than 6 ft (1.8 m)	7 (175)
6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)	9 (225)
6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)	11 (275)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	14 (350)

Note: For A and B, refer to Figure 12.1.11.1.4(a).

Figure 12.1.11.1.4(a) Positioning of Sprinkler to Avoid Obstruction Along Wall (Residential Sidewall Sprinklers).

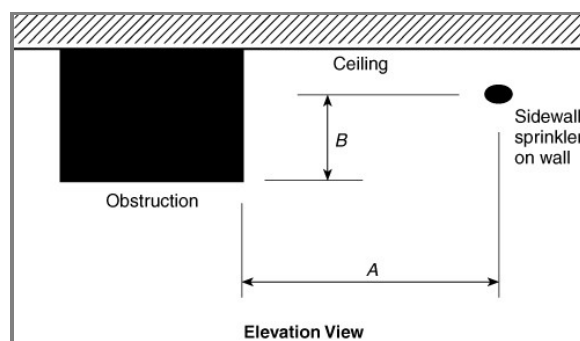


Figure 12.1.11.1.4(b) Obstruction Against Wall (Residential Sidewall Spray Sprinklers).

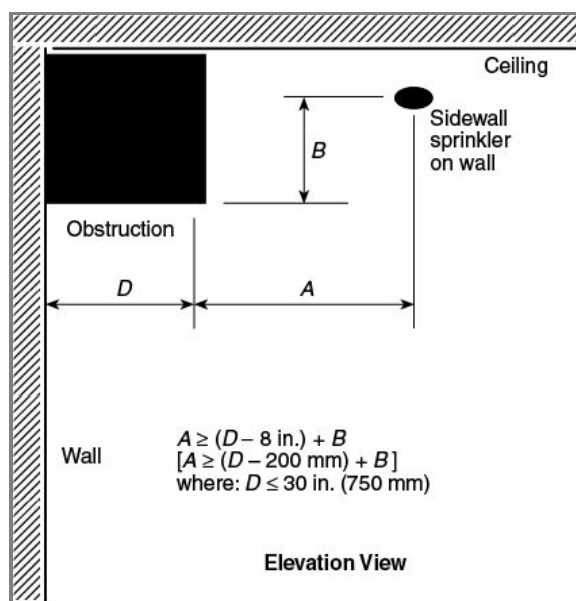
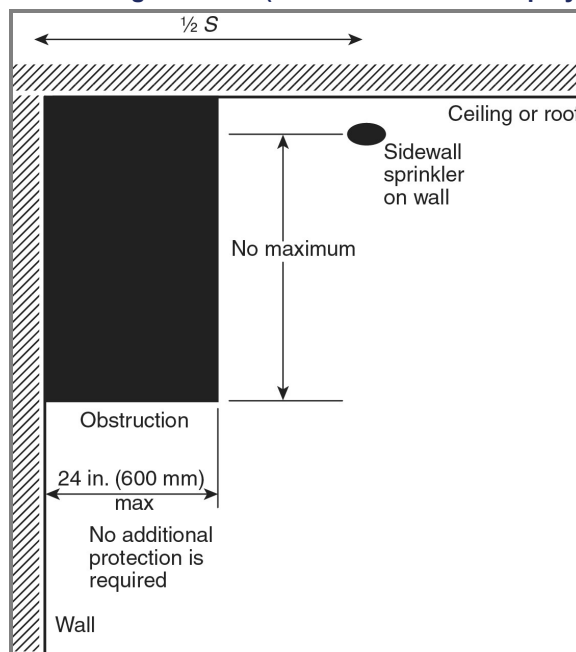


Figure 12.1.11.1.4(c) Obstruction Against Wall (Residential Sidewall Spray Sprinklers).



Additional Proposed Changes

File Name	Description Approved
2022_hallway_obstruction_residential_sidewall.pdf	

Statement of Problem and Substantiation for Public Input

Add obstruction allowance for residential sidewalls in hallways. Correlates with NFPA 13D & NFPA 13R

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 286-NFPA 13-2019 [New Section after 10.3.6.1.6]	
Public Input No. 289-NFPA 13-2019 [Section No. 11.3.6.1.4]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler

Committee Statement

City:
Resolution: [FR-1149-NFPA 13-2019](#)
State:
Statement: Add obstruction allowance for residential sidewalls in hallways. Correlates with NFPA 13D &
Zip: NFPA 13R

Submittal Date: Tue May 28 13:22:11 EDT 2019

Committee: AUT-SSI

**Public Input No. 279-NFPA 13-2019 [Section No. 12.1.11.1.6]****12.1.11.1.6 ***

Obstructions on the wall opposite from the sidewall sprinkler shall be permitted where the obstruction is up to 2-ft- 30 inches (600-mm 762 mm) deep and 2-ft- 30 inches (600-mm 762 mm) wide.

Statement of Problem and Substantiation for Public Input

Change dimensions from 24 inches to 30 inches to correlate with NFPA 13R & NFPA 13D. If accepted, need to verify if the metric dimension is correct.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 28 09:57:49 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1150-NFPA 13-2019](#)

Statement: Change dimensions from 24 inches to 30 inches to correlate with NFPA 13R & NFPA 13D. If accepted, need to verify if the metric dimension is correct.

**Public Input No. 153-NFPA 13-2019 [New Section after 12.1.11.3.5]****12.1.11.4 Clearance to Storage (Residential Sprinklers)**

12.1.11.4.1 The clearance between the deflector and the top of storage shall be 18 in. (450 mm) or greater.

12.1.11.4.2 The 18 in. (450 mm) dimension shall not limit the height of shelving on a wall or against a wall in accordance with 12.1.11.4.

12.1.11.4.2.1 Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane 18 in. (450 mm) below the ceiling sprinkler deflectors.

12.1.11.4.2.2 Shelving, and any storage thereon, directly below sprinklers shall not extend above a plane located 18 in. (450 mm) below the ceiling sprinkler deflectors.

12.1.11.4.3 Where other standards specify greater clearance to storage minimums, they shall be followed.

Statement of Problem and Substantiation for Public Input

The clearance to storage criteria for each type of sprinkler should be consistent.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon Mar 11 12:06:18 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See action on PI 152.



Public Input No. 280-NFPA 13-2019 [Section No. 12.1.12.2]

12.1.12.2

The requirement of 12.1.12.1 shall not apply where all of the following requirements are met:

- (1) The total volume of the unprotected ceiling pocket does not exceed 100 ft³ (2.8 m³).
- (2) The depth of the unprotected ceiling pocket does not exceed 12 in. (300 mm).
- (3) The entire floor of the unprotected ceiling pocket is protected by the either residential pendent or residential sidewall sprinklers at the lower ceiling elevation.
- (4) The interior finish of the unprotected ceiling pocket is noncombustible or limited-combustible construction.

Statement of Problem and Substantiation for Public Input

The ceiling pocket rules for standard sprinklers and EC sprinklers do not include sidewalls. The way the standard is currently written for residential sprinklers, the ceiling pocket rules can be applied to both pendants and sidewalls. The standard should state this. Since the pocket size is considerably less for residential sprinklers (100 verses 1000 cubic feet), it should be allowed.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 28 10:04:02 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1151-NFPA 13-2019 It is intended that any type of residential sprinkler is permitted. PI 520 is resolved based on FR 1151

Statement: The ceiling pocket rules for standard sprinklers and EC sprinklers do not include sidewalls. The way the standard is currently written for residential sprinklers, the ceiling pocket rules can be applied to both pendants and sidewalls. The standard should state this. Since the pocket size is considerably less for residential sprinklers (100 verses 1000 cubic feet), it should be allowed.



Public Input No. 520-NFPA 13-2019 [Section No. 12.1.12.2]

12.1.12.2

The requirement of 12.1.12.1 shall not apply where all of the following requirements are met:

- (1) The total volume of the unprotected ceiling pocket does not exceed 100 ft³ (2.8 m³).
- (2) The depth of the unprotected ceiling pocket does not exceed 12 in. (300 mm).
- (3) The entire floor of the unprotected ceiling pocket is protected by the sidewall or pendent sprinklers at the lower ceiling elevation.
- (4) The interior finish of the unprotected ceiling pocket is noncombustible or limited-combustible construction.

Statement of Problem and Substantiation for Public Input

This PI makes it clear that residential sprinklers (pendent and sidewall) are permitted with unprotected ceiling pockets. Section 12.2 applies to all residential sprinklers but section 12.1.1 requires Flat ceilings. A ceiling pocket by definition is not a flat ceiling.

If accepted, the ceiling pocket rules need to correlated with NFPA 13R and NFPA 13D

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 11:40:49 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1151-NFPA 13-2019 It is intended that any type of residential sprinkler is permitted. PI 520 is resolved based on FR 1151

Statement: The ceiling pocket rules for standard sprinklers and EC sprinklers do not include sidewalls. The way the standard is currently written for residential sprinklers, the ceiling pocket rules can be applied to both pendants and sidewalls. The standard should state this. Since the pocket size is considerably less for residential sprinklers (100 verses 1000 cubic feet), it should be allowed.



Public Input No. 156-NFPA 13-2019 [New Section after 13.2.6.4]

13.2.6.4.1 Sprinklers shall be permitted to be placed less than 8 ft (2.4 m) on center where the following conditions are satisfied:

- (1) Baffles shall be arranged to protect the actuating elements.
- (2) Baffles shall be solid and rigid material that will stay in place before and during sprinkler operation.
- (3) Baffles shall be not less than 8 in. (200 mm) long and 6 in. (150 mm) high.
- (4) The tops of baffles shall extend between 2 in. and 3 in. (50 mm and 75 mm) above the deflectors of upright sprinklers.
- (5) The bottoms of baffles shall extend downward to a level at least even with the deflectors of pendent sprinklers.

Statement of Problem and Substantiation for Public Input

Provisions for the installation of baffles are needed for CMSA sprinklers.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Mon Mar 11 13:30:32 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Submitter should provide additional data to verify the use of baffles with CMSA sprinklers.



Public Input No. 150-NFPA 13-2019 [Section No. 13.2.9]

13.2.9 Clearance to Storage (CMSA Sprinklers).

13.2.9.1 The clearance between the deflector and the top of storage shall be 36 in. (900 mm) or greater.

13.2.9.2 The 36 in. (900 mm) dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 13.2.9.

13.2.9.2.1 Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane located 36 in. (900 mm) below the ceiling sprinkler deflectors.

13.2.9.2.2 Shelving, and any storage thereon, directly below sprinklers shall not extend above a plane located 36 in. (900 mm) below the ceiling sprinkler deflectors.

13.2.9.3 Where other standards specify greater clearance to storage minimums, they shall be followed.

Statement of Problem and Substantiation for Public Input

The clearance to storage criteria for each type of sprinkler should be consistent.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submission Date: Mon Mar 11 10:23:07 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Guidelines require a clearance of 36". There is no data provided to support for the reduction of clearances.



Public Input No. 245-NFPA 13-2019 [Sections 14.2.4.1, 14.2.4.2]

Sections 14.2.4.1, 14.2.4.2

14.2.4.1

Where depths of the solid structural members ~~(beams, stem, and so forth) exceed~~ members exceed 12 in. (300 mm), ESFR sprinklers shall be installed in each channel formed by the solid structural members .

~~14.2.4.2~~ –

~~Minimum~~ as long as the minimum sprinkler spacing and area of coverage shall ~~comply with the~~ requirements of 14.2.8 and 14.2.9 .

14.2.4.2 –

Where the minimum sprinkler spacing of 14.2.9.4 cannot be achieved between ESFR sprinklers in separate channels, or the minimum spacing of 14.2.8.3 cannot be provided, ESFR sprinklers shall not be installed.

Statement of Problem and Substantiation for Public Input

These two sections first came into NFPA 13 through a TIA to the 1999 edition (TIA 99-2). When they came into the standard, they were in one section to make it clear that you had to install ESFR sprinklers in every channel formed by the construction, but if the structural members were too close together, then you could not use ESFR sprinklers at all. This was backed up by a long Annex note.

When the committee brought the information into the 2002 edition, the two ideas were still in one section, but the Annex note was dropped since the committee thought that the subject was clear. Then in 2010, the concepts were separated into two separate sections because the word "shall" appeared twice and the style manual forced the issue to be separated. Since then, there have been serious misunderstandings about the intent of NFPA 13 and whether a solid structural member allows the installation of ESFR sprinklers in separate channels. The standard has never allowed that, but you have to put two separate sections together to understand the situation, and many people don't.

Submitter Information Verification

Submitter Full Name: Kenneth Isman

Organization: University of Maryland

Street Address:

City:

State:

Zip:

Submission Date: Sat May 11 21:21:24 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Testing has indicated that skipping does not occur with ESFR sprinklers in obstructed ceiling construction where sprinklers are located in each ceiling channel..



Public Input No. 570-NFPA 13-2019 [Section No. 14.2.5.1]

14.2.5.1

Where ESFR sprinkler systems are installed adjacent to sprinkler systems with standard-response sprinklers, a draft curtain of ~~noncombustible construction and at~~ of at least 2 ft (600 mm) in depth shall be required to separate the two areas.

Statement of Problem and Substantiation for Public Input

The definition of draft curtain in section 3.3.57 does not require a draft curtain to be non-combustible. A wood glulam beam meeting the depth requirements can be a draft curtain.

Submitter Information Verification

Submitter Full Name: John Deutsch
Organization: Shambaugh and Sons
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 09 10:39:52 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The intent is to provide something substantial to contain heat and smoke. The submitter opens the door to other materials that would not contain.



Public Input No. 39-NFPA 13-2019 [Section No. 14.2.6]

14.2.6 Temperature Ratings.

Sprinkler temperature ratings for ESFR sprinklers shall be ~~ordinary unless in accordance with 9.4.2~~ requires intermediate or high temperature ratings .

Statement of Problem and Substantiation for Public Input

It is acceptable to install ordinary or intermediate sprinklers throughout. This section conflicts with 9.4.2.1.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 40-NFPA 13-2019 [Section No. 9.4.2.1]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jan 03 08:13:50 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: ESFR sprinklers are intended to be ordinary temperature.



Public Input No. 545-NFPA 13-2019 [New Section after 14.2.7]

TITLE OF NEW CONTENT

14.2.7.1 When ESFR sprinklers are used for the protection of light or ordinary hazard occupancies, sections 14.2.8.7.1.1 through 14.2.7.1.4 shall be permitted

14.2.7.1.1 In light hazard occupancies the protection areas limitations of ESFR sprinklers meet the protection area requirements of Table 10.2.4.2.1(a)

14.2.7.1.2 In ordinary hazard occupancies the protection areas limitations of ESFR sprinklers meet the protection area requirements of Table 10.2.4.2.1(b)

14.2.7.1.3 In light and ordinary hazard occupancies the sprinkler spacing of ESFR sprinklers shall be meet the sprinkler spacing requirements of section 10.2.5

14.2.7.1.4 In light and ordinary hazard occupancies the obstruction to the sprinkler discharge pattern of ESFR sprinklers shall be meet the obstruction discharge requirements of section 10.2.7.2

Statement of Problem and Substantiation for Public Input

Section 14.2.7 allows ESFR sprinklers designed to the criteria of Chapter 23 or 24 to be used to protect light and ordinary hazard occupancies. In light and ordinary hazard occupancies, the storage protection criteria is overkill. This proposed section will allow ESFR sprinklers to protect light and ordinary hazard occupancies using the protection area, spacing, and obstruction requirements for standard spray sprinklers. Given the characteristics of ESFR sprinklers and the hazard being protected, this will provide sufficient protection of these light and ordinary hazard areas.

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submission Date: Fri Jun 07 14:31:37 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The use of ESFR sprinklers in light and ordinary hazards should still follow the same guidelines until further substantiation is submitted.

**Public Input No. 546-NFPA 13-2019 [New Section after 14.2.7]****TITLE OF NEW CONTENT**

14.2.7.2 ESFR sprinklers shall not be used to protect any hazard incompatible with Quick Response sprinklers

Statement of Problem and Substantiation for Public Input

ESFR sprinklers are a type of fast response sprinklers and as such should not be used where the use of quick response sprinklers is not permitted

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 14:59:04 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The information is already contained in the standard in other locations.

**Public Input No. 407-NFPA 13-2019 [Section No. 14.2.8.2.4]****14.2.8.2.4 –**

Deviations from the maximum sprinkler spacing shall be permitted to eliminate obstructions created by structural elements (such as trusses, bar joists, and wind bracing) by moving a sprinkler along the branch line a maximum of 1 ft (300 mm) from its allowable spacing, provided coverage for that sprinkler does not exceed 110 ft² (10 m²) per sprinkler where all of the following conditions are met:

- (1) The average actual floor area protected by the moved sprinkler and the adjacent sprinklers shall not exceed 100 ft² (9 m²).
- (2) Adjacent branch lines shall maintain the same pattern.
- (3) In no case shall the distance between sprinklers exceed 12 ft (3.7 m).

Statement of Problem and Substantiation for Public Input

Section 14.2.8.2.4 is a duplicate of 14.2.8.2.3. This seems to be a mistake when reorganizing in the last revision cycle. This section should be changed back to what it was in the 2016 edition of the standard.

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 04 16:15:36 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1061-NFPA 13-2019](#)

Statement: Section 14.2.8.2.4 is a duplicate of 14.2.8.2.3. This seems to be a mistake when reorganizing in the last revision cycle. This section should be changed back to what it was in the 2016 edition of the standard.



Public Input No. 157-NFPA 13-2019 [New Section after 14.2.9.4]

14.2.9.4.1 Sprinklers shall be permitted to be placed less than 8 ft (2.4 m) on center where the following conditions are satisfied:

- (1) Baffles shall be arranged to protect the acutating elements.
- (2) Baffles shall be of solid and rigid material that will stay in place before and during sprinkler operation.
- (3) Baffles shall be not less than 8 in. (200 mm) long and 6 in. (150 mm) high.
- (4) The tops of baffles shall extend between 2 in. and 3 in. (50 mm and 75 mm) above the deflectors of upright sprinklers.
- (5) The bottoms of baffles shall extend downward to a level at least even with the deflectors of pendent sprinklers.

Statement of Problem and Substantiation for Public Input

Provisions for baffles and needed for ESFR sprinklers.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submission Date: Mon Mar 11 13:51:37 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Submitter should provide data to verify the use of baffles. Link PI # 156

**Public Input No. 82-NFPA 13-2019 [Sections 14.2.10.1.1, 14.2.10.1.2]****Sections 14.2.10.1.1, 14.2.10.1.2****14.2.10.1.1**

Pendent sprinklers with a nominal K-factor of K-14 (200) shall be positioned so that deflectors are a maximum 14 in. (350 mm) and a minimum 6 in. (150 mm) below the ceiling.

~~14.2.10.1.2~~

~~Pendent sprinklers with a nominal K-factor of K- 16.8 (240) shall be positioned so that deflectors are a maximum 14 in. (350 mm) and a minimum 6 in. (150 mm) below the ceiling.~~

Statement of Problem and Substantiation for Public Input

14.2.10.1.1 and 14.2.10.1.2 need to be combined since they include the same mandate for two different K-Factors

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Wed Feb 13 16:02:19 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1062-NFPA 13-2019](#)

Statement: 14.2.10.1.1 and 14.2.10.1.2 need to be combined since they include the same mandate for two different K-Factors



Public Input No. 83-NFPA 13-2019 [Sections 14.2.10.1.4, 14.2.10.1.5]

Sections 14.2.10.1.4, 14.2.10.1.5

14.2.10.1.4

Upright sprinklers with a nominal K-factor of K-14 (200) and K-16.8 shall be positioned so that the deflector is 3 in. to 12 in. (75 mm to 300 mm) below the ceiling.

14.2.10.1.5

Upright sprinklers with a nominal K-factor of K-16.8 (240) shall be positioned so that the deflector is 3 in. to 12 in. (75 mm to 300 mm) below the ceiling.

Statement of Problem and Substantiation for Public Input

14.2.10.1.4 and 14.2.10.1.5 need to be combined. They require the same mandate for two different K-Factors.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Wed Feb 13 16:05:52 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1063-NFPA 13-2019](#)

Statement: 14.2.10.1.4 and 14.2.10.1.5 need to be combined. They require the same mandate for two different K-Factors.



Public Input No. 23-NFPA 13-2018 [Section No. 14.2.11.2]

14.2.11.2* Isolated Obstructions Below Elevation of Sprinklers.

Sprinklers shall be arranged with respect to obstructions in accordance with one of the following:

- (1) Sprinklers shall be installed below isolated noncontinuous obstructions that restrict only one sprinkler and are located below the elevation of sprinklers such as light fixtures and unit heaters.
- (2) Additional sprinklers shall not be required where the obstruction is 2 ft (600 mm) or less in width and the sprinkler is located horizontally 1 ft (300 mm) or greater from the nearest edge of the obstruction.
- (3) Additional sprinklers shall not be required where sprinklers are positioned with respect to the bottom of obstructions in accordance with 14.2.11.1.
- (4) Additional sprinklers shall not be required where the obstruction is 2 in. (50 mm) or less in width and is located a minimum of 2 ft (600 mm) below the elevation of the sprinkler deflector or is positioned a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (5) Sprinklers with a special obstruction allowance shall be installed according to their listing.
- (6) Additional sprinklers shall not be required where the occupancy is protected per 14.2.7 and obstructions comply with 9.5.5.3.

Statement of Problem and Substantiation for Public Input

In shell ESFR warehouses that are being retrofitted by tenants whose occupancy is a lower hazard, AHJ's are requiring ESFR sprinklers to be installed under new obstructions such as duct work (or other obstructions) that are less than 4ft wide and/or not spaced per the ESFR obstruction separation guidelines. 14.2.7 allows ESFR sprinklers to protect Light and Ordinary Hazard Occupancies provided they meet the criteria of Chapter 23 or 24. Per Chapter 23 and 24 the minimum design criteria is K14@50psi which produces approximately 98gpm per sprinkler and 1176gpm plus overages and hose allowance for the 12 sprinkler remote area. The worst case sprinkler design for Ordinary Hazard Group 2 using standard coverage sprinklers is 26gpm per sprinkler and at least 300gpm plus overages and hose allowance for the 1500 square foot remote area. There is no reason an ESFR sprinkler that has a water application rate more than 3x that of a standard spray sprinkler cannot utilize the same obstruction criteria to "control a fire". Even if the K14 ESFR operated at its minimum 7psi over a 1500 square foot remote area (5 sprinklers per line). Each ESFR sprinkler will produce 37gpm (0.37 density) over the same exact design area as the standard coverage sprinklers. I will also be submitting to revise 14.2.11.3.1 as well.

Submitter Information Verification

Submitter Full Name: Sean Van Gaal

Organization: Aero Automatic Sprinkler Company

Street Address:

City:

State:

Zip:

Submittal Date: Tue Dec 11 10:06:36 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: FR-1064-NFPA 13-2019 PI 696 is resolved see action on FR 1064 Examples in 14.2.11.2(1) were moved to the annex.

Statement: In shell ESFR warehouses that are being retrofitted by tenants whose occupancy is a lower hazard, AHJ's are requiring ESFR sprinklers to be installed under new obstructions such as duct work (or other obstructions) that are less than 4ft wide and/or not spaced per the ESFR obstruction separation guidelines. 14.2.7 allows ESFR sprinklers to protect Light and Ordinary Hazard Occupancies provided they meet the criteria of Chapter 23 or 24. Per Chapter 23 and 24 the minimum design

criteria is K14@50psi which produces approximately 98gpm per sprinkler and 1176gpm plus overages and hose allowance for the 12 sprinkler remote area. The worst case sprinkler design for Ordinary Hazard Group 2 using standard coverage sprinklers is 26gpm per sprinkler and at least 300gpm plus overages and hose allowance for the 1500 square foot remote area. There is no reason an ESFR sprinkler that has a water application rate more than 3x that of a standard spray sprinkler cannot utilize the same obstruction criteria to "control a fire". Even if the K14 ESFR operated at its minimum 7psi over a 1500 square foot remote area (5 sprinklers per line). Each ESFR sprinkler will produce 37gpm (0.37 density) over the same exact design area as the standard coverage sprinklers. I will also be submitting to revise 14.2.11.3.1 as well.

**Public Input No. 696-NFPA 13-2019 [Section No. 14.2.11.2]****14.2.11.2*** Isolated Obstructions Below Elevation of Sprinklers.

Sprinklers shall be arranged with respect to obstructions in accordance with one of the following:

- (1) Sprinklers shall be installed below isolated noncontinuous obstructions that restrict only one sprinkler and are located below the elevation of sprinklers such as light fixtures and unit heaters.
- (2) Additional sprinklers shall not be required where the obstruction is 2 ft (600 mm) or less in width and the sprinkler is located horizontally 1 ft (300 mm) or greater from the nearest edge of the obstruction.
- (3) Additional sprinklers shall not be required where sprinklers are positioned with respect to the bottom of obstructions in accordance with 14.2.11.1.
- (4) Additional sprinklers shall not be required where the obstruction is 2 in. (50 mm) or less in width and is located a minimum of 2 ft (600 mm) below the elevation of the sprinkler deflector or is positioned a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (5) Sprinklers with a special obstruction allowance shall be installed according to their listing.
- (6) Additional sprinklers shall not be required below isolated obstructions 4 ft (600 mm) or less in width if the obstruction is located a minimum of 15 ft (4.6 m) beyond the storage area.

Statement of Problem and Substantiation for Public Input

ESFR protection criteria does not limit protection under obstructions to the storage area though most ESFR systems extend beyond the limits of storage. For example, 36" wide unit heater located near a loading dock should not require protection beneath it since the protection provided by the ESFR sprinklers would far exceed the minimum design criteria for that area. This proposed change aligns with the language from 19.2.2 (1) as it relates to adjacent hazards.

Submitter Information Verification

Submitter Full Name: Jason Gill
Organization: Crews & Gregory Fire Sprinkler
Affiliation: AFSA
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 21:09:46 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1064-NFPA 13-2019 PI 696 is resolved see action on FR 1064 Examples in 14.2.11.2(1) were moved to the annex.

Statement: In shell ESFR warehouses that are being retrofitted by tenants whose occupancy is a lower hazard, AHJ's are requiring ESFR sprinklers to be installed under new obstructions such as duct work (or other obstructions) that are less than 4ft wide and/or not spaced per the ESFR obstruction separation guidelines. 14.2.7 allows ESFR sprinklers to protect Light and Ordinary Hazard Occupancies provided they meet the criteria of Chapter 23 or 24. Per Chapter 23 and 24 the minimum design criteria is K14@50psi which produces approximately 98gpm per sprinkler and 1176gpm plus overages and hose allowance for the 12 sprinkler remote area. The worst case sprinkler design for Ordinary Hazard Group 2 using standard coverage sprinklers is 26gpm per sprinkler and at least 300gpm plus overages and hose allowance for the 1500 square foot remote area. There is no reason an ESFR sprinkler that has a water application rate more than 3x that of a standard spray sprinkler cannot utilize the same obstruction criteria to "control a fire". Even if the K14 ESFR operated at its

minimum 7psi over a 1500 square foot remote area (5 sprinklers per line). Each ESFR sprinkler will produce 37gpm (0.37 density) over the same exact design area as the standard coverage sprinklers. I will also be submitting to revise 14.2.11.3.1 as well.



Public Input No. 191-NFPA 13-2019 [Section No. 14.2.11.3.1]

14.2.11.3.1 General Continuous Obstructions.

Sprinklers shall be arranged with respect to obstructions in accordance with one of the following:

- (1) Sprinklers shall be installed below continuous obstructions, or they shall be arranged to comply with Table 14.2.11.1.1 for horizontal obstructions entirely below the elevation of sprinklers that restrict sprinkler discharge pattern for two or more adjacent sprinklers such as ducts, lights, pipes, and conveyors.
- (2) Additional sprinklers shall not be required where the obstruction is 2 in. (50 mm) or less in width and is located a minimum of 2 ft 1 ft (600 mm 300 mm) below the elevation of the sprinkler deflector or is positioned a minimum of 4 ft (300 mm 6 inches (150 mm)) horizontally from the sprinkler.
- (3) Additional sprinklers shall not be required where the obstruction is 4 ft (300 mm) or less in width and located a minimum of 1 ft (300 mm) horizontally from the sprinkler.
Additional sprinklers shall not be required where the obstruction is 2 ft (600 mm
- (4) 2 ft (600 mm) or less in width and located a minimum of 2 ft
- (5) 6 inches (
600 mm
- (6) 150 mm) horizontally from the sprinkler.
- (7) Ceiling sprinklers shall not be required to comply with Table 14.2.11.1.1 where a row of sprinklers is installed under the obstruction.

Statement of Problem and Substantiation for Public Input

The current ESFR obstruction rules are overly conservative and based upon limited research. The proposed revisions to the ESFR sprinkler obstruction rules are based upon the results of the recently completed Fire Protection Research Foundation project, Obstructions and ESFR Sprinklers, Phase 4. This included approximately 80 Actual Delivered Density tests and 10 full-scale fire tests. Copies of this report can be found at the Research Foundations's website.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 192-NFPA 13-2019 [Section No. 14.2.11.3.2 [Excluding any Sub-Sections]]	

Submitter Information Verification

Submitter Full Name: Garner Palenske
Organization: WJE
Affiliation: myself
Street Address:
City:
State:
Zip:
Submission Date: Wed Mar 27 01:23:03 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: PI 191 information from test data would suggest that the proposed PI is not accurate and therefore

should be revisited.

**Public Input No. 24-NFPA 13-2018 [Section No. 14.2.11.3.1]****14.2.11.3.1 General Continuous Obstructions.**

Sprinklers shall be arranged with respect to obstructions in accordance with one of the following:

- (1) Sprinklers shall be installed below continuous obstructions, or they shall be arranged to comply with Table 14.2.11.1.1 for horizontal obstructions entirely below the elevation of sprinklers that restrict sprinkler discharge pattern for two or more adjacent sprinklers such as ducts, lights, pipes, and conveyors.
- (2) Additional sprinklers shall not be required where the obstruction is 2 in. (50 mm) or less in width and is located a minimum of 2 ft (600 mm) below the elevation of the sprinkler deflector or is positioned a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (3) Additional sprinklers shall not be required where the obstruction is 1 ft (300 mm) or less in width and located a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (4) Additional sprinklers shall not be required where the obstruction is 2 ft (600 mm) or less in width and located a minimum of 2 ft (600 mm) horizontally from the sprinkler.
- (5) Ceiling sprinklers shall not be required to comply with Table 14.2.11.1.1 where a row of sprinklers is installed under the obstruction.
- (6) Additional sprinklers shall not be required where the occupancy is protected per 14.2.7 and obstructions comply with 9.5.5.3.

Statement of Problem and Substantiation for Public Input

This is the continuation of Public Input No.23-NFPA 13-2018 for 14.2.11.2

In shell ESFR warehouses that are being retrofitted by tenants whose occupancy is a lower hazard, AHJ's are requiring ESFR sprinklers to be installed under new obstructions such as duct work (or other obstructions) that are less than 4ft wide and/or not spaced per the ESFR obstruction separation guidelines. 14.2.7 allows ESFR sprinklers to protect Light and Ordinary Hazard Occupancies provided they meet the criteria of Chapter 23 or 24. Per Chapter 23 and 24 the minimum design criteria is K14@50psi which produces approximately 98gpm per sprinkler and 1176gpm plus overages and hose allowance for the 12 sprinkler remote area. The worst case sprinkler design for Ordinary Hazard Group 2 using standard coverage sprinklers is 26gpm per sprinkler and at least 300gpm plus overages and hose allowance for the 1500 square foot remote area. There is no reason an ESFR sprinkler that has a water application rate more than 3x that of a standard spray sprinkler cannot utilize the same obstruction criteria to "control a fire". Even if the K14 ESFR operated at its minimum 7psi over a 1500 square foot remote area (5 sprinklers per line). Each ESFR sprinkler will produce 37gpm (0.37 density) over the same exact design area as the standard coverage sprinklers.

Submitter Information Verification

Submitter Full Name: Sean Van Gaal

Organization: Aero Automatic Sprinkler Company

Street Address:

City:

State:

Zip:

Submittal Date: Tue Dec 11 10:37:28 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: FR-1065-NFPA 13-2019

Statement: This is the continuation of Public Input No.23-NFPA 13-2018 for 14.2.11.2

In shell ESFR warehouses that are being retrofitted by tenants whose occupancy is a lower hazard, AHJ's are requiring ESFR sprinklers to be installed under new obstructions such as duct work (or other obstructions) that are less than 4ft wide and/or not spaced per the ESFR obstruction separation guidelines. 14.2.7 allows ESFR sprinklers to protect Light and Ordinary Hazard Occupancies provided they meet the criteria of Chapter 23 or 24. Per Chapter 23 and 24 the minimum design criteria is K14@50psi which produces approximately 98gpm per sprinkler and 1176gpm plus overages and hose allowance for the 12 sprinkler remote area. The worst case sprinkler design for Ordinary Hazard Group 2 using standard coverage sprinklers is 26gpm per sprinkler and at least 300gpm plus overages and hose allowance for the 1500 square foot remote area. There is no reason an ESFR sprinkler that has a water application rate more than 3x that of a standard spray sprinkler cannot utilize the same obstruction criteria to "control a fire". Even if the K14 ESFR operated at its minimum 7psi over a 1500 square foot remote area (5 sprinklers per line). Each ESFR sprinkler will produce 37gpm (0.37 density) over the same exact design area as the standard coverage sprinklers.

**Public Input No. 328-NFPA 13-2019 [Section No. 14.2.11.3.1]****14.2.11.3.1** General Continuous Obstructions.

Sprinklers shall be arranged with respect to obstructions in accordance with one of the following:

- (1) Sprinklers shall be installed below continuous obstructions, or they shall be arranged to comply with Table 14.2.11.1.1 for horizontal obstructions entirely below the elevation of sprinklers that restrict sprinkler discharge pattern for two or more adjacent sprinklers such as ducts, lights, pipes, and conveyors with solid belts.
- (2) Additional sprinklers shall not be required under conveyors with rollers where the openings between rollers are a minimum 50 percent open and there is no storage below the conveyor.
- (3) Additional sprinklers shall not be required where the obstruction is 2 in. (50 mm) or less in width and is located a minimum of 2 ft (600 mm) below the elevation of the sprinkler deflector or is positioned a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (4) Additional sprinklers shall not be required where the obstruction is 1 ft (300 mm) or less in width and located a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (5) Additional sprinklers shall not be required where the obstruction is 2 ft (600 mm) or less in width and located a minimum of 2 ft (600 mm) horizontally from the sprinkler.
- (6) Ceiling sprinklers shall not be required to comply with Table 14.2.11.1.1 where a row of sprinklers is installed under the obstruction.

Statement of Problem and Substantiation for Public Input

Currently when there is an obstruction utilizing ESFR sprinklers at the ceiling, ESFR sprinklers are required below obstructions. Many times there are conveyors that are utilized in ESFR protected systems. Providing ESFR protection below conveyors with rollers, especially ones low to the ground/floor is unwarranted. There may be some concern with accumulation of debris or low piled storage below these conveyors. However with ESFR protection above, this should not be an issue.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submission Date: Thu May 30 14:10:31 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1064-NFPA 13-2019 PI 696 is resolved see action on FR 1064 Examples in 14.2.11.2(1) were moved to the annex.

Statement: In shell ESFR warehouses that are being retrofitted by tenants whose occupancy is a lower hazard, AHJ's are requiring ESFR sprinklers to be installed under new obstructions such as duct work (or other obstructions) that are less than 4ft wide and/or not spaced per the ESFR obstruction separation guidelines. 14.2.7 allows ESFR sprinklers to protect Light and Ordinary Hazard Occupancies provided they meet the criteria of Chapter 23 or 24. Per Chapter 23 and 24 the minimum design criteria is K14@50psi which produces approximately 98gpm per sprinkler and 1176gpm plus overages and hose allowance for the 12 sprinkler remote area. The worst case sprinkler design for Ordinary Hazard Group 2 using standard coverage sprinklers is 26gpm per sprinkler and at least 300gpm plus overages and hose allowance for the 1500 square foot remote area. There is no reason

an ESFR sprinkler that has a water application rate more than 3x that of a standard spray sprinkler cannot utilize the same obstruction criteria to "control a fire". Even if the K14 ESFR operated at its minimum 7psi over a 1500 square foot remote area (5 sprinklers per line). Each ESFR sprinkler will produce 37gpm (0.37 density) over the same exact design area as the standard coverage sprinklers. I will also be submitting to revise 14.2.11.3.1 as well.

**Public Input No. 510-NFPA 13-2019 [Section No. 14.2.11.3.1]****14.2.11.3.1 General Continuous Obstructions that are Located Directly Above Storage**

Sprinklers shall be arranged with respect to obstructions in accordance with one of the following:

- (1) Sprinklers shall be installed below continuous obstructions, or they shall be arranged to comply with Table 14.2.11.1.1 for horizontal obstructions entirely below the elevation of sprinklers that restrict sprinkler discharge pattern for two or more adjacent sprinklers such as ducts, lights, pipes, and conveyors.
- (2) Additional sprinklers shall not be required where the obstruction is 2 in. (50 mm) or less in width and is located a minimum of 2 ft (600 mm) below the elevation of the sprinkler deflector or is positioned a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (3) Additional sprinklers shall not be required where the obstruction is 1 ft (300 mm) or less in width and located a minimum of 1 ft (300 mm) horizontally from the sprinkler.
- (4) Additional sprinklers shall not be required where the obstruction is 2 ft (600 mm) or less in width and located a minimum of 2 ft (600 mm) horizontally from the sprinkler.
- (5) Ceiling sprinklers shall not be required to comply with Table 14.2.11.1.1 where a row of sprinklers is installed under the obstruction.

Statement of Problem and Substantiation for Public Input

This title change is related to a new section being proposed (14.2.11.4) dealing with open obstructions with no storage below. See PI

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 511-NFPA 13-2019 [New Section after 14.2.11.3.6]	
Public Input No. 512-NFPA 13-2019 [New Section after 14.2.11.3.6]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: On behalf of NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submission Date: Fri Jun 07 10:19:20 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Resolve PI - 328 resolves this language.



Public Input No. 158-NFPA 13-2019 [New Section after 14.2.11.3.2]

4.2.11.3.3 Branchlines.

Upright sprinklers shall be positioned with respect to branch lines in accordance with one of the following:

(1) Upright sprinklers shall be permitted to be attached directly to branch lines less than or equal to 4 in. (100 mm) nominal diameter.

(2) Upright sprinklers shall be permitted to be offset horizontally a minimum of 12 in. (300 mm) from teh pipe.

(3) Upright sprinklers shall be permitted to be supplied by a riser nipple (sprig) to elevate the sprinkler deflector a minimum of 12 in. (300 mm) from teh centerline of any pipe over 4 in. (100 mm) nominla in diameter.

Statement of Problem and Substantiation for Public Input

Criteria is needed to address the installation of Upright ESFR sprinklers on a branch line.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon Mar 11 14:09:41 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1066-NFPA 13-2019

Statement: Criteria is needed to address the installation of Upright ESFR sprinklers on a branch line.



Public Input No. 192-NFPA 13-2019 [Section No. 14.2.11.3.2 [Excluding any Sub-Sections]]

ESFR sprinklers shall be positioned a minimum of 4-ft- 6 inches (~~300 mm~~ 150 mm) horizontally from the nearest edge to the bottom chord of a bar joist or open truss where the bottom chord does not exceed 1 ft (300 mm) in width.

Statement of Problem and Substantiation for Public Input

Recent fire testing completed as part of the Fire Protection Research Foundation's Obstructions and ESFR Sprinklers, Phase 4 project showed successful results when the bottom chord of a bar joist is located 6 inches horizontally away from the sprinkler, for bar joists with a maximum width of 12 inches. See the Foundation's website for a copy of the report.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 191-NFPA 13-2019 [Section No. 14.2.11.3.1]	Sister code revision

Submitter Information Verification

Submitter Full Name: Garner Palenske
Organization: WJE
Affiliation: self
Street Address:
City:
State:
Zip:
Submittal Date: Wed Mar 27 01:38:53 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Test data does not support a minimum 6" offset.



Public Input No. 120-NFPA 13-2019 [New Section after 14.2.11.3.2.1]

14.2.11.3.3 Branch Lines

Upright sprinklers shall be positioned with respect to branch lines in accordance with one of the following:

- (1) Upright sprinklers shall be permitted to be attached directly to branch lines less than or equal to 4 in. (100 mm) nominal in diameter.
- (2) Upright sprinklers shall be permitted to be offset horizontally a minimum of 12 in. (300 mm) from the pipe.
- (3) Upright sprinklers shall be permitted to be supplied by a riser nipple (sprig) to elevate the sprinkler deflector a minimum of 12 in. (300 mm) from the centerline of any pipe over 4 in. (100 mm) nominal in diameter.

Statement of Problem and Substantiation for Public Input

The criteria for ESFR does not adequately address the installation of an upright ESFR sprinkler on a branch line as an obstruction.

Submitter Information Verification

Submitter Full Name: Craig Remsburg

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Fri Feb 22 14:27:14 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1066-NFPA 13-2019

Statement: Criteria is needed to address the installation of Upright ESFR sprinklers on a branch line.



Public Input No. 511-NFPA 13-2019 [New Section after 14.2.11.3.6]

New Section after 14.2.11.3

14.2.11.4 Unless the requirements of 14.2.11.4.1 and 14.2.11.4.2 are met, continuous obstructions located a minimum of 36" below sprinklers without high piled storage located underneath shall require sprinkler protection

14.2.11.4.1 The continuous obstruction is 4 ft wide or less

14.2.11.4.2 Sprinklers are not required below conveyor systems that are a minimum of 70 % open, or below roller-type conveyors that are at least 50 % open. If these conditions cannot be met, treat conveyors as a solid obstruction

..

Statement of Problem and Substantiation for Public Input

Open conveyors and similar features are common in warehouses with ESFR sprinkler systems and the protection criteria is not consistent in different jurisdictions. Some jurisdictions require protection under all open obstructions and others allow sprinklers to be omitted. This issue needs to be addressed. Public Input clarifies the conditions where these features are considered a solid obstruction and sprinkler protection is required underneath. It is important to not that this new section is limited to areas with no storage below.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 510-NFPA 13-2019 [Section No. 14.2.11.3.1]	related
Public Input No. 512-NFPA 13-2019 [New Section after 14.2.11.3.6]	related
Public Input No. 512-NFPA 13-2019 [New Section after 14.2.11.3.6]	

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: on Behalf of NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 10:28:03 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: PI328 resolves this language.



Public Input No. 512-NFPA 13-2019 [New Section after 14.2.11.3.6]

New section after the propose 14.2.11.4.2

14.2.11.4.3 Continous Obstructions. Quick-response spray sprinklers shall be permitted to be utilized under conveyors with without high piled storage located underneath

Statement of Problem and Substantiation for Public Input

This section is related to the proposed new section 14.2.11.4 which deals with obstruction with no high piled storage underneath. If sprinklers are required under these obstructions, quick response sprinklers should be adequate as there is no storage below. Note that the existing section 14.2.11.3.5 already states that overhead doors are permitted to be protected with QR sprinklers underneath, regardless of if there is storage below.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 510-NFPA 13-2019 [Section No. 14.2.11.3.1]	related
Public Input No. 511-NFPA 13-2019 [New Section after 14.2.11.3.6]	related
Public Input No. 511-NFPA 13-2019 [New Section after 14.2.11.3.6]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: on behalf of NFSA E&S Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 10:49:56 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Not enough information to address all situations with regard to size, number and design criteria.



Public Input No. 151-NFPA 13-2019 [Section No. 14.2.12]

14.2.12 Clearance to Storage (Early Suppression Fast-Response Sprinklers).

14.2.12.1 The clearance between the deflector and the top of storage shall be 36 in. (900 mm) or greater.

14.2.12.2 The 36 in. (900 mm) dimension shall not limit the height of shelving on a wall or shelving against a wall in accordance with 14.2.12.

14.2.12.2.1 Where shelving is installed on a wall and is not directly below sprinklers, the shelves, including storage thereon, shall be permitted to extend above the level of a plane located 36 in. (900 mm) below the ceiling sprinkler deflectors.

14.2.12.2.2 Shelving, and any storage thereon, directly below sprinklers shall not extend above a plane located 36 in. (900 mm) below the ceiling sprinkler deflectors.

14.2.12.3 Where other standards specify greater clearance to storage minimums, they shall be followed.

Statement of Problem and Substantiation for Public Input

The rules for clearance to storage should be consistent across all sprinkler types.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon Mar 11 10:30:57 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Guidelines require a clearance of 36". There is no data provided to support the reduction of clearances.

**Public Input No. 537-NFPA 13-2019 [Section No. 14.2.12]****14.2.12 Clearance to Storage- Contents of the Room (Early Suppression Fast-Response Sprinklers).**

The clearance between the deflector and the top of storage or contents of the room shall be 36 in. (900 mm) or greater.

Statement of Problem and Substantiation for Public Input

This is actually a Global PI but Terraview was not allowing Global input so you'll see the same justification in the linked PIs.

Historically, the criteria on clearance referenced only storage. Since that is a reference to a specific use (aka S occupancies), we technically had no guidance for the occupancy hazard approach. We started down the path of clarification in the 2013 edition when we added in one place (8.5.6.1) the reference to contents of the room. The title, though, still said just storage as did all the repeated criteria throughout the sections by sprinkler type. The recommended changes are more consistent and precise (since contents of the room also covers storage). Where appropriate the reference to storage was retained.

Additionally, despite repeating these criteria for most of the sprinkler types, there is no guidance in chapters 12 and 13. Seems appropriate for the sake of consistency to add some text.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 533-NFPA 13-2019 [Section No. 10.2.8]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 13:58:01 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The Committee would like to maintain existing language in Chapter 20 for a storage application.

**Public Input No. 513-NFPA 13-2019 [Section No. 15.3.4]****15.3.4 ***

Dry sprinklers shall only be installed in fittings as specified by the sprinkler manufacturer.

Statement of Problem and Substantiation for Public Input

Clarification is needed to indicate that the sprinkler manufacturer needs to determine which fittings are acceptable.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 11:03:32 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1068-NFPA 13-2019

Statement: Clarification is needed to indicate that the sprinkler manufacturer needs to determine which fittings are acceptable.



Public Input No. 645-NFPA 13-2019 [New Section after 15.4]

15.5 Attic Sprinklers

15.5.1 Attic sprinklers shall be selected for use and installation as indicated in sections 15.5.2 – 15.5.11 of the standard. Additional installation criteria not referenced in the following sections, must be in accordance with the manufacturer's installation instructions based upon the listing of the sprinklers.

15.5.2 Attic sprinklers referenced in these sections will include the following styles: Back-to-back, Single Directional, and HIP sprinklers.

15.5.3 Attic sprinkler design criteria shall be selected from Table 15.5.3. Additional design criteria referenced in the manufacturer's installation instructions may be applicable.

15.5.4 Design criteria for supplemental sprinklers installed with Attic sprinklers, shall be found on the manufacturer's installation instructions.

15.5.5 Attic sprinklers shall be used on either wet or dry systems.

15.5.6 Protection Areas per Sprinkler (Attic Sprinklers).

15.5.6.1 Determination of Protection Area of Coverage. The protection area of coverage per sprinkler (A_s) shall be determined in accordance with section 9.5.2.1.

15.5.6.2 Maximum Protection Area of Coverage. The maximum allowable protection area of coverage for a sprinkler (A_s) shall be in accordance with the manufacturers listing.

15.5.6.3 Minimum distance between sprinklers. The minimum spacing between Back-to-Back, Single Directional, and HIP Sprinklers shall be 4'-0". For minimum spacing between Attic sprinklers with supplemental sprinklers, or standard sprinklers, refer to the manufacturer's installation instructions.

15.5.7 Deflector Position.

15.5.7.1 Deflector position for Attic sprinklers for roof pitches 4:12 (33%), or greater shall be a maximum of 22", and a minimum of 16" below the peak or ridge.

15.5.7.2 Deflector position for Attic sprinklers shall be a maximum of 6" (152mm) from the centerline of the ridge.

15.5.7.3 Deflector position for Attic sprinklers shall be a minimum of 6" (152mm) from the nearest edge of a truss.

15.5.8 Obstructions to sprinkler discharge

15.5.8.1 Attic sprinkler shall be located so as to minimize obstructions to discharge as defined in the manufacturer's installation instructions.

15.5.9 Piping Types

15.5.9.1 Attic sprinkler shall be installed with either CPVC or Steel piping.

15.5.9.1.1 Attic sprinklers installed with CPVC piping, shall be listed for such use, and installed in accordance with the manufacturer's installation instructions.

15.5.9.2 Attic sprinklers installed with CPVC piping shall be installed on wet systems only.

15.5.10 Design Approaches

15.5.10.1 Attic sprinklers design area shall be hydraulically calculated in accordance with the manufacturer's installation instructions.

Additional Proposed Changes

File Name

Description Approved

Copy_of_Attic_Sprinkler_Table_15.5.3_REV.xlsx Table 15.5.3

Statement of Problem and Substantiation for Public Input

Attics sprinklers have been on the market for over 20 years and is a recognized installation practices.

Submitter Information Verification

Submitter Full Name: James Lake

Organization: Viking Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 14:06:54 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: A task group ws formed to further review this issue.

**Public Input No. 478-NFPA 13-2019 [New Section after 15.4.3]****Electronic Sprinklers****15.X Electronic Sprinklers****15.X.1**

Electronic sprinklers shall be permitted where such devices have been evaluated and listed for performance under the following conditions:

- (1) Fire tests related to the intended hazard
- (2) Distribution of the spray pattern with respect to wetting of floors and walls
- (3) Distribution of the spray pattern with respect to obstructions
- (4) Performance under horizontal or sloped ceilings
- (5) Area of design
- (6) Allowable clearance to ceilings

15.X.2

Electronic sprinklers shall maintain the following characteristics:

- (1) K-factor size shall be in accordance with 7.2.2 .
- (2) The protection area of coverage shall not exceed 400 ft² (37 m²) for light hazard and ordinary hazard occupancies.
- (3) The protection area of coverage shall not exceed 196 ft² (18 m²) for extra hazard and high-piled storage occupancies.

15.X.2.1

Where electronic sprinklers include a n automatic means of thermal activation, temperature ratings shall be in accordance with Table 7.2.4.1

Statement of Problem and Substantiation for Public Input

Electronic sprinklers are a new technology in which the primary means of operation is through an electrical signal provided by an electronic control system using specialized detection and control algorithms. 15.2 Special Sprinklers provides a reasonable framework for the evaluation and installation of electronic sprinklers; however, these devices specifically differ in that electronic sprinklers themselves do not necessarily have thermal elements. As such the temperature characteristics and thermal sensitivity are not strictly applicable. This proposal will create a new section covering installation requirements specific to electronic sprinklers.

Submitter Information Verification

Submitter Full Name: Zachary Magnone

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 16:56:30 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1069-NFPA 13-2019

Statement: Electronic sprinklers are a new technology in which the primary means of operation is through an electrical signal provided by an electronic control system using specialized detection and control algorithms. 15.2 Special Sprinklers provides a reasonable framework for the evaluation and installation of electronic sprinklers; however, these devices specifically differ in that electronic sprinklers themselves do not necessarily have thermal elements. As such the temperature characteristics and thermal sensitivity are not strictly applicable. This proposal will create a new section covering installation requirements specific to electronic sprinklers.

**Public Input No. 287-NFPA 13-2019 [Section No. 16.2.1.1 [Excluding any Sub-Sections]**

]

When a sprinkler is removed from a threaded fitting or welded outlet, it shall not be reinstalled except as permitted by 16.2.1.1.1.

Statement of Problem and Substantiation for Public Input

There are now grooved fittings that allow the sprinkler to be removed without applying any torque to the sprinkler.

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 28 13:41:51 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See Section 16.12.5.1.2



Public Input No. 27-NFPA 13-2018 [Section No. 16.2.1.1.1]

16.2.1.1.1

~~Dry sprinklers~~ Sprinklers shall be permitted to be reinstalled when removed in accordance with the manufacturer's installation and maintenance instructions.

Statement of Problem and Substantiation for Public Input

This should not be limited to just dry type sprinklers. All sprinklers installed per the the manufacturers recommendations do not have any damage. The manufacturer can come up with an equally effective method to remove their sprinklers without damage. This will save numerous perfectly good, brand new sprinklers, that are thrown away each year because a ceiling subcontractor locates the ceiling at the wrong elevation or the architect moves the ceiling for some reason while the building is still be constructed.

Submitter Information Verification

Submitter Full Name: Sean Van Gaal

Organization: Aero Automatic Sprinkler Company

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 12 11:36:16 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: Existing language meets the committees intent as it relates to this requirement.



Public Input No. 254-NFPA 13-2019 [New Section after 16.2.4.1]

TITLE OF NEW CONTENT

16.2.4.1.1 In new construction, or remodeling, where sprinkler piping and / or architectural or structural component (e.g. roof, ceiling, steel) painting will be undertaken the sprinklers shall be protected as required by 16.2.4.2.

Statement of Problem and Substantiation for Public Input

Direction has never been provided regarding how to protect sprinklers from painting of structural, architectural, or sprinkler piping during construction and remodeling and this direction is necessary. Something has to be documented to point to and show the requirement to all involved.

Related Public Inputs for This Document

Related Input	Relationship
<u>Public Input No. 255-NFPA 13-2019</u> <u>[Section No. 16.2.4.2]</u>	Protection for sprinklers where painting of building features will be undertaken.
<u>Public Input No. 255-NFPA 13-2019</u> <u>[Section No. 16.2.4.2]</u>	

Submitter Information Verification

Submitter Full Name: Scott Futrell
Organization: Futrell Fire Consult & Design, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 13 15:08:50 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Other contractors do not read NFPA 13, the standard already restricts painting by other than the manufacturer.



Public Input No. 255-NFPA 13-2019 [Section No. 16.2.4.2]

16.2.4.2*

Where protected in accordance with 16.2.4.1, cellophane bags having a thickness of 0.003 in. (0.08 mm) or less or thin paper bags shall be used. This protection shall be removed immediately upon completion of the painting of structural or architectural building components, or sprinkler system piping.

Statement of Problem and Substantiation for Public Input

The protection remains in place long after the painting is complete and is found post-fire by the author. Direction has not been given in NFPA 13 to remove this temporary protection.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 254-NFPA 13-2019 [New Section after 16.2.4.1]	Removing protection on completion of painting.
Public Input No. 254-NFPA 13-2019 [New Section after 16.2.4.1]	

Submitter Information Verification

Submitter Full Name: Scott Futrell
Organization: Futrell Fire Consult & Design, Incl
Street Address:
City:
State:
Zip:
Submission Date: Mon May 13 15:14:02 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Bags are intended to be permanent to protect the sprinkler.

**Public Input No. 693-NFPA 13-2019 [Section No. 16.2.5.2]****16.2.5.2 ***

Escutcheons used ~~are a part of the listed assembly and shall be installed~~ with recessed, flush-type, or concealed sprinklers ~~shall be part of a listed sprinkler assembly~~ .

Statement of Problem and Substantiation for Public Input

Some AHJs have expressed concern that the standard does not explicitly require the escutcheons for recessed, flush, and concealed sprinklers to be installed. Although it can be argued that it is a requirement of the sprinkler listing, the use of the phrase "used with" may be interpreted that their use may at times be optional. With the inclusion in NFPA 25 that missing escutcheons for these types of sprinklers is a deficiency, it may be appropriate for NFPA 13 to state that they must be installed.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 694-NFPA 13-2019 [Section No. 16.2.5.3]	
Public Input No. 694-NFPA 13-2019 [Section No. 16.2.5.3]	

Submitter Information Verification

Submitter Full Name: Russell Leavitt
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 18:46:11 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1071-NFPA 13-2019 Escutcheons are required to be installed when they are a listed part of the sprinkler.

Statement: Some AHJs have expressed concern that the standard does not explicitly require the escutcheons for recessed, flush, and concealed sprinklers to be installed. Although it can be argued that it is a requirement of the sprinkler listing, the use of the phrase "used with" may be interpreted that their use may at times be optional. With the inclusion in NFPA 25 that missing escutcheons for these types of sprinklers is a deficiency, it may be appropriate for NFPA 13 to state that they must be installed.



Public Input No. 694-NFPA 13-2019 [Section No. 16.2.5.3]

16.2.5.3

Cover plates used with concealed sprinklers shall be are a part of the listed sprinkler assembly and shall be installed with concealed sprinklers .

Statement of Problem and Substantiation for Public Input

This revision makes it clear that cover plates must be installed with concealed sprinklers. See substantiation for PI 693.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 693-NFPA 13-2019 [Section No. 16.2.5.2]	
Public Input No. 693-NFPA 13-2019 [Section No. 16.2.5.2]	

Submitter Information Verification

Submitter Full Name: Russell Leavitt
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 18:56:58 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1072-NFPA 13-2019](#)

Statement: This revision makes it clear that cover plates must be installed with concealed sprinklers. See substantiation for FR 1071.



Public Input No. 200-NFPA 13-2019 [New Section after 16.2.7.1]

16.2.7.1.1

In no case shall the number of spare sprinklers be required to exceed the number of sprinklers installed on the system.

Statement of Problem and Substantiation for Public Input

Provides relief for small or partial systems having five or fewer sprinklers.

Submitter Information Verification

Submitter Full Name: Cary Webber

Organization: Reliable Automatic Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed Mar 27 11:32:37 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Partial systems should be discussed with the AHJ.



Public Input No. 332-NFPA 13-2019 [Section No. 16.2.7.4]

16.2.7.4

Where dry sprinklers of different lengths are installed, spare dry sprinklers shall not be required, provided that a means of returning the system to service is furnished.

16.2.7.4.1

Where specialty sprinklers are installed for localized protection in a building that is not fully sprinklered, spare sprinklers of that type shall not be required, provided that a means of returning the system to service is furnished.

Statement of Problem and Substantiation for Public Input

Localized protection, such as window sprinklers installed in an otherwise unsprinklered building, would require an additional six sprinklers to be purchased which may be cost prohibitive to a small scale project.

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 14:20:46 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Spare sprinklers are required to ensure that damaged or operated sprinklers are promptly returned to service.



Public Input No. 370-NFPA 13-2019 [New Section after 16.2.7.7]

16.2.8

On a single property with multiple buildings under the same ownership, it shall be acceptable to provide the required spare sprinklers in a single location.

A.16.2.8

It is not the intent to provide a spare sprinkler box for each building in the one location. A sufficient-sized cabinet(s) capable of meeting the requirements for a single building is adequate. The box should contain all the various types found on the property in the quantities prescribed in Chapter 16. A prime example is an apartment complex.

Statement of Problem and Substantiation for Public Input

A couple cycles ago, NFPA 13, 13R and 25 were modified to have consistent language regarding spare sprinklers. This language is currently found in NFPA 13R Chapter 11. This PI adds this language to NFPA 13.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 31 13:47:15 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1357-NFPA 13-2019

Statement: A couple cycles ago, NFPA 13, 13R and 25 were modified to have consistent language

regarding spare sprinklers. This language is currently found in NFPA 13R Chapter 11. This PI

adds this language to NFPA 13.

**Public Input No. 689-NFPA 13-2019 [Section No. 16.3.9.6 [Excluding any Sub-Sections]**

]

Nonmetallic pipe listed for light hazard occupancies shall be permitted to be installed in ordinary hazard rooms of otherwise light hazard occupancies where the room does not exceed 400-ft 800 ft² (~~37-m~~ 74 m²).

Statement of Problem and Substantiation for Public Input

This change extends the allowance to a maximum of 800 sq ft which coincides with the definition of small room.

Submitter Information Verification

Submitter Full Name: Mark Fessenden

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 17:44:19 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: A small room is limited to light hazard.



Public Input No. 475-NFPA 13-2019 [Section No. 16.3.9.6.2]

16.3.9.6.2

Where nonmetallic pipe installed in accordance with 16.3.9.6 supplies sprinklers in a private garage within a dwelling unit, and the garage does not ~~exceeding~~ exceed 1000 ft² (93 m²) in area, it shall be permitted to be protected from the garage compartment by not less than the same wall or ceiling sheathing that is required by the applicable building code.

Statement of Problem and Substantiation for Public Input

The way this section currently reads - it can be interpreted that the dwelling unit cannot exceed 1000 sq. ft. The intent is that the garage cannot exceed 1000 sq. ft. This proposal is editorial and clarifies the intent of this section.

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: On behalf of the NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 16:10:29 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1074-NFPA 13-2019

Statement: The way this section currently reads - it can be interpreted that the dwelling unit cannot exceed 1000 sq. ft. The intent is that the garage cannot exceed 1000 sq. ft. This proposal is editorial and clarifies the intent of this section.



Public Input No. 527-NFPA 13-2019 [Section No. 16.4.1.4]

16.4.1.4

Listed heat-tracing systems complying with *UL 515A, Outline of Investigation for Electrical Resistance Trace Heating and Associated Controls for Use In Sprinkler and Standpipe Systems* shall be permitted in accordance with 16.4.1.4.1 and 16.4.1.4.2.

16.4.1.4.1

Where used to protect branch lines, the heat-tracing system shall be specifically listed for use on branch lines.

16.4.1.4.2

Electric supervision of the heat-tracing system shall provide positive confirmation that the circuit is energized.

Statement of Problem and Substantiation for Public Input

The reference to the requirements used to establish a listing is being added to this section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 524-NFPA 13-2019 [Section No. 2.3.9]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 12:35:22 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: UL Standards are not the only applicable standards.



Public Input No. 28-NFPA 13-2018 [New Section after 16.4.3]

16.4.4 Protection of Piping Subject to Mechanical Damage

16.4.4.1 Piping, other than steel, located in concealed spaces shall comply with the requirements of 16.4.4.

16.4.4.1.1 Piping installed through holes or notches in studs, joists, rafters, or similar members and located less than 1.5" from the nearest edge of the member shall be protected from mechanical damage via steel plates or other approved means.

16.4.4.1.2 Steel plates shall have a minimum thickness of 16 gage.

16.4.4.1.3 Protection shall only be applied at the location of the stud, joist, rafter, or similar member. Protection shall be adequately sized to protect the piping in the direction perpendicular to the face of the member.

Statement of Problem and Substantiation for Public Input

Currently IFC and NFPA 13 do not have requirements for protecting non-steel sprinkler piping in concealed spaces from mechanical damage. Without clear guidance, there is a common disagreement between an owner, contractor, and AHJ on what is actually required. The owner may not consider this at bid time, the contractor doesn't price this work unless specifically told to do so because it is not in the code, and the AHJ may require them and cite IPC or IMC as the design basis even though those standards are not applicable/amended to include sprinkler work. So the contractor is caught in the middle. This addition to the standard will give the contractor clear guidance on what they are to price/provide and the AHJ should accept it as it is modeled after IPC and IMC.

One common example would be protection CPVC pipe from nails when piping is running through studs in a wall and the piping is very close to the edge of the stud.

Submitter Information Verification

Submitter Full Name: Sean Van Gaal

Organization: Aero Automatic Sprinkler Company

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 12 12:17:59 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1075-NFPA 13-2019 Needs to be correlated with similar action taken by SSD.](#)

Statement: Currently IFC and NFPA 13 do not have requirements for protecting non-steel sprinkler piping in concealed spaces from mechanical damage. Without clear guidance, there is a common disagreement between an owner, contractor, and AHJ on what is actually required. The owner may not consider this at bid time, the contractor doesn't price this work unless specifically told to do so because it is not in the code, and the AHJ may require them and cite IPC or IMC as the design basis even though those standards are not applicable/amended to include sprinkler work. So the contractor is caught in the middle. This addition to the standard will give the contractor clear guidance on what they are to price/provide and the AHJ should accept it as it is modeled after IPC and IMC.

One common example would be protection CPVC pipe from nails when piping is running through studs in a wall and the piping is very close to the edge of the stud.

**Public Input No. 308-NFPA 13-2019 [Section No. 16.6.1]****16.6.1**

All sprinkler systems shall be arranged for flushing as provided in sections 16.6.2 and 16.6.3.

Statement of Problem and Substantiation for Public Input

The language as currently written is too vague. The language needs to point to the provisions in 16.6.2 & 3. Some AHJ's have required additional flushing connections at the end of every branch line based on the current language.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:49:10 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Already required by the standard.



Public Input No. 309-NFPA 13-2019 [New Section after 16.6.2]

16.6.2.1

Readily removable fittings at the end of non-metallic cross mains shall not be required.

Statement of Problem and Substantiation for Public Input

Non-metallic systems are not susceptible to the corrosion of steel systems and should not require flushing connections.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:52:19 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: All systems require flushing connections including non-metallic piping.



Public Input No. 307-NFPA 13-2019 [Section No. 16.6.4]

16.6.4 –

~~All branch lines on gridded systems shall be arranged to facilitate flushing.~~

Statement of Problem and Substantiation for Public Input

Delete this section. By the nature of the design of gridded systems, the carry lines are connected to cross mains which facilitate flushing. Many designs of gridded systems use outriggers to the outside of the cross mains. This requirement for flushing is impractical.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 29 10:45:55 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: All systems require flushing connections including non-metallic piping. See PI 309



Public Input No. 423-NFPA 13-2019 [Section No. 16.7]

16.7* Air Venting.

The vent required by 8.1.5 shall be located near a high point in the system to allow air to be removed from that portion of the system by one of the following methods:

- (1) Manual valve, minimum ½ in. (15 mm) size
- (2) Automatic air vent
- (3) Remote inspector's test valve
- (4) Other approved means

Statement of Problem and Substantiation for Public Input

The addition of #3 Remote Inspectors Test valve is too vague regarding a method of piping the required air vent. If the remote inspectors valve line is to be used as an air vent the line would need to come off of the top of the pipe near a high point in the system to meet the requirements of NFPA 13:8.1.5. There is no specific requirement that a Remote Inspectors Test Valve be located at/near the high point in the system. The only reference for location is in NFPA 13:A.16.14.1(a). This shows typical installation as located at the manually accessible height to facilitate activation and draining.

Additionally if the main reason for the addition of NFPA 13:8.1.5 and by extension NFPA 13:16.7 is to reduce internal pipe corrosion in wet systems than allowing the Remote Inspectors Test Valve to be considered an acceptable method of air venting a system is in direct conflict with NFPA 13:16.14, & A.16.14.1 which reads "Putting the test connection at the most remote portion of the system causes the introduction of fresh oxygen into a large part of the system each time the alarm is tested and increases the corrosion that will occur in the piping." This language has been in NFPA 13 since at least 2007 (5 additions of code),

Submitter Information Verification

Submitter Full Name: James McHugh

Organization: AGF Mfg Inc

Street Address:

City:

State:

Zip:

Submittal Date: Wed Jun 05 17:40:50 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: #3 and #1 are similar and acceptable arrangements.

**Public Input No. 169-NFPA 13-2019 [Section No. 16.9.4]**

16.9.4 – Automated Valves.

16.9.4.1 –

A listed indicating valve with automated controls shall be permitted.

16.9.4.2 –

A listed automated water control valve assembly with a reliable position indication connected to a remote supervisory station shall be permitted.

16.9.4.3 –

An automated water control valve shall be able to be operated manually as well as automatically.

Statement of Problem and Substantiation for Public Input

Chapter 16 covers installation criteria, but there are no installation instructions contained in 16.9.4. Therefore, the provisions should be deleted from Chapter 16, as proposed in a corresponding PI.
The text for the Automated Valves are actually requirements for system components, so they belong in Chapter 7, as proposed in PI 168.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 168-NFPA 13-2019 [New Section after 7.6.1]	
Public Input No. 168-NFPA 13-2019 [New Section after 7.6.1]	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Fri Mar 15 23:00:47 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1033-NFPA 13-2019 PI 312 insert word control and include with FR 1033](#)

Statement: Chapter 16 covers installation criteria, but there are no installation instructions contained in 16.9.4. Therefore, the provisions should be deleted from Chapter 16, as proposed in a corresponding PI.

The text for the Automated Valves are actually requirements for system components, so they belong in Chapter 7, as proposed here.



Public Input No. 566-NFPA 13-2019 [New Section after 16.9.8.1]

16.9.8.1.1

The pressure on the inlet side of the pressure-regulating device shall not exceed the rated working pressure of the device.

Statement of Problem and Substantiation for Public Input

Although one could argue that this restriction is understood, this criteria came from NFPA 14 (7.2.3.3) and seemed appropriate to add.

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 19:04:05 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1358-NFPA 13-2019

Statement: Although one could argue that this restriction is understood, this criteria came from NFPA 14 (7.2.3.3) and seemed appropriate to add. Other pressure limits beyond 175 psi are often applied beyond the PRVs. The need to have an outlet pressure less than the rated value is universal so applying only 165 psi is inappropriate. For many cycles this requirement has been in the standard and yet very few new systems are being installed with a realistic "means" to perform this test. Inspectors that come in to perform the forward flow test required by NFPA 25 have to resort to opening up all available flow points including the main drain and inspector's test connection and still not get the required rate of flow to adequately perform the test. Some are resorting to reversing the check valve on the FDC or removing the end cap on a cross main to achieve the needed flow rate. By specifying the preferred "means" of installing relatively inexpensive hose valves, and allowing other options if available, future testing will be more cost effective.

**Public Input No. 565-NFPA 13-2019 [Section No. 16.9.8.1]****16.9.8.1**

In portions of systems ~~where all components are not listed for pressure greater than 175 psi (12 bar) and the where the~~ potential exists for normal (nonfire condition) water pressure in excess of 175 psi (12 bar) ~~and all components are not listed for pressures equal to or greater than the maximum potential water pressure~~, a listed pressure-reducing valve shall be installed and set for an outlet pressure not exceeding ~~165 psi (11 bar) 10 psi below the minimum rated pressure of any component within that portion of the system~~ at the maximum inlet pressure.

Statement of Problem and Substantiation for Public Input

Other pressure limits beyond 175 psi are often applied beyond the PRVs. The need to have an outlet pressure less than the rated value is universal so applying only 165 psi is inappropriate

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 18:49:22 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1358-NFPA 13-2019](#)

Statement: Although one could argue that this restriction is understood, this criteria came from NFPA 14

(7.2.3.3) and seemed appropriate to add. Other pressure limits beyond 175 psi are often applied beyond the PRVs. The need to have an

outlet pressure less than the rated value is universal so applying only 165 psi is inappropriate. For many cycles this requirement has been in the standard and yet very few new systems are being

installed with a realistic "means" to perform this test. Inspectors that come in to perform the forward

flow test required by NFPA 25 have to resort to opening up all available flow points including the main

drain and inspector's test connection and still not get the required rate of flow to adequately perform

the test. Some are resorting to reversing the check valve on the FDC or removing the end cap on a

cross main to achieve the needed flow rate. By specifying the preferred "means" of installing

relatively inexpensive hose valves, and allowing other options if available, future testing will be more

cost effective.

**Public Input No. 556-NFPA 13-2019 [New Section after 16.9.8.5]**

16.9.8.5.1 A 2½” hose valve shall be provided downstream of the pressure reducing valve for every 250 GPM of flow rate required by the system demand.

16.9.8.5.2 Existing hose connections downstream of the pressure reducing valve shall be allowed to be utilized.

16.9.8.5.3 Other means shall be permitted as long as the owner doesn’t need to modify the system to perform the test.

Statement of Problem and Substantiation for Public Input

For many cycles this requirement has been in the standard and yet very few new systems are being installed with a realistic “means” to perform this test. Inspectors that come in to perform the forward flow test required by NFPA 25 have to resort to opening up all available flow points including the main drain and inspector’s test connection and still not get the required rate of flow to adequately perform the test. Some are resorting to reversing the check valve on the FDC or removing the end cap on a cross main to achieve the needed flow rate. By specifying the preferred “means” of installing relatively inexpensive hose valves, and allowing other options if available, future testing will be more cost effective.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 558-NFPA 13-2019 [Section No. 16.14.5]	
Public Input No. 559-NFPA 13-2019 [Section No. 27.1.3]	

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 15:59:44 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1358-NFPA 13-2019](#)

Statement: Although one could argue that this restriction is understood, this criteria came from NFPA 14

(7.2.3.3) and seemed appropriate to add. Other pressure limits beyond 175 psi are often applied beyond the PRVs. The need to have an

outlet pressure less than the rated value is universal so applying only 165 psi is inappropriate. For many cycles this requirement has been in the standard and yet very few new systems are being

installed with a realistic “means” to perform this test. Inspectors that come in to perform the forward

flow test required by NFPA 25 have to resort to opening up all available flow points including the main

drain and inspector’s test connection and still not get the required rate of flow to adequately perform

the test. Some are resorting to reversing the check valve on the FDC or removing the end cap on a

cross main to achieve the needed flow rate. By specifying the preferred “means” of installing relatively inexpensive hose valves, and allowing other options if available, future testing will be more cost effective.

**Public Input No. 225-NFPA 13-2019 [Section No. 16.9.11]****16.9.11 Floor Control Valve Assemblies.****16.9.11.1**

Multistory buildings exceeding two stories in height shall be provided with a floor control valve, check valve, pressure gauge, main drain valve, and flow switch for isolation, control, and annunciation of water flow for each individual floor level.

16.9.11.2

The floor control valve, check valve, pressure gauge, main drain valve, and flow switch required by 16.9.11.1 shall not be required where sprinklers on the top level of a multistory building are supplied by piping on the floor below.

16.9.11.3

The floor control valve, check valve, pressure gauge, main drain valve, and flow switch required by 16.9.11.1 shall not be required where the total area of all floors combined does not exceed the system protection area limitations of 4.5.1.

16.9.11.4

The requirements of 16.9.11 shall not apply to dry systems in parking garages.

16.9.11.5*

Where individual floor/zone control valves are not provided, a flanged joint or mechanical coupling shall be used at the riser at each floor for connections to piping serving floor areas in excess of 5000 ft² (465 m²).

Statement of Problem and Substantiation for Public Input

This proposal is to correct an omission. The intent of Section 6.19.11 is to describe the components that are required in a floor control valve, but the required pressure gauge is not called up, despite being illustrated in Figures A.16.15.2.2(a) and A.16.15.2.2(b).

Pressure gauges are required in floor control valve configurations as per Section 8.1.1.1 and in Section 16.13.1, but for complete clarity this should also be made apparent in Section 16.9.11.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submission Date: Sat Apr 27 21:45:11 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1359-NFPA 13-2019](#)

Statement: Outdated requirement replaced by the requirement for floor control assy/.



Public Input No. 33-NFPA 13-2018 [Section No. 16.9.11]

16.9.11 Floor Control Valve Assemblies.

16.9.11.1

Multistory buildings exceeding two stories in height shall be provided with a floor control valve, check valve, main drain valve, and flow switch for isolation, control, and annunciation of water flow for each individual floor level.

16.9.11.2

The floor control valve, check valve, main drain valve, and flow switch required by 16.9.11.1 shall not be required where sprinklers on the top level of a multistory building are supplied by piping on the floor below.

16.9.11.3

The floor control valve, check valve, main drain valve, and flow switch required by 16.9.11.1 shall not be required where the total area of all floors combined does not exceed the system protection area limitations of 4.5.1.

16.9.11.4

The requirements of 16.9.11 shall not apply to dry systems in parking garages.

16.9.11.5*

Where individual floor/zone control valves are not provided, a flanged joint or mechanical coupling shall be used at the riser at each floor for connections to piping serving floor areas in excess of 5000 ft² (465 m²).

Statement of Problem and Substantiation for Public Input

This entire section should be relocated to the end of existing section 4.5 (Systems Protection Area Limitations). This material was moved to this section in the 2016 code cycle by the committee based on a PI submitted because it establishes a limit on the area protected by a single system as defined by section 3.3.206 in the 2019 edition. In its current location (reverted back to the 2013 edition location) users are more likely to miss the requirements for floor control valves

Submitter Information Verification

Submitter Full Name: Robert Caputo

Organization: Fire & Life Safety America

Street Address:

City:

State:

Zip:

Submittal Date: Wed Dec 19 20:14:38 EST 2018

Committee: AUT-SSI

Committee Statement

Resolution: These requirements belong with control valves, not systems size.



Public Input No. 178-NFPA 13-2019 [Section No. 16.10.1]

16.10.1—*_ General.

All sprinkler pipe and fittings shall be installed so that the system can be drained.

[A.16.10.1 All piping should be arranged where practicable to drain to the main drain valve.](#)

Statement of Problem and Substantiation for Public Input

This proposal is to add an asterisk (*) to Section 16.10.1 and to replace the text that was lost during the restructuring of the standard during the previous revision cycle.

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Sat Mar 16 16:35:31 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1081-NFPA 13-2019 Editorial](#)

Statement: This proposal is to add an asterisk (*) to Section 16.10.1 and to replace the text that was lost during the restructuring of the standard during the previous revision cycle.

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

**Public Input No. 230-NFPA 13-2019 [Section No. 16.10.3 [Excluding any Sub-Sections]]**

Piping shall be pitched to drain as stated in 16.10.3.1- ~~through~~ and 16.10.3.3-2

Statement of Problem and Substantiation for Public Input

See P.I. 228 and 229, If these are accepted this must be revised.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 229-NFPA 13-2019 [Section No. 16.10.3.2]	

Submitter Information Verification

Submitter Full Name: David Baron
Organization: Global Fire Protection Company
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 01 13:11:30 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not create a solution to the problem of water trapped between rolled grooves.

**Public Input No. 228-NFPA 13-2019 [Section No. 16.10.3.1]****16.10.3.1 Dry Pipe and Preaction Systems- in-Nonrefrigerated Areas:**

~~In dry pipe system, branch lines~~

~~All Mains and branch line pipe shall be pitched at least 1/2 in. per 10 ft (4 mm/m), and mains shall be pitched at least 1/4 in. per 10 ft (2 mm/m) in nonrefrigerated areas. inch per 10 feet.~~

Statement of Problem and Substantiation for Public Input

Thin wall roll grooved schedule 7 and schedule 10 pipe has become more of the norm for a majority of fire sprinkler installations for both wet and dry systems. The increase in leaks and noted build up of material especially in dry pipe systems has led to changes both in the standard and enforcement of the standards (i.e.obstruction investigation and air leak tests) as well as the increase of installation of nitrogen and other corrosion control products. It is difficult at best at times to confirm proper pitch at 1/4" per 10 ft. especially with conventional levels but it is impossible to warrant or guarantee that the pitch will be maintained after even the first year with normal movement or settling. Too often trying to go back after a relatively short period of time to diagnose or try to resolve a problem relating to pitch it is near impossible to resolve without major changes to establish even the minimum proper pitch for systems. This problem is increased dramatically when long schedule 10 or worse schedule 7 branch lines are used and compounded when welded outlets bend or warp the branch line pipe at the outlets. To add insult to injury anything except new pipe with any type of corrosion or accumulation of debris especially at 1/4" per 10 ft. is enough to hold water inside the pipe especially at the roll groove ends. This should be the minimum not only for refrigerated spaces but for all dry and preaction systems.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 229-NFPA 13-2019 [Section No. 16.10.3.2]	
Public Input No. 231-NFPA 13-2019 [Section No. 16.10.3.3]	
Public Input No. 233-NFPA 13-2019 [Section No. 8.8.2.3]	

Submitter Information Verification

Submitter Full Name: David Baron
Organization: Global Fire Protection Company
Street Address:
City:
State:
Zip:
Submission Date: Wed May 01 12:05:46 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not create a solution to the problem of water trapped between rolled grooves.



Public Input No. 229-NFPA 13-2019 [Section No. 16.10.3.2]

16.10.3.2– Dry and Preaction Systems.

~~In Dry and preaction systems utilizing Thin wall , branch lines- schedule 10 or schedule 7 branch line pipe, the branch line pipe shall be pitched at least- $\frac{1}{2}$ in. per 10 ft (4 mm/m), and mains shall be pitched at least $\frac{1}{4}$ in. per 10 ft (2 mm/m); a minimum of 3/4 inch per 10 foot and 1/2 inch per 10 foot for mains.~~

Statement of Problem and Substantiation for Public Input

See substantiation for P.I 228

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 228-NFPA 13-2019 [Section No. 16.10.3.1]	
Public Input No. 230-NFPA 13-2019 [Section No. 16.10.3 [Excluding any Sub-Sections]]	

Submitter Information Verification

Submitter Full Name: David Baron
Organization: Global Fire Protection Company
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 01 13:05:02 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not create a solution to the problem of water trapped between rolled grooves.



Public Input No. 231-NFPA 13-2019 [Section No. 16.10.3.3]

16.10.3.3 – Dry Pipe and Preaction Systems in Refrigerated Areas.

Branch lines shall be pitched at least $\frac{1}{2}$ in. per 10 ft (4 mm/m), and mains shall be pitched at least $\frac{1}{2}$ in. per 10 ft (4 mm/m) in refrigerated areas.

Statement of Problem and Substantiation for Public Input

See P.I. 228, P.I. 229. If these are accepted this will not need to be specified as it will already be covered.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 228-NFPA 13-2019 [Section No. 16.10.3.1]	

Submitter Information Verification

Submitter Full Name: David Baron
Organization: Global Fire Protection Company
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 01 13:15:02 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not create a solution to the problem of water trapped between rolled grooves.

**Public Input No. 179-NFPA 13-2019 [Section No. 16.10.4]**

16.10.4— * __ System, Main Drain, or Sectional Drain Connections.

[A. 16.10.4 Figure A.16.10.4 \(a\) is an example of an unacceptable arrangement . Because it will not give a true residual reading, it will indicate an excessive pressure drop.](#)

[Figure A.16.10.4\(b\) is an example of an acceptable drain connection for a system riser.](#)

[With this, also delete the asterisk \(*\) from 16.10.4.6 and redesignate Figure A.16.10.4.6\(a\) as Figure A.16.10.4\(a\) and redesignate Figure A.16.10.4.6\(b\) as Figure A.16.10.4\(b\).](#)

16.10.4.1

Provisions shall be made to properly drain all parts of the system.

16.10.4.2

Drain connections for system supply risers and mains shall be sized as shown in Table 16.10.4.2.

Table 16.10.4.2 Drain Size

Riser or Main Size	Size of Drain Connection [in. (mm)]
[in. (mm)]	
Up to 2 (50)	¾ (20) or larger
2½ (65), 3 (80), 3½ (90)	1¼ (32) or larger
4 (100) and larger	2 (50) or larger

16.10.4.3

Where an interior sectional or floor control valve(s) is provided, it shall be provided with a drain connection having a minimum size as shown in Table 16.10.4.2 to drain that portion of the system controlled by the sectional valve.

16.10.4.4

Drains shall discharge outside or to a drain connection capable of handling the flow of the drain.

16.10.4.5

For those drains serving pressure-reducing valves, the drain, drain connection, and all other downstream drain piping shall be sized to permit a flow of at least the greatest system demand supplied by the pressure-reducing valve.

16.10.4.6* — __ Main Drain Test Connections.

16.10.4.6.1

Main drain test connections shall be provided at locations that will permit flow tests of water supplies and connections.

16.10.4.6.2

Main drain test connections shall be installed that the valve can be opened wide for a sufficient time to assure a proper test without causing water damage.

16.10.4.6.3

Main drain connections shall be sized in accordance with 16.10.4.2.

16.10.4.7

The test connections required by 16.10.4.6 shall be permitted to be used as main drain connections.

16.10.4.8

Where drain connections for floor control valves are tied into a common drain riser, the drain riser shall be one pipe size larger downstream of each size drain connection tying into it.

16.10.4.9

Where subject to freezing, a minimum 4 ft (1.2 m) of exposed drain pipe shall be in a heated area between the drain valve and the exterior wall when drain piping extends through the wall to the outside.

Statement of Problem and Substantiation for Public Input

This proposal is to add an asterix (*) to Section 16.10.4, to delete the asterix (*) from 16.10.4.6 and to replace the text that was lost during the restructuring of the standard during the previous revision cycle as a new A.16.10.4. With this, it is also necessary to redesignate Figure A.16.10.4.6(a) as Figure A.16.10.4(a) and redesignate Figure A.16.10.4.6(b) as Figure A.16.10.4(b).

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

During the First Draft phase of the previous cycle, Figures A.8.16.2.4(a) and A.8.16.2.4(b) were also inadvertently deleted, but they were reinserted during the Second Draft as Figures A.16.10.4.6(a) and A.16.10.4.6(b). Now with the reinsertion of the missing text that corresponds with those figures, their designations must be revised to match.

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Sat Mar 16 17:06:53 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1082-NFPA 13-2019 Editorial PI 482 is resolved.

Statement: This proposal is to add an asterix (*) to Section 16.10.4, to delete the asterix (*) from 16.10.4.6 and to replace the text that was lost during the restructuring of the standard during the previous revision cycle as a new A.16.10.4. With this, it is also necessary to redesignate Figure A.16.10.4.6(a) as Figure A.16.10.4(a) and redesignate Figure A.16.10.4.6(b) as Figure A.16.10.4(b).

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

During the First Draft phase of the previous cycle, Figures A.8.16.2.4(a) and A.8.16.2.4(b) were also inadvertently deleted, but they were reinserted during the Second Draft as Figures A.16.10.4.6(a) and A.16.10.4.6(b). Now with the reinsertion of the missing text that corresponds with those figures, their designations must be revised to match.



Public Input No. 180-NFPA 13-2019 [Section No. 16.10.4.1]

16.10.4.1— *

Provisions shall be made to properly drain all parts of the system.

A.16.10.4.1 Provisions should include vents at the top of drain risers in buildings more than six stories in height. An elbow near the top of the drain riser with a horizontal check valve facing in toward the system would be one acceptable arrangement. A check valve at the top of the drain riser would allow air into the drain riser and break any vacuum created by a standing column.

Statement of Problem and Substantiation for Public Input

This proposal is to add an asterisk (*) to Section 16.10.4.1 and to add a new A.16.10.4.1, to replace the text that was lost during the restructuring of the standard during the previous revision cycle.

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Sat Mar 16 17:12:17 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1082-NFPA 13-2019 Editorial PI 482 is resolved.

Statement: This proposal is to add an asterisk (*) to Section 16.10.4, to delete the asterisk (*) from 16.10.4.6 and to replace the text that was lost during the restructuring of the standard during the previous revision cycle as a new A.16.10.4. With this, it is also necessary to redesignate Figure A.16.10.4.6(a) as Figure A.16.10.4(a) and redesignate Figure A.16.10.4.6(b) as Figure A.16.10.4(b).

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

During the First Draft phase of the previous cycle, Figures A.8.16.2.4(a) and A.8.16.2.4(b) were also inadvertently deleted, but they were reinserted during the Second Draft as Figures A.16.10.4.6(a) and A.16.10.4.6(b). Now with the reinsertion of the missing text that corresponds with those figures, their designations must be revised to match.



Public Input No. 482-NFPA 13-2019 [New Section after 16.10.4.2]

A.16.10.4.2

Sizing the main drain connection so that it can flow the sprinkler system demand flow rate provides a practical means for performing the forward flow test of the backflow device as required by 16.10.4.2

Statement of Problem and Substantiation for Public Input

During the last cycle, a number of sections in this area were deleted or omitted without explanation . This may have just been a part of the rewrite. Some of this was remedies in PC 72 and PC 69. This specific annex section, A.16.10.4.2 (A.8.16.2.4.2 in 2016) was addressed in PC 37, with a committee statement that bundled it with PC 72 and PC 69, but it still slipped through the cracks . This annex section was new to the 2016 edition, and dropped from the 2019 edition with no substantiation . It should be retained.

Submitter Information Verification

Submitter Full Name: Chase Browning
Organization: Chase A. Browning Consulting
Street Address:
City:
State:
Zip:
Submission Date: Thu Jun 06 17:24:55 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1082-NFPA 13-2019 Editorial PI 482 is resolved.

Statement: This proposal is to add an asterix (*) to Section 16.10.4, to delete the asterix (*) from 16.10.4.6 and to replace the text that was lost during the restructuring of the standard during the previous revision cycle as a new A.16.10.4. With this, it is also necessary to redesignate Figure A.16.10.4.6(a) as Figure A.16.10.4(a) and redesignate Figure A.16.10.4.6(b) as Figure A.16.10.4(b).

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

During the First Draft phase of the previous cycle, Figures A.8.16.2.4(a) and A.8.16.2.4(b) were also inadvertently deleted, but they were reinserted during the Second Draft as Figures A.16.10.4.6(a) and A.16.10.4.6(b). Now with the reinsertion of the missing text that corresponds with those figures, their designations must be revised to match.

**Public Input No. 181-NFPA 13-2019 [Section No. 16.10.4.2]****16.10.4.2– ***

Drain connections for system supply risers and mains shall be sized as shown in Table 16.10.4.2.

[A.16.10.4.2 Sizing the main drain connection so that it can flow the sprinkler system demand flow rate provides a practical means for performing the forward flow test of the backflow device as required by 16.14.5.1.](#)

Table 16.10.4.2 Drain Size

Riser or Main Size [in. (mm)]	Size of Drain Connection [in. (mm)]
Up to 2 (50)	¾ (20) or larger
2½ (65), 3 (80), 3½ (90)	1¼ (32) or larger
4 (100) and larger	2 (50) or larger

Statement of Problem and Substantiation for Public Input

This proposal is to add an asterisk (*) to Section 16.10.4.2 and to add a new A.16.10.2 to replace the text that was lost during the restructuring of the standard during the previous revision cycle.

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraph only just added during the revision cycle for the 2016 edition of NFPA 13 and it provides valuable guidance concerning the forward flow testing of backflow preventers. This guidance should not have been lost as part of the recent restructuring process, so it should now be reinserted.

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Sat Mar 16 17:18:56 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1082-NFPA 13-2019 Editorial PI 482 is resolved.](#)

Statement: This proposal is to add an asterisk (*) to Section 16.10.4, to delete the asterisk (*) from 16.10.4.6 and to replace the text that was lost during the restructuring of the standard during the previous revision cycle as a new A.16.10.4. With this, it is also necessary to redesignate Figure A.16.10.4.6(a) as Figure A.16.10.4(a) and redesignate Figure A.16.10.4.6(b) as Figure A.16.10.4(b).

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

During the First Draft phase of the previous cycle, Figures A.8.16.2.4(a) and A.8.16.2.4(b) were also inadvertently deleted, but they were reinserted during the Second Draft as Figures A.16.10.4.6(a) and A.16.10.4.6(b). Now with the reinsertion of the missing text that corresponds with those figures, their designations must be revised to match.



Public Input No. 480-NFPA 13-2019 [Section No. 16.10.4.8]

16.10.4.8

Where drain connections for ~~floor control~~ multiple control valves are tied into a common drain riser or manifold, the common drain riser ~~pipin~~g shall be one pipe size larger downstream of each size drain connection tying into it.

Statement of Problem and Substantiation for Public Input

Common drain piping should be handled the same way regardless of whether the drain in a vertical (floor to floor) or side by side arrangement, such as a warehouse. The current language uses 'floor control valves' and the requirement to up-size the pipe downstream of each size drain connection tying into it should also apply to multiple-system manifolds where several systems have a common drain piping arrangement, such as in warehouses, box stores, etc. This can also be very useful when flowing multiple main drains to achieve a forward flow test.

Submitter Information Verification

Submitter Full Name: Chase Browning
Organization: Chase A. Browning Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 17:05:00 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Multiple control valves at the same elevation should not require larger drain sizes.



Public Input No. 232-NFPA 13-2019 [Section No. 16.10.5.1]

16.10.5.1

Auxiliary drains shall be provided where a change in piping ~~direction~~ elevation prevents drainage of system piping through the main drain valve.

Statement of Problem and Substantiation for Public Input

This wording seems more clear as it pertains to any vertical change that could trap water.

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 01 13:22:45 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Direction change includes elevation

**Public Input No. 216-NFPA 13-2019 [Section No. 16.10.5.2.3]****16.10.5.2.3**

Where the capacity of trapped sections of pipes in wet systems is less than 5 gal (20 L), one of the following arrangements shall be provided:

- (1) An auxiliary drain shall consist of a nipple and cap or plug not less than ½ in. (15 mm) in size.
- (2) An auxiliary drain shall not be required for trapped sections less than 5 gal (20 L) where the system piping can be drained by removing a single pendent sprinkler.
- (3) Where flexible couplings or other easily separated connections are used, the nipple and cap or plug shall be permitted to be omitted.
- (4) An auxiliary drain shall not be required for trapped section less than 5 gal (20 L) on flexible sprinkler hose fittings with pendent sprinklers when the drop and hose can be drained by removal of a pendent sprinkler and manipulation of the flexible sprinkler hose fitting.

Statement of Problem and Substantiation for Public Input

There have been inspectors that have been concerned with trapped water within flexible sprinkler drops and required us to manipulate our flexible sprinkler hoses post installation so that if the pendent were to be removed per 16.10.5.2.3(2) the entire drop will drain. The reasoning is that, while the code does allow for a pendent sprinkler to be removed to drain a drop, there is nowhere in the code that allows for a flexible sprinkler drop to be manipulated post installation to drain any trapped water within it. We have attempted to argue that flexible sprinkler drop fittings meet the spirit of paragraph 16.10.5.2.3(3) because in the handbook for NFPA 13 (2016) the commentary states, "...8.16.2.5.2.3(3) recognizes that many of the fittings currently used can be separated easily and can be used to drain small trapped portions of a wet pipe system with little inconvenience." as they can be manipulated easily and can be used to drain small trapped portions of a wet pipe system with little inconvenience, but to no avail. It ends up becoming an interpretation issue which the contractor will lose most of the time. This addition to NFPA 13 would clarify the standard's position when it comes to draining drops that utilize a flexible sprinkler connection.

Submitter Information Verification

Submitter Full Name: Scott Holman

Organization: Shambaugh & Son

Street Address:

City:

State:

Zip:

Submission Date: Mon Apr 08 18:53:36 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Already covered under #3.

**Public Input No. 251-NFPA 13-2019 [Section No. 16.10.5.3.1]****16.10.5.3.1**

Auxiliary drains shall not be located in areas subject to freezing shall be accessible.

Statement of Problem and Substantiation for Public Input

Low point drains lead to corrosion and freeze failures. Locating drains in areas that are subject to freezing increase the potential and probability of corrosion and of system failures. Reducing or minimizing the number of low point drains will minimize failure modes. The possibility exists for better design by eliminating low point drains. Low point drains are sometimes a designers way around problem areas to save money, but are not the best for long-term maintenance and system life expectancy. In situations where low points must be in cold areas, heat can be provided for the low point drain with the proper design input.

Submitter Information Verification

Submitter Full Name: Scott Futrell

Organization: Futrell Fire Consult & Design, Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 13 14:27:29 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Not practical in areas such as attics and parking garages



Public Input No. 246-NFPA 13-2019 [Section No. 16.10.5.3.2]

16.10.5.3.2

Auxiliary drains located in areas maintained at freezing temperatures shall be accessible and shall consist of a valve not smaller than 1 in. (25 mm) and ~~a plug or a nipple and cap.~~ shall comply with 16.10.5.3.5.

Statement of Problem and Substantiation for Public Input

Building owners and maintenance cannot drain low point drains on dry and preaction systems that are 1" valves and plugs. They are not trained, as sprinkler fitters are, to drain a dry or preaction system that is in service. They risk tripping the systems and filling them with water. In winter, cold weather, or freezer applications this contributes to freeze failures, water losses, and potentially fire losses.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 247-NFPA 13-2019 [Section No. 16.10.5.3.3]	
Public Input No. 248-NFPA 13-2019 [Section No. 16.10.5.3.5]	

Submitter Information Verification

Submitter Full Name: Scott Futrell
Organization: Futrell Fire Consult & Design, Inc.
Street Address:
City:
State:
Zip:
Submission Date: Mon May 13 13:57:26 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Existing requirement for an auxiliary drain meets the intent

**Public Input No. 247-NFPA 13-2019 [Section No. 16.10.5.3.3]****16.10.5.3.3 –**

~~Where the capacity of trapped sections of pipe is less than 5 gal (20 L), the auxiliary drain shall consist of a valve not smaller than $\frac{1}{2}$ in. (15 mm) and a plug or a nipple and cap.~~

Statement of Problem and Substantiation for Public Input

Delete this section in its entirety and require only two valve drains in accordance with 16.10.5.3.5 for all trapped piping to eliminate the potential to trip dry and preaction systems inadvertently.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 246-NFPA 13-2019 [Section No. 16.10.5.3.2]	Low point drains
Public Input No. 248-NFPA 13-2019 [Section No. 16.10.5.3.5]	

Submitter Information Verification

Submitter Full Name: Scott Futrell
Organization: Futrell Fire Consult Design, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 13 14:05:55 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See Statement on PI 248



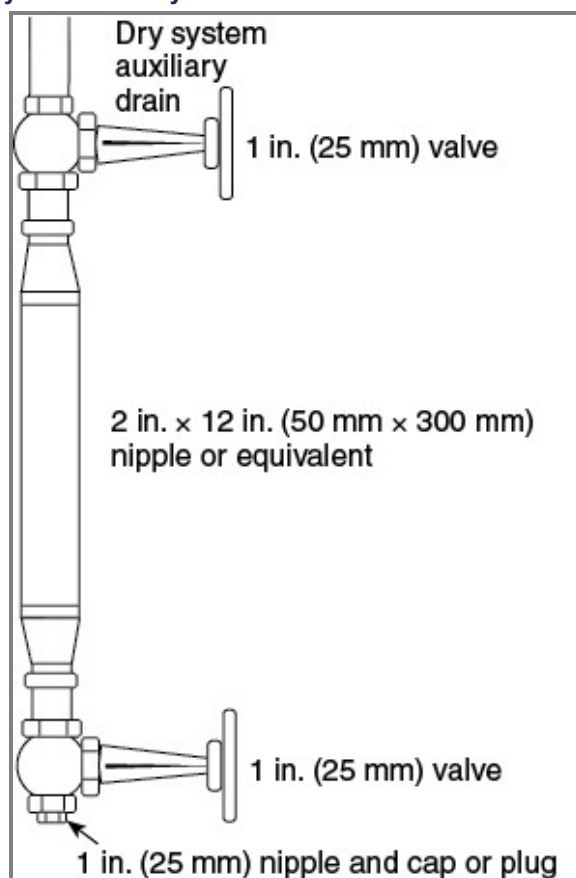
Public Input No. 182-NFPA 13-2019 [Section No. 16.10.5.3.5]

16.10.5.3.5— *

Where the capacity of isolated trapped sections of system piping is more than 5 gal (20 L), the auxiliary drain shall consist of two 1 in. (25 mm) valves and one 2 in. × 12 in. (50 mm × 300 mm) condensate nipple or equivalent, accessibly located in accordance with Figure 16.10.5.3.5, or a device listed for this service.

A.16.10.5.3.5 The requirements of 16.10.5.3.4 should not apply since there is no water condensate to collect in the barrel of a dry sprinkler. Moisture inside the pipe will freeze when located in areas that maintain a freezing temperature.

Figure 16.10.5.3.5 Dry System Auxiliary Drain.



Statement of Problem and Substantiation for Public Input

This proposal is to an asterix (*) to Section 16.10.5.3.5 and add anew Annex Item A.16.10.5.3.5 to replace the text that was lost during the restructuring of the standard during the previous revision cycle.

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

Please note, the additional text "in the barrel of a dry sprinkler" was added to the original text of the first sentence of this paragraph, so that the verbiage would be more self explanatory.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Committee Statement

City:

Resolution: [FR-1083-NFPA 13-2019](#)

State:

Statement: This proposal is to an asterix (*) to Section 16.10.5.3.5 and add anew Annex Item A.16.10.5.3.5 to replace the text that was lost during the restructuring of the standard during the previous revision

Zip:

Submittal Date: Sat Mar 16 17:25:16 EDT 2019

Committee: AUT-SSI

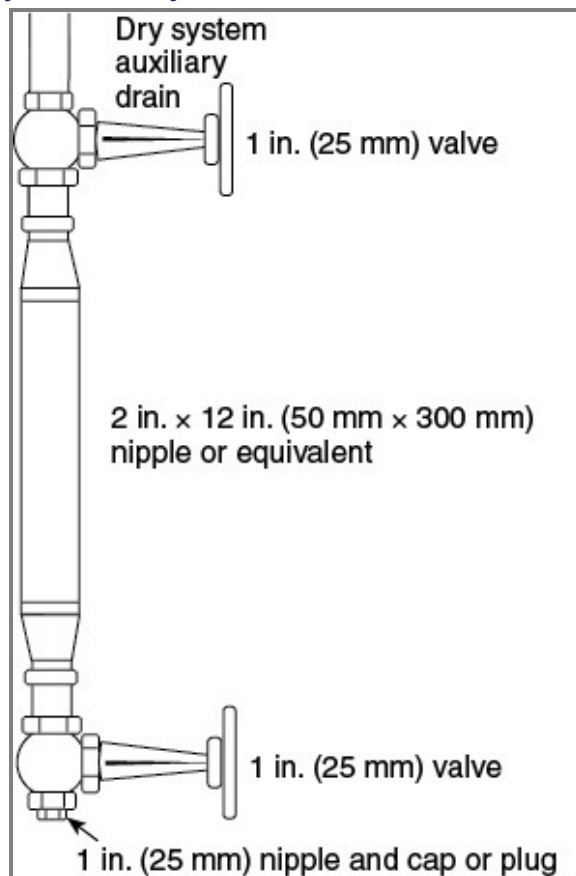
During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

Please note, the additional text "in the barrel of a dry sprinkler" was added to the original text of the first sentence of this paragraph, so that the verbiage would be more self explanatory.

**Public Input No. 248-NFPA 13-2019 [Section No. 16.10.5.3.5]****16.10.5.3.5**

Where the capacity of isolated trapped sections of system piping is more than 5 gal (20 L), the auxiliary drain shall consist of two 1 in. (25 mm) valves and one 2 in. × 12 in. (50 mm × 300 mm) condensate nipple or equivalent, accessibly located in accordance with Figure 16.10.5.3.5, or a device listed for this service.

Figure 16.10.5.3.5 Dry System Auxiliary Drain.

**Statement of Problem and Substantiation for Public Input**

Eliminate the possibility of owners and maintenance from accidentally tripping dry pipe and preaction systems when operating a single valve to facilitate draining condensation and residual water from system low points.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 247-NFPA 13-2019 [Section No. 16.10.5.3.3]	Low point drains
Public Input No. 246-NFPA 13-2019 [Section No. 16.10.5.3.2]	Low point drains

Submitter Information Verification

Submitter Full Name: Scott Futrell

Organization: Futrell Fire Consult & Design, Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 13 14:08:52 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Drum drip assy should not be required in all cases



Public Input No. 183-NFPA 13-2019 [Section No. 16.10.6.1]

16.10.6.1— * _ _

Direct interconnections shall not be made between sprinkler drains and sewers.

A.16.10.6.1 Where possible, the main sprinkler riser drain should discharge outside the building at a point free from the possibility of causing water damage. Where it is not possible to discharge outside the building wall, the drain should be piped to a sump, which in turn should discharge by gravity or be pumped to a wastewater drain or sewer. The main sprinkler riser drain connection should be of a size sufficient to carry off water from the fully open drain valve while it is discharging under normal water system pressures. Where this is not possible, a supplementary drain of equal size should be provided for test purposes with free discharge, located at or above grade.

Statement of Problem and Substantiation for Public Input

This proposal is to add an asterisk (*) to Section 16.10.6.1 and add anew Annex Item A.16.10.6.1 to replace the text that was lost during the restructuring of the standard during the previous revision cycle.

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Sat Mar 16 17:31:00 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1084-NFPA 13-2019](#)

Statement: This proposal is to add an asterisk (*) to Section 16.10.6.1 and add anew Annex Item A.16.10.6.1 to replace the text that was lost during the restructuring of the standard during the previous revision cycle.

During the rewrite / editing of the previous revision cycle, several Annex sections from A.8.16.2 of the 2016 edition of the standard were deleted, with no substantiation or explanations. The missing paragraphs have stood the test of time and provide extremely valuable information / guidance. They should not have been lost as part of the editing process, so they should now be reinserted.



Public Input No. 47-NFPA 13-2019 [Section No. 16.11.1]

16.11.1 Attachments — General.

16.11.1.1*

An alarm unit device shall include a listed mechanical alarm electrical alarm horn , horn, or siren or a listed electric gong, bell, speaker, horn, or siren strobe, bell, gong, siren or voice/alarm notification, or a listed mechanical alarm water motor-operated gong .

16.11.1.2*

~~Outdoor~~ Exterior water motor-operated or electrically operated bells shall be weatherproofed and guarded.

16.11.1.3

All piping to water motor-operated devices shall be galvanized steel, brass, copper, or other approved metallic corrosion-resistant material of not less than $\frac{3}{4}$ in. (20 mm) nominal pipe size.

16.11.1.4

Piping between the sprinkler system and a pressure-actuated alarm-initiating device shall be galvanized steel, brass, copper, or other approved metallic corrosion-resistant material of not less than $\frac{3}{8}$ in. (10 mm) nominal pipe size.

Statement of Problem and Substantiation for Public Input

Improved clarity.

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jan 11 10:46:24 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarification.

**Public Input No. 42-NFPA 13-2019 [Section No. 16.11.1.1]****16.11.1.1***

An alarm unit device shall include a listed ~~mechanical~~ electrical alarm, horn, or siren or a listed electric gong strobe, bell, speaker, horn, or siren gong, siren or voice/alarm notification, or a listed mechanical water motor-operated alarm gong.

Statement of Problem and Substantiation for Public Input

Reworded for improved clarity. No change in meaning.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 43-NFPA 13-2019 [New Section after 16.11.2.1*]	
Public Input No. 43-NFPA 13-2019 [New Section after 16.11.2.1]	

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN
Organization: CITY OF DENVER Fire Department
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jan 11 08:55:34 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarification.

**Public Input No. 43-NFPA 13-2019 [New Section after 16.11.2.1]****TITLE OF NEW CONTENT****16.11.2.1* Waterflow Alarm Devices**

Audible and visual alarm devices shall be located in the interior of the building in all habitable areas protected by the sprinkler system, with a minimum of one audible/visual alarm device on the exterior. An exterior water motor-operated alarm device may be substituted where it is impracticable to receive electrical service from a public utility.

Present 16.11.2.1 renumber to **16.11.2.2**

A.16.11.2.1 Impracticable is to be managed as in the Americans With Disabilities Act of 1990 36.401(c) New construction.

Statement of Problem and Substantiation for Public Input

Sprinklers were invented to extinguish fires in warehouses. Now that sprinklers are touted as providing life safety, the sprinkler alarm capabilities must be upgraded. Sprinkler alarms should have the efficacy of building evacuation alarms. At present, NFPA 13 requires only a single exterior water motor-operated alarm device.

Sprinkler alarms should be upgraded to meet the requirements called for by the NFPA 101 Life Safety Code 9.6.3, the International Fire Code 907.5, and the Americans With Disabilities Act of 1990 702. They all require compliance with the NFPA 72 National Fire Alarm and Signaling Code for building evacuation alarms.

Mechanical water motor-operated alarm devices, at present the only requirement for sprinkler alarms, are notorious for their short lives, and should be permitted only under exceptional circumstances.

The use of the term "impracticable" is intended to have the same meaning as in the Americans With Disabilities Act of 1990 36.401.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 42-NFPA 13-2019 [16.11.1.1*]	
Public Input No. 42-NFPA 13-2019 [Section No. 16.11.1.1]	

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN
Organization: CITY OF DENVER Fire Department
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jan 11 09:38:30 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: Waterflow alarms are not intended to be building evacuation systems as required in NFPA 72.

**Public Input No. 48-NFPA 13-2019 [Section No. 16.11.7.3]****16.11.7.3**

Outdoor electric alarm- Exterior electrical alarm devices shall be listed for outdoor- exterior use.

Statement of Problem and Substantiation for Public Input

Improved clarity.

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jan 11 10:50:33 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: These devices are already listed for this service.

**Public Input No. 244-NFPA 13-2019 [New Section after 16.12]****Fire Department Connections, Height Above Adjacent Grade.**

The fire department connection shall be located not less than 18 in. (500 mm) and not more than 4 ft (1.2 m) above the level of the adjacent grade or access level.

Additional Proposed Changes

File Name	Description	Approved
Proposed_change_reasoning_by_Dale_Way_to_NFPA_13.pdf	Reasoning for proposed change	

Statement of Problem and Substantiation for Public Input

NFPA 13 does not currently set a requirement for fire department connection heights above adjacent grade. This is noted in Annex Material for informational purposes. This proposal is to move this language from the Annex Material into the standard and changing should to shall will set a requirement for fire department connection heights above adjacent grade as a requirement.

Submitter Information Verification

Submitter Full Name: Loren Dale Way
Organization: North Las Vegas Fire Dept
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 09 11:14:09 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Municipal water supplies do not require strainers.



Public Input No. 237-NFPA 13-2019 [New Section after 16.12.3.2]

Insert a new 16.12.3.3, annex and renumber the remaining.

16.12.3.3

Nonthreaded fire department connection couplings, which are greater than 3", shall be equipped with an integral straining screen.

A.16.12.3.3*

Fire department connections, which are greater than 3", are particularly susceptible to debris being disposed of within the connection. Integral screens, as part of the listed device, are a key component to ensuring the integrity of the large orifice fire department connections.

Statement of Problem and Substantiation for Public Input

The standard is somewhat silent on larger sized FDC that are typically supplied by 4" and 5" hoses. Fire department connections, which are greater than 3", are particularly susceptible to debris being disposed of within the connection. Integral screens, as part of the listed device, are a key component to ensuring the integrity of the large orifice fire department connections. The standard should specify this level of protection and that these screens are part of the listing.

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck

Organization: Altamonte Springs Building and Fire Safety Department

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 08 10:34:01 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See Section 16.12.5.1.2



Public Input No. 124-NFPA 13-2019 [New Section after 16.13.4]

16.13.5

Pressure gauge(s) shall be installed upstream of each backflow prevention assembly or riser check valve so that water supply pressure is indicated.

Statement of Problem and Substantiation for Public Input

Currently NFPA 13 only indirectly suggests installation of pressure gauges which display water supply pressure. This is explicitly required by NFPA 13R (2016) 6.12.1. This requirement should be added so that water supply pressure is indicated. When pressure gauges are only provided downstream of backflow prevention assemblies, the water supply pressure cannot be determined without discharging water.

Submitter Information Verification

Submitter Full Name: Brandon Wilkerson

Organization: Poole Fire Protection

Street Address:

City:

State:

Zip:

Submittal Date: Fri Feb 22 16:55:40 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: Gauges on the system side of the BFP are used in conjunction with the main drain test to verify condition of the water supply. Gauges are also not required on the supply side of the riser check.



Public Input No. 558-NFPA 13-2019 [Section No. 16.14.5]

16.14.5* Backflow Devices.

16.14.5.1* Backflow Prevention Valves.

Means shall be provided downstream of all backflow prevention valves for forward flow tests at a minimum flow rate of the system demand including hose allowance where applicable.

16.14.5.1.1

~~The arrangement required in~~

A 2½" hose valve shall be provided downstream of the backflow prevention valve for every 250 GPM of flow rate required.

16.14.5.1

~~shall be serviceable without requiring the owner~~

.2 Existing hose connections downstream of the backflow prevention valve shall be allowed to be utilized.

16.14.5.1.3

Other means shall be permitted as long as the owner doesn't need to modify the system to perform the test.

Statement of Problem and Substantiation for Public Input

For many cycles this requirement has been in the standard and yet very few new systems are being installed with a realistic "means" to perform this test. Inspectors that come in to perform the forward flow test required by NFPA 25 have to resort to opening up all available flow points including the main drain and inspector's test connection and still not get the required rate of flow to adequately perform the test. Some are resorting to reversing the check valve on the FDC or removing the end cap on a cross main to achieve the needed flow rate. By specifying the preferred "means" of installing relatively inexpensive hose valves, and allowing other options if available, future testing will be more cost effective.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 556-NFPA 13-2019 [New Section after 16.9.8.5]	Same concept for forward flow testing.
Public Input No. 559-NFPA 13-2019 [Section No. 27.1.3]	

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submission Date: Fri Jun 07 16:05:58 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See statement on PI 556



Public Input No. 428-NFPA 13-2019 [New Section after 28.1]

Figure 28.1

Edit title to dry pipe operational test to: Dry pipe and double interlock preaction operating test

Statement of Problem and Substantiation for Public Input

This seems the cleanest way to incorporate the timed delivery test required for double interlock preaction systems

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 427-NFPA 13-2019 [Section No. 28.2.3.2]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jun 05 19:04:39 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1050-NFPA 13-2019 PI's 219 & 359 are FR's, PI 498 is resolved -insufficient technical substantiation 585 is accepted as an FR Figure 28.1 moves to the annex per PI 505

Statement: This proposal is to present the pneumatically testing criteria for the dry pipe and preaction systems in a similar manner as that for hydrostatic testing.

Additionally, it is also proposed that Figure 28.1 provide a place for the recording of the operational testing for control valves. Section 28.2.3.5 provides the requirement for this, but there is currently no place on the test certificate to record the test.



Public Input No. 219-NFPA 13-2019 [Section No. 28.1]

28.1 Approval of Sprinkler Systems and Private Fire Service Mains.

The installing contractor shall do the following:

- (1) Notify the authority having jurisdiction and the property owner or the property owner's authorized representative of the time and date testing will be performed
- (2) Perform all required acceptance tests (*see Section 28.2*)
- (3) Complete and sign the appropriate contractor's material and test certificate(s) (*see Figure 28.1*)
- (4) Remove all caps and straps prior to placing the sprinkler system in service

(5) [Revise the first portion of the Tests section of Figure 28.1 as follows:](#)

(6) [All piping hydrostatically tested at _____ psi \(_____ bar\) for _____ hours _____ If no, state reason](#)

[Dry piping pneumatically tested at _____ psi \(_____ bar\) for _____ hours ☐ Yes ☐ No](#)

[All control valves fully closed and opened under system water pressure ☐ Yes ☐ No](#)

[Equipment operates properly ☐ Yes ☐ No](#)

Figure 28.1 Contractor's Material and Test Certificate for Aboveground Piping.

Contractor's Material and Test Certificate for Aboveground Piping									
PROCEDURE Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by the property owner or their authorized agent. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.									
A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.									
Property name _____					Date _____				
Property address _____									
New installation? ☐ Yes ☐ No									
Modification? If yes, complete applicable portions of the form. ☐ Yes ☐ No									
Provide a description of the scope of work on page 3.									
Plans	Accepted by approving authorities (names) _____								
	Address _____								
	Installation conforms to accepted plans ☐ Yes ☐ No								
	Equipment used is approved ☐ Yes ☐ No If no, explain deviations _____								
Instructions	Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? ☐ Yes ☐ No								
	If no, explain _____								
	Have copies of the following been left on the premises? ☐ Yes ☐ No								
	1. System components instructions ☐ Yes ☐ No 2. Care and maintenance instructions ☐ Yes ☐ No 3. NFPA 25 ☐ Yes ☐ No								
Location of system	Supplies buildings _____								
Sprinklers	Make	Model	Year of manufacture	Orifice size	Quantity	Temperature rating			
	_____	_____	_____	_____	_____	_____			
	_____	_____	_____	_____	_____	_____			
	_____	_____	_____	_____	_____	_____			
Pipe and fittings	Type of pipe _____ Type of fittings _____								
Alarm valve or flow indicator	Alarm device				Maximum time to operate through test connection				
	Type	Make	Model	_____	Minutes	Seconds			
	_____	_____	_____	_____	_____	_____			
Dry pipe operating test	Dry valve			Q. O. D.					
	Make	Model	Serial no.	Make	Model	Serial no.			
	_____	_____	_____	_____	_____	_____			
	Time to trip through test connection ^{a,b}		Water pressure	Air pressure	Trip point air pressure	Time water reached test outlet ^{a,b}		Alarm operated properly	
	Minutes Seconds		psi	psi	psi	Minutes Seconds		Yes	No
	Without Q. O. D.		_____	_____	_____	_____		_____	_____
	With Q. O. D.		_____	_____	_____	_____		_____	_____
If no, explain _____									
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NFPA 13 (p. 1 of 3)

^a Measured from time inspector's test connection is opened.

^b NFPA 13 only requires the 60-second limitation in specific sections.

Deluge and preaction valves	Operation ☐ Pneumatic ☐ Electric ☐ Hydraulic							
	Piping supervised ☐ Yes ☐ No Detecting media supervised ☐ Yes ☐ No							
	Does valve operate from the manual trip, remote, or both control stations? ☐ Yes ☐ No							
	Is there an accessible facility in each circuit for testing? ☐ Yes ☐ No If no, explain							
Pressure-reducing valve test	Make	Model	Does each circuit operate supervision loss alarm?		Does each circuit operate valve release?		Maximum time to operate release	
			☐ Yes ☐ No		☐ Yes ☐ No		Minutes Seconds	
			Inlet (psi) Outlet (psi)		Inlet (psi) Outlet (psi)		Flow (gpm)	
Backflow device forward flow test	Indicate means used for forward flow test of backflow device: When means to test device was opened, was system flow demand created? ☐ Yes ☐ No ☐ N/A							
Test description	Hydrostatic: Hydrostatic tests shall be made at not less than 200 psi (13.6 bar) for 2 hours or 50 psi (3.4 bar) above static pressure in excess of 150 psi (10.3 bar) for 2 hours. Differential dry pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped.							
	Pneumatic: Establish 40 psi (2.7 bar) air pressure and measure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours.							
Tests	All piping hydrostatically tested at _____ psi (____ bar) for _____ hours If no, state reason							
	Dry piping pneumatically tested ☐ Yes ☐ No							
	Equipment operates properly ☐ Yes ☐ No							
	Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? ☐ Yes ☐ No							
Blank testing gaskets	Drain test		Reading of gauge located near water supply test connection: _____ psi (____ bar)		Residual pressure with valve in test connection open wide: _____ psi (____ bar)			
	Underground mains and lead-in connections to system risers flushed before connection made to sprinkler piping							
	Verified by copy of the Contractor's Material and Test Certificate for Underground Piping. ☐ Yes ☐ No Other Explain							
	Flushed by installer of underground sprinkler piping ☐ Yes ☐ No							
Welding	If powder-driven fasteners are used in concrete, has representative sample testing been satisfactorily completed? ☐ Yes ☐ No If no, explain							
	Number used _____ Locations _____ Number removed _____							
	Welding piping ☐ Yes ☐ No If yes ...							
	Do you certify as the sprinkler contractor that welding procedures used complied with the minimum requirements of AWS B2.1, ASME Section IX Welding and Brazing Qualifications, or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No							
Additional explanations and notes	Do you certify that all welding was performed by welders or welding operators qualified in accordance with the minimum requirements of AWS B2.1, ASME Section IX Welding and Brazing Qualifications, or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No							
	Do you certify that the welding was conducted in compliance with a documented quality control procedure to ensure that (1) all discs are retrieved; (2) that openings in piping are smooth, that slag and other welding residue are removed; (3) the internal diameters of piping are not penetrated; (4) completed welds are free from cracks, incomplete fusion, surface porosity greater than ¼ in. (1.6 mm) diameter, undercut deeper than the lesser of 25% of the wall thickness or ⅛ in. (0.8 mm); and (5) completed circumferential butt weld reinforcement does not exceed ⅜ in. (9.4 mm)? ☐ Yes ☐ No							
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Statement of Problem and Substantiation for Public Input

This proposal is to present the pneumatically testing criteria for the dry pipe and preaction systems in a similar manner as that for hydrostatic testing.

Additionally, it is also proposed that Figure 28.1 provide a place for the recording of the operational testing for control valves. Section 28.2.3.5 provides the requirement for this, but there is currently no place on the test certificate to record the test.

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 19 23:07:34 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1050-NFPA 13-2019 PI's 219 & 359 are FR's, PI 498 is resolved -insufficient technical substantiation 585 is accepted as an FR Figure 28.1 moves to the annex per PI 505

Statement: This proposal is to present the pneumatically testing criteria for the dry pipe and preaction systems in a similar manner as that for hydrostatic testing.

Additionally, it is also proposed that Figure 28.1 provide a place for the recording of the operational testing for control valves. Section 28.2.3.5 provides the requirement for this, but there is currently no place on the test certificate to record the test.



Public Input No. 359-NFPA 13-2019 [Section No. 28.1]

28.1 Approval of Sprinkler Systems and Private Fire Service Mains.

The installing contractor shall do the following:

- (1) Notify the authority having jurisdiction and the property owner or the property owner's authorized representative of the time and date testing will be performed
- (2) Perform all required acceptance tests (see Section 28.2)
- (3) Complete and sign the appropriate contractor's material and test certificate(s) (see Figure 28.1)
- (4) Remove all caps and straps prior to placing the sprinkler system in service

Figure 28.1 Contractor's Material and Test Certificate for Aboveground Piping.

Contractor's Material and Test Certificate for Aboveground Piping									
PROCEDURE Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by the property owner or their authorized agent. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.									
A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.									
Property name					Date				
Property address					☐ Yes ☐ No ☐ Yes ☐ No				
Modification? If yes, complete applicable portions of the form. Provide a description of the scope of work on page 3.									
Plans	Accepted by approving authorities (names)								
	Address								
	Installation conforms to accepted plans ☐ Yes ☐ No Equipment used is approved ☐ Yes ☐ No If no, explain deviations								
Instructions	Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? ☐ Yes ☐ No If no, explain								
	Have copies of the following been left on the premises? ☐ Yes ☐ No 1. System components instructions ☐ Yes ☐ No 2. Care and maintenance instructions ☐ Yes ☐ No 3. NFPA 25 ☐ Yes ☐ No								
	Location of system Supplies buildings								
Sprinklers	Make	Model	Year of manufacture	Orifice size	Quantity	Temperature rating			
Pipe and fittings	Type of pipe Type of fittings								
Alarm valve or flow indicator	Alarm device			Maximum time to operate through test connection					
	Type	Make	Model	Minutes			Seconds		
Dry pipe operating test	Make		Model	Serial no.	Make	O. O. D.		Model	Serial no.
	Time to trip through test connection ^{a,b}		Water pressure	Air pressure	Trip point air pressure	Time water reached test outlet ^{a,b}		Alarm operated properly	
	Minutes Seconds		psi	psi	psi	Minutes Seconds		Yes No	
	Without O. O. D.								
	With O. O. D.								
	If no, explain								
© 2018 National Fire Protection Association NFPA 13 (p. 1 of 3) ^a Measured from time inspector's test connection is opened. ^b NFPA 13 only requires the 60-second limitation in specific sections.									

Deluge and preaction valves	Operation ☐ Pneumatic ☐ Electric ☐ Hydraulics									
	Piping supervised ☐ Yes ☐ No Detecting media supervised ☐ Yes ☐ No									
	Does valve operate from the manual trip, remote, or both control stations? ☐ Yes ☐ No									
	Is there an accessible facility in each circuit for testing? ☐ Yes ☐ No If no, explain									
Pressure-reducing valve test	Location and floor	Make and model	Setting	Static pressure		Residual pressure (flowing)		Flow rate		
				Inlet (psi)	Outlet (psi)	Inlet (psi)	Outlet (psi)	Flow (gpm)		
Backflow device forward flow test	Indicate means used for forward flow test of backflow device: _____ When means to test device was opened, was system flow demand created? ☐ Yes ☐ No ☐ N/A									
Test description	Hydrostatic: Hydrostatic tests shall be made at not less than 200 psi (13.8 bar) for 2 hours or 50 psi (3.4 bar) above static pressure in excess of 150 psi (10.3 bar) for 2 hours. Differential dry pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped.									
	Pneumatic: Establish 40 psi (2.7 bar) air pressure and measure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours. Test pressure leaks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours.									
Tests	All piping hydrostatically tested at _____ psi (____ bar) for _____ hours If no, state reason									
	Dry piping pneumatically tested ☐ Yes ☐ No									
	Equipment operates properly ☐ Yes ☐ No									
	Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? ☐ Yes ☐ No									
	Drain	Reading of gauge located near water supply test connection _____ psi (____ bar)				Residual pressure with valve in test connection open wide: _____ psi (____ bar)				
	Underground mains and lead-in connections to system risers flushed before connection made to sprinkler piping									
Blank testing gaskets	Verified by copy of the Contractor's Material and Test Certificate for Underground Piping ☐ Yes ☐ No Other Explain									
	Flushed by installer of underground sprinkler piping ☐ Yes ☐ No									
	If powder-driven fasteners are used in concrete, has representative sample testing been satisfactorily completed? ☐ Yes ☐ No If no, explain									
Welding	Number used		Locations					Number removed		
	Welding piping ☐ Yes ☐ No									
	If yes . . .									
	Do you certify as the sprinkler contractor that welding procedures used complied with the minimum requirements of AWS B2.1, ASME Section IX Welding and Brazing Qualifications, or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No									
Welding	Do you certify that all welding was performed by welders or welding operators qualified in accordance with the minimum requirements of AWS B2.1, ASME Section IX Welding and Brazing Qualifications, or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No									
	Do you certify that the welding was conducted in compliance with a documented quality control procedure to ensure that (1) all discs are retrieved; (2) that openings in piping are smooth, that slag and other welding residue are removed; (3) the internal diameters of piping are not penetrated; (4) completed welds are free from cracks, incomplete fusion, surface porosity greater than ¼ in. (1.6 mm) diameter, undercut deeper than the lesser of 25% of the wall thickness or ½ in. (6.8 mm); and (5) completed circumferential butt weld reinforcement does not exceed ¼ in. (2.4 mm)? ☐ Yes ☐ No									
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Cutouts (discs)	Do you certify that you have a control feature to ensure that all cutouts (discs) are retrieved? ☐ Yes ☐ No	
Hydraulic data nameplate	Nameplate provided ☐ Yes ☐ No	If no, explain
	Sprinkler contractor removed all caps and straps? ☐ Yes ☐ No	
Remarks	Date left in service with all control valves open	
Signatures	Name of sprinkler contractor	
	Tests witnessed by	
	The property owner or their authorized agent (signed)	Title Date
	For sprinkler contractor (signed)	Title Date
Additional explanations and notes		
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Statement of Problem and Substantiation for Public Input

Replace "Cutouts (discs)" with "Coupons" to keep consistent language through out NFPA standard terminology/national testing lab terminology

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 358-NFPA 13-2019 [Section No. 7.5.5.2]	Terminology
Public Input No. 357-NFPA 13-2019 [Section No. 7.5.2.4.8]	Terminology

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 16:12:04 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1050-NFPA 13-2019 PI's 219 & 359 are FR's, PI 498 is resolved -insufficient technical substantiation 585 is accepted as an FR Figure 28.1 moves to the annex per PI 505](#)

Statement: This proposal is to present the pneumatically testing criteria for the dry pipe and preaction systems in a similar manner as that for hydrostatic testing.

Additionally, it is also proposed that Figure 28.1 provide a place for the recording of the operational

testing for control valves. Section 28.2.3.5 provides the requirement for this, but there is currently no place on the test certificate to record the test.



Public Input No. 498-NFPA 13-2019 [Section No. 28.1]

28.1* Approval of Sprinkler Systems and Private Fire Service Mains.

The installing contractor shall do the following:

- (1) Notify the authority having jurisdiction and the property owner or the property owner's authorized representative of the time and date testing will be performed
- (2) Perform all required acceptance tests (*see Section 28.2*)
- (3) Complete and sign the appropriate contractor's material and test certificate(s) (*see Figure A. 28.1 for a sample*)
- (4) Remove all caps and straps prior to placing the sprinkler system in service

Figure 28.1 Contractor's Material and Test Certificate for Aboveground Piping.

Contractor's Material and Test Certificate for Aboveground Piping									
PROCEDURE Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by the property owner or their authorized agent. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.									
A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.									
Property name _____					Date _____				
Property address _____									
New installation? ☐ Yes ☐ No									
Modification? If yes, complete applicable portions of the form. ☐ Yes ☐ No									
Provide a description of the scope of work on page 3.									
Plans	Accepted by approving authorities (names) _____								
	Address _____								
	Installation conforms to accepted plans ☐ Yes ☐ No								
Equipment used is approved ☐ Yes ☐ No									
If no, explain deviations _____									
Instructions	Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? ☐ Yes ☐ No								
	If no, explain _____								
	Have copies of the following been left on the premises? ☐ Yes ☐ No								
	1. System components instructions ☐ Yes ☐ No								
2. Care and maintenance instructions ☐ Yes ☐ No									
3. NFPA 25 ☐ Yes ☐ No									
Location of system	Supplies buildings _____								
Sprinklers	Make	Model	Year of manufacture	Orifice size	Quantity	Temperature rating			
Pipe and fittings	Type of pipe _____ Type of fittings _____								
Alarm valve or flow indicator	Alarm device			Maximum time to operate through test connection					
	Type	Make	Model	Minutes			Seconds		
Dry pipe operating test	Dry valve			Q. O. D.					
	Make	Model	Serial no.	Make	Model	Serial no.			
	Time to trip through test connection ^{a,b}		Water pressure	Air pressure	Trip point air pressure	Time water reached test outlet ^{a,b}	Alarm operated properly		
	Minutes	Seconds	psi	psi	psi	Minutes	Seconds	Yes	No
	Without Q. O. D.								
	With Q. O. D.								
	If no, explain _____								
© 2018 National Fire Protection Association NFPA 13 (p. 1 of 3)									
^a Measured from time inspector's test connection is opened.									
^b NFPA 13 only requires the 60-second limitation in specific sections.									

Deluge and preaction valves	Operation ☐ Pneumatic ☐ Electric ☐ Hydraulics							
	Piping supervised ☐ Yes ☐ No				Detecting media supervised ☐ Yes ☐ No			
	Does valve operate from the manual trip, remote, or both control stations? ☐ Yes ☐ No							
	Is there an accessible facility in each circuit for testing? ☐ Yes ☐ No							
	If no, explain							
Pressure-reducing valve test	Location and floor	Make and model	Setting	Static pressure		Residual pressure (flowing)		Flow rate
				Inlet (psi)	Outlet (psi)	Inlet (psi)	Outlet (psi)	
				Minutes	Seconds	Minutes	Seconds	
Backflow device forward flow test	Indicate means used for forward flow test of backflow device: When means to test device was opened, was system flow demand created? ☐ Yes ☐ No ☐ N/A							
Test description	Hydrostatic: Hydrostatic tests shall be made at not less than 200 psi (13.8 bar) for 2 hours or 50 psi (3.4 bar) above static pressure in excess of 150 psi (10.3 bar) for 2 hours. Differential dry pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped.							
	Pneumatic: Establish 40 psi (2.7 bar) air pressure and measure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours.							
Tests	All piping hydrostatically tested at _____ psi (____ bar) for _____ hours If no, state reason: Dry piping pneumatically tested ☐ Yes ☐ No Equipment operates properly ☐ Yes ☐ No							
	Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? ☐ Yes ☐ No							
	Drain _____ psi (____ bar) Reading of gauge located near water supply test connection:				Residual pressure with valve in test connection open wide _____ psi (____ bar)			
	Underground mains and lead-in connections to system risers flushed before connection made to sprinkler piping							
	Verified by copy of the Contractor's Material and Test Certificate for Underground Piping ☐ Yes ☐ No Other Explain Flushed by installer of underground sprinkler piping ☐ Yes ☐ No							
Blank testing gaskets	Number used _____ Locations _____				Number removed _____			
	Welding piping ☐ Yes ☐ No							
Welding	If yes . . .							
	Do you certify as the sprinkler contractor that welding procedures used complied with the minimum requirements of AWS B2.1, ASME Section IX <i>Welding and Brazing Qualifications</i> , or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No							
	Do you certify that all welding was performed by welders or welding operators qualified in accordance with the minimum requirements of AWS B2.1, ASME Section IX <i>Welding and Brazing Qualifications</i> , or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No							
	Do you certify that the welding was conducted in compliance with a documented quality control procedure to ensure that (1) all discs are retrieved; (2) that openings in piping are smooth, that slag and other welding residue are removed; (3) the internal diameters of piping are not penetrated; (4) completed welds are free from cracks, incomplete fusion, surface porosity greater than ¼ in. (1.6 mm) diameter, undercut deeper than the lesser of 25% of the wall thickness or ¼ in. (0.8 mm); and (5) completed circumferential butt weld reinforcement does not exceed ¾ in. (2.4 mm)? ☐ Yes ☐ No							
© 2018 National Fire Protection Association NFPA 13 (p. 2 of 3)								
Cutouts (discs)	Do you certify that you have a control feature to ensure that all cutouts (discs) are retrieved? ☐ Yes ☐ No							
Hydraulic data nameplate	Nameplate provided ☐ Yes ☐ No				If no, explain			
Sprinkler contractor removed all caps and straps? ☐ Yes ☐ No								
Remarks	Date left in service with all control valves open							
Signatures	Name of sprinkler contractor							
	Tests witnessed by							
	The property owner or their authorized agent (signed)				Title		Date	
For sprinkler contractor (signed)				Title		Date		
Additional explanations and notes								
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MOVE FIGURE 28.1 to new annex section

Statement of Problem and Substantiation for Public Input

The current test certificates have not been updated for many cycles. It appears that the current code requires contractors to use the form found in figure 28.1 without modification. Several companies have moved to digital forms which are easier to read and edit on a screen and allow for digital signatures. Many of these companies

have made modifications to their digital forms to provide various improvements to the current certificate:

1. Added important information found in the acceptance chapter that is not found on the form (for example, the presence of the general information sign)
2. Removed information on the form that is not in the acceptance chapter. (recording trip times without a QOD when the system is designed with a QOD).
3. Reconfiguring the form based on the party responsible for the data entry. The form requires input that is typically supplied by multiple parties. (for example, the designer, the project manager, and the fitter). The portion to be supplied by each party is scattered throughout the document making it difficult to fill out correctly. Usually this form is partially filled out by the designer (material and design criteria), then the project manager provides additional information (welding, O&Ms, etc.), and then the fitter supplies the testing results.
4. Reconfiguring the form based on the natural sequence of the testing. Most systems are hydrostatically tested weeks before the alarms are installed and ready for testing. Most system are trip and alarm tested before owner training is scheduled. Following the natural order makes the form more self-documenting, provides better instruction, and ensures completion.
5. Modify for multiple signatures. There is only one spot on this form for a signature even though multiple activities are covered by these forms which often take place by different people at separate occasions. Often, AHJs and GCs require paperwork to be submitted after each activity, resulting in the submission of incomplete forms, which looks bad and can expose one to liability.
6. Splitting the certification into three forms to match the separate activities it covers, hydrostatic testing, system testing, and owner training/turnover. Often the number of hydrostatic tests does not match the number of systems you activate, and owner training/turnover is usually a single event. Multiple form reduces the number of blank fields and duplicate entries.
7. Portions of the forms may not be appropriate for all projects (for example, a tenant improvement or a main replacement). A smart, digital form or software package could collect just the relevant information needed for acceptance, reducing the number of blank fields and duplicate entries. Modern software can not only make completing the form easier, but can also distribute the completed form for digital signatures, and archive the certificates in cloud storage.
8. Add additional instruction or legal language. The one-size-fits-all form prevents contractors from including important instruction or legal verbiage that may protect them from future legal action.

By moving this form to the annex, contractors will have the ability to tailor a form to be pertinent to the particular project. (This may be a Task Group project to update and modernize these forms.
This concept if accepted needs to be correlated with NFPA 24 and NFPA 13.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 500-NFPA 13-2019 [Section No. 28.2.3.2.4]	
Public Input No. 501-NFPA 13-2019 [Section No. 28.2.3.4.2]	
Public Input No. 502-NFPA 13-2019 [Section No. 28.2.4.3]	
Public Input No. 505-NFPA 13-2019 [New Section after A.27.5.4]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: On behalf of the NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submission Date: Fri Jun 07 09:14:09 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1050-NFPA 13-2019 PI's 219 & 359 are FR's, PI 498 is resolved -insufficient technical substantiation 585 is accepted as an FR Figure 28.1 moves to the annex per PI 505](#)

Statement: This proposal is to present the pneumatically testing criteria for the dry pipe and preaction systems in a similar manner as that for hydrostatic testing.

Additionally, it is also proposed that Figure 28.1 provide a place for the recording of the operational testing for control valves. Section 28.2.3.5 provides the requirement for this, but there is currently no place on the test certificate to record the test.



Public Input No. 585-NFPA 13-2019 [Section No. 28.1]

28.1 Approval of Sprinkler Systems and Private Fire Service Mains.

The installing contractor shall do the following:

- (1) Notify the authority having jurisdiction and the property owner or the property owner's authorized representative of the time and date testing will be performed
- (2) Perform all required acceptance tests (*see Section 28.2*)
- (3) Complete and sign the appropriate contractor's material and test certificate(s) (*see Figure 28.1*)
Update the following in the Figure - Sprinkler section - Add SIN., use K factor in lieu of orifice
- (4) Remove all caps and straps prior to placing the sprinkler system in service

Figure 28.1 Contractor's Material and Test Certificate for Aboveground Piping.

Contractor's Material and Test Certificate for Aboveground Piping									
PROCEDURE Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by the property owner or their authorized agent. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.									
A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.									
Property name					Date				
Property address									
New installation? ☐ Yes ☐ No									
Modification? If yes, complete applicable portions of the form. ☐ Yes ☐ No									
Provide a description of the scope of work on page 3.									
Plans	Accepted by approving authorities (names)								
	Address								
	Installation conforms to accepted plans ☐ Yes ☐ No								
Equipment used is approved ☐ Yes ☐ No									
If no, explain deviations									
Instructions	Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? ☐ Yes ☐ No								
	If no, explain								
	Have copies of the following been left on the premises? ☐ Yes ☐ No								
	1. System components instructions ☐ Yes ☐ No								
2. Care and maintenance instructions ☐ Yes ☐ No									
3. NFPA 25 ☐ Yes ☐ No									
Location of system	Supplies buildings								
Sprinklers	Make	Model	Year of manufacture	Orifice size	Quantity	Temperature rating			
Pipe and fittings	Type of pipe								
Type of fittings									
Alarm valve or flow indicator	Alarm device				Maximum time to operate through test connection				
	Type	Make	Model		Minutes	Seconds			
Dry pipe operating test	Dry valve			O. O. D.					
	Make	Model	Serial no.	Make	Model	Serial no.			
	Time to trip through test connection ^{a,b}		Water pressure	Air pressure	Trip point air pressure	Time water reached test outlet ^{a,b}	Alarm operated properly		
	Minutes	Seconds	psi	psi	psi	Minutes	Seconds	Yes	No
	Without O.O.D.								
	With O.O.D.								
	If no, explain								
© 2018 National Fire Protection Association NFPA 13 (p. 1 of 3)									
^a Measured from time inspector's test connection is opened.									
^b NFPA 13 only requires the 60-second limitation in specific sections.									

Deluge and preaction valves	Operation ☐ Pneumatic ☐ Electric ☐ Hydraulic									
	Piping supervised ☐ Yes ☐ No Detecting media supervised ☐ Yes ☐ No									
	Does valve operate from the manual trip, remote, or both control stations? ☐ Yes ☐ No									
	Is there an accessible facility in each circuit for testing? ☐ Yes ☐ No If no, explain									
Pressure-reducing valve test	Make	Model	Does each circuit operate supervision loss alarm?		Does each circuit operate valve release?		Maximum time to operate release			
			Yes	No	Yes	No	Minutes	Seconds		
			Static pressure		Residual pressure (flowing)		Flow rate			
Backflow device forward flow test	Location and floor		Setting		Inlet (psi)		Outlet (psi)		Flow (gpm)	
Test description	Indicate means used for forward flow test of backflow device:									
	When means to test device was opened, was system flow demand created? ☐ Yes ☐ No ☐ N/A									
Tests	Hydrostatic: Hydrostatic tests shall be made at not less than 200 psi (13.6 bar) for 2 hours or 50 psi (3.4 bar) above static pressure in excess of 150 psi (10.3 bar) for 2 hours. Differential dry pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped.									
	Pneumatic: Establish 40 psi (2.7 bar) air pressure and measure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours.									
	All piping hydrostatically tested at _____ psi (____ bar) for _____ hours If no, state reason									
	Dry piping pneumatically tested ☐ Yes ☐ No Equipment operates properly ☐ Yes ☐ No									
Blank testing gaskets	Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? ☐ Yes ☐ No									
	Drain test		Reading of gauge located near water supply test connection: _____ psi (____ bar)		Residual pressure with valve in test connection open wide: _____ psi (____ bar)					
	Underground mains and lead-in connections to system risers flushed before connection made to sprinkler piping									
	Verified by copy of the Contractor's Material and Test Certificate for Underground Piping. ☐ Yes ☐ No Other Explain									
Welding	Flushed by installer of underground sprinkler piping ☐ Yes ☐ No									
	If powder-driven fasteners are used in concrete, has representative sample testing been satisfactorily completed? ☐ Yes ☐ No If no, explain									
	Number used		Locations						Number removed	
	Welding piping ☐ Yes ☐ No If yes ...									
Signatures	Do you certify as the sprinkler contractor that welding procedures used complied with the minimum requirements of AWS B2.1, ASME Section IX Welding and Brazing Qualifications, or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No									
	Do you certify that all welding was performed by welders or welding operators qualified in accordance with the minimum requirements of AWS B2.1, ASME Section IX Welding and Brazing Qualifications, or other applicable qualification standard as required by the AHJ? ☐ Yes ☐ No									
	Do you certify that the welding was conducted in compliance with a documented quality control procedure to ensure that (1) all discs are retrieved; (2) that openings in piping are smooth, that slag and other welding residue are removed; (3) the internal diameters of piping are not penetrated; (4) completed welds are free from cracks, incomplete fusion, surface porosity greater than ¼ in. (1.6 mm) diameter, undercut deeper than the lesser of 25% of the wall thickness or ⅛ in. (0.8 mm); and (5) completed circumferential butt weld reinforcement does not exceed ⅜ in. (9.4 mm)? ☐ Yes ☐ No									
	© 2018 National Fire Protection Association NFPA 13 (p. 2 of 3)									
Cutouts (discs)	Do you certify that you have a control feature to ensure that all cutouts (discs) are retrieved? ☐ Yes ☐ No									
	Hydraulic data nameplate Nameplate provided ☐ Yes ☐ No If no, explain									
Sprinkler contractor removed all caps and straps? ☐ Yes ☐ No										
Remarks Date left in service with all control valves open										
Signatures	Name of sprinkler contractor									
	Tests witnessed by									
	The property owner or their authorized agent (signed)				Title		Date			
	For sprinkler contractor (signed)				Title		Date			
Additional explanations and notes										
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Statement of Problem and Substantiation for Public Input

The figure is outdated with utilizing "orifice". Also, the SIN of a sprinkler is important information. The committee should review the entire form.

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: Strickland Fire Protection, Incorporated

Committee Statement: American Fire Sprinkler Association

Street Address:

Resolution: [FR-1050-NFPA 13-2019 PI's 219 & 359 are FR's, PI 498 is resolved -insufficient technical substantiation 585 is accepted as an FR Figure 28.1 moves to the annex per PI 505](#)

City:

State:

Statement: This proposal is to present the pneumatically testing criteria for the dry pipe and preaction systems in a similar manner as that for hydrostatic testing.

Zip:

Submittal Date: Sun Jun 09 22:39:13 EDT 2019

Committee: Additionally, it is also proposed that Figure 28.1 provide a place for the recording of the operational testing for control valves. Section 28.2.3.5 provides the requirement for this, but there is currently no place on the test certificate to record the test.



Public Input No. 341-NFPA 13-2019 [New Section after 28.2.1.3]

28.2.1.4

Where a fire pump is utilized for a system, the test pressure shall be determined using the churn pressure of the pump.

28.2.1.4.1

Where a fire pump utilizes a pressure limiting device (PLD) or variable speed motor, the test pressure shall be calculated ignoring the settings of the pressure limiting device.

Statement of Problem and Substantiation for Public Input

Adds clarification and a reminder to include the full pressure of the fire pump when determining the hydrostatic test pressure.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 14:50:23 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Section 28.2.5.1 already addresses the submitters concern



Public Input No. 362-NFPA 13-2019 [New Section after 28.2.1.5]

28.2.1.6

In buildings with multiple floors with individual floor control valves, each floor shall be tested in accordance with 28.2.1.1.

Statement of Problem and Substantiation for Public Input

Since NFPA 13 defines each floor with a control valve, flow switch, check valve, drain and gauge as a separate system, each floor should be pressure tested in accordance with 28.2.1.1.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 16:17:59 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The standard already addresses the submitters concern.



Public Input No. 360-NFPA 13-2019 [Section No. 28.2.1.5]

28.2.1.5 *

The test pressure shall be read from a gauge located at the low elevation point of the system or portion being tested.

28.2.1.5.1

The pressures in piping at higher elevations shall be permitted to be less than 200 psi (14 bar) when accounting for elevation losses.

28.2.1.5.2

Systems or portions of systems that can be isolated shall be permitted to be tested separately.

Statement of Problem and Substantiation for Public Input

Separate requirements per manual of style.

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 16:15:24 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: The current 28.2.5.1 already address the submitters concern.



Public Input No. 406-NFPA 13-2019 [New Section after 28.2.1.7]

Testing FDC Piping

28.2.1.7.1 After repair or replacement work affecting the fire department connection, the piping between the exterior and the check valve in the fire department inlet pipe shall be isolated and hydrostatically tested at 150 psi (10 bar).

Statement of Problem and Substantiation for Public Input

Modifications that effect the FDC piping are critical to the successful operation of the sprinkler system. It is imperative that this section of pipe is tested every time it is modified.

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 04 16:04:29 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The current language in 28.2.1.7 already addresses this issue.

**Public Input No. 364-NFPA 13-2019 [New Section after 28.2.1.8]****28.2.1.8.1**

An additional hydrostatic test shall not be required once the sprinklers are installed.

Statement of Problem and Substantiation for Public Input

This is currently annex language and it belongs in the body of the standard. I am of the opinion that a second hydrostatic test should be performed once the sprinklers are installed as there could be a cross thread or damaged sprinkler that could be exposed during a subsequent hydrostatic test.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 363-NFPA 13-2019 [Section No. A.28.2.1.8]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 16:23:12 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1051-NFPA 13-2019 PI 129 is accepted as a FR, PI 364 is to resolve and see action on PI 129, PI 586 is resolved see action on PI 129](#)

Statement: additional language clarifies the committee intent more clear to users

**Public Input No. 129-NFPA 13-2019 [Section No. 28.2.1.8]****28.2.1.8***

When systems are being hydrostatically tested, tests shall be permitted to be conducted with pendent or horizontal sidewall sprinklers or plugs installed in fittings. Any plugs shall be replaced with pendent or horizontal sidewall sprinklers after the test is completed. , and a second hydrostatic test shall not be required

Statement of Problem and Substantiation for Public Input

additional language clarifies the committee intent more clear to users

Submitter Information Verification

Submitter Full Name: Robert Caputo

Organization: Fire & Life Safety America

Street Address:

City:

State:

Zip:

Submittal Date: Wed Feb 27 11:51:58 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1051-NFPA 13-2019 PI 129 is accepted as a FR, PI 364 is to resolve and see action on PI 129, PI 586 is resolved see action on PI 129

Statement: additional language clarifies the committee intent more clear to users



Public Input No. 586-NFPA 13-2019 [Section No. 28.2.1.8]

28.2.1.8*

When systems are being hydrostatically tested, tests shall be permitted to be conducted with pendent or horizontal sidewall sprinklers or plugs installed in fittings. Any plugs shall be replaced with pendent or horizontal sidewall sprinklers after the test is completed without the need for additional hydrostatic test above system pressure .

Statement of Problem and Substantiation for Public Input

Some AHJs require retesting the entire system at full hydrostatic test pressure. I do not believe this is the intent of the technical committee.

Submitter Information Verification

Submitter Full Name: John Denhardt
Organization: Strickland Fire Protection, Incorporated
Affiliation: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 09 22:48:42 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1051-NFPA 13-2019 PI 129 is accepted as a FR, PI 364 is to resolve and see action on PI 129, PI 586 is resolved see action on PI 129

Statement: additional language clarifies the committee intent more clear to users



Public Input No. 587-NFPA 13-2019 [Section No. 28.2.2.2]

28.2.2.2

Where systems are installed in spaces that are capable of being operated at temperatures below 32°F (0°C), air or nitrogen gas pressure leakage tests required in 28.2.2 shall be conducted at the lowest nominal temperature of the space.

Statement of Problem and Substantiation for Public Input

By definitions in this standard, air includes nitrogen.

This entire paragraph needs to be reworked or deleted. How does a contractor test a parking garage in the middle of summer? I assume the technical committee's intent was for a refrigerated type occupancy, but the text does not require that. We have had AHJs state we need to return to a job site when the weather was extremely cold to perform an additional air leakage test.

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: Strickland Fire Protection, Incorporated

Affiliation: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Sun Jun 09 22:52:50 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1052-NFPA 13-2019 This section is deleted. It is not the intent to wait until cold weather to perform a hydrostatic test.

Statement: By definitions in this standard, air includes nitrogen.

This entire paragraph needs to be reworked or deleted. How does a contractor test a parking garage in the middle of summer? I assume the technical committee's intent was for a refrigerated type occupancy, but the text does not require that. We have had AHJs state we need to return to a job site when the weather was extremely cold to perform an additional air leakage test.

**Public Input No. 45-NFPA 13-2019 [Section No. 28.2.3.1]****28.2.3.1** Waterflow Devices.

~~Waterflow detecting devices including-~~ The w aterflow detecting device including the associated alarm circuits ~~shall-~~ circuit shall be flow tested through the inspector's test connection and shall result in an audible or audible/visual alarm on the premises within 5 minutes after such flow begins and until such flow stops.

28.2.3.1.1

Where a fire alarm system is monitoring waterflow, an alarm signal shall activate in accordance with the requirements of the adopted fire alarm code.

Statement of Problem and Substantiation for Public Input

Improved clarity.

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jan 11 10:34:50 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarification.

**Public Input No. 427-NFPA 13-2019 [Section No. 28.2.3.2]****28.2.3.2*** Dry Pipe and Double Interlock Preaction Systems._**28.2.3.2.1**

A working ~~test of the dry pipe valve shall~~ test shall be made by opening the inspector's test connection.

28.2.3.2.2

Where a quick opening device is present, the trip test described in 28.2.3.2.1 shall be sufficient to test the quick opening device as long as the device trips properly during the test.

28.2.3.2.3*

The test shall measure the time to trip the valve and the time for water to be discharged from the inspector's test connection. All times shall be measured from the time the inspector's test connection is completely opened.

28.2.3.2.3.1*

~~Dry systems~~ Systems calculated for water delivery in accordance with 8.2.3.6 shall be exempt from any specific delivery time requirement.

28.2.3.2.4

The results shall be recorded using the contractor's material and test certificate for aboveground piping (*see Figure 28.1*) and the general information sign (*see Figure A.28.6*).

Statement of Problem and Substantiation for Public Input

Just like dry-pipe systems, double interlock preaction systems have a maximum delivery time dependent upon system volume. As such, it needs to be addressed by chapter 28. I mimicked the format used for both system that are combined by section 28.2.2.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 428-NFPA 13-2019 [New Section after 28.1]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jun 05 18:57:50 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1053-NFPA 13-2019 PI 443, 500 and 593 are resolved see action on PI 427.](#)

Statement: Just like dry-pipe systems, double interlock preaction systems have a maximum delivery time dependent upon system volume. As such, it needs to be addressed by chapter 28. I mimicked the format used for both system that are combined by section 28.2.2.



Public Input No. 443-NFPA 13-2019 [Section No. 28.2.3.2]

28.2.3.2* Dry Pipe and Double Interlock Preaction Systems.

28.2.3.2.1

A working test of the dry pipe or double interlock preaction valve shall be made by opening the inspector's test connection.

28.2.3.2.2

Where a quick opening device is present, the trip test described in 28.2.3.2.1 shall be sufficient to test the quick opening device as long as the device trips properly during the test.

28.2.3.2.3*

The test shall measure the time to trip the valve and the time for water to be discharged from the inspector's test connection. All times shall be measured from the time the inspector's test connection is completely opened.

28.2.3.2.3.1*

Dry and double interlock preaction systems calculated for water delivery in accordance with 8.2.3.6 shall be exempt from any specific delivery time requirement.

28.2.3.2.4

The results shall be recorded using the contractor's material and test certificate for aboveground piping (see *Figure 28.1*) and the general information sign (see *Figure A.28.6*).

Statement of Problem and Substantiation for Public Input

Double interlock preaction systems are required to be sized for water delivery time to the ITV the same as dry pipe systems. This time needs to be field verified and documented the same as a dry pipe system.

Submitter Information Verification

Submitter Full Name: James Richardson

Organization: Lisle Woodridge Fire District

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 11:43:18 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1053-NFPA 13-2019 PI 443, 500 and 593 are resolved see action on PI 427.

Statement: Just like dry-pipe systems, double interlock preaction systems have a maximum delivery time dependent upon system volume. As such, it needs to be addressed by chapter 28. I mimicked the format used for both system that are combined by section 28.2.2.



Public Input No. 593-NFPA 13-2019 [Section No. 28.2.3.2]

28.2.3.2* Dry Pipe and Double-Interlocked Preaction Systems.

28.2.3.2.1

A working test of the dry pipe or deluge valve shall be made by opening the inspector's test connection.

28.2.3.2.2

Where a quick opening device is present, the trip test described in 28.2.3.2.1 shall be sufficient to test the quick opening device as long as the device trips properly during the test.

28.2.3.2.3*

The test shall measure the time to trip the valve and the time for water to be discharged from the inspector's test connection. All times shall be measured from the time the inspector's test connection is completely opened.

28.2.3.2.3.1*

~~Dry systems- pipe or d~~ ouble-Interlocked preaction systems calculated for water delivery in accordance with 8.2.3.6 shall be exempt from any specific delivery time requirement.

28.2.3.2.4

The results shall be recorded using the contractor's material and test certificate for aboveground piping (see *Figure 28.1*) and the general information sign (see *Figure A.28.6*).

Statement of Problem and Substantiation for Public Input

A double-interlocked preaction system is typically treated as a dry pipe system. However, no acceptance test requirements are currently provided for a double-interlocked system with regard to tip test timing.

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: Strickland Fire Protection, Incorporated

Affiliation: American Fire Sprinkler Association.

Street Address:

City:

State:

Zip:

Submittal Date: Sun Jun 09 23:28:55 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1053-NFPA 13-2019 PI 443, 500 and 593 are resolved see action on PI 427.

Statement: Just like dry-pipe systems, double interlock preaction systems have a maximum delivery time dependent upon system volume. As such, it needs to be addressed by chapter 28. I mimicked the format used for both system that are combined by section 28.2.2.



Public Input No. 500-NFPA 13-2019 [Section No. 28.2.3.2.4]

28.2.3.2.4

The results shall be recorded using the contractor's material and test certificate for aboveground piping (see *Figure A. 28.1*) and the general information sign (see *Figure A.28.6*).

Statement of Problem and Substantiation for Public Input

This is related to PI 498 which seeks to move Figure 28.1 to the annex. If PI 498 is accepted this change is needed

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 498-NFPA 13-2019 [Section No. 28.1]	related
Public Input No. 501-NFPA 13-2019 [Section No. 28.2.3.4.2]	
Public Input No. 502-NFPA 13-2019 [Section No. 28.2.4.3]	
Public Input No. 505-NFPA 13-2019 [New Section after A.27.5.4]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: On behalf of NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 09:28:30 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1053-NFPA 13-2019 PI 443, 500 and 593 are resolved see action on PI 427.](#)
Statement: Just like dry-pipe systems, double interlock preaction systems have a maximum delivery time dependent upon system volume. As such, it needs to be addressed by chapter 28. I mimicked the format used for both system that are combined by section 28.2.2.



Public Input No. 549-NFPA 13-2019 [New Section after 28.2.3.3.2]

Electronic Sprinklers

28.2.3.X The automatic operation of electronic sprinkler systems shall be tested in accordance with manufacturers instructions.

Statement of Problem and Substantiation for Public Input

Electronic sprinklers are a new technology in which the primary means of operation is through an electrical signal provided by an electronic control system using specialized detection and control algorithms. It is important that these systems are tested for their intended functionality upon installation. Each system is different, using various means of detection and control, and the manufacturer must provide instructions on how to properly verify that the system will function as intended before being turned over to the owner.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 421-NFPA 13-2019 [New Section after 8.10]	

Submitter Information Verification

Submitter Full Name: Zachary Magnone
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 15:23:32 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Already covered by section 1.7.



Public Input No. 501-NFPA 13-2019 [Section No. 28.2.3.4.2]

28.2.3.4.2*

The static and residual pressures shall be recorded on the contractor's material and test certificate (see *Figure A. 28.1*) and the sprinkler system general information placard (see *Figure A.28.6*).

Statement of Problem and Substantiation for Public Input

This is related to PI 498 which seeks to move Figure 28.1 to the annex. If PI 498 is accepted this change is needed.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 498-NFPA 13-2019 [Section No. 28.1]	related
Public Input No. 500-NFPA 13-2019 [Section No. 28.2.3.2.4]	related
Public Input No. 502-NFPA 13-2019 [Section No. 28.2.4.3]	
Public Input No. 505-NFPA 13-2019 [New Section after A.27.5.4]	

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: On behalf of NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 09:31:43 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Based on action taken on PI 498.



Public Input No. 677-NFPA 13-2019 [Section No. 28.2.3.5]

28.2.3.5 Operating Test for Control Valves.

All control valves shall be fully ~~closed and opened under~~ operated from their normal position to the off normal position and returned to the normal position under system water pressure to ensure proper operation.

Statement of Problem and Substantiation for Public Input

There are both normally open and normally closed control valves on systems. Both of these types of valves need to be tested to ensure proper operation.

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: Strickland Fire Protection, Incorporated

Affiliation: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 16:40:26 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Already required by this section.



Public Input No. 502-NFPA 13-2019 [Section No. 28.2.4.3]

28.2.4.3

The results of the flow test of each pressure-reducing valve shall be recorded on the contractor's material and test certificate (see *Figure A. 28.1*).

Statement of Problem and Substantiation for Public Input

This is related to PI 498 which seeks to move Figure 28.1 to the annex. If PI 498 is accepted this change is needed

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 498-NFPA 13-2019 [Section No. 28.1]	related
Public Input No. 500-NFPA 13-2019 [Section No. 28.2.3.2.4]	related
Public Input No. 501-NFPA 13-2019 [Section No. 28.2.3.4.2]	related
Public Input No. 505-NFPA 13-2019 [New Section after A.27.5.4]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 09:34:10 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: See action on PI 498.

**Public Input No. 588-NFPA 13-2019 [Section No. 28.2.5.2]****28.2.5.2**

The minimum flow rate shall be the system demand, including hose stream allowance ~~where~~ applicable: where hose demand can flow through the .backflow prevention device.

Statement of Problem and Substantiation for Public Input

If the hose allowance is outside, there is no need to low this allowance through the backflow prevention device.

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: Strickland Fire Protection, Incorporated

Affiliation: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Sun Jun 09 23:02:16 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Submitters concerns are already addressed in this section.

**Public Input No. 171-NFPA 13-2019 [Section No. 28.3]****28.3 Automated Inspection and Testing Devices and Equipment.****28.3.1**

Automated inspection and testing devices and equipment installed on the sprinkler system shall be tested to ensure the desired result of the automated inspection or test is realized.

28.3.1.1 –

Automated inspection devices and equipment shall be shown to be as effective as a visual examination.

–

28.3.1.

2–

Automated testing devices and equipment shall produce the same action required by this standard to test a device.

~~28.3.~~

1

~~.2.4~~

–

The testing shall discharge water where required by this standard and NFPA 25.

28.3.2 –

Failure of automated inspection and testing devices and equipment shall not impair the operation of the system unless indicated by an audible and visual trouble signal in accordance with *NFPA 72*.

28.3.3 –

Failure of a system or component to pass automated inspection and testing devices and equipment shall result in an audible and visual trouble signal in accordance with *NFPA 72*.

28.3.4 –

Failure of automated inspection and testing devices and equipment shall result in an audible and visual trouble signal in accordance with *NFPA 72*.

Statement of Problem and Substantiation for Public Input

Most of the current text of Section 28.3 does not contain instruction regarding Acceptance Testing, so it does not belong in Chapter 28. Instead, the verbiage contains requirements for system components, so they belong in Chapter 7, as proposed in a corresponding PI 170.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 170-NFPA 13-2019 [New Section after 7.8.2]	
Public Input No. 170-NFPA 13-2019 [New Section after 7.8.2]	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:

State:

Zip:

Submittal Date: Fri Mar 15 23:09:46 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: See FR 1034



Public Input No. 438-NFPA 13-2019 [New Section after 28.4]

TITLE OF NEW CONTENT

28.4.1 Document Accessibility. With every new system a documentation cabinet shall be installed at the system riser or other approved location.

28.4.1.1 All documentation and instruction listed in 28.4 shall be stored in the documentation cabinet.

28.4.1.2 The contents of the cabinet shall be accessible by authorized personnel only.

Statement of Problem and Substantiation for Public Input

The record documentation of a system needs to be readily accessible to AHJs and contractors for future system analysis and alterations or additions.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 437-NFPA 13-2019 [Section No. 28.4]	

Submitter Information Verification

Submitter Full Name: James Richardson
Organization: Lisle Woodridge Fire District
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 11:07:04 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: PI 438 is resolved the substantiation is insufficient to incorporate this change.



Public Input No. 437-NFPA 13-2019 [Section No. 28.4]

28.4— Documentation and Instructions.

~~The~~ For all systems, including new systems and additions or alterations to existing systems, the installing contractor shall provide the property owner or the property owner's authorized representative with the following:

- (1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed
- (2) * NFPA 25
- (3) Owner's certificate
- (4) Record (as-built) drawings
- (5) Hydraulic calculations
- (6) Material and test certificates

Statement of Problem and Substantiation for Public Input

There is currently no requirement to provide copies of this important information to the property owner.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 438-NFPA 13-2019 [New Section after 28.4]	

Submitter Information Verification

Submitter Full Name: James Richardson
Organization: Lisle Woodridge Fire District
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 10:56:26 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Already mandated by NFPA 13.



Public Input No. 589-NFPA 13-2019 [Section No. 28.4]

28.4 Instructions.

The installing contractor shall provide the property owner or the property owner's authorized representative with the following:

- (1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed. This can be by printed copy or electronic format.
- (2) *Notice that NFPA 25 is the applicable referenced inspection, testing and maintenance standard. A printed copy or instructions on how to obtain free access to the standard is acceptable.

Statement of Problem and Substantiation for Public Input

Most customers prefer electronic methods of these documents. NFPA 25 is available on NFPA's website for free viewing or purchase.

Submitter Information Verification

Submitter Full Name: John Denhardt
Organization: Strickland Fire Protection, Incorporated
Affiliation: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 09 23:08:42 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: This section is clear, the section does not preclude electronic format.



Public Input No. 617-NFPA 13-2019 [New Section after 28.5]

28.6 Pipe Schedule Design Information Sign (Nameplate)

28.6.1 The installing contractor shall identify a pipe scheduled sprinkler system with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion-resistant wire, chain, or other approved means.

28.6.2 Such signs shall be placed at the corresponding system riser.

28.6.3 The sign shall include the following information:

(1) Location of the system

(2) Total number of sprinklers in system

(3) Water supply requirements at the base of the riser or fire pump where applicable

(4) Static pressure available at elevation of the highest sprinkler

(5) Occupancy classification or commodity classification

(6) Hose stream allowance included

(7) Name of the installing contractor

Statement of Problem and Substantiation for Public Input

A sign is required for pipe schedule systems to correlate with NFPA 25 signage requirements.

Submitter Information Verification

Submitter Full Name: Mark Hopkins

Organization: National Fire Sprinkler Association

Affiliation: On behalf of the NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 10:54:03 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1055-NFPA 13-2019 Insert as a new Section 28.6 and renumber existing 28.6 accordingly
Identification of a pipe schedule system is needed.

Statement: A sign is required for pipe schedule systems to correlate with NFPA 25 signage requirements.

**Public Input No. 483-NFPA 13-2019 [Section No. 28.5.1]****28.5.1**

~~The For hydraulically designed sprinkler systems, the~~ installing contractor shall identify ~~a hydraulically designed sprinkler system~~ each design area with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion-resistant wire, chain, or other approved means.

Statement of Problem and Substantiation for Public Input

Two PI's have been submitted, this one (483) and related (614).

1. The standard should be clearer on the intent of the sign with respect to multiple design areas.
2. If the intent is to have a sign for each design area, then let's say that. This is the focus of this PI (483).
3. If the intent is to provide a sign for the single most demanding area, then let's say that instead (PI 614).
4. Providing more guidance in the standard will help minimize confusion in the field, and inconsistent application. This submitter requests the TC support this PI rather than the related PI 614.

PI 483 additional substantiation:

A. If the intent is to have a sign for the single most demanding area, is that practical when it is only a small portion of the system? An example being a 50,000 sq ft light hazard office building with a small kitchen near the system riser. Do we place a single sign on the riser for the .15/1500 for the kitchen area, and place nothing on the riser for the remaining 48,000 sq feet of the building?

B. Working plans checklist requires 'information from the hydraulic data nameplate' and it is appropriate to place information from all of the design areas on the drawing, not just the most demanding. If the intent is to have the calc info on the drawing for all areas, this PI would help remedy that as well, but it is also worth noting that the working plans list infers that it is a singular sign.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 614-NFPA 13-2019 [Section No. 28.5.1]	Alternate views on the issue to illustrate a need for the standard to go further
Public Input No. 614-NFPA 13-2019 [Section No. 28.5.1]	

Submitter Information Verification

Submitter Full Name: Chase Browning
Organization: Chase A. Browning Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 17:43:18 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Already addresses in 28.5.3(1).



Public Input No. 614-NFPA 13-2019 [Section No. 28.5.1]

28.5.1

~~The For hydraulically designed sprinkler systems, the installing contractor shall identify a hydraulically designed sprinkler system the most demanding single design area~~ with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion-resistant wire, chain, or other approved means.

New: **A.28.5.1** It is not the intent of this section to provide a sign for each design area in the sprinkler system, only the most demanding. Some systems may include two design areas that are both demanding, one with a higher pressure demand, and one with a higher flow demand. In that scenario, two separate signs should be provided.

Statement of Problem and Substantiation for Public Input

Two PI's have been submitted, this one (614) and related (483).

1. The standard should be clearer on the intent of the sign with respect to multiple design areas.
2. If the intent is to have a sign for each design area, then let's say that. This is the focus of a related PI (483).
3. If the intent is to provide a sign for the single most demanding area, then let's say that instead. This is the focus of this PI 614.
4. Providing more guidance in the standard will help minimize confusion in the field, and inconsistent application. This submitter requests the TC support PI 483 over this one.

PI 614 additional substantiation:

- A. If the intent in the standard is to only provide the most demanding calc area, then lets say that.
- B. If so, we should then add annex clarifying that you could occasionally have one design area with a higher pressure demand, and another with a higher flow.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 483-NFPA 13-2019 [Section No. 28.5.1]	Alternate views on the issue to illustrate a need for the standard to go further
Public Input No. 483-NFPA 13-2019 [Section No. 28.5.1]	

Submitter Information Verification

Submitter Full Name: Chase Browning
Organization: Chase A. Browning Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 10:34:50 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Already addresses in 28.5.3(1).



Public Input No. 252-NFPA 13-2019 [Section No. 28.5.2]

28.5.2

Such signs shall be placed at the water flow switch, alarm valve, dry pipe valve, preaction valve, or deluge valve supplying the corresponding hydraulically designed area.

Statement of Problem and Substantiation for Public Input

This section does not and has not included wet sprinkler systems that have a "shotgun" riser with a check valve and flow switch, but no alarm valve. All systems need this sign and those with water flow switches only were excluded by the wording as is.

Submitter Information Verification

Submitter Full Name: Scott Futrell

Organization: Futrell Fire Consult & Design, Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 13 14:59:57 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1056-NFPA 13-2019 PI 381 & 590 are resolved - see action on PI 252. PI 253 is also resolved - see action on PI 252.

Statement: This section does not and has not included wet sprinkler systems that have a "shotgun" riser with a check valve and flow switch, but no alarm valve. All systems need this sign and those with water flow switches only were excluded by the wording as is.



Public Input No. 253-NFPA 13-2019 [Section No. 28.5.2]

28.5.2

Such signs shall be placed at every system control riser, water flow switch, the alarm valve, dry pipe valve, preaction valve, or deluge valve supplying the corresponding hydraulically designed area.

Statement of Problem and Substantiation for Public Input

This makes the verbiage more consistent with 28.6.1.2.

Submitter Information Verification

Submitter Full Name: Scott Futrell

Organization: Futrell Fire Consult & Design, Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 13 15:03:24 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1056-NFPA 13-2019 PI 381 & 590 are resolved - see action on PI 252. PI 253 is also resolved - see action on PI 252.

Statement: This section does not and has not included wet sprinkler systems that have a "shotgun" riser with a check valve and flow switch, but no alarm valve. All systems need this sign and those with water flow switches only were excluded by the wording as is.

**Public Input No. 381-NFPA 13-2019 [Section No. 28.5.2]****28.5.2**

Such signs shall be placed at the alarm valve, dry pipe valve, preaction valve, ~~or~~ deluge valve or waterflow switch supplying the corresponding hydraulically designed area.

Statement of Problem and Substantiation for Public Input

Accommodates instances of 'shot-gun' risers.

Submitter Information Verification

Submitter Full Name: Scot Deal

Organization: Excelsior Fire Engineering

Street Address:

City:

State:

Zip:

Submittal Date: Sun Jun 02 22:39:28 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1056-NFPA 13-2019 PI 381 & 590 are resolved - see action on PI 252. PI 253 is also resolved - see action on PI 252.

Statement: This section does not and has not included wet sprinkler systems that have a "shotgun" riser with a check valve and flow switch, but no alarm valve. All systems need this sign and those with water flow switches only were excluded by the wording as is.



Public Input No. 590-NFPA 13-2019 [Section No. 28.5.2]

28.5.2

Such signs shall be placed at the alarm valve, dry pipe valve, preaction valve, or deluge valve supplying the corresponding hydraulically designed area unless the AHJ approves an alternate location .

Statement of Problem and Substantiation for Public Input

We have numerous projects where the customer or AHJ wants the hydraulic data plates in a central location such as the fire pump room. This approach should be allowed.

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: Strickland Fire Protection, Incorporated

Affiliation: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Sun Jun 09 23:13:55 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1056-NFPA 13-2019 PI 381 & 590 are resolved - see action on PI 252. PI 253 is also resolved - see action on PI 252.

Statement: This section does not and has not included wet sprinkler systems that have a "shotgun" riser with a check valve and flow switch, but no alarm valve. All systems need this sign and those with water flow switches only were excluded by the wording as is.



Public Input No. 176-NFPA 13-2019 [Section No. 28.5.3]

28.5.3

The sign shall include the following information:

- (1) Location of the design area or areas
- (2) Size (area) of or number of sprinklers in the design area
- (3) Discharge densities over the design area or areas
- (4) Required flow and residual pressure demand at the base of the riser or fire pump where applicable
- (5) ~~Occupancy classification or commodity classification and maximum permitted storage height and configuration~~
- (6) Hose stream allowance included in addition to the sprinkler demand
- (7) Name of the installing contractor

Statement of Problem and Substantiation for Public Input

The requirements for the General Information Sign of Section 28.6.2 already call for information about occupancies and commodities, as well as storage configurations, in Items 2 through 8 and Items 10 to 12, so is redundant to ask for similar information (but less detail) on the Hydraulic Design Information Sign.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 177-NFPA 13-2019 [Section No. A.28.5]	
Public Input No. 177-NFPA 13-2019 [Section No. A.28.5]	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Fri Mar 15 23:32:57 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: The information on occupancy and commodity classification is important for future inspections and modifications to the system.

**Public Input No. 378-NFPA 13-2019 [Section No. 28.5.3]****28.5.3**

The sign shall include the following information:

- (1) Location of the design area or areas
- (2) Size (area) of or number of sprinklers in the design area
- (3) Discharge densities over the design area or areas
- (4) Required flow and residual pressure demand at the base of the riser or fire pump where applicable
- (5) Occupancy classification or commodity classification and maximum permitted storage height and configuration
- (6) Hose stream allowance included in addition to the sprinkler demand
- (7) Name of the installing contractor ~~stakeholders~~
 - (8) ~~Designer of record~~
 - (9) ~~Building owner at initial construction~~
- (10) Pipe material and wall thickness
- (11) Location of remote inspector's tests (if provided)
- (12) Fire detection mechanism for valve opening (if pre-action system)

Statement of Problem and Substantiation for Public Input

Measurement of RAM (reliability, availability and maintainability) degradation better predicts critical failure than current methods. Measurement of RAM follows international standards of care for life safety systems, and also improves the owners' agents ability to evaluate and/or modify these systems in the future.

Submitter Information Verification

Submitter Full Name: Scot Deal
Organization: Excelsior Fire Engineering
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 02 21:29:43 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarification.

**Public Input No. 591-NFPA 13-2019 [Section No. 28.5.3]****28.5.3**

The sign shall include the following information:

- (1) Location of the design area or areas
- (2) Size (area) of or number of sprinklers in the design area
- (3) Discharge densities over the design area or areas
- (4) Required flow and residual pressure demand at the base of the riser or fire pump where applicable
- (5) Occupancy classification or commodity classification and maximum permitted storage height and configuration
- (6) Hose stream allowance included in addition to the sprinkler demand
- (7) Name of the installing contractor or designer

Statement of Problem and Substantiation for Public Input

This change would match the General Information sign requirements.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 592-NFPA 13-2019 [Section No. 28.6.4]	

Submitter Information Verification

Submitter Full Name: John Denhardt
Organization: Strickland Fire Protection, Incorporated
Affiliation: American Fire Sprinkler Associates
Street Address:
City:
State:
Zip:
Submission Date: Sun Jun 09 23:17:15 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarification.

**Public Input No. 651-NFPA 13-2019 [Section No. 28.5.3]****28.5.3**

The sign shall include the following information:

- (1) Location of the design area or areas
- (2) Size (area) of or number of sprinklers in the design area
- (3) Discharge densities over the design area or areas
- (4) Required flow and residual pressure demand at the base of the riser or fire pump where applicable
- (5) Hose stream allowance included in the sprinkler demand at the base of the riser or fire pump where applicable
- (6) Required flow and residual pressure demand at the connection to the public water supply where applicable
- (7) Outside hose stream allowance included in the required flow and residual pressure demand at the connection to the public water supply where applicable
- (8) Occupancy classification or commodity classification and maximum permitted storage height and configuration
- (9) ~~Hose stream allowance included in addition to the sprinkler demand~~
- (10) Name of the installing contractor

Statement of Problem and Substantiation for Public Input

The current NFPA 13 standard requires hose stream allowance to be added at the base of the riser. Most of the time this only includes for inside hose stream allowance.

For sprinkler systems connected to the public water supply outside hose allowance shall be added at the connection to the public water supply. The current requirement for the Hydraulic Design Information Sign does not require to show such allowance. For evaluation and future upgrades of the fire suppression systems it is important to provide information about required

Related Public Inputs for This Document

Related Input	Relationship
<u>Public Input No. 649-NFPA 13-2019 [Section No. A.28.5]</u>	

Submitter Information Verification

Submitter Full Name: Jason Ryckman
Organization: Canadian Automatic Sprinkler Association
Affiliation: Canadian Automatic Sprinkler Association
Street Address:
City:
State:
Zip:
Submission Date: Mon Jun 10 14:53:48 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarification.



Public Input No. 379-NFPA 13-2019 [Section No. 28.6.1.1]

28.6.1.1

Such general information shall be provided with a permanently marked weatherproof metal or rigid plastic sign, on an aluminum sheet (minimum 30 cm wide x 61 cm tall x 3 mm thick). This sign shall be permanently secured with corrosion-resistant wire, chain, or other acceptable means to an interior wall or location approved by AHJ that is protected from direct sun and weather, and which has clear access and visibility. Ideally this sign is located near the control valve, alarm valve, dry-pipe valve, preaction valve, deluge valve or waterflow switch. Information on this sign will be scribed to a minimum 0.5 mm depth. A metal scribe becomes the responsibility of the ITM stakeholder; a new tool in the sprinkler ITM kit.

This aluminum sheet shall present the following organization:

- 1). Minimum 12 rows scribed as lines across entire width with rows of minimum 2 cm height
- 2). Column titles including
 - a). date and time of testing (scribed note shall indicate if test is original main drain flow test)
 - b). Pressure (background demand with no flow from this system)
 - c). Pressure residual with main drain full open for minimum 2 minute duration

Statement of Problem and Substantiation for Public Input

Maintenance is an area needing improvement in fire safety. Measurement of RAM (reliability, availability, maintainability) degradation better predicts critical failure. This measurement follows international standards of care for life safety systems and improves the ability of owners' agents to evaluate and/or modify these systems in the future.

Submitter Information Verification

Submitter Full Name: Scot Deal
Organization: Excelsior Fire Engineering
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 02 21:44:22 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Restricting the sign to a specific material such as aluminum is inappropriate.

**Public Input No. 263-NFPA 13-2019 [Section No. 28.6.2]****28.6.2**

The sign shall include the following information:

- (1) Name and location of the facility protected
- (2) Occupancy classification
- (3) Commodity classification
- (4) Presence of high-piled and/or rack storage
- (5) Maximum height of storage planned
- (6) Aisle width planned
- (7) Encapsulation of pallet loads
- (8) Presence of solid shelving
- (9) Flow test data
- (10) Presence of flammable/combustible liquids
- (11) Presence of hazardous materials
- (12) Presence of other special storage
- (13) Location of venting valve
- (14) Location of auxiliary drains and low point drains on dry pipe and preaction systems
- (15) Original results of main drain flow test
- (16) Original results of dry pipe and double interlock preaction valve test
- (17) Name of installing contractor or designer
- (18) Indication of presence and location of antifreeze or other auxiliary systems
- (19) Where injection systems are installed to treat MIC or corrosion, the type of chemical, concentration of the chemical, and where information can be found as to the proper disposal of the chemical
- (20) Capacity of the sprinkler system in gallons

Statement of Problem and Substantiation for Public Input

The capacity of the sprinkler system is needed to know if an accelerator is required or if the system is required to meet a water discharge time. It may be needed when the system is drained as some municipalities require notification when a certain amount of water is discharged into sanitary sewers. It is also useful when determining if the correct size air compressor/nitrogen generator is installed.

Submitter Information Verification

Submitter Full Name: Michael Henke
Organization: Potter Electric Signal Company
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 21 12:24:51 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: PI 263 - This information is already required on approved plans. PI 380 - maintaining item 15 is necessary.

**Public Input No. 380-NFPA 13-2019 [Section No. 28.6.2]****28.6.2**

The sign shall include the following information:

- (1) Name and location of the facility protected
- (2) Occupancy classification
- (3) Commodity classification
- (4) Presence of high-piled and/or rack storage
- (5) Maximum height of storage planned
- (6) Aisle width planned
- (7) Encapsulation of pallet loads
- (8) Presence of solid shelving
- (9) Flow test data
- (10) Presence of flammable/combustible liquids
- (11) Presence of hazardous materials
- (12) Presence of other special storage
- (13) Location of venting valve
- (14) Location of auxiliary drains and low point drains on dry pipe and preaction systems
- (15) Original results of main drain flow test
- (16) Original results of dry pipe and double interlock preaction valve test
- (17) Name of installing contractor or designer
- (18) Indication of presence and location of antifreeze or other auxiliary systems
- (19) Where injection systems are installed to treat MIC or corrosion, the type of chemical, concentration of the chemical, and where information can be found as to the proper disposal of the chemical
- (20) ** delete item 15 to harmonize with PI-379 ** browser would not allow organized deletion of line 15

Statement of Problem and Substantiation for Public Input

Harmonize with PI-379

Submitter Information Verification

Submitter Full Name: Scot Deal

Organization: Excelsior Fire Engineering

Street Address:

City:

State:

Zip:

Submission Date: Sun Jun 02 22:35:03 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: PI 263 - This information is already required on approved plans. PI 380 - maintaining item 15 is necessary.

**Public Input No. 335-NFPA 13-2019 [Section No. 28.6.3]****28.6.3**

Combination hydraulic design information and general information ~~are~~ shall be permitted.

Statement of Problem and Substantiation for Public Input

Makes the language enforceable

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: National Fire Sprinkler Association

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu May 30 14:36:50 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1058-NFPA 13-2019](#)

Statement: Makes the language enforceable

**Public Input No. 184-NFPA 13-2019 [Section No. 28.6.4]****28.6.4 –**

The sign shall include the following information:

- (1) Location of the design area or areas
- (2) Size (area) of or number of sprinklers in the design area
- (3) Discharge densities over the design area or areas
- (4) Required flow and residual pressure demand at the base of the riser
- (5) Occupancy classification or commodity classification and maximum permitted storage height and configuration
- (6) Hose stream allowance included in addition to the sprinkler demand
- (7) Name of the installing contractor

Statement of Problem and Substantiation for Public Input

Editorial. This proposal is to delete Section 28.6.4 because it is redundant. This section itemizes the requirements for a Hydraulic Design Information Sign, which are already addressed in 28.5.3.

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Sat Mar 16 17:38:03 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1059-NFPA 13-2019 PI 592 - resolved](#)

Statement: Editorial. This proposal is to delete Section 28.6.4 because it is redundant. This section itemizes the requirements for a Hydraulic Design Information Sign, which are already addressed in 28.5.3.

**Public Input No. 592-NFPA 13-2019 [Section No. 28.6.4]****28.6.4**

The sign shall include the following information:

- (1) Location of the design area or areas
- (2) Size (area) of or number of sprinklers in the design area
- (3) Discharge densities over the design area or areas
- (4) Required flow and residual pressure demand at the base of the riser
- (5) Occupancy classification or commodity classification and maximum permitted storage height and configuration
- (6) Hose stream allowance included in addition to the sprinkler demand
- (7) Name of the installing contractor or designer

Statement of Problem and Substantiation for Public Input

This change will incorporate the change proposed under PI number 591.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 591-NFPA 13-2019 [Section No. 28.5.3]	Same language

Submitter Information Verification

Submitter Full Name: John Denhardt
Organization: Strickland Fire Protection, Incorporated
Affiliation: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submission Date: Sun Jun 09 23:19:48 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1059-NFPA 13-2019 PI 592 - resolved](#)

Statement: Editorial. This proposal is to delete Section 28.6.4 because it is redundant. This section itemizes the requirements for a Hydraulic Design Information Sign, which are already addressed in 28.5.3.



Public Input No. 603-NFPA 13-2019 [Section No. 29.1]

29.1 General.

29.1.1

In addition to the applicable requirements of this standard, the requirements of Chapter 29 shall apply where modifications or additions are made to existing systems.

29.1.2

Where additions or modifications are made to an existing system, enough of the existing system shall be indicated on the plans to make all conditions clear.

29.1.3

When backflow prevention devices are to be retroactively installed on existing systems, a thorough hydraulic analysis, including revised hydraulic calculations, new fire flow data, and all necessary modifications to accommodate the additional friction loss, shall be completed as a part of the installation.

29.1.4

A hydraulically calculated system for a building, or a hydraulically calculated addition to a system in an existing sprinklered building using the pipe schedule method, shall supersede the requirements in this standard governing pipe schedules, except that all systems shall continue to be limited by area.

29.1.5

Unless permitted by 29.1.5.1, when modifying existing systems protecting general storage, rack storage, rubber tire storage, roll paper storage, and baled cotton storage, using sprinklers with K-factors K-8.0 (115) or less, the requirements of 21.1.3 and 21.1.4 shall not apply.

29.1.5.1

Where applying the requirements of Table 21.5.1.1 utilizing the design criteria of 0.6 gpm/ft² per 2000 ft² (25.5 mm/min over 185 m²) to existing storage applications, standard-response spray sprinklers with a K-factor of K-11.2 (160) or larger that are listed for storage applications shall be used.

29.1.6

For modifications or additions to existing systems equipped with residential sprinklers, the listed discharge criteria less than 0.1 gpm/ft² (4.1 mm/min) shall be permitted to be used.

29.1.7 * _

When nitrogen is retroactively applied to existing dry pipe or double interlock preaction systems previously having a compressed air supply, a Hazen-Williams c-factor of 100 shall be applied.

29.1.8 _

Torch cutting and welding shall not be permitted as a means of modifying or repairing sprinkler systems.

29.1.8 – 9 _

Additives to existing systems intended for control of microbiological or other corrosion shall be listed for use within fire sprinkler systems.

Statement of Problem and Substantiation for Public Input

Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 602-NFPA 13-2019 [Section No. 27.2.4.8.1]	

[Public Input No. 604-NFPA 13-2019 \[Section No. 29.6\]](#)

[Public Input No. 602-NFPA 13-2019 \[Section No. 27.2.4.8.1\]](#)

[Public Input No. 604-NFPA 13-2019 \[Section No. 29.6\]](#)

Submitter Information Verification

Submitter Full Name: Mark Hopkins

Organization: National Fire Sprinkler Association

Affiliation: On behalf of the NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 08:48:50 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1087-NFPA 13-2019](#)

Statement: Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.



Public Input No. 528-NFPA 13-2019 [Section No. 29.1.8]

29.1.8

Additives to existing systems intended for control of microbiological or other corrosion shall be listed for use within fire sprinkler systems in accordance with UL 2901A, Outline of Investigation for Corrosion Control Additives for Use in Fire Sprinkler Systems . . .

Statement of Problem and Substantiation for Public Input

The reference to the requirements used to establish a listing is being added to this section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 524-NFPA 13-2019 [Section No. 2.3.9]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 12:38:40 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: UL is not the only applicable standard.



Public Input No. 472-NFPA 13-2019 [Section No. 29.5.1]

29.5.1

When hydraulically designed systems are revamped, any existing bushing shall be removed and a nipple not exceeding 4 in. (100 mm) in length and a sprinkler with a maximum an equivalent nominal K-factor of 8.0 shall be permitted to be installed in the branch line fitting.

Statement of Problem and Substantiation for Public Input

This change seeks to clarify the type of sprinklers permitted to be used with a 4" nipple. A question came to NFSA asking if this section be used for large orifice sprinklers? Specifically it was asked if an existing 3/4-inch outlets using 3/4-inch pipe nipples (less then 4 inch in length) and the increase to 1-inch return bend can be used with a K-22 ESFR pendent sprinkler? This seems to allowed by section 29.5.1 as currently written.

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: on behalf of NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu Jun 06 15:41:57 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Acceptance of the PI would limit options for upgrading existing systems.



Public Input No. 604-NFPA 13-2019 [Section No. 29.6]

29.6 System Design.

29.6.1

Where an addition or modifications are made to an existing system, enough of the existing system shall be indicated on the plans to make all conditions clear.

29.6.2

The pipe schedule method shall be permitted as follows:

- (1) For modifications or additions to existing systems equipped with residential sprinklers, the listed discharge criteria less than 0.1 gpm/ft^2 (4.1 mm/min) shall be permitted to be used.
- (2) A hydraulically calculated system for a building, or a hydraulically calculated addition to a system in an existing sprinklered building using the pipe schedule method, shall supersede the rules in this standard governing pipe schedules, except that all systems shall continue to be limited by area.
- (3) Unless permitted by 29.6.3, when modifying existing systems protecting general storage, rack storage, rubber tire storage, roll paper storage, and baled cotton storage, using sprinklers with K-factors K-8.0 (115) or less, the requirements of 29.6.2 and 29.6.3 shall not apply.

29.6.3

Where applying the requirements of Figure 25.9.3.1(a) and Figure 25.9.3.1(e) utilizing the design criteria of 0.6 gpm/ft^2 per 2000 ft^2 (25.5 mm/min over 185 m^2) to existing storage applications, standard-response spray sprinklers with a K-factor of K-11.2 (161) or larger that are listed for storage applications shall be used.

29.6.4

For modifications or additions to existing systems equipped with residential sprinklers, the listed discharge criteria less than 0.1 gpm/ft^2 (4.1 mm/min) shall be permitted to be used.

29.6.5 Retroactive Installation.

When backflow prevention devices are to be retroactively installed on existing systems, a thorough hydraulic analysis, including revised hydraulic calculations, new fire flow data, and all necessary system modifications to accommodate the additional friction loss, shall be completed as a part of the installation.

29.6.6

A hydraulically calculated system for a building, or a hydraulically calculated addition to a system in an existing sprinklered building using the pipe schedule method, shall supersede the rules in this standard governing pipe schedules, except that all systems shall continue to be limited by area.

29.6.7

Unless permitted by 29.6.3, when modifying existing systems protecting general storage, rack storage, rubber tire storage, roll paper storage, and baled cotton storage, using sprinklers with K-factors K-8.0 (115) or less, the requirements of 21.1.3 and 21.1.4 shall not apply.

29.6.8

A Hazen-Williams c-factor of 100 shall be used in hydraulic calculations for modifications or additions when nitrogen is retroactively applied to existing dry pipe or double interlock preaction systems previously having a compressed air supply .

Statement of Problem and Substantiation for Public Input

Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.

Related Public Inputs for This Document

Related Input**Relationship**

[Public Input No. 602-NFPA 13-2019 \[Section No. 27.2.4.8.1\]](#)
[Public Input No. 603-NFPA 13-2019 \[Section No. 29.1\]](#)
[Public Input No. 602-NFPA 13-2019 \[Section No. 27.2.4.8.1\]](#)
[Public Input No. 603-NFPA 13-2019 \[Section No. 29.1\]](#)

Submitter Information Verification

Submitter Full Name: Mark Hopkins

Organization: National Fire Sprinkler Association

Affiliation: On behalf of the NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 09:02:43 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1088-NFPA 13-2019 PI 336 is a FR but language is removed from 29.1.3, leave 29.6.5 intact. PI 337, is a FR but language remains and Section 29.1.4 is deleted.](#)

Statement: Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.



Public Input No. 336-NFPA 13-2019 [Section No. 29.6.5]

29.6.5 – Retroactive Installation:

When backflow prevention devices are to be retroactively installed on existing systems, a thorough hydraulic analysis, including revised hydraulic calculations, new fire flow data, and all necessary system modifications to accommodate the additional friction loss, shall be completed as a part of the installation.

Statement of Problem and Substantiation for Public Input

This requirement is already included in General section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 337-NFPA 13-2019 [Section No. 29.6.6]	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 14:38:11 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1088-NFPA 13-2019 PI 336 is a FR but language is removed from 29.1.3, leave 29.6.5 intact. PI 337, is a FR but language remains and Section 29.1.4 is deleted.

Statement: Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.



Public Input No. 337-NFPA 13-2019 [Section No. 29.6.6]

29.6.6 –

~~A hydraulically calculated system for a building, or a hydraulically calculated addition to a system in an existing sprinklered building using the pipe schedule method, shall supersede the rules in this standard governing pipe schedules, except that all systems shall continue to be limited by area.~~

Statement of Problem and Substantiation for Public Input

This requirement is already included in General section

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 336-NFPA 13-2019 [Section No. 29.6.5]	Redundancy

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 14:39:17 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1088-NFPA 13-2019 PI 336 is a FR but language is removed from 29.1.3, leave 29.6.5 intact. PI 337, is a FR but language remains and Section 29.1.4 is deleted.

Statement: Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.



Public Input No. 185-NFPA 13-2019 [Section No. 31.1]

31.1* General.

A sprinkler system installed in accordance with this standard shall be properly inspected, tested, and maintained by the property owner or their authorized representative in accordance with NFPA 25 [to provide at least the same level of performance and protection as designed ensure the system continues to provide a reasonable degree of protection for life and property from fire](#) .

Statement of Problem and Substantiation for Public Input

This proposal is to eliminate the word “properly”, which is not enforceable.

This proposal also suggests revised wording, more in line with the Purpose of NFPA 25, since that standard does not endeavor to verify the adequacy of the design of the system. As explained in Section A.1.1.3.1 of NFPA 25: “The requirement to evaluate the adequacy of the design of the installed system or the capability of the fire protection system to protect the building or its contents, is not a part of the periodic inspection, testing, and maintenance requirements of this standard.”

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Sun Mar 17 15:02:27 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1193-NFPA 13-2019](#)

Statement: This proposal is to eliminate the word “properly”, which is not enforceable.

This proposal also suggests revised wording, more in line with the Purpose of NFPA 25, since that standard does not endeavor to verify the adequacy of the design of the system. As explained in Section A.1.1.3.1 of NFPA 25: “The requirement to evaluate the adequacy of the design of the installed system or the capability of the fire protection system to protect the building or its contents, is not a part of the periodic inspection, testing, and maintenance requirements of this standard.”



Public Input No. 529-NFPA 13-2019 [Section No. A.7.1.1]

A.7.1.1

Included among items requiring listing are sprinklers, some pipe and some fittings, hangers, alarm devices, valves controlling flow of water to sprinklers, supervisory switches, and electrically operated solenoid valves. Products are typically investigated in accordance with published standards. Examples of standards used to investigate several products installed in sprinkler systems are referenced in Table A.7.1.1. This table does not include a comprehensive list of all product standards used to investigate products installed in sprinkler systems.

Table A.7.1.1 Examples of Standards for Sprinkler System Products

<u>Category</u>	<u>Standard</u>
<u>Sprinklers</u>	<u>ANSI/UL 199, <i>Automatic Sprinklers for Fire Protection Service</i></u>
-	
	<u>FM 2000, <i>Automatic Control Mode Sprinklers for Fire Protection</i></u>
-	
	<u>ANSI/UL 1626, <i>Residential Sprinklers for Fire Protection Service</i></u>
-	
	<u>FM 2030, <i>Residential Automatic Sprinklers</i></u>
-	
	<u>ANSI/UL 1767, <i>Early-Suppression Fast-Response Sprinklers</i></u>
-	
	<u>FM 2008, <i>Suppression Mode ESFR Automatic Sprinklers</i></u>
-	
	<u>FM 1632, <i>Telescoping Sprinkler Assemblies for Use in Fire Protection Systems for Anechoic Chambers</i></u>
	<u>UL 2901 Outline for Antifreeze Solutions for Use in Fire Sprinkler Systems,</u>
<u>Valves</u>	<u>ANSI/UL 193, <i>Alarm Valves for Fire Protection Service</i></u>
-	
	<u>FM 1041, <i>Alarm Check Valves</i></u>
-	
	<u>ANSI/UL 260, <i>Dry Pipe and Deluge Valves for Fire Protection Service</i></u>
-	
	<u>FM 1021, <i>Dry Pipe Valves</i></u>
-	
	<u>FM 1020, <i>Automatic Water Control Valves</i></u>
-	
	<u>UL 262, <i>Gate Valves for Fire Protection Service</i></u>
-	
	<u>FM 1120, 1130, <i>Fire Service Water Control Valves (OS & Y and NRS Type Gate Valves)</i></u>
-	
	<u>ANSI/UL 312, <i>Check Valves for Fire Protection Service</i></u>
-	
	<u>FM 1210, <i>Swing Check Valves</i></u>
-	
	<u>UL 1091, <i>Butterfly Valves for Fire Protection Service</i></u>
-	
	<u>FM 1112, <i>Indicating Valves (Butterfly or Ball Type)</i></u>
-	
	<u>ANSI/UL 1468, <i>Direct Acting Pressure Reducing and Pressure Restricting Valves</i></u>
-	
	<u>ANSI/UL 1739, <i>Pilot-Operated Pressure-Control Valves for Fire Protection Service</i></u>
-	

FM 1362, *Pressure Reducing Valves*

-

FM 1011/1012/1013, *Deluge and Preaction Sprinkler Systems*

-

FM 1031, *Quick Opening Devices (Accelerators and Exhausters) for Dry Pipe Valves*

-

ANSI/UL 1486, *Quick Opening Devices for Dry Pipe Valves for Fire Protection Service*

-

ANSI/UL 346, *Waterflow Indicators for Fire Protective Signaling Systems*

-

FM 1042, *Waterflow Alarm Indicators (Vane Type)*

-

FM 1045, *Waterflow Detector Check Valves*

-

FM 1140, *Quick Opening Valves $\frac{1}{4}$ Inch Through 2 Inch Nominal Size*

Hangers ANSI/UL 203, *Pipe Hanger Equipment for Fire Protection Service*

-

FM 1951, 1952, 1953, *Pipe Hanger Components for Automatic Sprinkler Systems*

-

FM 1950, *Seismic Sway Brace Components for Automatic Sprinkler Systems*

-

UL 203A, *Sway Brace Devices for Sprinkler System Piping*

Fittings ANSI/UL 213, *Rubber Gasketed Fittings for Fire Protection Service*

-

FM 1920, *Pipe Couplings and Fittings for Fire Protection Systems*

-

UL 1474, *Adjustable Drop Nipples for Sprinkler Systems*

-

FM 1631, *Adjustable and Fixed Sprinkler Fittings $\frac{1}{2}$ Inch through 1 Inch Nominal Size*

-

ANSI/UL 2443, *Flexible Sprinkler Hose with Fittings for Fire Protection Service*

-

FM 1637, *Flexible Sprinkler Hose with Fittings*

Pipe — Aboveground ANSI/UL 852, *Metallic Sprinkler Pipe for Fire Protection Service*

-

FM 1630, *Steel Pipe for Automatic Fire Sprinkler Systems*

-

ANSI/UL 1821, *Thermoplastic Sprinkler Pipe and Fittings for Fire Protection Service*

-

FM 1635, *Plastic Pipe & Fittings for Automatic Sprinkler Systems*

-

FM 1636, *Fire Resistant Barriers for Use with CPVC Pipe and Fittings in Light Hazard Occupancies*

Pipe —
Underground UL 1285, *Polyvinyl Chloride (PVC) Pipe and Couplings for Underground Fire Service*

-

FM 1612, *Polyvinyl Chloride (PVC) Pipe and Fittings for Underground Fire Protection Service*

FM 1613, *Polyethylene (PE) Pipe and Fittings for Underground Fire Protection Service*

-

FM 1610, *Ductile Iron Pipe and Fittings, Flexible Fittings and Couplings*

-

UL 194, *Gasketed Joints for Ductile-Iron Pipe and Fittings for Fire Protection Service*

-

FM 1620, *Pipe Joints and Anchor Fittings for Underground Fire Service Mains*

Statement of Problem and Substantiation for Public Input

UL 2901 is added to table A.7.1.1 as an example of how to meet the requirements of 8.6.2.1

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 526-NFPA 13-2019 [Section No. 8.6.2.1]	

Submitter Information Verification

Submitter Full Name: Kelly Nicoletto

Organization: UL LLC

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 12:41:59 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1046-NFPA 13-2019

Statement: UL 2901 is added to table A.7.1.1 as an example of how to meet the requirements of 8.6.2.1



Public Input No. 446-NFPA 13-2019 [New Section after A.7.5.2.4.3]

A.7.5.2.4.8: Loose welding slag or residue should be removed from piping, but a small amount should be acceptable as it is impossible to remove all the slag especially in long runs of pipe.

Statement of Problem and Substantiation for Public Input

Add the text "loose welding slag or residue should be removed from piping, but a small amount should be acceptable as it is impossible to remove all the slag especially in long runs of pipe." to better help the user understand the requirements of 7.5.2.4.8

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 445-NFPA 13-2019 [Section No. 7.5.2.4.8]	

Submitter Information Verification

Submitter Full Name: Thomas Noble
Organization: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 13:57:17 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1029-NFPA 13-2019 Include change in PI 445 Add the text "loose welding slag or residue should be removed from piping, but a small amount should be acceptable as it is impossible to remove all the slag especially in long runs of pipe." to better help the user understand the requirements of 7.5.2.4.8](#)

Statement: Keeps consistent language through out NFPA standard terminology/national testing lab terminology

**Public Input No. 530-NFPA 13-2019 [Section No. A.8.6.2.1]****A.8.6.2.1**

Where existing antifreeze systems have been analyzed and approved to remain in service, antifreeze solutions should be limited to premixed antifreeze solutions of glycerine (chemically pure or United States Pharmacopoeia 96.5 percent) at a maximum concentration of 48 percent by volume, or propylene glycol at a maximum concentration of 38 percent by volume. The use of antifreeze solutions in all new sprinkler systems should be restricted to listed antifreeze solutions only. Where existing antifreeze systems are in service, the solution concentration should be limited to those noted in A.8.6.2, and the system requires an analysis and approval of the authority having jurisdiction to remain in service. Antifreeze that is "UL Certified" meets the definition of listed in accordance with this standard.

Statement of Problem and Substantiation for Public Input

There have been a number of questions regarding if the listing mark "Certified" is the same as or different than the "Listed" mark on UL Labels. This proposed language answers that question in the annex note.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 531-NFPA 13-2019 [Section No. F.1.2.18]	

Submitter Information Verification

Submitter Full Name: Kelly Nicoletto
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 12:46:31 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: FR-1047-NFPA 13-2019

Statement: There have been a number of questions regarding if the listing mark "Certified" is the same as or different than the "Listed" mark on UL Labels. This proposed language answers that question in the annex note.



Public Input No. 650-NFPA 13-2019 [New Section after A.8.9.2]

TITLE OF NEW CONTENT

Type your content here ...

In the key to Figure A.8.9.2, add the following:

N* Cooking equipment nozzle or sprinkler listed for deep fat fryer protection (See 8.9.8.2.1)

Statement of Problem and Substantiation for Public Input

The sprinkler shown over the deep fat fryer in Figure A.8.9.2 carries an asterisk but the explanation of the asterisk that appeared in the 2013 and prior editions was inadvertently deleted. It read: "Listed for deep fat fryer protection."

Including the N* within the key provides a clearer reference to the requirement for a special listing for the sprinkler or nozzle providing protection of the deep fat fryer in accordance with Section 8.9.8.2.1.

Submitter Information Verification

Submitter Full Name: Russell Fleming

Organization: Northeast Fire Suppression Associates

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 14:51:09 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1360-NFPA 13-2019](#)

Statement: The sprinkler shown over the deep fat fryer in Figure A.8.9.2 carries an asterisk but the explanation of the asterisk that appeared in the 2013 and prior editions was inadvertently deleted. It read: "Listed for deep fat fryer protection." Including the N* within the key provides a clearer reference to the requirement for a special listing for the sprinkler or nozzle providing protection of the deep fat fryer in accordance with Section 8.9.8.2.1.



Public Input No. 491-NFPA 13-2019 [New Section after A.9.2.4.2]

TITLE OF NEW CONTENT

A.9.2.4.3 This requirement to install sprinklers on exterior balconies, attached exterior decks, and ground floor patios serving dwelling units is consistent with the requirements in the IBC and NFPA 13R

Statement of Problem and Substantiation for Public Input

NFPA 13R and the IBC require sprinkler protection on exterior balconies and similar structures. This Public Input will align the requirements between the NFPA 13 and 13R documents.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 490-NFPA 13-2019 [New Section after 9.2.4.2]	related
Public Input No. 490-NFPA 13-2019 [New Section after 9.2.4.2]	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: on behalf of NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 08:35:29 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1099-NFPA 13-2019](#)

Statement: NFPA 13R and the IBC require sprinkler protection on exterior balconies and similar structures in buildings serving dwelling units of Type V construction. This Public Input will align the requirements between the NFPA 13 and 13R documents.

**Public Input No. 69-NFPA 13-2019 [Section No. A.9.2.4.2]****A.9.2.4.2 3**

Portable wardrobe units, such as those typically used in nursing homes and mounted to the wall, do not require sprinklers to be installed in them. Although the units are attached to the finished structure, this standard views those units as pieces of furniture rather than as a part of the structure; thus, sprinklers are not required.

Statement of Problem and Substantiation for Public Input

Numbering change to match body of text change

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 68-NFPA 13-2019 [Section No. 9.2.4]	PI 68 changes number of 9.2.4.2 to 9.2.4.3

Submitter Information Verification

Submitter Full Name: MIKE MOREY
Organization: Shambaugh and Son LP
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jan 25 14:39:54 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: Section number does not exist.



Public Input No. 118-NFPA 13-2019 [Section No. A.9.2.5]

A.9.2.5

This exception is limited to hospitals- ~~as nursing~~ . Nursing homes, and many limited-care facilities can have more combustibles within the closets. The limited amount of clothing found in the small clothes closets in hospital patient rooms is typically far less than the amount of combustibles in casework cabinets that do not require sprinkler protection, such as nurse servers. In many hospitals, especially new hospitals, it is difficult to make a distinction between clothes closets and cabinet work. The exception is far more restrictive than similar exceptions for hotels and apartment buildings. NFPA 13 already permits the omission of sprinklers in wardrobes [see 9.2.9]. It is not the intent of this paragraph to affect the wardrobe provisions of NFPA 13. It is the intent that the sprinkler protection in the room covers the closet as if there was no door on the closet (see 9.5.3.2).

Statement of Problem and Substantiation for Public Input

The intent seems clearly to exclude nursing homes and limited care facilities. While the annex material is not enforceable it can be used as a basis for interpretations. As written without punctuation between hospitals and "as nursing homes" one could erroneously conclude that the exception is limited to "hospitals as nursing homes" and use this as an exclusion for normal hospitals, or an inclusion for nursing homes providing hospital type care.

Submitter Information Verification

Submitter Full Name: MIKE MOREY

Organization: Shambaugh and Son LP

Street Address:

City:

State:

Zip:

Submittal Date: Thu Feb 21 10:57:39 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1353-NFPA 13-2019](#)

Statement: NFPA 101 and NFPA 13 are sometimes at odds on when sprinklers are required in closets. This serves to clarify the requirements.



Public Input No. 403-NFPA 13-2019 [Section No. A.9.3.5.1]

A.9.3.5.1

It is the intent of this section to require closely spaced sprinklers and draft ~~stops~~ curtains to openings where protection or enclosure is required by building and life safety codes.

Statement of Problem and Substantiation for Public Input

These changes are not technical in nature but a correlation of terms throughout the NFPA codes and standards. The term draft stop is not appropriate here as a draft stop, draftstop, or draftstopping is used to separate a concealed space such as an attic or floor/ceiling assembly.

A draft curtain is defined by NFPA 13 (3.3.8) as, "A continuous material protruding downward from the ceiling to create a reservoir for collecting smoke and heat." Draft curtains are typically 18 to 24 inches in depth, descending from the uppermost portion of the ceiling or deck and are meant to bank heat to operate sprinklers. The root of the NFPA 13 definition above comes from NFPA 204 which further describes a draft curtain as, "...a solid fixed obstruction, such as beam, girder, soffit or similar material..."

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 400-NFPA 13-2019 [Sections 9.3.5.1, 9.3.5.2, 9.3.5.3, 9.3.5.4]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo

Organization: National Fire Sprinkler Associ

Affiliation: NFSA Engineering and Standards Committee (E&S)

Street Address:

City:

State:

Zip:

Submittal Date: Tue Jun 04 13:11:09 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1111-NFPA 13-2019](#)

Statement: These changes are not technical in nature but a correlation of terms throughout the NFPA codes and standards. The term draft stop is not appropriate here as a draft stop, draftstop, or draftstopping is used to separate a concealed space such as an attic or floor/ceiling assembly.

A draft curtain is defined by NFPA 13 (3.3.8) as, "A continuous material protruding downward from the ceiling to create a reservoir for collecting smoke and heat." Draft curtains are typically 18 to 24 inches in depth, descending from the uppermost portion of the ceiling or deck and are meant to bank heat to operate sprinklers. The root of the NFPA 13 definition above comes from NFPA 204 which further describes a draft curtain as, "...a solid fixed obstruction, such as beam, girder, soffit or similar material..."

**Public Input No. 412-NFPA 13-2019 [Section No. A.9.3.6.1]****A.9.3.6.1 —**

The sprinklers in the pit are intended to protect against fires caused by debris, which can accumulate over time. Ideally, the sprinklers should be located near the side of the pit below the elevator doors, where most debris accumulates. However, care should be taken that the sprinkler location does not interfere with the elevator toe guard, which extends below the face of the door opening.

Statement of Problem and Substantiation for Public Input

This annex should be deleted for the following reasons:

- 1) The pit sprinklers are only required for hydraulic elevators and therefore the explanation in this annex is inconsistent with the code requirement. If the intent of the pit sprinkler was to protect against debris fire, than pit sprinklers should have been required to protect traction elevators as well (debris could potentially accumulate in pit regardless if the elevator is traction or hydraulic)
- 2) Since there are related PIs proposing to remove the pit sprinkler requirements from the body of the code - The associated annex should be also removed if the PIs are approved.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 256-NFPA 13-2019 [Section No. 9.3.6.1]	annex for same section
Public Input No. 257-NFPA 13-2019 [Section No. 9.3.6.2]	annex for same section

Submitter Information Verification

Submitter Full Name: Sagiv Weiss-Ishai
Organization: San Francisco Fire Department
Affiliation: SFFD
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jun 05 04:29:20 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1112-NFPA 13-2019 PI 700 is resolved - see FR 1112 Delete section including related annex material.](#)

Statement: This issue was discussed during the last cycle - It was requested by the SIG-AUT TC to provide examples for elevators associated injuries and fatalities (See attached Accidents Examples PDF)

1. It was presented by the NEII's representative (Mr. Lawrence Taylor) during the 2018 Tech-Session that in the last 150 years of elevators data gathering, there is not even one documented hydraulic elevator pit fire that caused the sidewall pit sprinkler to activate.

2. It is evident that the elevator hoistways and pits are extremely dangerous locations for elevator and non-elevator workers. There are many injuries and fatalities of elevator personnel and non-elevator personnel performing work in elevator pits. See the attached Elevator Accident Examples for Crushing, Falling, Shock and miscellaneous accidents

3. Removing the pit sprinkler requirement for hydraulic elevators from NFPA 13 will increase safety by not requiring elevator and non-elevator workers to service the sprinklers and their associated fire

alarm initiating devices located in those pits.

4. The vast majority of NFPA members supported this proposal with overwhelming majority - See attached PDF with the 2018 Tech-Session results for CAM 13-6

5. Three National Organizations: NEII, BOMA and AFAA support the removal of the pit sprinklers requirement from NFPA-13 in order to increase safety

6. The Majority of the SIG-AUT committee members (14-12 vote) were in favor of this proposal (CAM 13-6) during the last Ballot after the Tech-Session (See attached Ballot results) . However, CAM 13-6 failed because it did not achieve the required 2/3 majority

It will be the right thing to do for the next edition to delete the pit sprinkler requirement from NFPA 13 and to increase safety.



Public Input No. 271-NFPA 13-2019 [New Section after A.9.3.17.1.1]

TITLE OF NEW CONTENT

A.9.3.17.1 Combustible construction material covered by at least a single layer of noncombustible batt insulation should not be considered exposed.

Statement of Problem and Substantiation for Public Input

If the only combustible material in a concealed space (such as an upper deck) were covered with a layer of batt insulation, it would impede the ready ignition of the combustible material. A single layer of insulation has other related uses such as being an acceptable thermal boundary when determining the maximum distance below the ceiling for sprinklers

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 26 13:14:53 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: Proposal is too vague and does not provide adequate guidance. More description is needed.

**Public Input No. 561-NFPA 13-2019 [Section No. A.9.4.3.1]****A.9.4.3.1 —**

~~When renovations occur in an existing building and no changes are made in the existing sprinkler system, this section is not intended to require the replacement of existing standard-response sprinklers with quick-response sprinklers.~~

Statement of Problem and Substantiation for Public Input

This text is incorrect and conflicts with 9.4.3.1(5)

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jun 07 16:31:28 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1165-NFPA 13-2019](#)

Statement: This text is incorrect and conflicts with 9.4.3.1(5)



Public Input No. 471-NFPA 13-2019 [Section No. A.9.5.4.1]

A.9.5.4.1

~~Batt insulation creates an effective thermal barrier and can be considered the ceiling/roof deck when determining distances between deflector and ceiling.~~ The insulation needs to be installed in each pocket (not just above the sprinkler) and attached to the ceiling/roof in such a manner that it will not fall out during a fire prior to sprinkler activation.

Statement of Problem and Substantiation for Public Input

This text was added to the 1999 edition when there was no guidance regarding insulation. When this issue was addressed by adding 8.5.4.1.3 to the body of the 2010 edition, this text was no longer needed. Although the discussion about it being a thermal barrier still has value, the reference to the insulation being the ceiling implies that insulation alone (verses being attached to a more robust material) can constitute a ceiling. This implies it is an adequate means to separate two compartments (such as having insulation at the bottom chord and no ceiling beneath the insulation).

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 15:41:55 EDT 2019
Committee: AUT-SSI

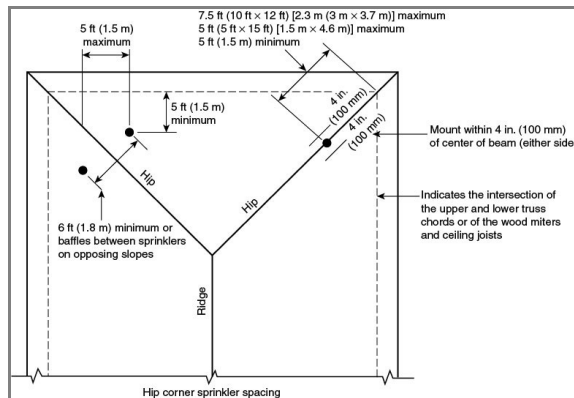
Committee Statement

Resolution: The existing language in the body and annex is already clear.

**Public Input No. 213-NFPA 13-2019 [Section No. A.10.2.6.1.4.5]****A.10.2.6.1.4.5**

See Figure A.10.2.6.1.4.5.

Figure A.10.2.6.1.4.5 Hip Roof Installations.

**Additional Proposed Changes**

File Name	Description Approved
Figure_A._10.2.6.1.4.5.pdf	

Statement of Problem and Substantiation for Public Input

Current dimensions on Fig A.10.2.6.1.4.5 are confusing and one appears incorrect. Attempts to clarify intent of the figure.

Submitter Information Verification

Submitter Full Name: Cary Webber
Organization: Reliable Automatic Sprinkler
Street Address:
City:
State:
Zip:
Submission Date: Wed Mar 27 13:43:50 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1167-NFPA 13-2019](#)

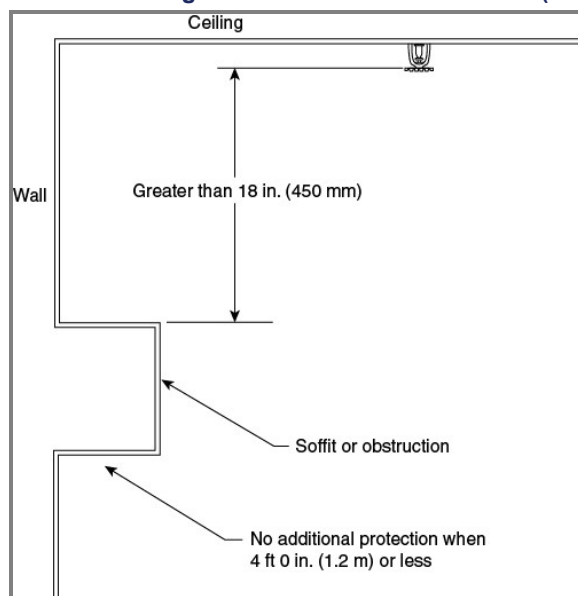
Statement: Current dimensions on Fig A.10.2.6.1.4.5 are confusing and one appears incorrect. Attempts to clarify intent of the figure.

**Public Input No. 409-NFPA 13-2019 [Section No. A.10.2.7.1.2]****A.10.2.7.1.2**

The intent of 10.2.7.1.2(3) is to apply to soffits that are located within the 18 in. (450 mm) plane from the sprinkler deflector. A soffit or other obstruction (i.e., shelf) located against a wall that is located entirely below the 18 in. (450 mm) plane from the sprinkler deflector should be in accordance with 10.2.7.3.2. (See Figure A.10.2.7.1.2.)

The sprinkler should be located at least 4 inches away from the face of the soffit as if it were a wall.

Figure A.10.2.7.1.2 Soffit/Obstruction Against Wall Greater Than 18 in. (450 mm) Below Deflector.

**Statement of Problem and Substantiation for Public Input**

No guidance provided on minimum distance from the soffit.

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc

Street Address:

City:

State:

Zip:

Submission Date: Tue Jun 04 18:32:32 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1169-NFPA 13-2019 PI 410 resolved based on FR 1169](#)

Statement: No guidance provided on minimum distance from the soffit.

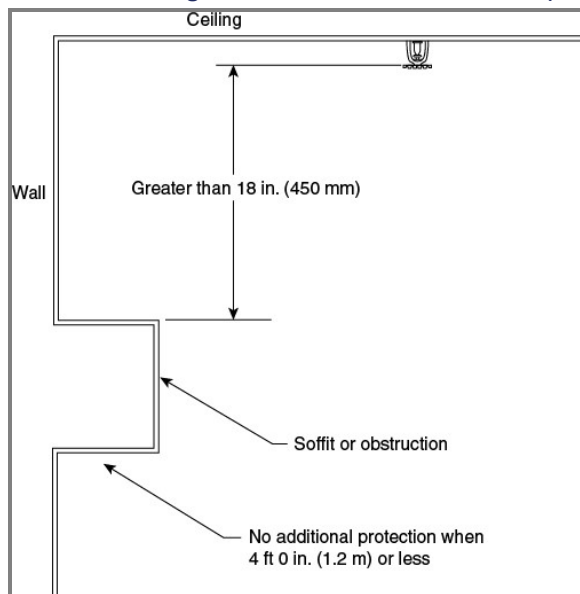


Public Input No. 410-NFPA 13-2019 [Section No. A.10.2.7.1.2]

A.10.2.7.1.2

The intent of 10.2.7.1.2(3) is to apply to soffits that are located within the 18 in. (450 mm) plane from the sprinkler deflector. A soffit or other obstruction (i.e., shelf) located against a wall that is located entirely below the 18 in. (450 mm) plane from the sprinkler deflector should be in accordance with 10.2.7.3.2. (See Figure A.10.2.7.1.2.)

Figure A.10.2.7.1.2 Soffit/Obstruction Against Wall Greater Than 18 in. (450 mm) Below Deflector.



Statement of Problem and Substantiation for Public Input

This guidance belongs in the section on obstructions greater than 18 inches below the deflector. I can see the logic of combining it with the other soffit rules but our format is based on where the obstruction is located in regard to the sprinkler deflector.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 411-NFPA 13-2019 [Section No. A.10.2.7.3.2]	
Public Input No. 411-NFPA 13-2019 [Section No. A.10.2.7.3.2]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submission Date: Tue Jun 04 18:49:34 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1169-NFPA 13-2019 PI 410 resolved based on FR 1169](#)

Statement: No guidance provided on minimum distance from the soffit.

**Public Input No. 411-NFPA 13-2019 [Section No. A.10.2.7.3.2]****A.10.2.7.3.2**

When obstructions are located more than 18 in. (450 mm) below the sprinkler deflector, an adequate spray pattern develops and obstructions up to and including 4 ft (1.2 m) wide do not require additional protection underneath. Examples are ducts, decks, open grate flooring, catwalks, cutting tables, overhead doors, soffits, ceiling panels, and other similar obstructions.

A soffit or other obstruction (i.e., shelf) located against a wall that is located entirely below the 18 in. (450 mm) plane from the sprinkler deflector should be in accordance with 10.2.7.3.2. (See Figure A.10.2.7.3.2.)

The width of an object is the lesser of the two horizontal dimensions (with the length being the longer horizontal dimension). Sprinkler protection is not required under objects where the length is greater than 4 ft (1.2 m) and the width is 4 ft (1.2 m) or less.

FIGURE A.10.2.7.3.2 Soffit/Obstruction Against Wall Greater Than 18 in. (450 mm) Below Deflector

Statement of Problem and Substantiation for Public Input

This guidance belongs in the section on obstructions greater than 18 inches below the deflector. I can see the logic of combining it with the other soffit rules but our format is based on where the obstruction is located in regard to the sprinkler deflector.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 410-NFPA 13-2019 [Section No. A.10.2.7.1.2]	
Public Input No. 410-NFPA 13-2019 [Section No. A.10.2.7.1.2]	

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 04 18:56:22 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Based on action taken on FR 1169

**Public Input No. 268-NFPA 13-2019 [Section No. A.10.2.8.1]**

A. 10.2.8.1 .1 --

The 18 in. (450 mm) clearance does not apply to vehicles in concrete parking structures.

Statement of Problem and Substantiation for Public Input

This is not explanatory text but an explicit exception to the base criteria. As such, it belongs in the body of the standard.

Submitter Information Verification

Submitter Full Name: Roland Huggins

Organization: American Fire Sprinkler Assoc.

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 24 19:13:36 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1170-NFPA 13-2019 Applies to any parking structure.

Statement: This is not explanatory text but an explicit exception to the base criteria. As such, it belongs in the body of the standard.

**Public Input No. 487-NFPA 13-2019 [Section No. A.10.2.9.2(4)]****A.10.2.9.2(4)**

It is the intent of this section to allow compartments with multiple pockets, where the cumulative volume of the pockets exceeds 1000 ft³ (28 m³) and separated from each other by 10 ft (3.05 m) or more and still be permitted to be unprotected because with these values, a sprinkler would be required between such pockets. For smaller pockets where the cumulative volume does not exceed 1000 ft³ (28 m³), there is no reason to separate the pockets by any specific distance because they are not worse than a single pocket that is 1000 ft³ (28 m³). The determination of volume is for combined unprotected pockets. If a single pocket within a cluster of pockets is protected, the cumulative volume of the multiple smaller pockets is addressed separately for each side of the protected pocket.

Statement of Problem and Substantiation for Public Input

Provides clarification that there are options when defining the volume of unprotected ceiling pockets within a compartment.

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 18:53:34 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Does not add clarification.



Public Input No. 146-NFPA 13-2019 [Section No. A.11.2.6]

A.11.2.6 —

~~See 10.2.8.2.~~

Statement of Problem and Substantiation for Public Input

There is no need to reference 10.2.8.2. It provides nothing new.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Thu Mar 07 16:00:06 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1133-NFPA 13-2019 A.11.2.6 moves to the current section addressing clearance to storage. PI 535 is resolved based on FR 1133.

Statement: Redundancy. Repeated in section 11.2.7 with the exception of 11.2.6.2. Section 11.2.6.2 will be added to 11.2.7 in separate PI



Public Input No. 147-NFPA 13-2019 [Section No. A.11.2.7.1]

A.11.2.7.1 —

~~Ceiling features in unobstructed construction that are protected by sprinklers in the lower ceiling elevation when the higher ceiling elevation is within 12 in. (300 mm) of the deflectors or greater for sprinklers with greater listed distances from the higher ceiling should not be considered unprotected ceiling pockets.~~

Statement of Problem and Substantiation for Public Input

This annex material has nothing to do with clearance to storage and needs to be located elsewhere.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Thu Mar 07 16:01:17 EST 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1172-NFPA 13-2019](#)

Statement: the 18 in. clearance does not apply to parking structures. Section A.11.2.7.1 was moved to A.11.2.8.1 where it belongs.



Public Input No. 436-NFPA 13-2019 [Section No. A.12.1.1]

A.12.1.1

The response and water distribution pattern of listed residential sprinklers have been shown by extensive fire testing to provide better control than spray sprinklers in residential occupancies. These sprinklers are intended to prevent flashover in the room of fire origin, thus improving the chance for occupants to escape or be evacuated.

The protection area for residential sprinklers is defined in the listing of the sprinkler as a maximum square or rectangular area. Listing information is presented in even increments from 12 ft to 20 ft (3.7 m to 6.1 m). When a sprinkler is selected for an application, its area of coverage must be equal to or greater than both the length and width of the hazard area. For example, if the hazard to be protected is a room 13 ft 6 in. (4.1 m) wide and 17 ft 6 in. (5.3 m) long, a sprinkler that is listed to protect a rectangular area of 14 ft × 18 ft (4.3 m × 5.5 m) or a square area of 18 ft × 18 ft (5.5 m × 5.5 m) must be selected. The flow used in the calculations is then selected as the flow required by the listing for the selected coverage.

~~Residential sprinklers can only be used in corridors that lead to dwelling units. However, the corridors that lead to dwelling units can also lead to other hazards that are not dwelling units and can still be protected with residential sprinklers.~~

Statement of Problem and Substantiation for Public Input

See PI #434

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 434-NFPA 13-2019 [New Section after 12.1.1]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 06 09:42:23 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Based on action taken on PI 434.



Public Input No. 574-NFPA 13-2019 [Section No. A.14.2.11.2]

A.14.2.11.2

Isolated obstructions that block adjacent sprinklers in a similar manner should be treated as a continuous obstruction. ~~High-volume low-speed fans with large~~ Large Diameter Ceiling Fans with diameters [(20 ft (6.1 m))] represent potential obstructions for ESFR sprinklers and should be positioned in accordance with the provisions of 14.2.11.2 with regard to both the fan motor unit and the blades.

Statement of Problem and Substantiation for Public Input

This is consistent with the revised definition and proposed change from HVLS fans to Large Diameter Ceiling Fans to be consistent with other codes and standards.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 3-NFPA 13-2018 [Section No. 3.3.93]	
Public Input No. 3-NFPA 13-2018 [Section No. 3.3.93]	

Submitter Information Verification

Submitter Full Name: William Koffel
Organization: Koffel Associates, Inc.
Affiliation: Air Movement and Control Association (AMCA)
Street Address:
City:
State:
Zip:
Submittal Date: Sun Jun 09 13:39:52 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: To match with Discharge Storage task group.



Public Input No. 548-NFPA 13-2019 [Section No. A.15.3.1]

A.15.3.1

Dry sprinklers must be of sufficient length to avoid freezing of the water-filled pipes due to conduction along the barrel. The values of exposed barrel length in Table 15.3.1(a) and Table 15.3.1(b) have been developed using an assumption of a properly sealed penetration and an assumed maximum wind velocity on the exposed sprinkler of 30 mph (48 km/h). Where higher wind velocity is expected, longer exposed barrel lengths will help avoid freezing of the wet piping. The total length of the barrel of the dry sprinkler must be longer than the values shown in Table 15.3.1(a) and Table 15.3.1(b) because the length shown in the tables is the minimum length of the barrel that needs to be exposed to the warmer ambient temperature in the heated space. See Figure A.15.3.1(a) and Figure A.15.3.1(c) for an example of where to measure the exposed barrel length for a sidewall sprinkler penetrating an exterior wall and Figure A.15.3.1(b) and Figure A.15.3.1(d) for an example of where to measure the exposed barrel length for a pendent sprinkler penetrating a ceiling or top of a freezer.

Figure A.15.3.1(a) Dry Sidewall Sprinkler Through Wall.

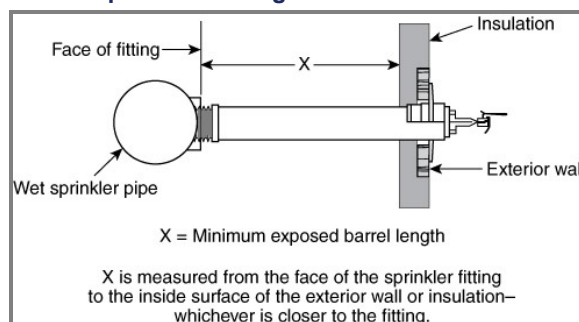


Figure A.15.3.1(b) Dry Pendent Sprinkler Through Ceiling or Top of Freezer.

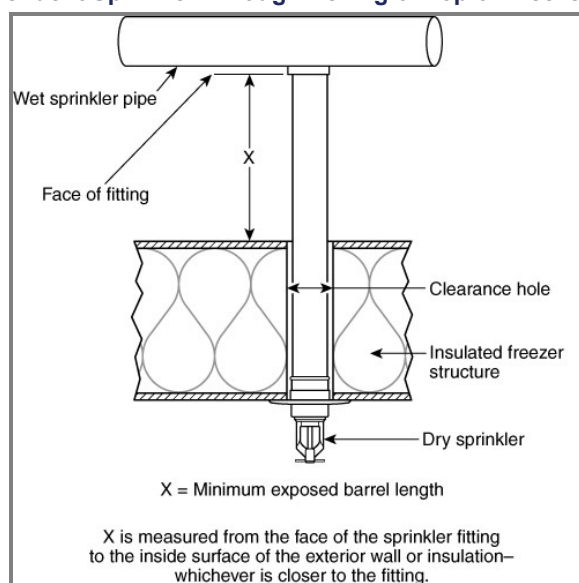


Figure A.15.3.1(c) Dry Sidewall Sprinkler Through Wall

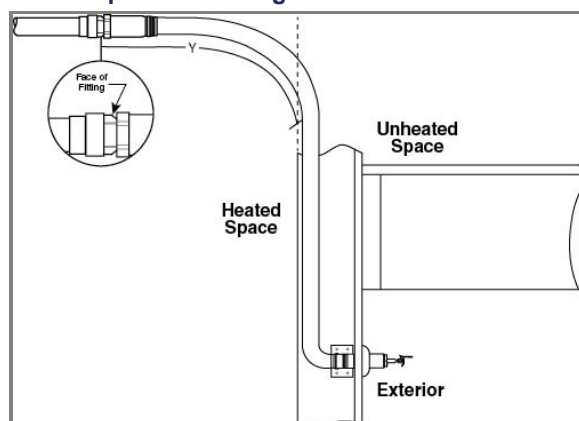
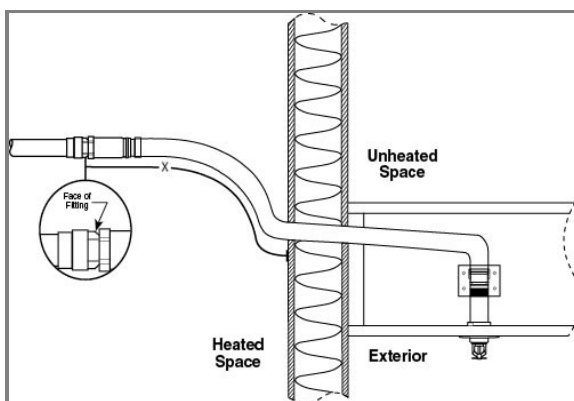


Figure A.15.3.1(d) Dry Pendent Sprinkler Through Ceiling



Additional Proposed Changes

File Name	Description Approved
15.3.1_e.pdf	

Statement of Problem and Substantiation for Public Input

This PI provides another example of a typical dry sidewall installation where piping is dropped down in a wall to provide exterior protection

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 15:16:56 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1070-NFPA 13-2019](#)

Statement: This PI provides another example of a typical dry sidewall installation where piping is dropped down in a wall to provide exterior protection



Public Input No. 658-NFPA 13-2019 [Section No. A.15.3.1]

A.15.3.1

Dry sprinklers must be of sufficient length to avoid freezing of the water-filled pipes due to conduction along the barrel. The values of exposed barrel length in Table 15.3.1(a) and Table 15.3.1(b) have been developed using an assumption of a properly sealed penetration and an assumed maximum wind velocity on the exposed sprinkler of 30 mph (48 km/h). Where higher wind velocity is expected, longer exposed barrel lengths will help avoid freezing of the wet piping. The total length of the barrel of the dry sprinkler must be longer than the values shown in Table 15.3.1(a) and Table 15.3.1(b) because the length shown in the tables is the minimum length of the barrel that needs to be exposed to the warmer ambient temperature in the heated space. See Figure A.15.3.1(a) and Figure A.15.3.1(c) for an example of where to measure the exposed barrel length for a sidewall sprinkler penetrating an exterior wall and Figure A.15.3.1(b) and Figure A.15.3.1(d) for an example of where to measure the exposed barrel length for a pendent sprinkler penetrating a ceiling or top of a freezer.

Figure A.15.3.1(a) Dry Sidewall Sprinkler Through Wall.

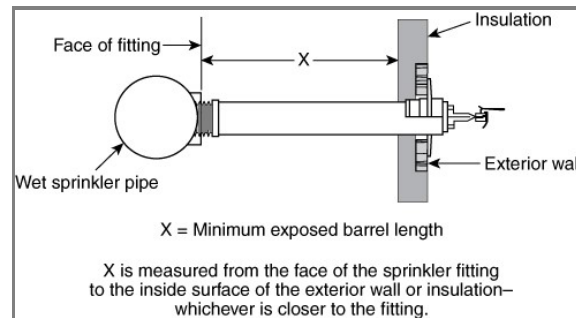


Figure A.15.3.1(b) Dry Pendent Sprinkler Through Ceiling or Top of Freezer.

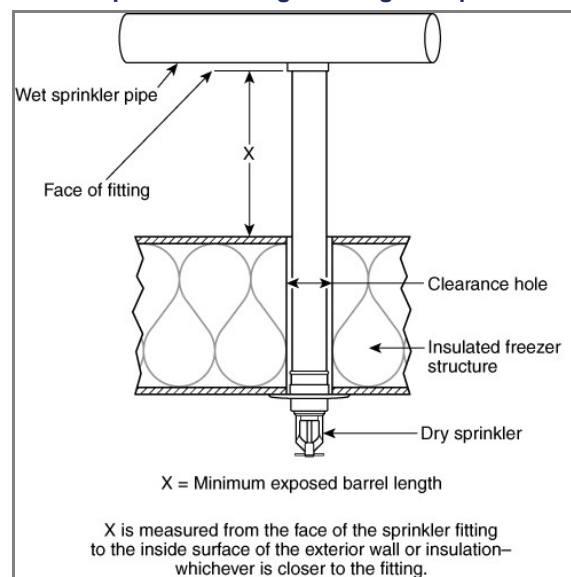


Figure A.15.3.1(c) Dry Sidewall Sprinkler Through Wall

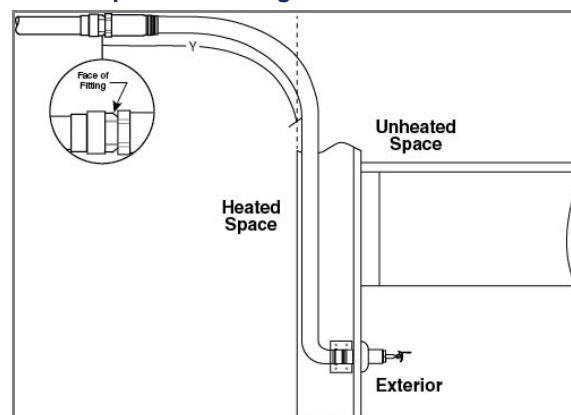
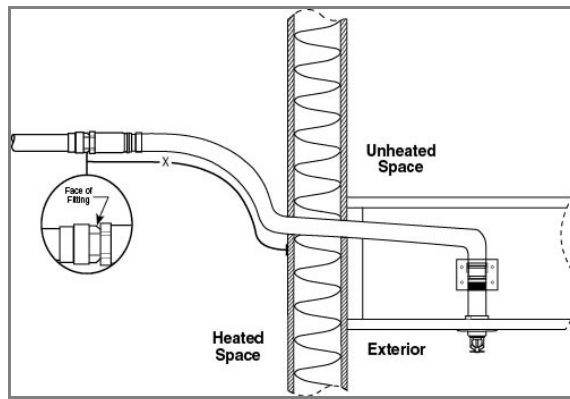


Figure A.15.3.1(d) Dry Pendent Sprinkler Through Ceiling



Statement of Problem and Substantiation for Public Input

Revise the illustration A.15.3.1(a) to show that insulation inside the wall can not be compressed.

Submitter Information Verification

Submitter Full Name: Kevin Kelly

Organization: Victaulic

Affiliation: NFSA

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 15:36:16 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1070-NFPA 13-2019](#)

Statement: This PI provides another example of a typical dry sidewall installation where piping is dropped down in a wall to provide exterior protection



Public Input No. 84-NFPA 13-2019 [Section No. A.16.2.5.1]

A.16.2.5.1 —

~~It is the intent to provide the owner's certificate for all new systems and where there is a change of occupancy and/or building use.~~

Statement of Problem and Substantiation for Public Input

The Annex language does not belong with 16.2.5.1 and is already covered by A.4.2

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Wed Feb 13 16:13:35 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1085-NFPA 13-2019](#)

Statement: The Annex language does not belong with 16.2.5.1 and is already covered by A.4.2



Public Input No. 121-NFPA 13-2019 [New Section after A.16.3.2]

A.16.3.5 See Table A.16.3.5

Insert the copper tube dimension Table for the 2016 Edition

Statement of Problem and Substantiation for Public Input

The copper tube Table was left out in the transition from the 2016 to 2019 Edition and needs to be added back.

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Fri Feb 22 14:51:14 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1373-NFPA 13-2019

Statement: The copper tube Table was left out in the transition from the 2016 to 2019 Edition and needs to be added back.



Public Input No. 557-NFPA 13-2019 [Section No. A.16.9.3.1]

A.16.9.3.1

A water supply connection should not extend into a building or through a building wall unless such connection is under the control of an outside listed indicating valve or an inside listed indicating valve located near the outside wall of the building.

All valves controlling water supplies for sprinkler systems or portions thereof, including floor control valves, should be accessible to authorized persons during emergencies. Permanent ladders, clamped treads on risers, chain-operated hand wheels, or other accepted means should be provided where necessary.

Outside control valves are suggested in the following order of preference can be :

- (1) Listed indicating valves at each connection into the building at least 40 ft (12 m) from buildings if space permits
- (2) Control valves installed in a cutoff stair tower or valve room accessible from outside
- (3) Valves located in risers with indicating posts arranged for outside operation
- (4) Key-operated valves in each connection into the building

Statement of Problem and Substantiation for Public Input

The decision to assign a preference to the type of outside valves belongs to NFPA 24. Since they have not dictated a preference for the different types, this criterion creates a conflict.

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: American Fire Sprinkler Assoc
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 16:05:13 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: Already addressed in the standard.



Public Input No. 49-NFPA 13-2019 [Section No. A.16.11.1.2]

A.16.11.1.2—

All alarm apparatus should be so located and installed that all parts are accessible for inspection, removal, and repair, and such apparatus should be substantially supported.

The A water motor-operated gong bell mechanism should be protected from weather-related elements such as rain, snow, or ice. To the extent practicable, it should also be protected from other influencing factors such as birds or other small animals that might attempt to nest in such a device.

Statement of Problem and Substantiation for Public Input

Improved clarity.

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Fri Jan 11 11:03:19 EST 2019

Committee: AUT-SSI

Committee Statement

Resolution: Already addressed in the standard.



Public Input No. 363-NFPA 13-2019 [Section No. A.28.2.1.8]

A.28.2.1.8 —

~~When a hydrostatic test is performed with plugs installed in lieu of pendent or sidewall sprinklers, a second hydrostatic test should not be required after the installation of sprinklers.~~

Statement of Problem and Substantiation for Public Input

Remove this section if PI 364 is accepted.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 364-NFPA 13-2019 [New Section after 28.2.1.8]	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 30 16:22:43 EDT 2019
Committee: AUT-SSI

Committee Statement

Resolution: [FR-1060-NFPA 13-2019 See action on PI 129](#)
Statement: Remove this section if PI 364 is accepted.

**Public Input No. 177-NFPA 13-2019 [Section No. A.28.5]****A.28.5**

See Figure A.28.5.

[delete the corresponding last three lines from the illustration of the sign from Figure A.28.5](#)

[Occupancy classification](#)

[Commodity classification](#)

[Maximum storage height](#)

Figure A.28.5 Sample Hydraulic Design Information Sign.

This system as shown on company
print no dated
for
at contract no
is designed to discharge at a rate of gpm/ft²
(L/min/m²) of floor area over a maximum area of
ft² (m²) when supplied with water at a rate of
gpm (L/min) at psi (bar) at the base of the riser.
Hose stream allowance of gpm (L/min)
is included in the above.
Occupancy classification
Commodity classification
Maximum storage height

Statement of Problem and Substantiation for Public Input

The requirements for the General Information Sign of Section 28.6.2 already call for information about occupancies and commodities, as well as storage configurations, in Items 2 through 8 and Items 10 to 12, so is redundant to ask for similar information (but less detail) on the Hydraulic Design Information Sign.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 176-NFPA 13-2019 [Section No. 28.5.3]	
Public Input No. 176-NFPA 13-2019 [Section No. 28.5.3]	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:

State:

Zip:

Submittal Date: Fri Mar 15 23:39:43 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: knowledge of the original design and commodity is important for future inspections.

**Public Input No. 649-NFPA 13-2019 [Section No. A.28.5]****A.28.5**

See Figure A.28.5.

Figure A.28.5 Sample Hydraulic Design Information Sign.

This system as shown on company
print no dated
for
at contract no
is designed to discharge at a rate of gpm/ft²
(L/min/m²) of floor area over a maximum area of
ft² (m²) when supplied with water at a rate of
gpm (L/min) at psi (bar) at the base of the riser.
Hose stream allowance of gpm (L/min)
is included in the above.
Occupancy classification
Commodity classification
Maximum storage height

Additional Proposed Changes

File Name	Description	Approved
Sample_Hydraulic_Design_Information_Sign.pdf	Hydraulic Design Information Sign	

Statement of Problem and Substantiation for Public Input

The language in the body of the standard has changed several times, but the annex figure has remained unchanged since at least the 1999 edition. Since the majority of the hydraulic placards available for purchase replicate the annex figure exactly, I believe a change needs to be made there in order to correlate with the requirements in the body of the standard. To my knowledge, the words 'included in the above' have never actually appeared in the body of the standard. Sentence (5) simply states 'Hose stream allowance included in addition to the sprinkler demand', which is completely separate from sentence (3) which requires the system demand at the base of the riser. It is important to leave the location of the outside hose stream open-ended, in the case of supply mains that feed fire hydrants as well as sprinkler systems, requiring the outside hose to be added at the hydrant and not the point of connection to the city supply.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 651-NFPA 13-2019 [Section No. 28.5.3]	

Submitter Information Verification

Submitter Full Name: Jason Ryckman

Organization: Canadian Automatic Sprinkler Association

Committee Statement: Canadian Automatic Sprinkler Association

Street Address:

Resolution: Get from Joe.

City:

State:

Zip:

Submittal Date: Mon Jun 10 14:33:23 EDT 2019

Committee: AUT-SSI



Public Input No. 630-NFPA 13-2019 [New Section after A.28.6]

A.29.1.7

Nitrogen is often added to existing dry pipe and pre-action sprinkler systems already identified as having corrosion damage with the intent of extending the life of these systems. The addition of nitrogen will not remediate the corrosion damage already incurred to the sprinkler system piping. It is recommended to assess existing piping to determine where replacement is necessary and where acceptable for continued use. The addition of nitrogen will remove the oxygen from the corrosion process which will minimize continued corrosion but will not remove any previous damage.

The use of compressed air is not always damaging to dry pipe or preaction sprinkler system piping. It has been used as a supervisory gas for nearly a century without catastrophic effects. Dry air has been found to provide an effective means of limiting corrosion. However, corrosion has been observed in systems having compressed air supplies without dry air. Problems have been observed in hot and humid areas, and when compressors generate heating after being run for long periods. Water condensation caused by this process has been identified as a contributing factor to corrosion in dry pipe and preaction sprinkler systems.

Statement of Problem and Substantiation for Public Input

Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.

Submitter Information Verification

Submitter Full Name: Mark Hopkins

Organization: National Fire Sprinkler Association

Affiliation: On behalf of the NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submission Date: Mon Jun 10 12:20:00 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: [FR-1087-NFPA 13-2019](#)

Statement: Nitrogen used at 98% can be effectively used to minimize corrosion in dry pipe and preaction systems. However, nitrogen cannot repair, remove or compensate for existing corrosion damage. A c-factor of 120 would only be applicable for new systems. Existing systems installed with compressed air can experience corrosion damage and a c-factor of 100 would be appropriate.



Public Input No. 659-NFPA 13-2019 [New Section after A.30.1.3]

A.29.3.2

When removing a sprinkler by removing the pipe, fitting, or coupling that the sprinkler is attached to that sprinkler can be reinstalled. This method of removing a sprinkler does not apply stress to the sprinkler components.

Statement of Problem and Substantiation for Public Input

Guidance is needed to address when it is acceptable to reinstall a sprinkler that has been removed from a sprinkler system. If no stress is applied to the sprinkler assembly then it should be acceptable to reinstall that sprinkler.

Submitter Information Verification

Submitter Full Name: Kevin Kelly

Organization: Victaulic

Affiliation: NFSA

Street Address:

City:

State:

Zip:

Submittal Date: Mon Jun 10 15:40:02 EDT 2019

Committee: AUT-SSI

Committee Statement

Resolution: FR-1364-NFPA 13-2019

Statement: Guidance is needed to address when it is acceptable to reinstall a sprinkler that has been removed from a sprinkler system. If no stress is applied to the sprinkler assembly then it should be acceptable to reinstall that sprinkler.



Public Input No. 9-NFPA 13-2018 [Chapter F]

Annex F Informational References

F.1 Referenced Publications.

The documents or portions thereof listed in this annex are referenced within the informational sections of this standard and are not part of the requirements of this document unless also listed in Chapter 2 for other reasons.

F.1.1 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1, *Fire Code*, 2018 edition.

NFPA 11, *Standard for Low-, Medium-, and High-Expansion Foam*, 2016 edition.

NFPA 12, *Standard on Carbon Dioxide Extinguishing Systems*, 2018 edition.

NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*, 2019 edition.

NFPA 13R, *Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies*, 2019 edition.

NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, 2016 edition.

NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*, 2017 edition.

NFPA 16, *Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems*, 2015 edition.

NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection*, 2019 edition.

NFPA 22, *Standard for Water Tanks for Private Fire Protection*, 2018 edition.

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 2017 edition.

NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*, 2018 edition.

NFPA 70[®], *National Electrical Code*[®], 2017 edition.

NFPA 72[®], *National Fire Alarm and Signaling Code*[®], 2019 edition.

NFPA 75, *Standard for the Fire Protection of Information Technology Equipment*, 2017 edition.

NFPA 80A, *Recommended Practice for Protection of Buildings from Exterior Fire Exposures*, 2017 edition.

NFPA 101[®], *Life Safety Code*[®], 2018 edition.

NFPA 120, *Standard for Fire Prevention and Control in Coal Mines*, 2015 edition.

NFPA 140, *Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations*, 2018 edition.

NFPA 170, *Standard for Fire Safety and Emergency Symbols*, 2018 edition.

NFPA 204, *Standard for Smoke and Heat Venting*, 2018 edition.

NFPA 220, *Standard on Types of Building Construction*, 2018 edition.

NFPA 232, *Standard for the Protection of Records*, 2017 edition.

NFPA 259, *Standard Test Method for Potential Heat of Building Materials*, 2018 edition.

NFPA 291, *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, 2019 edition.

NFPA 307, *Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves*, 2016 edition.

NFPA 409, *Standard on Aircraft Hangars*, 2016 edition.

NFPA 750, *Standard on Water Mist Fire Protection Systems*, 2019 edition.

NFPA 780, *Standard for the Installation of Lightning Protection Systems*, 2017 edition.

NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems*, 2018 edition.

NFPA Fire Protection Handbook, 20th edition.

F.1.2 Other Publications.

F.1.2.1 ACI Publications.

American Concrete Institute, 38800 Country Club Drive, Farmington Hills, MI 48331-3439.

ACI 318, *Building Code Requirements for Structural Concrete and Commentary*, 2014, **errata, 2018**.

ACI 355.2, *Qualification of Post-Installed Mechanical Anchors in Concrete and Commentary*, 2007.

F.1.2.2 ACPA Publications.

American Concrete Pipe Association, 8445 Freeport Pkwy, Suite 350, Irving, TX 75063.

Concrete Pipe Handbook.

F.1.2.3 AISC Publications.

American Institute of Steel Construction, One 130 East Wacker Drive Randolph , Suite 700 2000 , Chicago, IL 60601-4802 .

AISC 360, *Specification for Structural Steel Buildings*, - 2010, Errata, 2012 2016 .

Specifications for the Design, Fabrication, and Erection of Structural Steel Buildings.

F.1.2.4 ASCE Publications.

American Society of Civil Engineers, 1801 Alexander Bell Drive, Reston, VA 20191-4400.

ASCE/SEI 7, *Minimum Design Loads for Buildings and Other Structures*, - 2010 2016 .

ASCE 19, ~~*Standard Guidelines for the Structural Applications of Steel Cables for Buildings*~~, 2010 2016 .

F.1.2.5 ASME Publications.

ASME International, Two Park Avenue, New York, NY 10016-5990.

ASME A17.1, *Safety Code for Elevators and Escalators*, 1996 2016 .

ASME B16.1, *Gray-Iron Pipe Flanges and Flanged Fittings Classes 25, 125, and 250*, 2015.

ASME B1.20.1, *Pipe Threads, General Purpose (Inch)*, 2013.

F.1.2.6 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM A126, *Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings*, 2004, reapproved 2014.

ASTM A135/A135M, *Standard Specification for Electric-Resistance-Welded Steel Pipe*, 2009, reapproved 2014.

ASTM A197/A197M, *Standard Specification for Cupola Malleable Iron*, 2000, reapproved 2015.

ASTM A307, *Standard Specification for Carbon Steel Bolts, Studs, Threaded Rod 60,000 psi Tensile Strength*, 2014.

ASTM A1023/A1023M, *Standard Specification for Stranded Carbon Steel Wire Ropes for General Purposes*, 2015.

ASTM A603, *Standard Specification for Zinc-Coated Steel Structural Wire Rope*, **1998**, reapproved 2014.

ASTM B31, *Standards of Pressure Piping*, collection with various dates. (**Move under ASME Publications**)

ASTM C136/C136M, *Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates*, 2014.

ASTM C635/C635M, *Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems of Acoustical Tile and Lay-In Panel Ceilings*, 2013a **201 7**.

ASTM C636/C636M, *Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels*, 2013.

ASTM D2487, *Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)*, 2011 **201 7**.

ASTM E8/E8M, *Structural Test Method for Tension Testing of Metallic Materials*, 2015a **201 6**.

ASTM E84, *Standard Test Method of Surface Burning Characteristics of Building Materials*, 2004 **20 18a**.

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, 2016a **201 8b**.

ASTM E580/E580M, *Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions*, 2014 **201 7**.

ASTM F437, *Standard Specification for Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80*, 2015.

ASTM F438, *Standard Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40*, 2015 **201 7**.

ASTM F439, *Standard Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80*, 2013.

ASTM F442/F442M, *Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR)*, 2013.

ASTM F2164, *Standard Practice for Field Leak Testing of Polyethylene (PE) and Crosslinked Polyethylene (PEX) Pressure Piping Systems Using Hydrostatic Pressure*, 2013 **201 8**.

F.1.2.7 AWWA Publications.

American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

AWWA C105/A21.5, *Polyethylene Encasement for Ductile-Iron Pipe Systems*, 2015 201 0 .

AWWA C111/A21.11, *Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings*, 2012 201 7 .

AWWA C115/A21.15, *Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges*, 2011.

AWWA C150/A21.50, *Thickness Design of Ductile-Iron Pipe*, 2014.

AWWA C206, *Field Welding of Steel Water Pipe*, 2011 201 7 .

AWWA C600, *Standard for the Installation of Ductile-Iron Water Mains and Their Appurtenances*, 2010 201 7 .

AWWA C602, *Cement-Mortar Lining of Water Pipe Lines 4 in. (100 mm) and Larger*, 2011 201 7 .

AWWA C606, *Grooved and Shouldered Joints*, 2015.

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Ductile Iron Pipe Research Association, P.O. Box 19206, Golden, CO 80402.

Thrust Restraint Design for Ductile-Iron Pipe, 2016.

F.1.2.9 EPRI Publications.

EPRI, 3420 Hillview Avenue, Palo Alto, CA 94304.

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FM Global, 270 Central Avenue, P.O. Box 7500, Johnston, RI 02919-4923.

Flammability Characterization of Lithium-ion Batteries in Bulk Storage, 2013.

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FM Approval 1031, *Quick Opening Devices (Accelerators and Exhausters) for Dry Pipe Valves*, 1977.

FM Approval 1041, *Alarm Check Valves*, 2006.

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FM Approval 1045, *Waterflow Detector Check Valves*, 2005.

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Uniform Building Code, 1997.

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International Maritime Organization, 4 Albert Embankment, London, SE1 7SR, United Kingdom.

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International Organization for Standardization, ISO Central Secretariat, BIBC II, Chemin de Blandonnet, 8, CP 401, 1214 Vernier, Geneva Switzerland.

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Society of Naval Architects and Marine Engineers, 99 Canal Center Plaza, Suite 310, Alexandria, VA 22314.

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Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

Commodity Hazard Comparison of Expanded Plastic in Portable Bins and Racking, Project 99NK29106, NC4004, September 8, 2000.

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UL 194, *Gasketed Joints for Ductile-Iron Pipe and Fittings for Fire Protection Service*, 2005, **revised 2016**.

UL 199, *Automatic Sprinklers for Fire-Protection Service*, 2005, revised 2013 **2017**.

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The Health and Safety Implications of the Use of Diesel-Powered Equipment in Underground Mines, MSHA, 1985.

Thrust Restraint Design Equations and Tables for Ductile-Iron and PVC Pipe, EBAA Iron, Inc.

Wire Rope User's Manual, 2005, Wire Rope Technical Board, Alexandria, VA 22315-1387.

F.2 Informational References.

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National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 13E, *Recommended Practice for Fire Department Operations in Properties Protected by Sprinkler and Standpipe Systems*, 2015 edition.

NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*, 2018 edition.

NFPA 850, *Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations*, 2018 edition.

F.2.2 AWWA Publications.

American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

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AWWA C203, *Coal-Tar Protective Coatings and Linings for Steel Water Pipe*, 2015.

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AWWA C208, *Dimensions for Fabricated Steel Water Pipe Fittings*, 2012 201 7 .

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AWWA C303, *Reinforced Concrete Pressure Pipe, Bar-Wrapped, Steel-Cylinder Type, Pretensioned*, 2008 20 17 .

F.2.3 DIPRA Publications.

Ductile Iron Pipe Research Association, P.O. Box 19206, Golden, CO 80402.

Installation Guide for Ductile Iron Pipe, 2016.

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FM Global, 270 Central Avenue, P.O. Box 7500, Johnston, RI 02919-4923.

FM Approval 2311, *Pressure Gauges for Fire Protection Systems*, 2008.

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SAE International, 400 Commonwealth Dr., Warrendale, PA 15096.

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Uni-Bell PVC Pipe Association, 2711 Lyndon B Johnson Fwy., Suite 1000, Dallas, TX 75234.

Handbook of PVC Pipe, 5th edition.

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U.S. Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

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NFPA 82, *Standard on Incinerators and Waste and Linen Handling Systems and Equipment*, 2014 edition.

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NFPA 99, *Health Care Facilities Code*, 2018 edition.

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NFPA 101[®], *Life Safety Code*[®], 2018 edition.

NFPA 120, *Standard for Fire Prevention and Control in Coal Mines*, 2015 edition.

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NFPA 5000[®], *Building Construction and Safety Code*[®], 2018 edition.

Statement of Problem and Substantiation for Public Input

Referenced current SDO contact information and national consensus standard editions.

Please move the incorrectly referenced ASTM B31 to ASME section because its copyrighted by ASME.

Related Public Inputs for This Document

Related Input	Relationship
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Public Input No. 531-NFPA 13-2019 [Section No. F.1.2.18]

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Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

Commodity Hazard Comparison of Expanded Plastic in Portable Bins and Racking, Project 99NK29106, NC4004, September 8, 2000.

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UL 2901 Outline for Antifreeze Solutions for Use in Fire Sprinkler Systems, 2018

Statement of Problem and Substantiation for Public Input

Update the publishing dates for each of the UL standards listed to reflect the most up to date edition. Added UL 2901 outline of Investigation for the use of listed antifreeze as a source to meet the 8.6.2.1 requirement

Related Public Inputs for This Document

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