



Public Comment No. 126-NFPA 13-2020 [Global Input]

Do not revise the obstruction tables in Chapters 10, 11, 12, 13 & 14 (beam blocking rules) to eliminate dimensional ranges. Retain the dimensional ranges as they are in the current 2019 edition of NFPA 13.

Statement of Problem and Substantiation for Public Comment

The Committee Statement says that deleting the ranges will clarify the separation distances for obstructions, but this is not true. Without the ranges the tables will be more difficult to interpret than as per the exiting format and could easily lead to errors or misunderstandings.

For Example, in Table 10.2.7.2

- with a horizontal distance of 3'-0 a deflector distance of 9½ inches is specified; and
- with a horizontal distance of 3'-6 a deflector distance of 12 inches is specified.

Without the ranges to provide the necessary clarification for this, some people might try to interpolate between these values, so:

- with a horizontal distance of 3'-3, a deflector distance of 10¾ inches could be decided upon, which would be incorrect and not the intent of the table. To avoid errors such as this, the dimensional ranges are necessary.

Related Item

- FR-1183

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 15:17:48 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The tables have been updated with the wording to help with any confusion and eliminate the need for interpolation. For example – Table 10.7.2 – With a horizontal distance for 3'-0" or more a deflector distance of 9.5" is specified. The next row starts with 3'-5". The words "or more" in this table makes it so if you're 3' to 3'-5" from the obstruction the deflector is allowed to be 9.5" above the bottom of the obstruction. The next row starts at 3'-6" and you would then use that row to determine deflector placement.

**Public Comment No. 254-NFPA 13-2020 [Global Input]**

The Correlating Committee directs AUT-RSS and AUT-SSI to coordinate dimension ranges in the obstruction tables of 13, 13D & 13R in a consistent manner, including Tables 10.3.6.1.4, 10.3.6.2.2, 11.2.5.2.2, 11.3.6.1.3, 11.3.6.1.4, 11.3.6.2.2, 12.1.10.2.2, 12.1.11.1.3, 12.1.11.1.4, 12.1.11.2.2 & 13.2.8.3.2.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_11.pdf	13_CCN_11

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 11 in the First Draft Report on First Revision No. 1183.

Related Item

- FR-1183

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 11:53:17 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1220-NFPA 13-2020
Statement: Replace all tables with a new format. These tables will make it easier to follow for the end user.



Public Comment No. 257-NFPA 13-2020 [Global Input]

Review metric conversions in all FR's for correlation with metric revisions made during the last revision cycle. (see attached spreadsheet)

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_37.pdf	13_CCN_37

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 37 in the First Draft Report.

Related Item

- CCN_37

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 12:07:39 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Rejected

Action:

Resolution: All Task Groups have reviewed their responsible chapters for metric conversions and will continue to review it during the next revision cycle.



Public Comment No. 385-NFPA 13-2020 [Global Input]

Comments have been made to NFPA 13 Beam Rule Table (Table 10.2.7.2) - See PC-346 and to the partition tables (10.2.7.3.2.1) - See PC-344. If these comments are accepted - all similar tables in the document should be revised to this new format. I have uploaded the new table format to this comment. These revision will make these tables easier to interpret.

The following tables should be reviewed (there may be others):

Chapter 10: 10.2.7.2, 10.2.7.3.2.1, 10.3.6.1.4, 10.3.6.2.2

Chapter 11: 11.2.5.2.2, 11.3.6.1.3, 11.2.6.1.4, 11.3.6.2.2

Chapter 12: 12.1.10.2.2, 12.1.11.1.3, 12.1.11.1.2, 12.1.11.2.2

Chapter 13: 13.2.8.3.2

Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
Beam_Rule_Table_Format_2022.pdf	
Partition_Rule_Table_Format_2022.pdf	

Statement of Problem and Substantiation for Public Comment

Comments have been made to NFPA 13 Beam Rule Table (Table 10.2.7.2) - See PC-346 and to the partition tables (10.2.7.3.2.1) - See PC-344. If these comments are accepted - all similar tables in the document should be revised to this new format. I have uploaded the new table format to this comment. These revision will make these tables easier to interpret. See proposed table formats attached to this comment

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 346-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 344-NFPA 13-2020 [Section No. 10.2.7.3.2.1]	
<u>Related Item</u>	
• FR-1123 • FR-1183	

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: Wed May 06 15:47:24 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1220-NFPA 13-2020](#)

Statement: Replace all tables with a new format. These tables will make it easier to follow for the end user.



Public Comment No. 338-NFPA 13-2020 [New Section after 1.2.2]

TITLE OF NEW CONTENT

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.

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Statement of Problem and Substantiation for Public Comment

This provides guidance and better understanding of the requirements for designing, installing and testing of these life safety systems to provide a reasonable degree of protection for life and property from fire through standardization of design, installation, and testing requirements for sprinkler systems, including private fire service mains, based on sound engineering principles, test data, and field experience. I thank the committee for their consideration on this comment.

Related Public Comments for This Document

Related Comment
Public Comment No. 328-NFPA 13-2020 [Section No. 1.2.2]

Relationship
qualified

Related Item

- PI 664 & PI 674

Submitter Information Verification

Submitter Full Name: Kenneth Schneider
Organization: Ua - Itf
Affiliation: United Association
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 05 15:14:38 EDT 2020
Committee: AUT-SSI

Committee Statement

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

**Public Comment No. 328-NFPA 13-2020 [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~~ qualified personnel.

Statement of Problem and Substantiation for Public Comment

As submitted as a PI, to provide a reasonable degree of protection for life and property from fire through standardization of design, installation, and testing requirements for sprinkler systems, including private fire service mains, based on sound engineering principles, test data, and training. During the first draft this PI was rejected due to lack of a definition for qualified, although qualified appears in the standard multiple times without a definition which I will submit a PC based on the committees recommendation that qualified is defined. Currently "knowledgeable and experienced" are not defined, this change will remove the need for either of these terms to be defined since this is the only place these terms are used in the standard although experienced is used 2 more times in the annex. I thank the committee for their consideration on this comment.

Related Public Comments for This Document**Related Comment****Relationship**

Public Comment No. 338-NFPA 13-2020 [New Section after 1.2.2]

Public Comment No. 340-NFPA 13-2020 [New Section after 3.3.171]

Related Item

- PI 664 & PI 674

Submitter Information Verification

Submitter Full Name: Kenneth Schneider

Organization: Ua - Itf

Affiliation: United Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 05 10:13:55 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: Current language clarifies that design and installation requires knowledge and experience. It is the state and local jurisdiction's responsibility to determine qualifications.

**Public Comment No. 325-NFPA 13-2020 [Section No. 1.7.2]****1.7.2 –**

~~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 Comment

A discussion should be had as to if this item was resolved at the table during the first draft meeting. My notes from the first draft meeting have this as resolved in addition to multiple committee members had voted negative with the comment of "My notes from the first draft meeting indicated this was resolved."

Related Item

- PI 276-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: Thomas Noble

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 05 09:24:05 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Accepted

Resolution: [SR-1014-NFPA 13-2020](#)

Statement: Submitter is correct, this was rejected at the table during the first draft meeting. The language adds nothing to the standard. The testing laboratories regularly test criteria and products that do not yet fully conform to Standard requirements.

**Public Comment No. 73-NFPA 13-2020 [Section No. 1.7.3]****1.7.3 –**

~~Materials or devices not specifically designated by this standard shall be utilized in complete accord with all conditions, requirements, and limitations of their listings.~~

Statement of Problem and Substantiation for Public Comment

My notes from the Technical Committee Meeting indicates that this item was to be Resolved. Therefore, this definition should not have been accepted.

NFPA 13 puts some restrictions on various components for a very good reason. For example, NFPA 13 limits the maximum, area of coverage for any sprinkler at 400 ft². When this provision was added to the 1987 edition of the standard, the substantiation was because:

"(1) Pressure, not sensitivity, is the major controlling factor in achieving area of coverage. Without guidance the laboratories are obliged to accept unlimited pressure/area combinations. (2) The laboratories do not conduct a response time fire test of extended area sprinklers in a large room. In view of point (1) the result can be a product having a listing for a very high pressure and large area with very poor response. The proposed limitations control this dangerous possibility. "

Related Item

- FR-1001

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 13:46:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: This language currently exists in 2019 edition, is appropriate and consistent with the intent of the Standard to promote the use of new technology, while maintaining appropriate safe guards.



Public Comment No. 38-NFPA 13-2020 [Section No. 2.3.4]

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*, 2018.

ASTM A106/A106M, *Standard Specification for Seamless Carbon Steel Pipe for High Temperature Service*, 2018.

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 A234/A234M, *Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service*.

ASTM A312/A312M, *Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes*, 2018.

ASTM A403/A403M, *Standard Specification for Wrought Austenitic Stainless Steel Piping Fittings*, 2018a.

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*, 2016.

ASTM B251/B251M, *Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube*, 2017.

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*, 2016.

ASTM C635/C635M, *Standard Specification for Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings*, 2017.

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~~ for Surface Burning Characteristics of Building Materials*, 2018a 2020 .

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, 2018b 2019 .

ASTM E136, *Standard Test Method for Behavior of Materials in a ~~Assessing Combustibility of Materials Using a~~ Vertical Tube Furnace at 750°C*, 2016a 2019a .

ASTM E2652, *Standard Test Method for Behavior of Materials in a ~~Assessing Combustibility of Materials Using a~~ Tube Furnace with a Cone-shaped Airflow Stabilizer, at 750°C*, 2016 2018 .

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

ASTM E2965, *Standard Test Method 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*, 2017.

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, *IEEE/ASTM SI10 American National Standard for Metric Practice*, 2016.

Statement of Problem and Substantiation for Public Comment

updates on ASTM fire standards

Related Item

- FR1002

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 01 14:14:36 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1079-NFPA 13-2020](#)

Statement: Updated referenced publications.

**Public Comment No. 133-NFPA 13-2020 [Section No. 3.3.26.4]****3.3.26.4 Smooth Ceiling.**

A continuous ceiling free from significant irregularities, lumps, or indentations greater than 4 in. (75 mm) in depth. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

I agree with Mr. Ryckman and his proposed input number 266. Significant is unenforceable language as currently written.

The committee statement was

The annex covers this issue in 3.3.26.4(3).

There is no annex section on this topic.

First Revision No. 1125 did add the 3" allowance for smooth ceilings. See section 10.3.2.1.

Related Item

- PI#266

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 18:54:32 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1015-NFPA 13-2020

Statement: The standard needs to better define its intent for smooth ceiling as written, there is no guidance for what a significant irregularity is. The 4 in. (100 mm) revision aligns with obstructed construction criteria.

**Public Comment No. 134-NFPA 13-2020 [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.- (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

I agree with Mr. Victor and his comments in Public Input No. 552.

Related Item

- PI#552

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 19:01:19 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The standard is sufficiently clear on this subject and meets the committee's intent.

**Public Comment No. 2-NFPA 13-2020 [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 compartment is permitted to have a single opening of 36 in. (900 mm) or less up to 36 in (900mm) in width without a lintel is permitted where there are no other openings to adjoining spaces where it is the only opening serving that compartment, such as a closet, pantry or bathroom . (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

There are several changes pending to this section, regardless of where the requirements end up it should be clarified that the lintel portion of this definition applies to accessory spaces such as bathrooms, closets and pantries (at least that has always been the understanding I have, and seems to be prevalent). As the standard is written you would have to consider the space without a lintel from both sides, which effectively precludes an opening without a lintel in any situation other than a pair of rooms such as those found in a motel where the second room discharges outside. If you stood in a hotel closet it would be a separate compartment from whatever was outside of it, but once you walked into the room that hotel room would not be a separate compartment from the closet as it has an opening into an adjacent space. It should be clarified that for accessory spaces such as bathrooms/pantries/closets as long as there is only one opening into that space under 36" it would not require a lintel to be considered a separate compartment.

Related Item

- 552-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: Mike Morey

Organization: Shambaugh and Son

Street Address:

City:

State:

Zip:

Submittal Date: Thu Feb 27 09:29:52 EST 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The standard is sufficiently clear on this subject and meets the committee's intent.

**Public Comment No. 161-NFPA 13-2020 [New Section after 3.3.46]****3.3.XX Water Control Valve****A valve that activates to allow water flow to the water-based fire protection system and devices****Statement of Problem and Substantiation for Public Comment**

Dry Valves, Preaction Valves, and Deluge Valves are recognized by UL as Water Control Valves. As such, the castings/placards on these valves are often marked as "Water Control Valves". By changing the definition of control valve to a valve that stops water flow rather than controls water flow these valves are excluded by that definition, so a new definition needs to be established for Water Control Valves.

Related Item

- FR-1008

Submitter Information Verification**Submitter Full Name:** Kevin Hall**Organization:** NFSA**Affiliation:** NFSA Engineering and Standards Committee**Street Address:****City:****State:****Zip:****Submittal Date:** Mon Apr 27 09:09:21 EDT 2020**Committee:** AUT-SSI**Committee Statement****Committee Action:** Rejected but see related SR**Resolution:** SR-1061-NFPA 13-2020

Statement: Dry Valves, Preaction Valves, and Deluge Valves are recognized by UL as Water Control Valves. As such, the castings/placards on these valves are often marked as "Water Control Valves". Based on current annex language, Control Valve does not apply (in 2019 edition or First Draft), so it is appropriate to provide a definition for these valves. In addition, Valve definitions are located in multiple areas of Chapter 3, so consolidation will assist users. Finally, with this change it was necessary to review the use of the term in the definition of Sprinkler System (3.3.211) in order to meet the intent of the Standard

**Public Comment No. 324-NFPA 13-2020 [Section No. 3.3.57]**

3.3.57 – Drop.

A vertical pipe supplying one or more sprinklers from above. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

A discussion should be had as to if this item was resolved at the table during the first draft meeting. My notes from the first draft meeting have this as resolved in addition to multiple committee members had voted negative with the comment of "My notes from the first draft meeting indicated this was resolved."

Related Item

- PI-333-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: Thomas Noble

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 05 09:10:36 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1016-NFPA 13-2020](#)

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, and use the term "drop" however "drop" is not defined (but it is illustrated).



Public Comment No. 354-NFPA 13-2020 [Section No. 3.3.57]

3.3.57 – Drop.

A vertical pipe supplying one or more sprinklers from above. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

This proposed change was resolved in the first draft. The committee agreed through considerable discussion that this definition was unnecessary.

Related Item

- PI 333

Submitter Information Verification

Submitter Full Name: Jason Gill

Organization: Crews & Gregory Fire Sprinkler

Affiliation: AFSA

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 06 07:27:14 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1016-NFPA 13-2020](#)

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, and use the term “drop” however “drop” is not defined (but it is illustrated).

**Public Comment No. 74-NFPA 13-2020 [Section No. 3.3.57]**

3.3.57 – Drop.

A vertical pipe supplying one or more sprinklers from above. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

My notes from the Technical Committee Meeting indicates that this item was to be Resolved. Therefore, this definition should not have been accepted.

Related Item

- FR-1010

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:00:25 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1016-NFPA 13-2020

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, and use the term “drop” however “drop” is not defined (but it is illustrated).

**Public Comment No. 249-NFPA 13-2020 [Section No. 3.3.64]****3.3.64 – Electrical Equipment Room.**

A room primarily dedicated to housing electrical equipment such as switchgear, meters, and panels. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

The PI to add this definition was resolved during the first draft meeting. Discussions concluded that this is not a term that needed to be defined since the requirements of this room are included in section 9.2.6.

Related Item

- PI 376 and FR 1012

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 11:12:20 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1017-NFPA 13-2020](#)

Statement: The PI to add this definition was resolved during the first draft meeting. Discussions concluded that this is not a term that needed to be defined since the requirements of this room are included in section 9.2.6.

**Public Comment No. 75-NFPA 13-2020 [Section No. 3.3.64]****3.3.64 – Electrical Equipment Room.**

A room primarily dedicated to housing electrical equipment such as switchgear, meters, and panels. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

My notes from the Technical Committee Meeting indicates that this item was to be Resolved. Therefore, this definition should not have been accepted.

Related Item

- FR-1012

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:02:47 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1017-NFPA 13-2020](#)

Statement: The PI to add this definition was resolved during the first draft meeting. Discussions concluded that this is not a term that needed to be defined since the requirements of this room are included in section 9.2.6.

**Public Comment No. 391-NFPA 13-2020 [Section No. 3.3.65]****3.3.65 – 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 Comment

Automatic sprinkler systems have an exceptional history of reliability. Tinkering with the operating mechanism should be done with extreme care. Electronically operated sprinklers have no significant history of operating with the same level of reliability as traditional fusible-link and glass bulb operated automatic sprinklers. Including electronically operated sprinklers in NFPA 13 has the potential to undermine the reputation of all NFPA 13 sprinkler systems, based on a technology that is not proven in the field.

Related Item

- FR1013

Submitter Information Verification

Submitter Full Name: Steven Wolin

Organization: Reliable Automatic Sprinkler Co., Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 06 16:35:50 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1018-NFPA 13-2020](#)

Statement: Definition already exists in 3.210.4.6 and would be redundant here.

**Public Comment No. 79-NFPA 13-2020 [Section No. 3.3.65]****3.3.65** Electrically Operated Sprinkler.

A sprinkler that is equipped with an integral means of activation using electricity. [25, -2020] [See 3.3.210.4.6.](#)

Statement of Problem and Substantiation for Public Comment

This is the first of two PCs relating to FR 1013 and FR 10321. Also please see the related action request for Section 3.3.210.4.6.

As it currently resides in TerraView, there are two definitions:

3.3.65 has a definition for an "Electrically Operated Sprinkler" and

3.3.210.4.6 has a definition for an "Electrically Activated Sprinkler".

This discrepancy in definitions describing the same device needs to be resolved, so it is suggested that 3.3.65 should just reference 3.3.210.4.6, but the heading of that section should be changed to "Electrically Operated Sprinkler".

My notes from the Technical Committee Meeting indicates that it was decided to adopt the title of "Electrically Operated Sprinkler" and it is further observed that that is the term used in Section 15.6.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 80-NFPA 13-2020 [Section No. 3.3.210.4.6]	
Public Comment No. 80-NFPA 13-2020 [Section No. 3.3.210.4.6]	
<u>Related Item</u>	
• FR-1013 • FR-1032	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submission Date: Thu Apr 23 14:20:58 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1018-NFPA 13-2020](#)
Statement: Definition already exists in 3.210.4.6 and would be redundant here.

**Public Comment No. 159-NFPA 13-2020 [Section No. 3.3.71]****3.3.71 Exterior Projection.**

~~Construction attached to the primary structure.~~ An extension beyond an exterior wall capable of collecting heat below . (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

Current language leaves this new definition up for interpretation. The proposed revision clarifies that this should be an extension of the footprint of the building (i.e. an ornamental projection on top of a buildings should not require sprinkler protection). Additionally, a projection might not necessarily need to be attached to pose a fire hazard (i.e. a "detached" pavilion separated by a few inches from the main structure)

Related Item

- FR-1015

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 08:58:20 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1019-NFPA 13-2020](#)

Statement: Submitter is correct that the definition proposed in the first draft provides insufficient guidance. Revised definition better clarifies the Committee's intent.

**Public Comment No. 77-NFPA 13-2020 [Section No. 3.3.71]****3.3.71 – Exterior Projection.**

~~Construction attached to the primary structure, capable of collecting heat. (AUT-SSI)~~

Statement of Problem and Substantiation for Public Comment

The text of new definition is flawed. As written, it does not contain any criteria that it be outside, currently it just says “attached”. Also, there is no description that it be unenclosed. An exterior projection under this definition could easily be interpreted to be a lean to type of structure, which would have walls down to the grade level.

Related Item

- FR-1015

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:11:59 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1019-NFPA 13-2020](#)

Statement: Submitter is correct that the definition proposed in the first draft provides insufficient guidance. Revised definition better clarifies the Committee's intent.



Public Comment No. 340-NFPA 13-2020 [New Section after 3.3.171]

Qualified

A competent and capable person that has met the requirements and training for a given field acceptable to the authority having jurisdiction.

Statement of Problem and Substantiation for Public Comment

The committee statement to PI 664 and PI 674 was the lack of a definition of qualified. The chair of the correlating committee suggested that I submit the definition of qualified based on the committee response to the PI and the fact that qualified appears multiple times in the standard but has yet to be defined.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 328-NFPA 13-2020 [Section No. 1.2.2]	

Related Item

- PI 664 & PI 674

Submitter Information Verification

Submitter Full Name: Kenneth Schneider

Organization: Ua - Itf

Affiliation: United Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 05 15:55:41 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

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

**Public Comment No. 40-NFPA 13-2020 [Section No. 3.3.191]****3.3.191** 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, partition, or other obstruction. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

Using the word, "dry" in this definition appears to conflict with existing annex language A.9.1.1(3) which speaks to the dynamic variables of sprinkler discharge. I understand this definition is a direct extract from NFPA 13R and/or 13D, however while the committee accepted this new definition as a First Revision, criteria defining a Shadow Area was not accepted into NFPA 13. Eliminating the word "dry" will eliminate confusion.

Related Item

- 3.3.191

Submitter Information Verification

Submitter Full Name: Robert Caputo
Organization: Fire & Life Safety America
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 18:19:03 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1020-NFPA 13-2020](#)
Statement: Submitter is correct that the dynamic nature of water flow does not mean that the area will be "dry" just because there may not be direct water impingement (line of sight).

**Public Comment No. 78-NFPA 13-2020 [Section No. 3.3.191]****3.3.191 Shadow Area.**

The dry floor area within the protection area of a residential sprinkler created by the portion of sprinkler discharge that is blocked by a wall, partition, or other obstruction so that the floor area is not directly wetted by impingement from the sprinkler spray . . (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

The proposed definition from FR 1020 was taken from directly NFPA 13R, but with no disrespect to that standard, shadow areas are not necessarily dry floor areas. They are just not directly impinged upon by the sprinkler discharge.

To complement the revised definition offered here, the Annex text about Shadow Areas from NFPA 13R contains valuable information on the subject and should be adopted, along with the definition.

Please note, because the Shadow Area applications in NFPA 13 are limited to residential sprinklers, text was added to both the revised definition and to the Annex text to specify residential sprinklers.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 81-NFPA 13-2020 [New Section after A.3.3.190]	
<u>Related Item</u>	
• Fr-1020	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 23 14:16:12 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1020-NFPA 13-2020
Statement: Submitter is correct that the dynamic nature of water flow does not mean that the area will be "dry" just because there may not be direct water impingement (line of sight).

**Public Comment No. 160-NFPA 13-2020 [Section No. 3.3.210.4.6]**

3.3.210.4.6 – Electrically Activated Sprinkler.

A sprinkler equipped with an integral means of activation using electricity. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

Use either "Electrically Operated Sprinkler" or "Electrically Activated Sprinkler" consistently throughout the document. With input from the sprinkler manufacturers, the NFSA Engineering and Standards Committee recommends using Electrically Operated Sprinklers.

Related Item

- FR-1014

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 09:05:40 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1021-NFPA 13-2020

Statement: For consistency throughout the standard the term electrically "activated" has been revised to electrically "operated."

**Public Comment No. 80-NFPA 13-2020 [Section No. 3.3.210.4.6]****3.3.210.4.6** Electrically ~~Activated~~ Operated Sprinkler.

A sprinkler equipped with an integral means of activation using electricity. (AUT-SSI)

Statement of Problem and Substantiation for Public Comment

This is the second of two PCs relating to FR 1013 and FR 10321. Also please see the related action request for Section 3.3.65.

As it currently resides in TerraView, there are two definitions:

3.3.65 has a definition for an "Electrically Operated Sprinkler" and

3.3.210.4.6 has a definition for an "Electrically Activated Sprinkler".

This discrepancy in definitions describing the same device needs to be resolved, so it is suggested that 3.3.65 should just reference 3.3.210.4.6, but the heading of that section should be changed to "Electrically Operated Sprinkler"..

My notes from the Technical Committee Meeting indicates that it was decided to adopt the title of "Electrically Operated Sprinkler" and it is further observed that that is the term used in Section 15.6.

Related Public Comments for This Document**Related Comment****Relationship**

Public Comment No. 79-NFPA 13-2020 [Section No. 3.3.65]

Public Comment No. 79-NFPA 13-2020 [Section No. 3.3.65]

Related Item

• fr-1013 • FR-1032

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:25:57 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1021-NFPA 13-2020

Statement: For consistency throughout the standard the term electrically "activated" has been revised to electrically "operated."

**Public Comment No. 180-NFPA 13-2020 [Section No. 5.1.5.2.2]****5.1.5.2.2**

Where conditions are found that contribute to unusual corrosive properties, the owner(s) shall notify the sprinkler system installer and a plan shall be developed to treat the system using at least one of the following methods:

- (1) Install system piping that is corrosion resistant
- (2) Treat water that enters the system using a listed corrosion inhibitor
- (3) Implement an approved plan for monitoring the interior conditions of the pipe at established intervals and locations
- (4) Install approved corrosion monitoring stations and monitor at established intervals
- (5) Fill dry-pipe or preaction systems with at least 98 percent pure nitrogen in lieu of air to mitigate against corrosion
- (6) ~~Use~~ When used to fill dry-pipe or preaction systems, use a listed nitrogen generator that is sized and installed in accordance with the manufacturer's instructions

Statement of Problem and Substantiation for Public Comment

Although one might think this additional text is self-evident, as shown by PI-322, some propose using nitrogen generators on wet-pipe systems.

Related Item

- FR-1187

Submitter Information Verification

Submitter Full Name: Roland Huggins
Organization: Huggins Fire Protection
Affiliation: N/A
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 28 14:45:05 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1136-NFPA 13-2020](#)
Statement: These provisions provide guidance where the C value is being increased based on the use of nitrogen which has been proven to reduce the risk of corrosion.

**Public Comment No. 204-NFPA 13-2020 [Section No. 5.1.5.2.2]****5.1.5.2.2**

Where conditions are found that contribute to unusual corrosive properties, the owner(s) shall notify the sprinkler system installer and a plan shall be developed to treat the system using at least one of the following methods:

- (1) Install system piping that is corrosion resistant
- (2) Treat water that enters the system using a listed corrosion inhibitor
- (3) Implement an approved plan for monitoring the interior conditions of the pipe at established intervals and locations
- (4) Install approved corrosion monitoring stations and monitor at established intervals
- (5) Fill dry-pipe or preaction systems with at least 98 percent pure nitrogen in lieu of air to mitigate against corrosion
- (6) Use ~~a-listed~~ an approved nitrogen generator that is sized and installed in accordance with the manufacturer's instructions

Statement of Problem and Substantiation for Public Comment

Requiring nitrogen generators to be listed places an undue burden on owners who wish to take steps to mitigate corrosion. None of the major nitrogen generator manufacturers currently offers a UL listed generator for a number of technical reasons. Although most generators on the market are FM approved, technically meeting the definition of "listed", that is a distinction often lost on owners and AHJ's.

Additionally, the committee statement for this FR refers to providing clarification. However, when the requirement changed from "approved" to "listed", that did not provide clarification, but rather added an additional and unnecessary level of compliance.

Related Item

- FR No. 1187

Submitter Information Verification

Submitter Full Name: Jason Webb

Organization: Potter Electric Signal Company

Street Address:

City:

State:

Zip:

Submittal Date: Fri May 01 09:49:21 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1136-NFPA 13-2020

Statement: These provisions provide guidance where the C value is being increased based on the use of nitrogen which has been proven to reduce the risk of corrosion.



Public Comment No. 211-NFPA 13-2020 [Section No. 5.1.5.2.2]

5.1.5.2.2

Where conditions are found that contribute to unusual corrosive properties, the owner(s) shall notify the sprinkler system installer and a plan shall be developed to treat the system using at least one of the following methods:

- (1) Install system piping that is corrosion resistant
- (2) Treat water that enters the system using a listed corrosion inhibitor
- (3) Implement an approved plan for monitoring the interior conditions of the pipe at established intervals and locations
- (4) Install approved corrosion monitoring stations and monitor at established intervals
- (5) Fill dry-pipe or preaction systems with at least 98 percent pure nitrogen in lieu of air to mitigate against corrosion
- (6) Use a listed nitrogen generator that is ~~sized and~~ installed in accordance with the manufacturer's instructions ~~and is sized to replace at least 1.5 psi per hour~~

Statement of Problem and Substantiation for Public Comment

Current manufacture stated sizing methods for their nitrogen generators do not comply with the allowed leakage rate for existing per NFPA 25. If the nitrogen generator cannot replace the volume needed to maintain the pressure, the system will either unnecessarily trip or will be switched to air bypass and the nitrogen concentration will fall below 98%. Either event will negate its ability to mitigate corrosion. Standardization on sizing criteria must be addressed to move forward with language regarding "manufacturers instructions" so the equipment will address the needs of the system over its life span instead of when it is brand new.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 212-NFPA 13-2020 [New Section after A.5.1.5]	
<u>Related Item</u>	
• FR-1187	

Submitter Information Verification

Submitter Full Name: Raymond Fremont
Organization: General Air Products, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 13:28:56 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1136-NFPA 13-2020
Statement: These provisions provide guidance where the C value is being increased based on the use of nitrogen which has been proven to reduce the risk of corrosion.

**Public Comment No. 266-NFPA 13-2020 [Section No. 5.1.5.2.2]****5.1.5.2.2**

Where conditions are found that contribute to unusual corrosive properties, the owner(s) shall notify the sprinkler system installer and a plan shall be developed to treat the system using at least one of the following methods:

- (1) Install system piping that is corrosion resistant
- (2) Treat water that enters the system using a listed corrosion inhibitor
- (3) Implement an approved plan for monitoring the interior conditions of the pipe at established intervals and locations
- (4) Install approved corrosion monitoring stations and monitor at established intervals
- (5) Fill dry-pipe or preaction systems with at least 98 percent pure nitrogen in lieu of air to mitigate against corrosion
- (6) Use a listed nitrogen generator that is sized and installed in accordance with the manufacturer's instructions

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_24.pdf	13_CCN_24

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 24 in the First Draft Report on First Revision No. 1187.

Is the nitrogen generator listed for use in sprinkler systems or listed for general use, can the committee provide additional guidance?

Related Item

- FR-1187

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 12:49:44 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1136-NFPA 13-2020](#)

Statement: These provisions provide guidance where the C value is being increased based on the use of nitrogen which has been proven to reduce the risk of corrosion.



Public Comment No. 215-NFPA 13-2020 [Section No. 7.2.2.1]

7.2.2.1* General.

Unless the requirements of 7.2.2.2, 7.2.2.3, or 7.2.2.4 are met, the K-factor, relative discharge, and marking identification for sprinklers having different K-factors shall be in accordance with Table 7.2.2.1.

Table 7.2.2.1 Sprinkler Discharge Characteristics Identification

<u>Nominal K-Factor</u> <u>[gpm/(psi)^{1/2}]</u>	<u>Nominal</u> <u>K-Factor</u> <u>[L/min</u> <u>/(bar)^{1/2}]</u>	<u>K-Factor Range</u> <u>[gpm/(psi)^{1/2}]</u>	<u>K-Factor</u> <u>Range [L/min</u> <u>/(bar)^{1/2}]</u>	<u>Percent of</u> <u>Nominal K-5.6</u> <u>Discharge</u>	<u>Thread Type</u>
<u>1.4</u>	<u>20</u>	<u>1.3–1.5</u>	<u>19–22</u>	<u>25</u>	<u>1/2 in.</u> <u>(15 mm) NPT</u>
<u>1.9</u>	<u>27</u>	<u>1.8–2.0</u>	<u>26–29</u>	<u>33.3</u>	<u>1/2 in.</u> <u>(15 mm) NPT</u>
<u>2.8</u>	<u>40</u>	<u>2.6–2.9</u>	<u>38–42</u>	<u>50</u>	<u>1/2 in.</u> <u>(15 mm) NPT</u>
<u>4.2</u>	<u>60</u>	<u>4.0–4.4</u>	<u>57–63</u>	<u>75</u>	<u>1/2 in.</u> <u>(15 mm) NPT</u>
<u>5.6</u>	<u>80</u>	<u>5.3–5.8</u>	<u>76–84</u>	<u>100</u>	<u>1/2 in.</u> <u>(15 mm) NPT</u>
<u>8.0</u>	<u>115</u>	<u>7.4–8.2</u>	<u>107–118</u>	<u>140</u>	<u>3/4 in.</u> <u>(20 mm) NPT</u> or <u>1/2 in.</u> <u>(15 mm) NPT</u>
<u>11.2</u>	<u>160</u>	<u>10.7–11.7</u>	<u>159–166</u>	<u>200</u>	<u>1/2 in.</u> <u>(15 mm) NPT</u> or <u>3/4 in.</u> <u>(20 mm) NPT</u>
<u>14.0</u>	<u>200</u>	<u>13.5–14.5</u>	<u>195–209</u>	<u>250</u>	<u>3/4 in.</u> <u>(20 mm) NPT</u>
<u>16.8</u>	<u>240</u>	<u>16.0–17.6</u>	<u>231–254</u>	<u>300</u>	<u>3/4 in.</u> <u>(20 mm) NPT</u>
<u>19.6</u>	<u>280</u>	<u>18.6–20.6</u>	<u>272–301</u>	<u>350</u>	<u>1 in. (25 mm)</u> <u>NPT</u>
<u>22.4</u>	<u>320</u>	<u>21.3–23.5</u>	<u>311–343</u>	<u>400</u>	<u>1 in. (25 mm)</u> <u>NPT</u>
<u>25.2</u>	<u>360</u>	<u>23.9–26.5</u>	<u>349–387</u>	<u>450</u>	<u>1 in. (25 mm)</u> <u>NPT</u>
<u>28.0</u>	<u>400</u>	<u>26.6–29.4</u>	<u>389–430</u>	<u>500</u>	<u>1 in. (25 mm)</u> <u>NPT</u>

Note: The nominal K-factor for dry-type sprinklers are used for sprinkler selection. See 27 28 .2.4.10.3 for use of adjusted dry-type sprinkler K-factors for hydraulic calculation purposes.

Statement of Problem and Substantiation for Public Comment

Editorial correction to reference provided in the Table Note.

Related Item

- Editorial Correction

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Sat May 02 16:49:28 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1022-NFPA 13-2020
Statement: This corrects a reference error in the Note that is appropriate for the proper application of the Standard.

**Public Comment No. 82-NFPA 13-2020 [Section No. 7.2.4.5]****7.2.4.5**

The liquid in bulb-type sprinklers shall be color coded in accordance with Table- [7.2.4.1\(a b \)](#) .

Statement of Problem and Substantiation for Public Comment

Editorial. Correction of a typographical error.

Related Item

- FR-1025

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:44:52 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: This Paragraph properly refers to the correct table of the standard for color code of liquid in bulb type sprinklers.

**Public Comment No. 83-NFPA 13-2020 [Section No. 7.2.4.6]****7.2.4.6 –**

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

Statement of Problem and Substantiation for Public Comment

My notes from the Technical Committee Meeting indicates that this item was to be Resolved. Therefore, this definition should not have been accepted.

Further to this the text of Sections 7.2.4.6 and 7.2.4.7 are not applicable to the subject matter of Chapter 7, which is about "Requirements for System Components and Hardware", and does otherwise contain specific design or installation criteria. If this text were to be retained it should be relocated to a more appropriate location in Chapter 9. Having said this however, the text from Chapter 9 on Temperature Ratings already contains the needed guidance on when and where the various temperature rated sprinklers may be utilized.

Related Public Comments for This Document**Related Comment****Relationship**

[Public Comment No. 84-NFPA 13-2020 \[Section No. 7.2.4.7\]](#)

[Public Comment No. 84-NFPA 13-2020 \[Section No. 7.2.4.7\]](#)

Related Item

- FR-1026

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:48:21 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1023-NFPA 13-2020](#)

Statement: This section should be relocated to Chapter 9.

**Public Comment No. 162-NFPA 13-2020 [Section No. 7.2.4.7]****7.2.4.7**

Listed quick response sprinklers of any- ordinary and/or intermediate 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 Comment

There are High Temperature Quick Response Sprinklers on the market; however, this section should only allow ordinary and/or intermediate temperature sprinklers to be used throughout. Higher temperature ratings should be used in specific applications

Related Item

- FR-1026

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 09:15:00 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1024-NFPA 13-2020](#)

Statement: This section should be relocated to Chapter 9. In addition, it should be limited to ordinary and intermediate temperature sprinklers as noted by the submitter.

**Public Comment No. 84-NFPA 13-2020 [Section No. 7.2.4.7]****7.2.4.7 –**

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 Comment

My notes from the Technical Committee Meeting indicates that this item was to be Resolved. Therefore, this definition should not have been accepted.

Further to this the text of Sections 7.2.4.6 and 7.2.4.7 are not applicable to the subject matter of Chapter 7, which is about "Requirements for System Components and Hardware", and does not otherwise contain specific design or installation criteria. If this text were to be retained it should be relocated to a more appropriate location in Chapter 9. Having said this however, the text from Chapter 9 on Temperature Ratings already contains the needed guidance on when and where the various temperature rated sprinklers may be utilized.

Related Public Comments for This Document**Related Comment****Relationship**

[Public Comment No. 83-NFPA 13-2020 \[Section No. 7.2.4.6\]](#)

[Public Comment No. 83-NFPA 13-2020 \[Section No. 7.2.4.6\]](#)

Related Item

- FR-1026

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:50:09 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1024-NFPA 13-2020](#)

Statement: This section should be relocated to Chapter 9. In addition, it should be limited to ordinary and intermediate temperature sprinklers as noted by the submitter.



Public Comment No. 217-NFPA 13-2020 [Section No. 7.2.5.3.2]

7.2.5.3.2

Sprinklers with ornamental finishes ~~where utilized~~ shall be specifically listed.

Statement of Problem and Substantiation for Public Comment

Remove unnecessary language.

Related Item

- Editorial Correction

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 02 16:55:12 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1025-NFPA 13-2020](#)

Statement: Submitter's change more appropriately reflects the intent of the standard, while eliminating unnecessary wording.

**Public Comment No. 218-NFPA 13-2020 [Section No. 7.5.2.2.2]****7.5.2.2.2**

Where the design specifications require any part of the piping system to be welded in place, welding of sprinkler piping shall be permitted where the welding process is performed in accordance with NFPA 51B and the mechanical fittings required by ~~16.9.11.5 and~~ Section 16.6 are provided.

Statement of Problem and Substantiation for Public Comment

16.9.11.5 is an incorrect reference and the old correct reference 16.9.10.5 was deleted in the 1st Draft.

Related Item

- FR 1359

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sat May 02 16:59:52 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1026-NFPA 13-2020

Statement: Deletes incorrect reference and deletes unnecessary reference to "mechanical" fitting.

**Public Comment No. 135-NFPA 13-2020 [Section No. 7.5.3.3]****7.5.3.3 –**

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

Statement of Problem and Substantiation for Public Comment

This is an onerous requirement. What if the owner wants to paint the system? Do we then need to install a tag to each coupling so they can be identified? The language does not say how it has to be observed? With the naked eye? With high powered field binoculars? This is simply a solution waiting for a problem.

Related Item

- FR#1191

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 19:18:45 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1027-NFPA 13-2020](#)

Statement: This provision is too vague and does not describe how a coupling should be made to be identifiable from floor level. The language is unenforceable, and does not address issues related to concealment, painting, or insulation applied in the field.

**Public Comment No. 163-NFPA 13-2020 [Section No. 7.5.3.3]****7.5.3.3 –**

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

Statement of Problem and Substantiation for Public Comment

Marking of a flexible coupling is not practical. The substantiation from PI-34 offered only anecdotal support for the change and no technical substantiation. The six negative comments on the first draft ballot note that this is too broad to be enforceable. Additionally the submitter of PI-34 noted that this is similar to the requirements for sprinklers to be color coded; however, the requirement to be visible from the floor is not. It would be arduous to differentiate a red 3 mm glass bulb from a blue 5 mm glass bulb in a 40 ft building. The marking is for the installer not the AHJ and the current practices should suffice.

Related Item

- FR-1191

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 09:18:25 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1027-NFPA 13-2020

Statement: This provision is too vague and does not describe how a coupling should be made to be identifiable from floor level. The language is unenforceable, and does not address issues related to concealment, painting, or insulation applied in the field.

**Public Comment No. 85-NFPA 13-2020 [Section No. 7.5.3.3]****7.5.3.3 –**

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

Statement of Problem and Substantiation for Public Comment

This provision is too vague and does not describe how a coupling should be made to be identifiable from floor level.

Well it could be valuable to identify flexible couplings from rigid couplings; this proposition is totally impractical. Specific markings on a coupling cannot be differentiated from any distance, nor can physical differences, such as bolt bad configurations. Perhaps different colours could be differentiated if they were distinct from each other, but would depend on could lighting, and finishes such as those for galvanizing or painted piping would not be allowable.

The only way to truly differentiate a flexible coupling from a rigid one would be to hang a sign or placard from it, and to be mandating something like that is absurd.

Related Item

- FR-1191

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 14:55:03 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1027-NFPA 13-2020

Statement: This provision is too vague and does not describe how a coupling should be made to be identifiable from floor level. The language is unenforceable, and does not address issues related to concealment, painting, or insulation applied in the field.



Public Comment No. 136-NFPA 13-2020 [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 Comment

This was submitted as PI # 312 and appears that it was included in First Revision No. 1033. However the change does not appear in the second draft.

Related Item

- FR#1033

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 19:24:58 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1028-NFPA 13-2020

Statement: The addition of the word "control" further clarifies the Standards intent.

**Public Comment No. 137-NFPA 13-2020 [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~~ 90 seconds after such flow begins and until such flow stops.

Statement of Problem and Substantiation for Public Comment

I agree with Mr. Baron and his Public Input No. 217. I understand that the 90 second reference comes from the alarm code. However, I feel that 5 minutes is just too much time. We have all seen the videos about how fast furnishings burn. If I was in the same building that the fire was in, I would not want to wait five minutes before I was even made aware that there may be a fire emergency. Just because it's always been that way doesn't make it right.

Related Item

- PI#217

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 19:27:44 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1059-NFPA 13-2020

Statement: NFPA 13 conflicts with NFPA 25-2020 and NFPA 72-2019. To resolve this conflict, the requirements for waterflow alarm devices should be divided between mechanical alarm devices such as a water motor alarm and gong, and electrical switches such as vane type, paddle type, and pressure type flow switches. In reality the 90 second requirement already exists now for electrical switches because they are listed for use in both sprinkler systems and fire alarm systems installed in accordance with NFPA 72. To comply with NFPA 72 they must meet the 90 second requirement.

Retaining 5 minutes for mechanical alarm devices allows for the continued use of those devices installed on systems without a fire alarm system. Extending the time to operate to within 5 minutes accounts for air pockets in systems that cause a non-continuous alarm until the pressures in the system equalize.

**Public Comment No. 33-NFPA 13-2020 [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 Comment

A five minute delay is unacceptable for an audible alarm on the premises. I agree with the part of the committee statement that the issue of "Fire alarm monitoring is different than on site notification.". However neither this chapter nor this paragraph have anything to do with Fire Alarm Monitoring and the specific change proposed in the original PI. This PC is only to specifically change and reduce the acceptable time delay for the "Audible alarm on the premises". The committee statement and resolution seemed to be based more on the substantiation vs the actual change submitted so I will attempt to address that here. To that extent I do believe the committee is also correct in so far as this should also change 28.2.3.1 to the same time (90 seconds).

The timely notification of occupants within a structure due to a fire sprinkler system water flow from a possible fire event should and does exist as a stand alone topic in this standard in 7.7. If NFPA 13 is being required and enforced in a specific new structure and NFPA 72 is not, and a flow detector activates, it is possible and allowable by this standard that the only audible alarm to activate on the premises may activate 5 minutes after flow begins! We should not have to rely on whether another standard will be required or enforced to ensure that an acceptable time frame for local notification exists. This change will also be consistent with current time frame requirements that already exist in other standards and provide a consistent message between the standards.

In case of an actual fire event, who among us would want to be in a structure for 5 minutes before even being notified that there is a fire in the building.

The substantiation to support this time is well established in NFPA 72 for the activation of a water flow initiating device. The maximum time delay settings for most used common water flow detectors also is between 70 -90 seconds.

Problems or concerns with low water pressure or cross connection check valve cycling may be issues that can create problems with any alarm activation. The solution to resolve these issues more often time than not is, a reduction in time delay not an increase in delay. This specific problem in no way justifies allowing a delay of local notification by up to five minutes. These are separate issues that can and should be resolved and not used as an excuse to delay the timely notification or audible alarm on the premises.

In respect to dry valve activation and alarm delay, the existing requirements of chapter 8 and 28 seem to actually support this time frame change already. It would be more difficult to try to delay an alarm for more than 70-90 seconds with the existing requirements for these systems. Most dry valve time frame requirements relate to water delivery time while alarm activation's relate more often to trip times or QOD activation and the pressurization of intermediate chambers whether on dry type, deluge or pre-action type valve regardless of whether they are configured as non-interlock, single or double interlock type configuration.

Refer to NFPA 72 2019 ed. section 17.13.2, and A17.13.2 for technical substantiation.

Please reconsider reducing the five minute time delay for the audible alarm on premises.

Related Item

- PI217

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submission Date: Mon Mar 23 10:22:11 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1059-NFPA 13-2020](#)

Statement: NFPA 13 conflicts with NFPA 25-2020 and NFPA 72-2019. To resolve this conflict, the requirements for waterflow alarm devices should be divided between mechanical alarm devices such as a water motor alarm and gong, and electrical switches such as vane type, paddle type, and pressure type flow switches. In reality the 90 second requirement already exists now for electrical switches because they are listed for use in both sprinkler systems and fire alarm systems installed in accordance with NFPA 72. To comply with NFPA 72 they must meet the 90 second requirement.

Retaining 5 minutes for mechanical alarm devices allows for the continued use of those devices installed on systems without a fire alarm system. Extending the time to operate to within 5 minutes accounts for air pockets in systems that cause a non-continuous alarm until the pressures in the system equalize.



Public Comment No. 34-NFPA 13-2020 [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~~ 120 seconds after such flow begins and until such flow stops.

Statement of Problem and Substantiation for Public Comment

If a 90 second delay is not an acceptable time frame then two minutes should be an acceptable option while still removing the unacceptable current five minute delay. For further justification refer to PC 33 substantiation. An additional 30 seconds in addition to the 90 second delay allowed and found on most paddle type flows and other delay options and should be more than acceptable. Should there be any objection to the 90 second delay based on this being a minimum standard, this allows for a variance without being so excessive as to make this requirement completely unnecessary. Try having one of the side by side fire demo's done by NFSA and delay the alarm activation by 5 minutes after flow begins, lets see what type of reaction we note from both fire professionals and the public?

Related Item

- PI217

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Mon Mar 23 11:52:21 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1059-NFPA 13-2020

Statement: NFPA 13 conflicts with NFPA 25-2020 and NFPA 72-2019. To resolve this conflict, the requirements for waterflow alarm devices should be divided between mechanical alarm devices such a water motor alarm and gong, and electrical switches such as vane type, paddle type, and pressure type flow switches. In reality the 90 second requirement already exists now for electrical switches because they are listed for use in both sprinkler systems and fire alarm systems installed in accordance with NFPA 72. To comply with NFPA 72 they must meet the 90 second requirement.

Retaining 5 minutes for mechanical alarm devices allows for the continued use of those devices installed on systems without a fire alarm system. Extending the time to operate to within 5 minutes accounts for air pockets in systems that cause a non-continuous alarm until the pressures in the system equalize.



Public Comment No. 86-NFPA 13-2020 [Section No. 7.9]

7.9 Automated Inspection and Testing Devices and Equipment.

7.9.1

—

—

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.

7.9.1.1 —

Automated inspection devices and equipment shall be

shown to be as effective as a visual examination.

7.9.

1.

2 —

Automated testing devices and equipment shall produce the same action required by this standard to test a device.

7.9.

1.2.1 —

The testing shall discharge water where required by this standard and NFPA 25.

7.9.2 —

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* or other approved fire alarm code.

7.9.

3

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* or other approved fire alarm code.

7.9.

4

5 —

Failure of automated inspection and testing devices and equipment shall result in an audible and visual trouble signal in accordance with *NFPA 72* or other approved fire alarm code.

Statement of Problem and Substantiation for Public Comment

This is the first of two PCs relating to FR 1371. Also please see the related action request for Section 29.3. I am the author of PI no. 170 and PI no. 171 and the action of FR 1371 goes beyond what was requested in those PIs. The intent was to relocate the provisions of Section 28.3 of the 2019 edition of NFPA 13 that do not contain

any Acceptance Testing criteria to Chapter 7, but instead, the entire section was relocated to Section 7.9. With this the provisions 7.9.1 and 7.9.1.2.1, which contain acceptance testing requirements do not belong in Section 7.9 and they should be reinserted into the Acceptance Testing Chapter accordingly.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 110-NFPA 13-2020 [New Section after 29.2.6]	
Public Comment No. 110-NFPA 13-2020 [New Section after 29.2.6]	
<u>Related Item</u>	
• FR-1371	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 23 14:57:32 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1029-NFPA 13-2020](#)
Statement: Testing criteria should be located in Chapter 29, not Chapter 7. Appropriate comparison from Automatic testing is manual, not visual. Equipment must also function to meet the requirements of NFPA 25.



Public Comment No. 243-NFPA 13-2020 [Section No. 7.9.1 [Excluding any Sub-Sections]]

Automated inspection and testing devices and equipment installed on the sprinkler system ~~shall be tested~~ to shall ensure the desired result of the automated inspection or test is realized.

Statement of Problem and Substantiation for Public Comment

PI 170 was submitted to move most of section 28.3 to chapter 7 because much of the text contained installation criteria and not testing criteria. However, the entire section 28.3 was moved in FR 1371 and not just the parts that included installation criteria. This first section needs to be changed to delete the testing criteria language and keep it consistent with installation criteria. Additional PCs will be submitted to further clean up this section and add testing criteria back into chapter 29.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 244-NFPA 13-2020 [Section No. 7.9.1.2.1]	
Public Comment No. 246-NFPA 13-2020 [New Section after 29.2.5]	

Related Item

- PI 170 and FR 1371

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 10:20:18 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1029-NFPA 13-2020](#)
Statement: Testing criteria should be located in Chapter 29, not Chapter 7. Appropriate comparison from Automatic testing is manual, not visual. Equipment must also function to meet the requirements of NFPA 25.

**Public Comment No. 244-NFPA 13-2020 [Section No. 7.9.1.2.1]****7.9.1.2.1**

The installation of the testing device or component shall be arranged to discharge water where required by this standard and NFPA 25.

Statement of Problem and Substantiation for Public Comment

This section was moved from chapter 28 but the text still contained testing criteria. The changes proposed provide installation criteria as intended.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 243-NFPA 13-2020 [Section No. 7.9.1 [Excluding any Sub-Sections]]</u>	
<u>Public Comment No. 246-NFPA 13-2020 [New Section after 29.2.5]</u>	

Related Item

- PI 170 and FR 1371

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 10:35:02 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1029-NFPA 13-2020
Statement: Testing criteria should be located in Chapter 29, not Chapter 7. Appropriate comparison from Automatic testing is manual, not visual. Equipment must also function to meet the requirements of NFPA 25.

**Public Comment No. 138-NFPA 13-2020 [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 (42 ~~bar~~ 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 Comment

I agree with Mr. Wolin's public input. Yes the system components are possibly rated at 175 PSI. Based on the required safety factors built in by the testing laboratories, the possibility of the 10 extra PSI causing failure is negligible.

Related Item

- PI#77

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 19:34:41 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: This exceeds the limits of the components without justification. While components have built in safety factors, these safety factors should not be encroached upon.

**Public Comment No. 42-NFPA 13-2020 [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 (42 bar 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 Comment

A Public Comment on this section was resolved due to the TC's concern about the relief valve allowing the pressure to exceed the rated pressure of the equipment if the pressure were specified as 185 psi.

NFPA 13 already permits a relief valve that is set at 10 psi in excess of that maximum system pressure. Listed and approved fire protection equipment is tested at 2 to 5 times the rated pressure. Thus, NFPA 13 permits the relief valve to be set at 10 psi in excess of the maximum system pressure and NFPA 13 requires hydrostatic pressure testing of systems at 50 psi in excess of the system working pressure. Thus, NFPA 13 requires a system with a 175 psi working pressure to be subject to 225 psi for testing. This Comment is simply to require the relief valve to be set at 10 psi in excess of the maximum system pressure, which is not less than 185 psi for an NFPA 13 system.

Listed relief valves are required by their listing to open at between 95% and 105% of their rated pressure. Thus, the use of a 175 psi relief valve on a system with a pressure of 175 psi often results in water flowing from the relief valves at normal system pressures. The use of 185 psi relief valves is appropriate for all NFPA 13 systems with a working pressure of 175 psi and less. NFPA 13 already requires 10 psi in excess of the maximum system pressure.

Related Item

- PI-77

Submitter Information Verification

Submitter Full Name: Steven Wolin

Organization: Reliable Automatic Sprinkler Co., Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 09 14:03:00 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: This exceeds the limits of the components without justification. While components have built in safety factors, these safety factors should not be encroached upon.

**Public Comment No. 88-NFPA 13-2020 [Section No. 8.2.2]****8.2.2** Sprinklers.**8.2.2.1** –

Residential sprinklers on dry pipe systems shall be listed for dry pipe applications.

8.2.2.2

The following sprinkler orientations and arrangements shall be permitted for dry pipe systems:

- (1) Upright sprinklers
- (2) * Listed dry sprinklers
- (3) Pendent sprinklers and sidewall sprinklers installed on return bends, where the sprinklers, return bend, and branch line piping are in an area maintained at or above 40°F (4°C).
- (4) Horizontal sidewall sprinklers installed so that water is not trapped
- (5) Pendent sprinklers and sidewall sprinklers, where the sprinklers and branch line piping are in an area maintained at or above 40°F (4°C), the water supply is potable, and the piping for the dry pipe system is copper or CPVC specifically listed for dry pipe applications

8.2.2.1 –

Residential sprinklers shall be listed for dry pipe applications.

Statement of Problem and Substantiation for Public Comment

Editorial. With this revision, the need for residential sprinklers on dry pipe systems is moved to the first part of the section, to reduce any possible ambiguity.

Related Item

- FR-1035

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submission Date: Thu Apr 23 15:16:31 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Rejected but see related SR

Action:

Resolution: SR-1044-NFPA 13-2020

Statement: Not all residential sprinklers need to be listed for use on dry pipe systems, but where they are used on dry pipe systems they must be listed for that application.



Public Comment No. 164-NFPA 13-2020 [Section No. 8.2.2.1]

8.2.2.1

Residential sprinklers shall be listed for use in dry pipe systems and dry pipe applications.

Statement of Problem and Substantiation for Public Comment

All residential sprinklers (both dry barrel and wet) should be listed for use in a dry system.

Related Item

- FR-1035

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 09:39:46 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1044-NFPA 13-2020

Statement: Not all residential sprinklers need to be listed for use on dry pipe systems, but where they are used on dry pipe systems they must be listed for that application.



Public Comment No. 237-NFPA 13-2020 [Section No. 8.2.3.5]

8.2.3.5

Calculations of water delivery time shall be based on the time interval between the calculated point in time when the selected most remote sprinkler(s) opens and the calculated point in time when pressure at the most remote sprinkler reaches or surpasses the design pressure. System size shall be based on dry pipe systems being calculated for water delivery in accordance with 8.2.3.6.

Statement of Problem and Substantiation for Public Comment

There is currently no definition for water delivery time calculation. The above definition is extremely important for storage occupancies with very short water delivery time and high design sprinkler pressure. This definition is in line with FM Global definition and as such was used to define FM Global requirements for water delivery time for storage occupancies. Some of these water delivery time requirements were later transferred into NFPA 13 standard.

Related Item

- FR-1037

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: NFSA
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submission Date: Mon May 04 09:00:05 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1060-NFPA 13-2020](#)
Statement: As a definition of Calculated Water Delivery Time is not provided in NFPA 13, new section 8.2.3.6.2 has been added to clarify the use of this term. Renumber subsequent sections.



Public Comment No. 43-NFPA 13-2020 [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 Comment

The time delay associated with a dry pipe sprinklers system negatively impacts the effectiveness of these systems. The use of water delivery time software as a design tool is appropriate. Ignoring the actual water delivery time is not. As written a system with an actual water delivery time that would cause the system to fail in the event of a fire would not require remedy and could stay in its obviously unsafe condition as long as a listed computer program indicates that the water delivery time should have met the standard.

Justification for the details of the proposed Second Revision was provided with the associated Public Input.

Related Item

- PI-387

Submitter Information Verification

Submitter Full Name: Steven Wolin

Organization: Reliable Automatic Sprinkler Co., Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 09 14:35:45 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1060-NFPA 13-2020

Statement: As a definition of Calculated Water Delivery Time is not provided in NFPA 13, new section 8.2.3.6.2 has been added to clarify the use of this term. Renumber subsequent sections.

**Public Comment No. 165-NFPA 13-2020 [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

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

Statement of Problem and Substantiation for Public Comment

15 second deliver time only applies to dwelling units. Also "residential" is not an occupancy hazard

Related Item

- FR-1037

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 09:48:08 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1046-NFPA 13-2020](#)

Statement: Tabled revised to reflect Dwelling Unit as it is more appropriate than referring to Residential.



Public Comment No. 219-NFPA 13-2020 [Section No. 8.2.3.7]

8.2.3.7*– Manifold Test Connection

System size shall be such that initial water discharge from the system trip test connection or manifold outlets is not more than the maximum time of water delivery specified in Table 8.2.3.6.1, starting at normal air pressure on the system and at the time of fully opened test connection.

8.2.3.7.1

When flow is from four sprinklers, the test manifold shall be arranged to simulate two sprinklers on each of two sprinkler branch lines.

8.2.3.7.2

When flow is from three sprinklers, the test manifold shall be arranged to simulate two sprinklers on the most remote branch line and one sprinkler on the next adjacent branch line.

8.2.3.7.3

When flow is from two sprinklers, the test manifold shall be arranged to simulate two sprinklers on the most remote branch line.

8.2.3.7.4

When flow is from one sprinkler, the test manifold shall be installed as per the requirements for a trip test connection in accordance with 16.14.2.

8.2.3.7.5

A system meeting the requirements of this section shall not be required to also meet the requirements of 8.2.3.2 or 8.2.3.5.

Statement of Problem and Substantiation for Public Comment

Add a header to meet the manual of style.

Related Item

- Editorial Correction to Meet MOS

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submission Date: Sun May 03 11:16:30 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1047-NFPA 13-2020

Statement: Add a head to section 8.2.3.7 to align with Manual of Style, this section has several subsections. See 8.2.3.6 for example.

**Public Comment No. 220-NFPA 13-2020 [Section No. 8.2.3.9]****8.2.3.9– Dry Pipe System Subdivision**

Unless installed in a heated enclosure, check valves shall not be used to subdivide the dry pipe systems.

8.2.3.9.1

When check valves are used to subdivide dry pipe systems in accordance with 8.2.3.9, a hole 1/8 in. (3 mm) in diameter shall be drilled in the clapper of each check valve to permit equalization of air pressure among the various parts of the system.

8.2.3.9.2

Where auxiliary drains are not provided for each subdivided section, an approved indicating drain valve supervised in the closed position in accordance with 16.9.3.3, connected to a bypass around each check valve, shall be provided as a means for draining the system.

Statement of Problem and Substantiation for Public Comment

Added a Header to Meet Manual of Style

Related Item

- Editorial Correction to Meet MOS

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 11:18:28 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1048-NFPA 13-2020](#)

Statement: Add a head to section 8.2.3.9 to align with Manual of Style, this section has several subsections. See 8.2.3.6 for example.

**Public Comment No. 348-NFPA 13-2020 [Section No. 8.2.6.6.2]****8.2.6.6.2**

Where the air compressor supplying the a single dry pipe system has a capacity less than 5.5 ft³/min (160 L/min)- at 10 psi (0.7 bar) , an air receiver or air maintenance device shall not be required.

Statement of Problem and Substantiation for Public Comment

As identified by PI-199, some are using smaller, riser mounted compressors to supply multiple systems. 8.2.6.6.1 requires compressors to have a receiver then 8.2.6.6.2 allows smaller compressors (understood to be riser mounted since it is exempting an air receiver) to avoid both an air receiver and an AMD (which is required for all air receivers). Although it is implied by 8.2.6.6.2 that avoiding an air receiver is allowed for a single system by saying THE system, this change would avoid continued misinterpretation of this section. Additionally, identifying a single point in the flow (5.5 CFM) / pressure (@ 10 psi) relationship only causes confusion. In reality, the flow change across normal system pressures is insignificant.

Related Item

- PI199

Submitter Information Verification

Submitter Full Name: Raymond Fremont
Organization: General Air Products, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 05 18:44:18 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1049-NFPA 13-2020](#)
Statement: Clarifies the intent of the standard as it relates to applying to a single system.

**Public Comment No. 306-NFPA 13-2020 [Section No. 8.2.7]****8.2.7 – Supervision.****8.2.7.1 –**

A pressure supervisory signal-initiating device for a dry pipe sprinkler system shall indicate both high and low pressure conditions.

8.2.7.2 –

For dry pipe valves, the off-normal signal shall be initiated when the pressure increases or decreases by 10 psi (0.7 bar).

8.2.7.3 –

For low air pressure dry pipe valves, the high and low pressure values shall be set in accordance with the manufacturer's installation instructions.

Statement of Problem and Substantiation for Public Comment

This language is in conflict with the new 8.2.6.8.4 and related language. This language is not needed and should be deleted.

Related Item

- FR 1349

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 16:27:05 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1050-NFPA 13-2020](#)

Statement: This new section is redundant and conflicts with new section 8.2.6.7.2 and should be deleted. The TC did not intend to have two different sections.

**Public Comment No. 309-NFPA 13-2020 [Section No. 8.2.7]****8.2.7 – Supervision.****8.2.7.1 –**

A pressure supervisory signal-initiating device for a dry pipe sprinkler system shall indicate both high and low pressure conditions.

8.2.7.2 –

For dry pipe valves, the off-normal signal shall be initiated when the pressure increases or decreases by 10 psi (0.7 bar).

8.2.7.3 –

For low air pressure dry pipe valves, the high and low pressure values shall be set in accordance with the manufacturer's installation instructions.

Statement of Problem and Substantiation for Public Comment

This new section is redundant to and also conflicts with new section 8.2.6.7.2 and should be deleted. PI 38 was resolved and reference made to see FR 1039. The TC did not intend to have two different sections.

Related Item

- PI 135 FR 1039 • PI 38 FR 1039

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 17:21:02 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1050-NFPA 13-2020](#)

Statement: This new section is redundant and conflicts with new section 8.2.6.7.2 and should be deleted. The TC did not intend to have two different sections.

**Public Comment No. 89-NFPA 13-2020 [Section No. 8.2.7]****8.2.7 – Supervision.****8.2.7.1 –**

~~A pressure supervisory signal-initiating device for a dry pipe sprinkler system shall indicate both high and low pressure conditions.~~

8.2.7.2 –

~~For dry pipe valves, the off-normal signal shall be initiated when the pressure increases or decreases by 10 psi (0.7 bar).~~

8.2.7.3 –

~~For low air pressure dry pipe valves, the high and low pressure values shall be set in accordance with the manufacturer's installation instructions.~~

Statement of Problem and Substantiation for Public Comment

This proposal should not have been accepted because it goes beyond the requirements for a minimum standard. I would respectfully remind the TC of the Committee Statement in response to ROP Proposal 13-94 Log #274 AUT-SSI of the revision cycle leading to NFPA 13-2007, when a previous suggestion was made to mandate electric supervision for dry pipe systems was rejected: "Committee Statement: NFPA 13 is a minimum standard – not all systems are electrically supervised."

It must be remembered that NFPA 13 does not mandate electric supervision of control valves. Why then should electrical supervision of system air pressure be made mandatory?

Related Item

- FR-1349

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submission Date: Thu Apr 23 15:21:01 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1050-NFPA 13-2020

Statement: This new section is redundant and conflicts with new section 8.2.6.7.2 and should be deleted. The TC did not intend to have two different sections.



Public Comment No. 221-NFPA 13-2020 [Section No. 8.3.2.4]

8.3.2.4* Supervision.

8.3.2.4.1

Sprinkler piping and fire detection devices shall be automatically supervised where more than 20 sprinklers are on the system.

8.3.2.4.2 – 5 Air Pressure and Supply. _

Except as ~~permitted~~ provided by 8.3.2.4.5.1 through 8.3.2.5.3, air or nitrogen supervising pressure for preaction systems shall be installed in conformance with the dry pipe system air pressure and supply rules of 8.2.6.

8.3.2.4.5.3 – 1 _

The relief valves required by 8.2.6 shall be permitted to be omitted for the type of preaction system described in 8.3.2.1(1) when the air pressure is supplied from a source that is not capable of developing pressures in excess of 15 psi (1.0 bar).

8.3.2.4.5.4 – 2 _

All ~~A~~ preaction system ~~types~~ type as 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).

8.3.2.4.5.4.1.3

~~A pressure supervisory signal-initiating device for a preaction sprinkler system shall indicate both high and low pressure conditions.~~

The high and low pressure values for the type of preaction system described in 8.3.2.

~~4.4.2~~

~~For preaction valves, the off-normal signal shall be initiated when the pressure increases or decreases by 10 psi (0.7 bar).~~

8.3.2.4.4.3 –

~~For low air pressure preaction valves, the high and low pressure values 1(1) shall be set in accordance with the manufacturer's installation instructions.~~

Statement of Problem and Substantiation for Public Comment

Supervision and Air Pressure and Supply are two separate subjects and need to be in separate sections. Non-Interlock and Double-Interlock Praction systems include air pressure operating features that are the same as a Dry-Pipe System for the release of the valve and need to point back to 8.2.6 for their set up and supervision. The single interlock systems covered by 8.3.2.1(1) only utilize air pressure to supervise piping integrity and should be treated differently as directed by the proposed new text.

Related Item

- FR 1040

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 12:00:21 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1055-NFPA 13-2020](#)

Statement: Supervision and Air Pressure and Supply are two separate subjects and need to be in separate sections. Non-Interlock and Double-Interlock Preaction systems include air pressure operating features that are the same as a Dry-Pipe System for the release of the valve and need to point back to 8.2.6 for their set up and supervision. The single interlock systems covered by 8.3.2.1(1) only utilize air pressure to supervise piping integrity and should be treated differently as directed by the proposed new text.



Public Comment No. 305-NFPA 13-2020 [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).

8.3.2.4.4.1

A pressure supervisory signal-initiating device for a preaction sprinkler system shall indicate both high and low pressure conditions.

8.3.2.4.4.2

~~For preaction valves, the off-normal signal shall be initiated when the pressure increases or decreases by 10 psi (0.7 bar).~~

8.3.2.4.4.3 –

~~For low air pressure preaction valves, the high and low pressure values shall be set in accordance with the manufacturer's installation instructions.~~

Statement of Problem and Substantiation for Public Comment

I like the new language that was added for dry-pipe systems. Similar language should be carried to pre-cation systems. Low air pressure preaction systems are not defined in the standard. Possible suggestion is to follow manufacturer's recommendation for all preaction systems. In addition, a fire alarm system is not a requirement of this standard. Language similar to the new language for dry pipe systems needs to be included.

The technical committee might consider a pointer to dry pipe systems for these requirements. Look at 8.3.2.4.2. Does that section cover this?

Related Item

• FR 1040 • FR 1039

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 16:12:25 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Rejected but see related SR

Action:

Resolution: [SR-1055-NFPA 13-2020](#)

Statement: Supervision and Air Pressure and Supply are two separate subjects and need to be in separate sections. Non-Interlock and Double-Interlock Preaction systems include air pressure operating features that are the same as a Dry-Pipe System for the release of the valve and need to point back to 8.2.6 for their set up and supervision. The single interlock systems covered by 8.3.2.1(1) only utilize air pressure to supervise piping integrity and should be treated differently as directed by the proposed new text.



Public Comment No. 90-NFPA 13-2020 [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).

8.3.2.4.4.1 –

~~A pressure supervisory signal-initiating device for a preaction sprinkler system shall indicate both high and low pressure conditions.~~

8.3.2.4.4.2 –

~~For preaction valves, the off-normal signal shall be initiated when the pressure increases or decreases by 10 psi (0.7 bar).~~

8.3.2.4.4.3 –

~~For low air pressure preaction valves, the high and low pressure values shall be set in accordance with the manufacturer's installation instructions.~~

Statement of Problem and Substantiation for Public Comment

This proposal should not have been accepted because it provides specific instruction for preaction systems that can only be met via electrical supervision of the air pressure. This goes beyond the requirements for a minimum standard.

I would respectfully remind the TC of the Section 8.3.2.4, which says systems with less than 20 sprinklers do not require supervision. Additionally, the text from A.8.3.2.4 states that: "Supervision, either electrical or mechanical, as used in 8.3.2.4 refers to constant monitoring of piping and detection equipment to ensure the integrity of the system."

It must be remembered that NFPA 13 does not mandate electric supervision of control valves. Why then should electrical supervision of system air pressure be made mandatory?

Related Item

- FR-1040

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submission Date: Thu Apr 23 15:23:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1055-NFPA 13-2020

Statement: Supervision and Air Pressure and Supply are two separate subjects and need to be in separate sections. Non-Interlock and Double-Interlock Praction systems include air pressure operating features that are the same as a Dry-Pipe System for the release of the valve and need to point back to 8.2.6 for their set up and supervision. The single interlock systems covered by 8.3.2.1(1) only utilize air pressure to supervise piping integrity and should be treated differently as directed by the proposed new text.

**Public Comment No. 91-NFPA 13-2020 [Section No. 8.6.3.7]****8.6.3.7**

For systems with a capacity larger than 150 gal (570 L), an additional test connection shall be provided as well as- for every additional 150 gal (380-L 570 L).

Statement of Problem and Substantiation for Public Comment

Editorial.

Related Item

- FR-1222

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 15:29:00 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1052-NFPA 13-2020](#)

Statement: Corrects metric conversion and removes language that changed the meaning of the section.



Public Comment No. 175-NFPA 13-2020 [New Section after 9.2.1.2]

TITLE OF NEW CONTENT

Noncombustible spaces with non-fuel-fired equipment and access panels should be considered a concealed space and should not require sprinkler protection.

Statement of Problem and Substantiation for Public Comment

This public comment seeks to move annex language from A.9.2.1.1.1 to the body of the standard where it will be enforceable. During the first revision a Public Input (PI-493) was submitted to the body of the standard. The committee choose to accept this language but as annex text. The issue is:. Noncombustible spaces with non fuel fired equipment (such an electric appliances) where the only access is a panel for maintenance is still considered a non combustible space and sprinkler protection is not required. Due to the confusion regarding this issue this clarification should be added to the body of the standard.

Related Item

- PI-493 • FR-1351

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: Tue Apr 28 10:16:53 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1056-NFPA 13-2020

Statement: The Technical Committee agrees that there is confusion if a space that has non-fuel-fire equipment is considered a concealed space Text was changed to better clarify that this space is considered a "concealed" space and therefore falls within the requirements of Section 9.2.1.2. The existing annex from PI-493 (FR 1351) remains with small wording addition to add further clarification.



Public Comment No. 181-NFPA 13-2020 [New Section after 9.2.1.10]

TITLE OF NEW CONTENT

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

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
A.9.2.1.11_A.1559825815772_2_.pdf	Proposed Figure A.9.2.11(A)	
A.9.2.1.11_B.1559825826693.pdf	Proposed Figure A.9.2.11(b)	

Statement of Problem and Substantiation for Public Comment

This comment is reintroducing PI-429 which was resolved at the First Draft Meeting with the following substantiation: "The allowable omissions in this section allow for omission of sprinkler protection". I do not believe this substantiation is correct as I do not see an existing section that would address this particular situation. The described soffit configuration is a common feature and the committee should address. The original substantiation for PI-429 is as follows:

"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."

Related Item

- PI-429

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: Wed Apr 29 08:01:32 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1099-NFPA 13-2020](#)

Statement: The technical committee changed the wording to include soffits but not just soffits that contain ductwork. The changes help add clarification within the concealed space rules however adds a volume limitation which is consistent with other concealed space omission of sprinklers.

**Public Comment No. 92-NFPA 13-2020 [Section No. 9.2.3.2.1]****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 Comment

I do not have a problem with the concept, I absolutely believe sprinklers should be installed below building projections where there are dwelling units or office areas or classrooms directly above them. And I think this is the intent of the proposed provision.

However, I have a problem with the term “below occupiable floors”. What does this mean?

By “below”, is it meant to be directly below, or just off to the side of the building that has addition floors above the elevation of that projection?

By “occupiable floors”, is it meant to apply to areas like offices, hotel rooms or classrooms, which can have a noteworthy number of “occupants”?

Or is it meant to apply to any “occupancy”, even those such as rental storage units, which very rarely have more than a few people at a time in the building?

Overall, the verbiage is not precise enough to make the intent clear. Therefore, this text should be deleted.

Related Item

- FR-1094

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 15:32:32 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1057-NFPA 13-2020](#)

Statement: The requirement for sprinkler protection under a porte-cochere has not been clear in past editions of the standard. This section which was added in the first revision was intended to provide a specific requirement for when to sprinkle a porte-cochere. The words “directly” and “intended for occupancy” add additional clarity for the designer and AHJ to make the decision if sprinklers are required.



Public Comment No. 93-NFPA 13-2020 [Section No. 9.2.4.2]

9.2.4.2 * – Balconies and Decks.

9.2.4.2.1 –

Where a roof, deck, or balcony greater than 4 ft (1.2 m) 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 Type V construction.

9.2.4.2.2 –

Where sprinklers are installed beneath roofs, overhangs, decks, or balconies, sprinklers shall be permitted to be installed with deflectors positioned in accordance with 9.2.4.2.2.1 or 9.2.4.2.2.2 or the manufacturer's installation instructions.

9.2.4.2.2.1 –

Sidewall sprinklers shall not be less than 4 in. (100 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.

9.2.4.2.2.2 –

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 Comment

This is the first of four PCs relating to FR 1099. Also please see the related action request for a new Section 9.3.20. This text has been inserted into the wrong part of Chapter 9. Section 9.2 is for "Allowable Sprinkler Omission Locations", but as written the subject is about when sprinklers are specifically required. With this, the text should be relocated to a new Section 9.3.20, to follow the provisions for Exterior Projections and the accompanying Annex text should be renumbered as a new A.9.3.20.

Further, neither the Building Codes nor NFPA 13R call for sprinklers below the eaves/soffits of the roofs of buildings (residential or otherwise). Therefore, instead of the incorrect references to roofs and decks, the text suggested for 9.3.20.1 has been revised to reference balconies and the corresponding overhangs instead.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 94-NFPA 13-2020 [New Section after 9.3.20]	
Public Comment No. 95-NFPA 13-2020 [Section No. A.9.2.4.2]	
Public Comment No. 96-NFPA 13-2020 [New Section after A.9.3.20.1]	
Public Comment No. 94-NFPA 13-2020 [New Section after 9.3.20]	
Public Comment No. 95-NFPA 13-2020 [Section No. A.9.2.4.2]	
Public Comment No. 96-NFPA 13-2020 [New Section after A.9.3.20.1]	

Related Item

- FR-1099

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:

Submittal Date: Thu Apr 23 15:40:45 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1058-NFPA 13-2020](#)

Statement: This requirement is requiring the addition of sprinklers. Section 9.2 is for the omission of sprinklers. Section 9.2.4.2 has been relocated to 9.3.20 (new section with re-numbering) as it belongs in the same location as exterior projections.

**Public Comment No. 176-NFPA 13-2020 [Section No. 9.2.4.2.1]****9.2.4.2.1—***

Where a roof, deck, or balcony greater than 4 ft (1.2 m) 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 Type V construction.

A.9.2.4.2.1 Type V construction is defined as structural elements entirely or partially wood or other similarly combustible material

9.2.4.2.2**Statement of Problem and Substantiation for Public Comment**

This public comment seeks to add an annex note to section 9.2.4.2.1 to help define Type V construction for international users of the standard. Type V is a ICC classification. This proposed annex language is the language accepted in NFPA 13R.

Related Item

- FR-1099

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: Tue Apr 28 10:27:21 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1058-NFPA 13-2020

Statement: This requirement is requiring the addition of sprinklers. Section 9.2 is for the omission of sprinklers. Section 9.2.4.2 has been relocated to 9.3.20 (new section with re-numbering) as it belongs in the same location as exterior projections.

**Public Comment No. 139-NFPA 13-2020 [New Section after 9.2.4.2.2.2]****9.2.4.3 Dwelling Unit Ventilation Equipment**

9.2.4.3.1 Non combustible concealed vertical spaces containing non fuel fired ventilation equipment and associated ductwork shall not be required to be protected.

9.2.4.3.1 Access panels for equipment maintenance shall be permitted.

Statement of Problem and Substantiation for Public Comment

In the first draft, the committee agreed in First Revision 1351 that these spaces do not require sprinkler protection. (See new annex section A.9.2.1.1.2). There were several PI's submitted in regards to this arrangement. Providing ventilation equipment in the corner of a dwelling unit in a vertical chase with access to maintain the unit with a panel is a common scenario. It is technically not a closet since there is not a door. Many AHJ's have required sprinklers in these spaces mainly because of the ventilation equipment. This language belongs in the body of the standard, not in an annex to small openings in plenums as it now is after the first draft.

Related Item

- FR#1351

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 20:10:33 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1056-NFPA 13-2020

Statement: The Technical Committee agrees that there is confusion if a space that has non-fuel-fire equipment is considered a concealed space Text was changed to better clarify that this space is considered a "concealed" space and therefore falls within the requirements of Section 9.2.1.2. The existing annex from PI-493 (FR 1351) remains with small wording addition to add further clarification.

**Public Comment No. 336-NFPA 13-2020 [Section No. 9.2.10]****9.2.10** Small Temporarily Occupied Spaces.**9.2.10.1***

~~Sprinklers~~. Excluding bathrooms, sprinklers shall not be required in small isolated temporarily occupied spaces that do not extend to the ceiling.

9.2.10.2

The maximum area of the small temporarily occupied space shall not exceed 24 ft² (2.2 m²). with no storage allowed.

Statement of Problem and Substantiation for Public Comment

Bathrooms should be excluded form this allowance. The storage exclusion is currently in the Annex material. This requirement needs to be brought into the body of the standard.

Related Item

- FR 1102

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 05 15:08:13 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1062-NFPA 13-2020

Statement: Bathrooms and similar rooms are not intended to be addressed in this section and not considered temporarily occupied spaces. This is intended for the portable/move-in type pods (office pods). The word "spaces" was changed to "enclosures" to better identify the small room. The words "pumping stations" was changed to "lactation room" as a more commonly and acceptable term. Safe spaces was deleted from the comment due to the broad interpretation of what a "safe space" might be.

**Public Comment No. 355-NFPA 13-2020 [Section No. 9.2.10]**

9.2.10 – Small Temporarily Occupied Spaces.

9.2.10.1 * –

Sprinklers shall not be required in small isolated temporarily occupied spaces that do not extend to the ceiling.

9.2.10.2 –

The maximum area of the small temporarily occupied space shall not exceed 24 ft² (2.2 m²).

Statement of Problem and Substantiation for Public Comment

This allowance would permit sprinkler unintended omissions in rooms such as in bathrooms located in warehouses (one example).

Related Item

- PI 265

Submitter Information Verification

Submitter Full Name: Jason Gill

Organization: Crews & Gregory Fire Sprinkler

Affiliation: AFSA

Street Address:

City:

State:

Zip:

Submission Date: Wed May 06 07:37:47 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: PI-265, FR-1102 and FR-1103 were reviewed with the agreement that the omission of sprinklers from these small “pod” type rooms does not create an unreasonable degree of protection of life and/or property.

**Public Comment No. 59-NFPA 13-2020 [Section No. 9.2.10.1]****9.2.10.1***

Sprinklers shall not be required in small isolated temporarily occupied ~~spaces that~~ enclosures that do not extend to the ceiling where ~~the space above the enclosure is sprinklered in accordance with the rules for~~ extra hazard group 2 occupancies .

Statement of Problem and Substantiation for Public Comment

The justification for FR1102 was based on small booths that are sometimes portable, but always protected with sprinklers above. That concept was not carried through to the language of the standard. While there was a case of inconvenience presented, there was no case presented regarding the lack of fires in these spaces. The reality is that these enclosures are often permanent and even if they are portable, they frequently stay in place for a long time. While in place, there is still a possibility of a fire occurring. If sprinkler protection is not brought down into the enclosure, then the fire will be much bigger when it finally breaks up into the sprinklered space above the enclosure. The EH2 rules were written to handle this kind of increased fire many editions ago, which is why the definition of EH2 includes "spaces where shielding of combustibles is extensive."

I believe that sprinkler protection should be brought down into these enclosures. They can be used for storage. They can have fires start in them. They frequently have electrical equipment built in that can serve as an ignition source. If the committee agrees that sprinklers can be omitted, then the sprinklers in the space above should be required and should be beefed up to be able to handle the larger fire when the sprinklers finally activate.

Related Item

- FR1102

Submitter Information Verification

Submitter Full Name: Kenneth Isman

Organization: University of Maryland

Street Address:

City:

State:

Zip:

Submission Date: Tue Apr 21 22:27:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: Accept word change of enclosures as that adds better clarification as to what the small rooms are. The remaining proposed text was not accepted based that there was no data or definition submitted to demonstrate 24 sq. ft. presents "extensive" shielding of the ceiling sprinklers as extra hazard group 2 is defined. Examples in the annex list manufacture homes or car stackers that present shielding much larger than 24 sq.ft. It should also be noted that PC-336 add "with no storage allowed" to help clarify the intent of the allowed omission of sprinklers.

**Public Comment No. 225-NFPA 13-2020 [Section No. 9.2.12]****9.2.12 Noncombustible Vertical Shafts.**

Sprinklers shall not be required at the top of noncombustible or limited-combustible, nonaccessible vertical duct, electric, and mechanical shafts as permitted by 9.3.6.2 4 and 9.3.3.1.2.

Statement of Problem and Substantiation for Public Comment

Correct the reference.

Related Item

- FR 1104

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 14:35:49 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1063-NFPA 13-2020

Statement: The submitter referenced the wrong section in the First Draft report. The correct section is 9.3.3.1.1 for "vertical Shafts". This also matches what is printed in the 2019 Ed (Section 9.2.11). The referenced section was concerning elevators which has specific requirements for hoistways (Section 9.2.14) and should not be combined with other vertical shafts.

**Public Comment No. 226-NFPA 13-2020 [Section No. 9.2.14]****9.2.14** Elevator Hoistways and Machine Rooms.

Sprinklers shall not be required in locations complying with 9.3.6.1, 9.3.6.3, ~~9.3.6.4~~, or 9.3.6.5.2.

Statement of Problem and Substantiation for Public Comment

Remove incorrect reference.

Related Item

- FR 1104

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 14:37:35 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1064-NFPA 13-2020

Statement: This is a correction within the first draft report. Section 9.3.6.3 requires sprinklers and would not be applicable to Section 9.2.14.



Public Comment No. 182-NFPA 13-2020 [Section No. 9.3.2]

9.3.

~~2— Special Sprinklers for Horizontal Combustible Concealed Spaces.~~

9.3.2.1 –

2

Unless the requirements

of 9

of 9.2.1.

~~18 are~~

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,

9.3.2.3 –

~~Where permitted in accordance with the sprinkler listing, the~~

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 the top of the bottom joist and the bottom of the upper joist shall be listed for such use.

9.3.2.

2—

~~When such sprinklers are used, construction shall include all draft curtains, blocking, and insulation required as part of the listing of the sprinkler.~~

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

dimension in

:

9.3.2.2

Sprinklers specifically listed to provide protection of combustible concealed spaces described in 9.3.

~~1 shall~~

2 shall be permitted to

exceed 36

be used in accordance with 9.

(900 mm).

4.1.2 throughout the area when a portion of the area exceeds a depth of 36 in. (900 mm).

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 Comment

This comment seeks to revert back to existing language from 2019 edition. This FR revision was reviewed by the UL/FM/NFSA committee and NFSA E&S committee and the recommendation is to revert to existing language. The addition of combustible wood joist construction would require additional testing to add exposed composite wood joists to listing standards. It is unclear as to the intent and/or consequences of this proposed revision.

Related Item

- FR-1355

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: Wed Apr 29 08:25:37 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1065-NFPA 13-2020](#)

Statement: In FR-1355 the term "compost wood joist construction" is not standard with the sprinklers listing. Additional test would need to be performed to require this term and comply with the "listings". This puts the text back to the 2019 Ed.

**Public Comment No. 227-NFPA 13-2020 [Section No. 9.3.2.3]****9.3.2.3**

Where permitted in accordance with the sprinkler listing, the deck to deck or deck to ceiling dimension in 9.2.3.1 shall be permitted to exceed 36 in. (900 mm).

Statement of Problem and Substantiation for Public Comment

Correct reference.

Related Item

- FR 1355

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 14:40:07 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1065-NFPA 13-2020

Statement: In FR-1355 the term "compost wood joist construction" is not standard with the sprinklers listing. Additional test would need to be performed to require this term and comply with the "listings". This puts the text back to the 2019 Ed.

**Public Comment No. 397-NFPA 13-2020 [Section No. 9.3.2.3]****9.3.2.3**

~~Where permitted in accordance with the sprinkler listing, the~~ Sprinklers listed for protection of the deck to deck or deck to ceiling dimension in 9.2.3.1 shall be permitted to exceed- be used where the deck to deck or deck to ceiling dimension exceeds 36 in. (900 mm).

Statement of Problem and Substantiation for Public Comment

Specific Application Combustible Concealed Space sprinklers were created due to a concern about the ability of standard spray sprinklers to provide adequate coverage in a shallow space. The challenge being addressed was shallow spaces. The intent was never to require special listings for spaces taller than 36 inches. The 2019 edition of NFPA 13 even permits sprinklers listed for a shallow space to be used where the height of the space increases beyond 36 inches.

Related Item

- FR1355

Submitter Information Verification

Submitter Full Name: Steven Wolin

Organization: Reliable Automatic Sprinkler Co., Inc.

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 06 17:06:08 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: This change would allow sprinklers that are not listed for combustible concealed spaces exceeding 36" to be used. That was not the intent with the change from the First Revision. There are multiple sprinklers that are listed for combustible concealed spaces that allow the space to exceed 36". If there are listed sprinklers available for use in these spaces, they should be used.



Public Comment No. 140-NFPA 13-2020 [Section No. 9.3.6]

9.3.6 Elevator Hoistways and Machine Rooms.

9.3.6.1

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 or other approved fire alarm code.
- (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.

9.3.6.2*

~~Automatic~~ Where required, automatic sprinklers in elevator machine rooms, elevator machinery spaces, control spaces, or hoistways shall be standard response.

9.3.6.3*

~~Upright, pendent, or sidewall spray sprinklers shall be installed at the top of elevator hoistways.~~

9.3.6.4 –

~~The sprinkler required at the top of the elevator hoistway by 9.3.6.3 shall not be required where the hoistway for passenger elevators is noncombustible or limited-combustible and the car enclosure materials meet the requirements of ASME A17.1, Safety Code for Elevators and Escalators.~~

9.3.6.5 – Combustible Suspension in Elevators.

9.3.6.5.3.1

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.

9.3.6.5.3.2

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*.

Statement of Problem and Substantiation for Public Comment

I am finally in agreement that we need to get rid of sprinklers in elevator shafts.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 141-NFPA 13-2020 [Section No. A.9.3.6.3]	
<u>Related Item</u>	
• PI#257	

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 21:09:51 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1104-NFPA 13-2020](#)

Statement: Editorial revisions have been made to make the text read consistent from section to section. Annex attached to 9.3.6.3 or renumbered 9.3.6.5 was in the wrong location and has been moved to 9.3.6.4 or renumbered 9.3.6.6.



Public Comment No. 317-NFPA 13-2020 [Section No. 9.3.6]

9.3.6 ~~Elevator Hoistways and Machine Rooms~~ Elevator Machine Rooms, Machinery Spaces, Control Rooms, Control Spaces and Hoistways .

9.3.6.1

Automatic fire sprinklers shall not be required in elevator machine rooms, ~~elevator~~ machinery spaces, control ~~rooms~~, 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)
- (3) The elevator machine room,
machine room,
- (4) 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 or other approved fire alarm code.~~
- (5) ~~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.
- (6) 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.
- (7) The elevator machinery is not of the hydraulic type.

9.3.6.2*

Automatic sprinklers in elevator machine rooms, ~~elevator~~ machinery spaces, control rooms, control spaces, or hoistways shall be standard response.

9.3.6.3*

Upright, pendent, or sidewall spray sprinklers shall be installed at the top of elevator hoistways.

9.3.6.4

The ~~sprinkler~~ sprinklers required at the top of the elevator hoistway by 9.3.6.3 shall not be required where the hoistway for passenger elevators is noncombustible or limited-combustible and the car enclosure materials meet the requirements of ASME A17.1, *Safety Code for Elevators and Escalators*.

9.3.6.5 Combustible Suspension in Elevators.

9.3.6.5.1

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.

9.3.6.5.2

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*.

Statement of Problem and Substantiation for Public Comment

This comment is being submitted by NEII in response to the Committee Statement responding to Public Input no. 702.

1. The title of this section was changed to include all the elevator associated spaces specified in this section.

2. Item # 2 of 9.3.6.1 is proposed to be deleted since it is unnecessary and can create major conflicts and inconsistencies between NFPA 13 and the ASME A17.1 Elevator code.

The committee resolution for this item in PI 702 was: "Elimination of NFPA 72 requirements lowers the level of safety too far." However, there is no elimination of NFPA 72 requirements in this proposal. The Phase I Recall Smoke Detectors are still required by the A17.1 Code Section 2.27.3.2 and they are still required to be installed in

accordance with NFPA 72. Accepting this public comment will just resolve the conflict between the two codes and will not eliminate any code requirement for elevator hoistway smoke detection.

It should not be the jurisdiction of NFPA 13 to mandate smoke detectors in elevator associated spaces, as this is the scope of the A17.1 Code. The main problem and conflict is that per NFPA 13 Section 9.3.6.4 passenger elevators do not require sprinklers at the top of their hoistways and therefore, associated smoke detectors are not required for those elevators per the A17.1 Code (since the hoistway and car are non-combustible per the A17.1 requirements). However, per this current NFPA Section 9.3.6.1 item # 2 it seems that a smoke detector will be required at the top of those hoistways, if sprinklers are not installed there per Section 9.3.6.4. This creates a major code conflict and enforcement problems for AHJs.

The intent of the current NFPA 13 Section 9.3.6.4, which has the same code language as in many previous NFPA 13 editions, was to NOT require sprinklers at the tops of passenger elevators hoistways (meeting the A17.1 non-combustibility requirements). This NFPA 13 section never required the addition of top-of-hoistway smoke detection in lieu of this non-required sprinkler. And this is where the conflict lies: the current section 9.3.6.1 item # 2 seems like it requires a smoke detector to be installed at the top of passenger elevator hoistways when sprinklers are not required to be installed in the hoistway. The smoke detectors are still required to be provided at the top of all Machine-Room-Less (MRL) Passenger Elevators per the A17.1 Code and installed per NFPA 72. But there are still many passenger elevators with Machine Rooms (Standard overhead traction elevator and Hydraulic elevators) that currently do not require associated smoke detection at the top of their hoistways and this is the main issue that this proposal is trying to resolve by not mandating smoke detectors at the top of unsprinklered hoistways of standard overhead traction and hydraulic passenger elevators.

Related Item

- PI 702

Submitter Information Verification

Submitter Full Name: David McColl

Organization: Otis Elevator Company

Affiliation: National Elevator Industry Inc. (NEII)

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 19:10:06 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1104-NFPA 13-2020

Statement: Editorial revisions have been made to make the text read consistent from section to section. Annex attached to 9.3.6.3 or renumbered 9.3.6.5 was in the wrong location and has been moved to 9.3.6.4 or renumbered 9.3.6.6.



Public Comment No. 47-NFPA 13-2020 [Section No. 9.3.6]

9.3.6 Elevator Hoistways and Machine Rooms, Machinery Spaces, Control Rooms, Control Spaces and Hoistways

9.3.6.1

Automatic fire sprinklers shall not be required in elevator machine rooms, ~~elevator~~ machinery spaces, control rooms, 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~~
- (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 or other approved fire alarm code.~~
- (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.

9.3.6.2*

Automatic sprinklers in elevator machine rooms, ~~elevator~~ machinery spaces, control rooms, control spaces, or hoistways shall be standard response.

9.3.6.3*

Upright, pendent, or sidewall spray sprinklers shall be installed at the top of elevator hoistways.

9.3.6.4

The ~~sprinkler~~ sprinklers required at the top of the elevator hoistway by 9.3.6.3 shall not be required where the hoistway for passenger elevators is noncombustible or limited-combustible and the car enclosure materials meet the requirements of ASME A17.1, *Safety Code for Elevators and Escalators*.

9.3.6.5 Combustible Suspension in Elevators.

9.3.6.5.1

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.

9.3.6.5.2

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*.

Statement of Problem and Substantiation for Public Comment

1. The title of this section was changed to include all the elevator associated spaces specified in this section - This is just clean up and editorial change for consistency.

2. Item # 2 of 9.3.6.1 is proposed to be deleted since it is unnecessary and can create major conflicts and inconsistencies between NFPA 13 and the ASME A17.1 Elevator code.

The committee resolution for this item in PI 258 was: "Elimination of NFPA 72 requirements lowers the level of safety too far." However, there is not any elimination of NFPA 72 requirements in this proposal. The Phase I Recall Smoke Detectors are still required by the A17.1 Code Section 2.27.3.2 and they are still required to be installed in

accordance with NFPA 72. Accepting this public comment will just resolve the conflict between the two codes and will not eliminate any code requirement for elevator hoistways smoke detection.

This is the code section from ASME A17.1-2016 which requires Phase I Recall smoke detectors in elevator spaces:

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.

The intent of this proposal by eliminating item # 2 from 9.3.6.1 is to resolve the conflict between NFPA 13 and the A17.1 Code.

It should not be the jurisdiction of NFPA 13 to mandate smoke detectors in elevator associated spaces, this is only the jurisdiction of the A17.1 Code.

The main problem and conflict is that per NFPA 13 Section 9.3.6.4 passenger elevators do not require sprinklers at the top of their hoistways and therefore, associated smoke detectors are not required for those elevators per the A17.1 Code (since the hoistway and car are non-combustible per the A17.1 requirements). However, per this current NFPA Section 9.3.6.1 item # 2 it seems that a smoke detector will be required at the top of those hoistways, if sprinklers are not installed there per Section 9.3.6.4. This creates a major code conflict and enforcement problems for AHJs.

The intent of the current NFPA 13 Section 9.3.6.4 which has the same code language as in many previous NFPA 13 editions was to NOT require sprinklers at the tops of passenger elevator hoistways (meeting the A17.1 non-combustibility requirements). This NFPA 13 section never required the addition of top-of-hoistway smoke detection in lieu of this non-required sprinkler. And this is where the conflict lies: the current section 9.3.6.1 item # 2 seems like it requires a smoke detector to be installed at the top of passenger elevator hoistways when sprinklers are not required to be installed at the hoistway.

The smoke detectors are still required to be provided at the tops of all Machine-Room-Less (MRL) Passenger Elevators per the A17.1 Code and installed per NFPA 72. But there are still many passenger elevators with Machine Rooms (Standard overhead traction elevator and Hydraulic elevators) that currently do not require associated smoke detection at their top of hoistways and this is the main issue that this proposal trying to resolve: Not to mandate smoke detectors at the top of unsprinklered hoistways of standard overhead traction and hydraulic passenger elevators.

Note to the Committee members as additional information for reference only:

This proposal was supported by NEII (National Elevator Industry) and was also supported by the CA state Fire Marshal Elevator Task Group and it was removed from the next edition of the CA Building Code as an amendment to NFPA 13.

I also serve as an AHJ contributing member on the A17.1 Emergency Operation Technical Committee and the Hoistway Technical Committee and would be happy to answer any question and provide any additional information for the NFPA 13 committee if required.

Related Item

• PI 258

Submitter Information Verification

Submitter Full Name: Sagiv Weiss-Ishai
Organization: San Francisco Fire Department
Affiliation: SFFD
Street Address:
City:
State:
Zip:
Submittal Date: Sat Apr 11 18:08:16 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1104-NFPA 13-2020](#)
Statement: Editorial revisions have been made to make the text read consistent from section to section. Annex attached to 9.3.6.3 or renumbered 9.3.6.5 was in the wrong location and has been moved to 9.3.6.4 or renumbered 9.3.6.6.

**Public Comment No. 187-NFPA 13-2020 [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.

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.

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.

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 or other approved fire alarm code.
- (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.

Statement of Problem and Substantiation for Public Comment

The intent of this comment is to revert to existing language (2019 edition).

This issue was discussed in detail last cycle with the result that sprinkler protection remained in the standard for elevator shafts and pits. This decision was the correct one and prudent sprinkler protection for elevator pits should remain in NFPA 13. As was the case last cycle, the submitter did not provide technical documentation to indicate that the fire risk in elevator pits is negligible or that this sprinkler protection in elevator pits is not warranted or needed. Instead the submitter again proposed to remove sprinkler protection in these shafts due to maintenance difficulties. While I am sensitive to the dangers to elevator maintenance workers, the purpose of NFPA 13 is minimize the danger from fire events. It should also be noted that NFPA 13 is an international document and the safety and housekeeping protocols limiting fires in elevators common in the United States may not be universally adopted or enforced. When the decision to retain the sprinkler protection was appealed to the NFPA Standards Council, the council rejected the appeal and suggested that a research proposal be submitted to the Fire Protection Research Foundation to gather more information on this subject (See Standards Council Decision D#18-7 dated August 14, 2018). Such a research project would provide the information needed for the committee to make an informed decision on this issue. To the best of my knowledge, this project was not initiated.

It should be noted that the Committee Statement for FR-112) was simply copied from the submitter's Public Input (PI-412) and is misleading. The statement says it was requested that the proponent "provide examples for elevators associated injuries and fatalities". However last cycle the committee asked for data regarding fire safety in elevator shafts and for technical justification that the omission of sprinklers as required by NFPA 13 would not lead to a dangerous situation in regards to fire safety. This data has not been provided..

Related Public Comments for This Document**Related Comment****Relationship**

[Public Comment No. 190-NFPA 13-2020 \[Section No. 9.3.6.2\]](#)

Related Item

• [FR-1112](#) • [FR-1113](#)

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: Wed Apr 29 09:00:20 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1105-NFPA 13-2020](#)

Statement: Sprinklers are required in elevator hoistways and other rooms associated with elevators until such fire data is presented otherwise.

**Public Comment No. 190-NFPA 13-2020 [Section No. 9.3.6.2]****9.3.6.2***

Automatic sprinklers in elevator machine rooms, or at the tops of elevator machinery spaces, control spaces, or hoistways shall be standard response of ordinary- or intermediate-temperature rating .

Statement of Problem and Substantiation for Public Comment

This comment is to return to existing language from the 2019 edition. FR-1114 removed the language "at the tops" of elevators. Where sprinklers are installed at the tops of shafts, this section is needed. Additionally, there was no technical justification submitted to eliminate the use of quick response sprinklers. Has there been issues with using quick response sprinklers in this application?

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 187-NFPA 13-2020 [Section No. 9.3.6.1]</u>	related issue
<u>Related Item</u>	
• FR-1114	

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: Wed Apr 29 09:20:37 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: When a sprinkler is installed in an elevator space it has been determined that a quick response is not acceptable due to the potential for it to operate too quickly and not allow the elevator safety sequences to function in proper order. Commercial elevator spaces are required by building and elevator code (ASME A17.1) to be non-combustible or fire rated material. No data has been submitted to show that a fire in an elevator space as grown out of control and caused excess damage to the property or endanger life in the protected premise. Most of the elevator spaces are not excessively large and even a standard response sprinkler will operate in an acceptable timeframe if installed.

**Public Comment No. 229-NFPA 13-2020 [Sections 9.3.6.3, 9.3.6.4]****Sections 9.3.6.3, 9.3.6.4****9.3.6.3*— _ _**

Upright, pendent, or sidewall spray sprinklers shall be installed at the top of elevator hoistways.

9.3.6.4— _ *

The sprinkler required at the top of the elevator hoistway by 9.3.6.3 shall not be required where the hoistway for passenger elevators is noncombustible or limited-combustible and the car enclosure materials meet the requirements of ASME A17.1, *Safety Code for Elevators and Escalators*.

Statement of Problem and Substantiation for Public Comment

Relocate Annex * as part of move of Annex material.

Related Item

- Global FCR 41

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 14:44:20 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1104-NFPA 13-2020](#)

Statement: Editorial revisions have been made to make the text read consistent from section to section. Annex attached to 9.3.6.3 or renumbered 9.3.6.5 was in the wrong location and has been moved to 9.3.6.4 or renumbered 9.3.6.6.



Public Comment No. 36-NFPA 13-2020 [Section No. 9.3.6.5.2]

9.3.6.

5.2–

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,

UL2556 Wire and Cable Test Methods, where the suspension means shall not continue to burn for more than 60 seconds, nor shall the indicator flag be burned more than 25%. ~~UL 62, Flexible Cords and Cables, and UL 1581, Reference Standard for Electrical Wires, Cables, and Flexible Cords~~

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 along with the pass criteria is more appropriate for the FT1 rating for suspension means.

Statement of Problem and Substantiation for Public Comment

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.

Related Item

- 9.3.6.5.3 The suspension means shall not continue to burn for more than 60 seconds nor shall the indicator flog more than 25 percent.

Submitter Information Verification

Submitter Full Name: Lawrence Taylor

Organization: Schindler Elevator Corporation

Affiliation: Schindler Elevator Corporation and NEII

Street Address:

City:

State:

Zip:

Submission Date: Mon Mar 30 14:48:07 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1103-NFPA 13-2020

Statement: The current reference to UL 62 and UL 1581 does not appear to be the correct or most appropriate UL standards to reference for the suspension cables. UL 2556 is the test standard for wire and cables and is a better fit for the suspension cables. It should be noted that there is not a UL

standard for suspension cables.



Public Comment No. 230-NFPA 13-2020 [Section No. 9.3.9 [Excluding any Sub-Sections]]

Duct protection shall be required to meet the requirements of 9.3.8 9 where required by the authority having jurisdiction or the applicable referenced code or standard.

Statement of Problem and Substantiation for Public Comment

Correct reference.

Related Item

- Editorial Correction of Reference

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Sun May 03 14:46:15 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1068-NFPA 13-2020](#)
Statement: Corrected reference.

**Public Comment No. 142-NFPA 13-2020 [Section No. 9.3.16.3]****9.3.16.3**

Skylights that allow venting, other than smoke and heat venting per 20.6.5 ?????? , shall be provided with sprinkler protection installed in the skylight.

Statement of Problem and Substantiation for Public Comment

The reference to section 20.6.5 does not seem to be correct.

Related Item

- FR#1116

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Fri Apr 24 21:26:03 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1069-NFPA 13-2020

Statement: Corrected reference – 20.9.5 – Roof Vents and Draft Curtains

**Public Comment No. 231-NFPA 13-2020 [Section No. 9.3.16.3]****9.3.16.3**

Skylights that allow venting, other than smoke and heat venting per 20.6 9.5, shall be provided with sprinkler protection installed in the skylight.

Statement of Problem and Substantiation for Public Comment

Correction of reference.

Related Item

- FR 1354

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 14:47:55 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1069-NFPA 13-2020](#)

Statement: Corrected reference – 20.9.5 – Roof Vents and Draft Curtains



Public Comment No. 94-NFPA 13-2020 [New Section after 9.3.20]

TITLE OF NEW CONTENT

9.3.20* Balconies and Decks.

9.3.20.1 Where a balcony or corresponding overhang greater than 4 ft (1.2 m) wide is provided above, sprinklers shall be installed to protect attached exterior balconies, and ground floor patios directly serving dwelling units in buildings of Type V construction.

9.3.20.2 Where sprinklers are installed beneath balconies or corresponding overhangs, sprinklers shall be permitted to be installed with deflectors positioned in accordance with 9.3.20.3 or 9.3.20.4 or the manufacturer's installation instructions.

9.3.20.3 Sidewall sprinklers shall not be less than 4 in. (100 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.

9.3.20.4 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 Comment

This is the second of two PCs relating to FR 1099. Also please see the related action request for deletion of Section 9.2.4.2.

This text has been inserted into the wrong part of Chapter 9. Section 9.2 is for "Allowable Sprinkler Omission Locations", but as written the subject is about when sprinklers are specifically required. With this, the text should be relocated to a new Section 9.3.20, to follow the provisions for Exterior Projections and the accompanying Annex text should be renumbered as a new A.9.3.20.

Further, neither the Building Codes nor NFPA 13R call for sprinklers below the eaves/soffits of the roofs of buildings (residential or otherwise). Therefore, instead of the incorrect references to roofs and decks, the text suggested for 9.3.20.1 has been revised to reference balconies and the corresponding overhangs instead.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 93-NFPA 13-2020 [Section No. 9.2.4.2]	
Public Comment No. 95-NFPA 13-2020 [Section No. A.9.2.4.2]	
Public Comment No. 96-NFPA 13-2020 [New Section after A.9.3.20.1]	
Public Comment No. 93-NFPA 13-2020 [Section No. 9.2.4.2]	
Public Comment No. 95-NFPA 13-2020 [Section No. A.9.2.4.2]	
Public Comment No. 96-NFPA 13-2020 [New Section after A.9.3.20.1]	

Related Item

- FR1099

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 23 15:46:34 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1058-NFPA 13-2020](#)

Statement: This requirement is requiring the addition of sprinklers. Section 9.2 is for the omission of sprinklers. Section 9.2.4.2 has been relocated to 9.3.20 (new section with re-numbering) as it belongs in the same location as exterior projections.

**Public Comment No. 233-NFPA 13-2020 [Section No. 9.3.20.1]****9.3.20.1* —**

Unless the requirements of 9.2.6 are met, sprinkler protection shall be required in electrical equipment rooms.

Statement of Problem and Substantiation for Public Comment

Delete Annex * as part of deletion of Annex Material.

Related Item

- Editorial Correction

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 14:53:05 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1107-NFPA 13-2020](#)

Statement: This annex is not affiliated with this section, delete.



Public Comment No. 143-NFPA 13-2020 [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, 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>
(1) Heating ducts			
(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) Diffuser	Any distance except as shown under Intermediate-Temperature Rating column	<i>Downward discharge:</i> 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 <i>Horizontal discharge:</i> 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	
(2) Unit heater and radiant heater			
(a) Horizontal discharge		<i>Discharge side:</i> 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 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) radius cylinder extending 7 ft 0 in. (2.1 m) above and 2 ft 0 in. (600 mm) below unit heater

<u>Type of Heat Condition</u>	<u>Ordinary-Temperature Rating</u>	<u>Intermediate-Temperature Rating</u>	<u>High-Temperature Rating</u>
(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>
Skylights		Glass or plastic	
Attics	Do not use	Ventilated or unventilated	
Peaked roof: metal or thin boards, concealed or not concealed, insulated or uninsulated	Ventilated	Unventilated	
Flat roof: metal, not concealed	Ventilated or unventilated	Note: For uninsulated roof, climate and insulated or uninsulated occupancy can necessitate intermediate sprinklers. Check on job.	
Flat roof: metal, concealed, insulated or uninsulated	Ventilated	Unventilated	
Show windows	Ventilated	Unventilated	

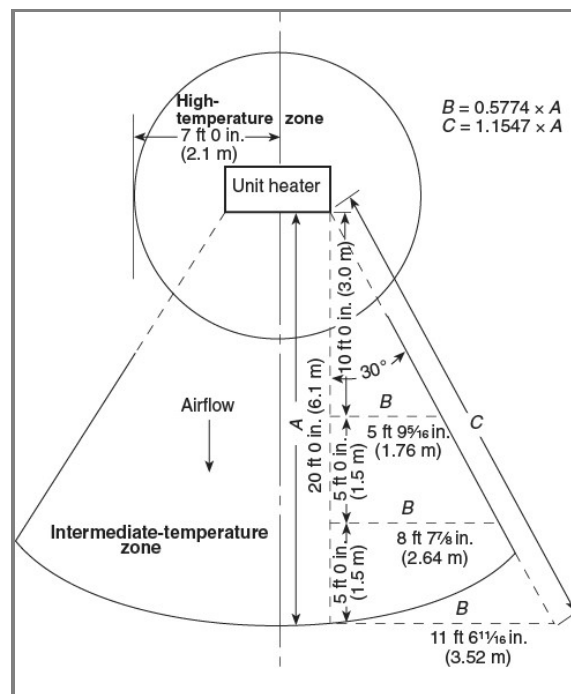
Note: A check of job condition by means of thermometers might be necessary.

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>
Side of open or recessed fireplace	36	900	12	300
Front of recessed fireplace	60	1500	36	900
Coal- or wood-burning stove	42	1050	12	300
Kitchen range	18	450	9	225
Wall oven	18	450	9	225
Hot air flues	18	450	9	225
Uninsulated heat ducts	18	450	9	225
Uninsulated hot water pipes	12	300	6	150
Side of ceiling- or wall-mounted hot air diffusers	24	600	12	300

<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>
Front of wall-mounted hot air diffusers	36	900	18	450
Hot water heater or furnace	6	150	3	75
Light fixture:				
0 W–250 W	6	150	3	75
250 W–499 W	12	300	6	150

Figure 9.4.2.5 High-Temperature and Intermediate-Temperature Zones at Unit Heaters and Radiant Heaters.



Statement of Problem and Substantiation for Public Comment

I have submitted no change but put this comment in as a reminder to review the task group's report as outlined in Committee Input # 1118.

The original PI #140 has merit.

"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."

Related Item

- CI#1118

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 12:49:00 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Rejected

Action:

Resolution: There is no proposed change or any material to review in the PC. Any motion on Section 9.4.2.5 concerning ventilated verses non-ventilated will be made by the TG formed to review the subject material.



Public Comment No. 238-NFPA 13-2020 [New Section after 9.5.1.2]

9.5.1.3* In light and ordinary hazard occupancies, small areas created by architectural features shall be evaluated as follows:

- (1) Where no additional floor area is created by the architectural features, no additional sprinkler protection is required.
- (2) Where additional floor area is created by an architectural feature, no additional sprinkler protection is required, provided all of the following conditions are met:
 - (a) The floor area does not exceed 18 ft² (1.7 m²).
 - (b) The floor area is not greater than 2 ft (0.61 m) in depth at the deepest point of the architectural feature to the plane of the primary wall where measured along the finished floor.
 - (c) The floor area is not greater than 9 ft (2.7 m) in length where measured along the plane of the primary wall.
 - (d) Measurement from the deepest point of the architectural feature shall not exceed the maximum listed spacing of the sprinkler.
- (3) The hydraulic design is not required to consider the areas created by the architectural feature.

Statement of Problem and Substantiation for Public Comment

The criteria is currently included as a nonenforceable part of A.9.5.5.2. 1st the location as part of 9.5.5.2 does not appear to be appropriate since this is a floor coverage issue which is better suited under 9.5.1 as opposed to an obstruction issue under 9.5.5.2. 2nd the provisions of the Annex are intended to offer explanation of a provision of the Standard or a recommendation. As written the current Annex A.9.5.5.2 provides compliance direction to needs to be included as part of the mandatory provisions of the Standard.

Related Item

- FR 1122

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submission Date: Mon May 04 09:15:11 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1071-NFPA 13-2020
Statement: The material is being relocated from the annex material to the body of the standard as it provides direction with mandatory language for users of the standard. Annex material add examples of what an architectural feature could be.

**Public Comment No. 234-NFPA 13-2020 [Section No. 9.5.3.2.3]****9.5.3.2.3—* _**

The distance from the wall to the sprinkler shall be measured to the wall behind furniture, ~~such as wardrobes, cabinets, lockers, and trophy cases~~ .

Statement of Problem and Substantiation for Public Comment

Move examples of furniture to the Annex.

Related Item

- FR 1120

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 14:55:27 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1108-NFPA 13-2020](#)

Statement: Examples are moved to the annex based on the NFPA Manual of Style.

**Public Comment No. 41-NFPA 13-2020 [Section No. 9.5.5.3]****9.5.5.3*** Obstructions that Prevent Sprinkler Discharge from Reaching Hazard.

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 9.5.5.3.

9.5.5.3.1*

Sprinklers shall be installed under ~~under~~ below fixed obstructions over 4 ft (1.2 m) in width.

9.5.5.3.1.1*

Open grate flooring over 4 ft (1.2 m) in width shall require sprinkler protection below the grating.

9.5.5.3.1.2*

Sprinklers located 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

9.5.5.3.1.3

Where sprinklers are located adjacent to the obstruction, they shall be of the intermediate level rack type.

9.5.5.3.1.4

The deflector of automatic sprinklers installed under ~~under~~ below fixed obstructions shall be positioned no more than 12 in. (300 mm) below the bottom of the obstruction.

9.5.5.3.1.5

Sprinklers shall not be required under ~~under~~ below noncombustible obstructions over 4 ft (1.2 m) wide where the bottom of the obstruction is 24 in. (600 mm) or less above the floor or deck.

9.5.5.3.2*

Sprinklers shall not be required under ~~under~~ below obstructions that are not fixed in place, such as conference tables.

9.5.5.3.3

Sprinklers installed under ~~under~~ below obstructions shall be of the same type (spray, CMSA, ESFR, residential) as installed at the ceiling except as permitted by 9.5.5.3.3.1.

9.5.5.3.3.1

Spray sprinklers shall be permitted to be utilized under overhead doors.

9.5.5.3.4*

Sprinklers installed under open gratings 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 Comment

Based on Merriam Webster's Collegiate Dictionary, 11th edition, the words "under" and "below" are not the same and do not have the same definitions. In my opinion, since we allow sprinklers to be below the obstruction but not necessarily under the obstruction, the correct word should be used where applicable

Related Item

- ublic Comment No. 40-NFPA 13-2020 [Section No. 3.3.191]

Submitter Information Verification

Submitter Full Name: Robert Caputo

Organization: Fire & Life Safety America
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 18:36:15 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1073-NFPA 13-2020](#)

Statement: This adds the correct word (term). Sprinklers must be below the obstruction, not required to be physically under the obstruction.

This deletes the example from the body of the standard and moves it to the annex based on Manual of Style. It also deletes duplicate annex materials from A.9.5.5.3.2 and adds the example from 9.5.5.3.2. The deleted annex remains in A.9.5.5.3.1. Add a second figure to A.9.5.5.3.1.2 showing a round duct.

**Public Comment No. 97-NFPA 13-2020 [Section No. 9.5.5.3.1.2]****9.5.5.3.1.2***

Sprinklers located 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 Comment

Sprinkler located below obstructions cannot be independent of the obstruction's geometry. For Example, for a round duct, the only location for a sprinkler below would be directly underneath. If it was moved to a location 3 inches from the outside edge, it would be susceptible to wetting from the sprinklers above.

Related Item

- FR-1122

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 23 16:04:51 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The words "regardless of the geometry of the obstruction" was added in the First Revision to add clarity that the requirements of 9.5.5.3.1.2 applies to any obstruction. Specifically, rectangular verse round. Removing the phrase doesn't change that you can install a sprinkler below the obstruction within 3" to the side. This includes round ducts. The substantiation that a sprinkler 3" to the side of a round duct is susceptible to be wetted from above would apply to a rectangular duct as well.



Public Comment No. 241-NFPA 13-2020 [Section No. 9.5.5.3.2]

9.5.5.3.2*

Sprinklers shall not be required under obstructions that are not fixed in place, ~~such as conference tables~~.

Statement of Problem and Substantiation for Public Comment

Examples should be in the Annex as required by the Manual of Style.

Related Item

- FR 1122

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 09:51:37 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1073-NFPA 13-2020

Statement: This adds the correct word (term). Sprinklers must be below the obstruction, not required to be physically under the obstruction.

This deletes the example from the body of the standard and moves it to the annex based on Manual of Style. It also deletes duplicate annex materials from A.9.5.5.3.2 and adds the example from 9.5.5.3.2. The deleted annex remains in A.9.5.5.3.1. Add a second figure to A.9.5.5.3.1.2 showing a round duct.



Public Comment No. 109-NFPA 13-2020 [Section No. 10.2.7.2]

10.2.7.2* Obstructions Above the Sprinkler Deflector.

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.2, and Figure 10.2.7.2(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 10.2.7.2(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 10.2.7.2(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 no greater than 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.2.7.2(d) when the sprinkler is located within the allowable obstruction zone.
- (6) Sprinklers shall be installed below fixed obstructions over 4 ft (1.2 m) wide.

Table 10.2.7.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

<u>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>		-	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>	-	<u>in.</u>	<u>mm</u>
Less than 1	Less than 0.3	-	0	0
1	0.3	-	2½	65
1½	0.45	-	3½	90
2	0.6	-	5½	140
2½	0.75	-	7½	190
3	0.9	-	9½	240
3½	1.1	-	12	300
4	1.2	-	14	350
4½	1.4	-	16½	415
5	1.5	-	18	450
5½	1.7	-	20	500
6	1.8	-	24	600
6½	2.0	-	30	750
7	2.1	-	35	875

Note: For A and B, refer to Figure 10.2.7.2(a).

Figure 10.2.7.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

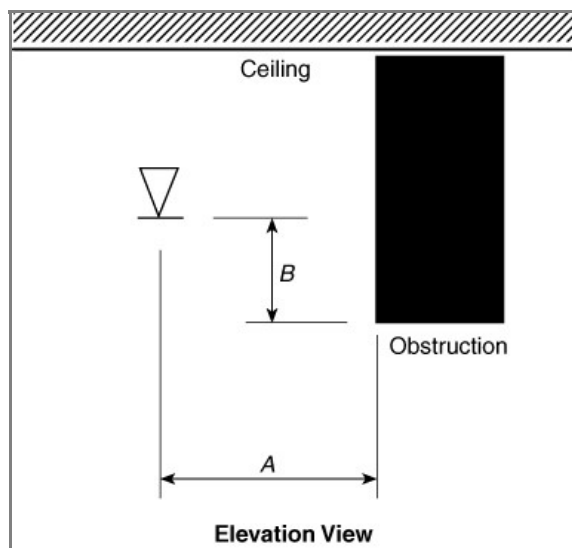


Figure 10.2.7.2(b) Obstruction Against Wall (SSU/SSP).

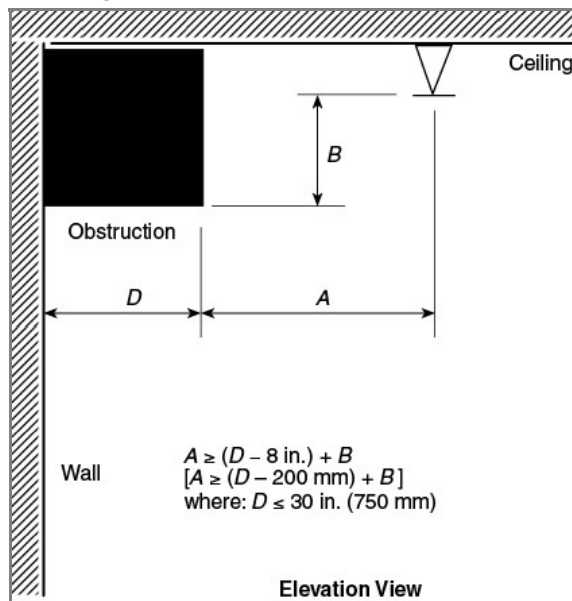


Figure 10.2.7.2(c) Obstructions Against Walls (SSU/SSP).

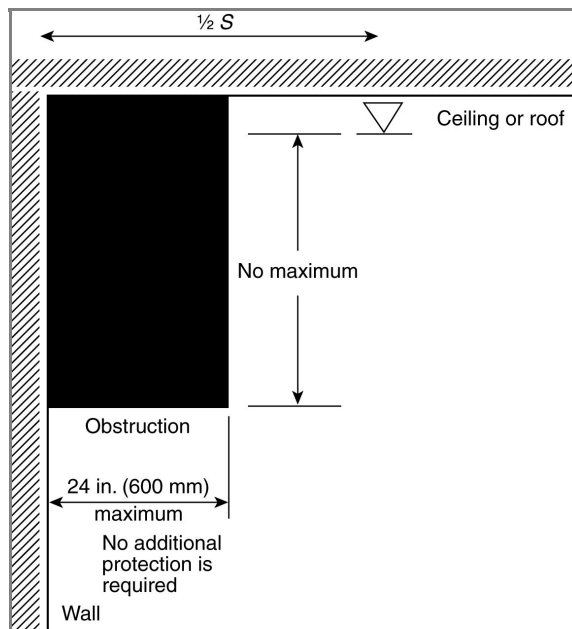
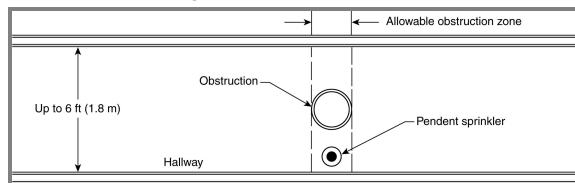


Figure 10.2.7.2(d) Obstruction in Hallway.



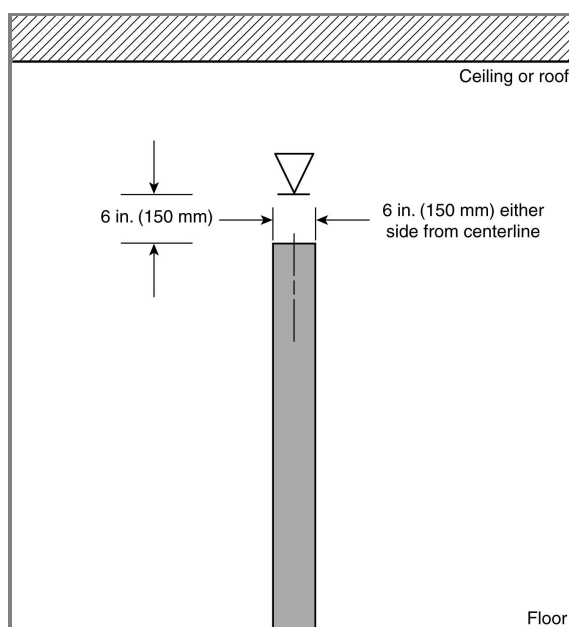
10.2.7.2.1

The distance from sprinklers to freestanding partitions, room dividers, and similar obstructions in ordinary hazard occupancies shall be in accordance with 10.2.7.2.1.

10.2.7.2.1.1

Sprinklers shall be located within 6 in. (150 mm) of the centerline of the freestanding partition, room divider, or similar obstruction, as illustrated in Figure 10.2.7.2.1.1.

Figure 10.2.7.2.1.1 Suspended or Floor-Mounted Obstruction in Ordinary Hazard Occupancies Only (Standard Spray Upright and Pendent Spray Sprinklers).

**10.2.7.2.1.2**

Sprinkler deflectors shall be a minimum of 6 in. (150 mm) above the top of the freestanding partition, room divider, or similar obstruction.

Statement of Problem and Substantiation for Public Comment

The substantiation from PI No.282 that that was accepted with this revision was “Adds another obstruction allowance for obstructions in hallways.” and “This is also found in NFPA 13D & NFPA 13R.”. This reasoning actually provides no technical justification at all for the matter.

Indeed, for NFPA 13R-2019, the substantiation for SR-6 that “In a hallway, an obstruction is not a problem when the sprinkler is installed adjacent to the light on the width of the hallway” is also not a technically sound statement. With this provision, there is no standoff distance specified between the sprinkler and the obstruction, such that the sprinkler could be located anywhere, from 4 inches off the wall (or 2'-2" from the obstruction) to just maybe 4 inches away from the obstruction.

If the 1 ft wide obstruction is round, and located in the centre of the corridor, as shown in figure 10.2.7.2(d), with the sprinkler in the obstruction zone 4 inches away, the “shadow area” is approximately 17 ft² in size. Should the obstruction have a square shape, the obstructed floor space would be approximately 22 ft² in area.

Since the TC recently deleted part of the 3 Times Rule regarding vertical obstructions within 2 ft of a sprinkler and with the limitation of just a 15 ft², this new provision is much too liberal, and should be deleted.

Related Item

- FR-1123

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 17:04:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: There are several public comments submitted on Section 10.2.7.2 concerning obstructions. Specifically, PC 345 also addresses the concerns for “dry” area that may occur due to obstructions in hallways. PC 345 adds a minimum distance that the sprinkler must be spaced from the obstruction to lessen the dry area. It is recognized that this will not completely eliminate the dry area, but it is also recognized that hallways have a light fuel load and typically associated with a low fire risk.



Public Comment No. 339-NFPA 13-2020 [Section No. 10.2.7.2]

10.2.7.2* Obstructions- Above the Sprinkler Deflector - to Sprinkler Discharge Pattern Development .

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.2, and Figure 10.2.7.2(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 10.2.7.2(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 10.2.7.2(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 no greater than 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.2.7.2(d) when the sprinkler is located within the allowable obstruction zone.
- (6) Sprinklers shall be installed below fixed obstructions over 4 ft (1.2 m) wide.

Table 10.2.7.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

<u>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>		-	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>	-	<u>in.</u>	<u>mm</u>
Less than 1	Less than 0.3	-	0	0
1	0.3	-	2½	65
1½	0.45	-	3½	90
2	0.6	-	5½	140
2½	0.75	-	7½	190
3	0.9	-	9½	240
3½	1.1	-	12	300
4	1.2	-	14	350
4½	1.4	-	16½	415
5	1.5	-	18	450
5½	1.7	-	20	500
6	1.8	-	24	600
6½	2.0	-	30	750
7	2.1	-	35	875

Note: For A and B, refer to Figure 10.2.7.2(a).

Figure 10.2.7.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

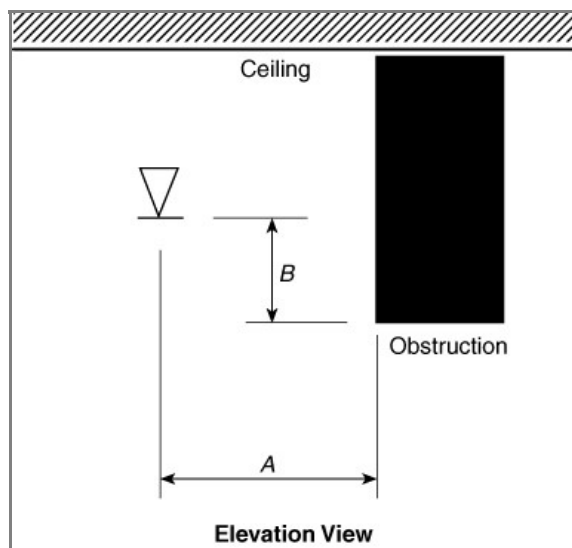


Figure 10.2.7.2(b) Obstruction Against Wall (SSU/SSP).

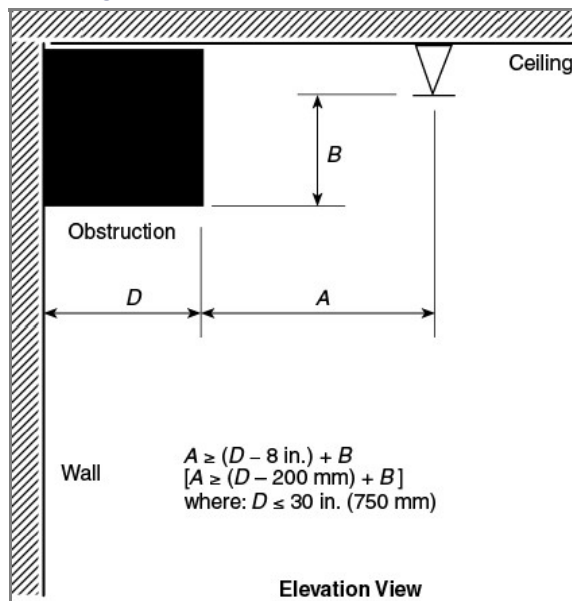


Figure 10.2.7.2(c) Obstructions Against Walls (SSU/SSP).

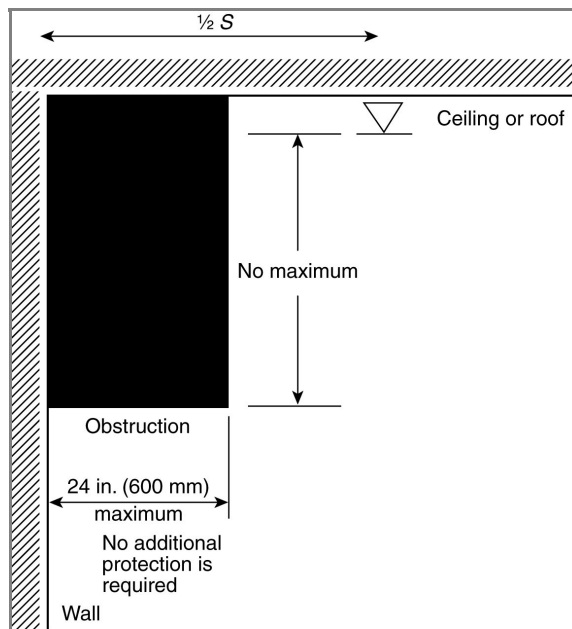
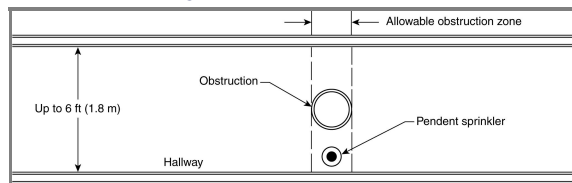


Figure 10.2.7.2(d) Obstruction in Hallway.



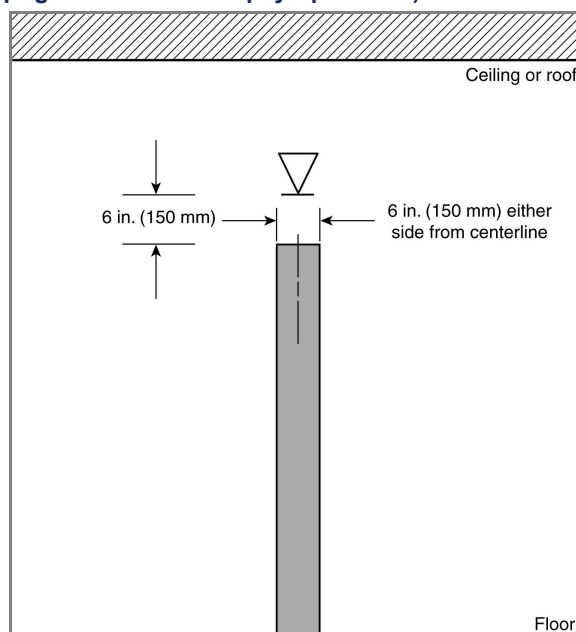
10.2.7.2.1

The distance from sprinklers to freestanding partitions, room dividers, and similar obstructions in ordinary hazard occupancies shall be in accordance with 10.2.7.2.1.

10.2.7.2.1.1

Sprinklers shall be located within 6 in. (150 mm) of the centerline of the freestanding partition, room divider, or similar obstruction, as illustrated in Figure 10.2.7.2.1.1.

Figure 10.2.7.2.1.1 Suspended or Floor-Mounted Obstruction in Ordinary Hazard Occupancies Only (Standard Spray Upright and Pendent Sprinklers).



10.2.7.2.1.2

Sprinkler deflectors shall be a minimum of 6 in. (150 mm) above the top of the freestanding partition, room divider, or similar obstruction.

Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment is directed at an identifiable element of FR 1123 related to PI 274 which identifies three zones of influence to sprinkler obstruction: obstructions above the deflector (near ceiling), obstructions extending from the deflector to a point 18-inches below the deflector, and obstructions greater than 18-inches below the deflector. Obstructions that extend from the ceiling to the sprinkler deflector are not actually an impediment to distribution for upright and pendent style sprinklers. They may be an impediment to sprinkler sensitivity, but that is not addressed in this section. The real concern is the near ceiling obstructions that starts above the deflector but extend into a zone that negatively impacts sprinkler distribution. The historic references to "obstructions to Sprinkler Discharge Pattern Development" and "Obstructions that prevent the sprinkler discharge from reaching the hazard" adequately address the real areas of concern and the original title Obstructions to Sprinkler Discharge Pattern Development from the previous edition should be retained.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 365-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
<u>Related Item</u>	
• FR-1123	

Submitter Information Verification

Submitter Full Name: Roland Asp
Organization: National Fire Sprinkler Association
Affiliation: NFSA Engineering and Engineering Committee
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 05 15:54:52 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1109-NFPA 13-2020](#)
Statement: There are several public comments submitted on Section 10.2.7.2 concerning obstructions. Revised the title of this section and addresses obstructions to the sprinkler pattern development. Pattern obstruction is what this section address in the form of three zone. 1. Obstruction above the deflector, 2. Obstructions below the deflector to 18" below and 3. Obstruction greater than 18" below the deflector.



Public Comment No. 345-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.2, and Figure 10.2.7.2(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 10.2.7.2(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 10.2.7.2(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 no greater than 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.2.7.2(d) when the sprinkler is located within the allowable obstruction zone, zone and the closest edge of the obstruction is a minimum of 12 in. (300 mm) away from the deflector.
- (6) Sprinklers shall be installed below fixed obstructions over 4 ft (1.2 m) wide.

Table 10.2.7.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

<u>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>		-	<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>		<u>in.</u>	<u>mm</u>
Less than 1	Less than 0.3	-	0	0
1	0.3	-	2½	65
1½	0.45	-	3½	90
2	0.6	-	5½	140
2½	0.75	-	7½	190
3	0.9	-	9½	240
3½	1.1	-	12	300
4	1.2	-	14	350
4½	1.4	-	16½	415
5	1.5	-	18	450
5½	1.7	-	20	500
6	1.8	-	24	600
6½	2.0	-	30	750
7	2.1	-	35	875

Note: For A and B, refer to Figure 10.2.7.2(a).

Figure 10.2.7.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

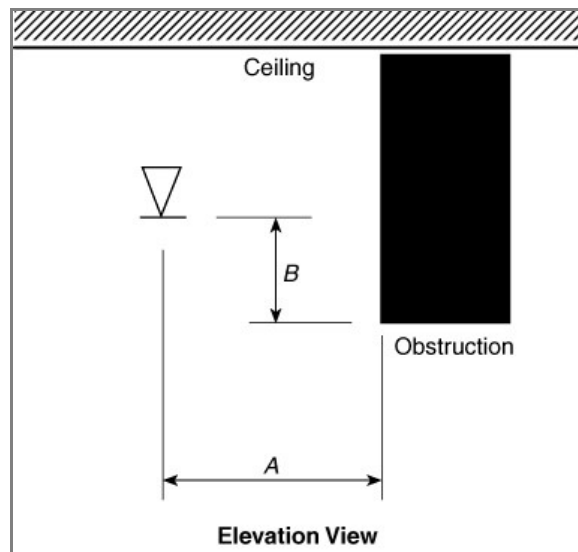


Figure 10.2.7.2(b) Obstruction Against Wall (SSU/SSP).

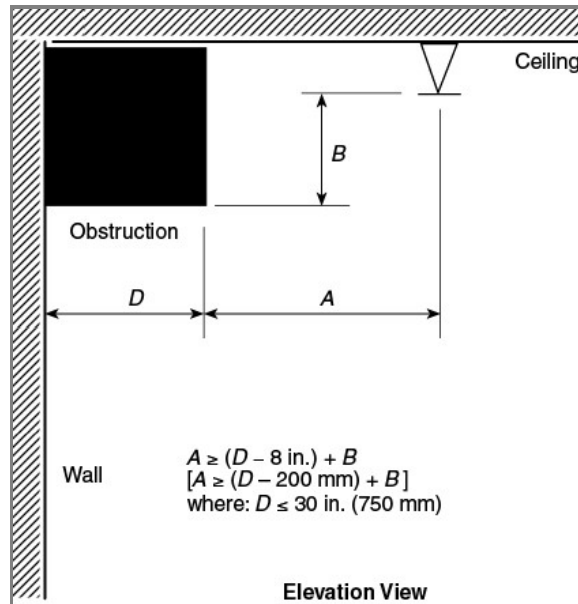


Figure 10.2.7.2(c) Obstructions Against Walls (SSU/SSP).

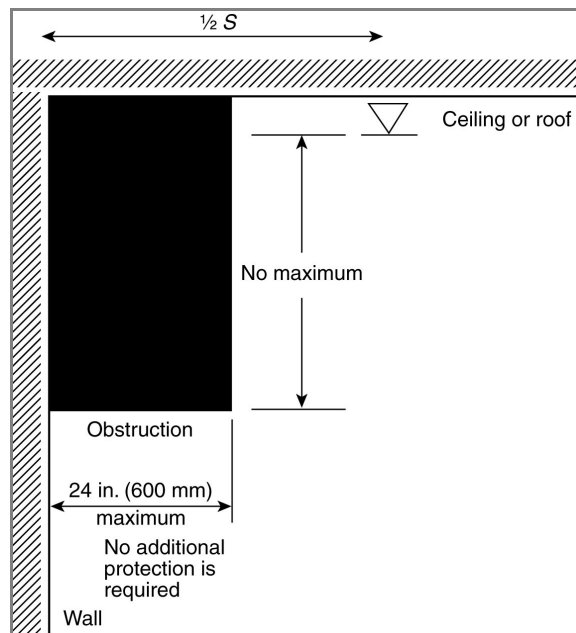
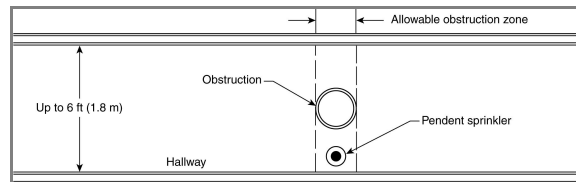


Figure 10.2.7.2(d) Obstruction in Hallway.



Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment seeks to revise the language of 10.2.7.2(5) and is intended to minimize the apparent dry area that may be created by the obstruction adjacent to the sprinkler.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 365-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 366-NFPA 13-2020 [Section No. 10.3.6.1.7]	
Public Comment No. 367-NFPA 13-2020 [Section No. 11.2.5.1.2]	
Public Comment No. 368-NFPA 13-2020 [Section No. 11.3.6.1.4]	
Public Comment No. 369-NFPA 13-2020 [Section No. 12.1.10.1.2]	
Public Comment No. 370-NFPA 13-2020 [Section No. 12.1.11.1.4]	

Related Item

- FR-1123

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:** Tue May 05 16:43:00 EDT 2020**Committee:** AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR**Resolution:** [SR-1109-NFPA 13-2020](#)

Statement: There are several public comments submitted on Section 10.2.7.2 concerning obstructions. Revised the title of this section and addresses obstructions to the sprinkler pattern development. Pattern obstruction is what this section address in the form of three zone. 1. Obstruction above the deflector, 2. Obstructions below the deflector to 18" below and 3. Obstruction greater than 18" below the deflector.



Public Comment No. 346-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.2, and Figure 10.2.7.2(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 10.2.7.2(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 10.2.7.2(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 no greater than 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.2.7.2(d) when the sprinkler is located within the allowable obstruction zone.
- (6) Sprinklers shall be installed below fixed obstructions over 4 ft (1.2 m) wide.

Table 10.2.7.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

Minimum Distance from Sprinklers to Side of Obstruction - (A) - Maximum Allowable Distance of Deflector Above Bottom of Obstruction - (B) ft m - in. mm Less than 1 Less than 0.3 - 0

0 4 0.3 - 2 ¹/₂ 65 4 ¹/₂ 0.45 - 3 ¹/₂ 90 2 0.6 - 5 ¹/₂ 140 2 ¹/₂ 0.75 - 7 ¹/₂ 190 3 0.9 - 9 ¹/₂ 240 3 ¹/₂ /
For A and B, refer to Figure SEE NEW TABLE 10.2.7.2 (a) and (b)

Figure 10.2.7.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

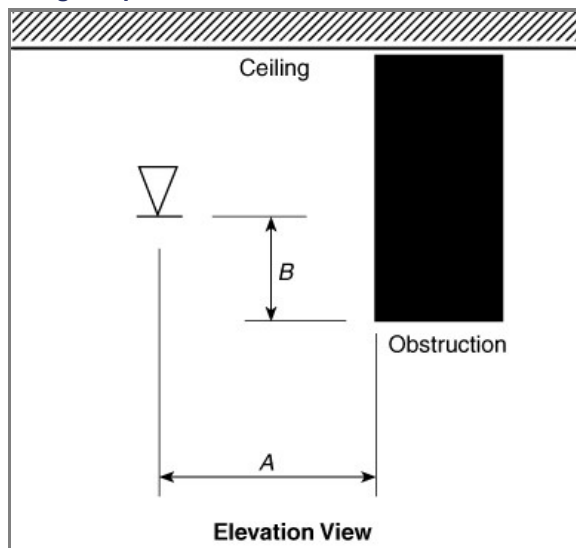


Figure 10.2.7.2(b) Obstruction Against Wall (SSU/SSP).

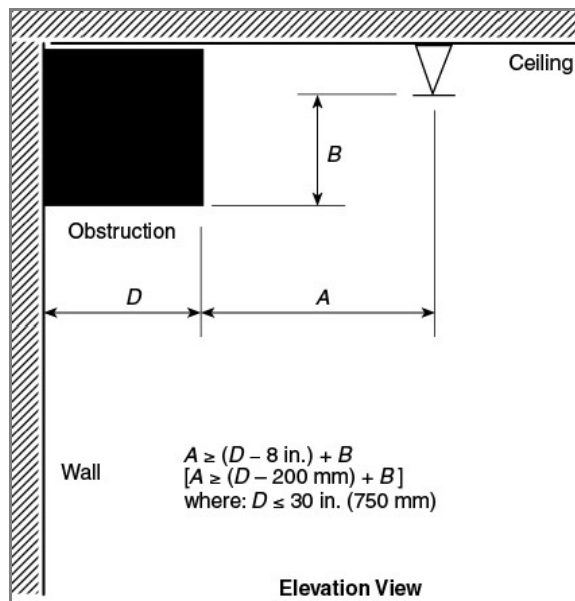


Figure 10.2.7.2(c) Obstructions Against Walls (SSU/SSP).

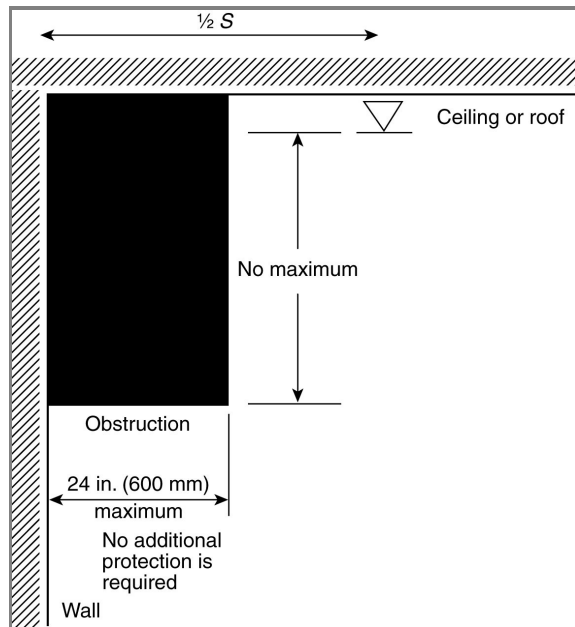
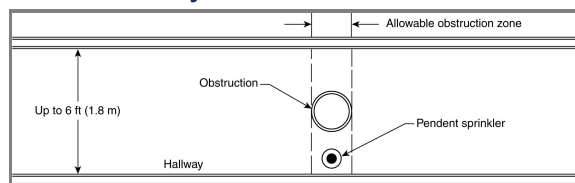


Figure 10.2.7.2(d) Obstruction in Hallway.



Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
Beam_Rule_Table_Format_2022.pdf	

Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on

Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment seeks to revise the beam tables (Table 10.2.7.2(a) for clarity. It is the intent to use the format that is uploaded in this comment to revise all beam obstruction tables in the document.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 365-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 385-NFPA 13-2020 [Global Input]	
<u>Related Item</u>	
• FR-1123	

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: Tue May 05 16:45:50 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1220-NFPA 13-2020](#)
Statement: Replace all tables with a new format. These tables will make it easier to follow for the end user.



Public Comment No. 356-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.2, and Figure 10.2.7.2(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 10.2.7.2(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 10.2.7.2(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 no greater than 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.2.7.2(d) when the sprinkler is located within the allowable obstruction zone.
- (6) Sprinklers shall be installed below fixed obstructions over 4 ft (1.2 m) wide.

Table 10.2.7.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

<u>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>			
-			
<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>			
<u>ft</u>	<u>m</u>		
-			
		<u>in.</u>	<u>mm</u>
<u>Less than 1</u>	<u>Less than 0.3</u>		
-			
		<u>0</u>	<u>0</u>
<u>1</u>	<u>0.3</u>		
-			
		<u>2 1/2</u>	<u>65</u>
<u>1 1/2</u>		<u>0.45</u>	
-			
		<u>3 1/2</u>	<u>90</u>
<u>2</u>	<u>0.6</u>		
-			
		<u>5 1/2</u>	<u>140</u>
<u>2 1/2</u>		<u>0.75</u>	
-			
		<u>7 1/2</u>	<u>190</u>
<u>3</u>	<u>0.9</u>		
-			
		<u>9 1/2</u>	<u>240</u>
<u>3 1/2</u>		<u>1.1</u>	
-			
		<u>12</u>	<u>300</u>
<u>4</u>	<u>1.2</u>		
-			
		<u>14</u>	<u>350</u>

<u>4 1/2</u>	<u>1.4</u>	
-		
	<u>16 1/2</u>	<u>415</u>
<u>5</u>	<u>1.5</u>	
-		
	<u>18</u>	<u>450</u>
<u>5 1/2</u>	<u>1.7</u>	
-		
	<u>20</u>	<u>500</u>
<u>6</u>	<u>1.8</u>	
-		
	<u>24</u>	<u>600</u>
<u>6 1/2</u>	<u>2.0</u>	
-		
	<u>30</u>	<u>750</u>
<u>7</u>	<u>2.1</u>	
-		
	<u>35</u>	<u>875</u>

Note: For *A* and *B*, refer to Figure 10.2.7.2(a).

Figure 10.2.7.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

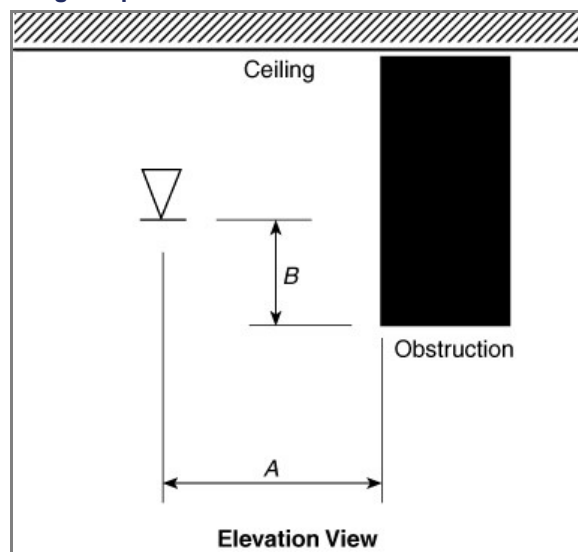


Figure 10.2.7.2(b) Obstruction Against Wall (SSU/SSP).

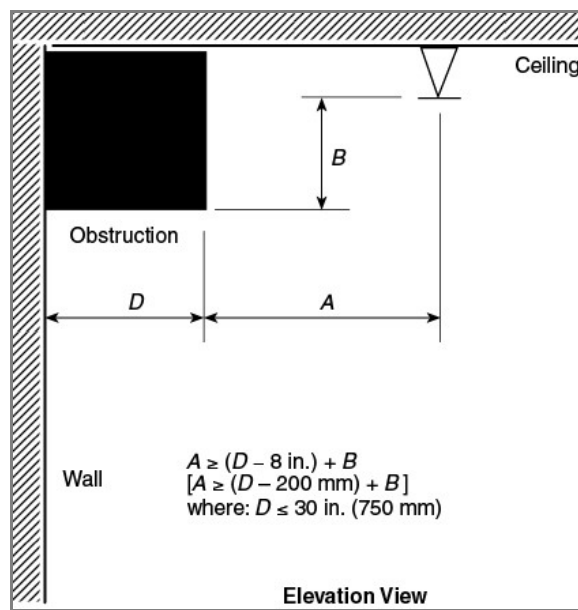


Figure 10.2.7.2(c) Obstructions Against Walls (SSU/SSP).

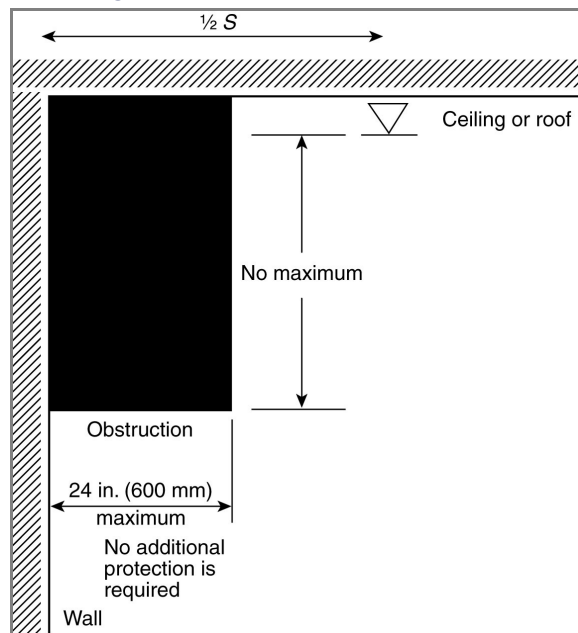
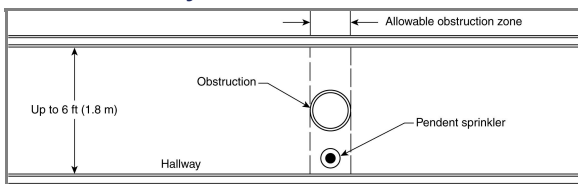


Figure 10.2.7.2(d) Obstruction in Hallway.



Statement of Problem and Substantiation for Public Comment

The corridor obstruction allowance conflicts with other existing obstruction allowances which clearly would not allow such an obstruction. While the risk of fire and fuel load is low in a corridor, the fire suppression would be inhibited should this condition be applied to all sprinklers in a corridor. Especially concerning would be dead end corridors where the only path of egress could be compromised. This comment would apply to all similar occurrences.

Related Item

• PI 282

Submitter Information Verification

Submitter Full Name: Jason Gill

Organization: Crews & Gregory Fire Sprinkler

Affiliation: AFSA

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 06 07:43:50 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: There are several public comments submitted on Section 10.2.7.2 concerning obstructions. Specifically, PC 345 also addresses the concerns for “dry” area that may occur due to obstructions in hallways. PC 345 adds a minimum distance that the sprinkler must be spaced from the obstruction to lessen the dry area. It is recognized that this will not completely eliminate the dry area but it is also recognized that hallways have a light fuel load and typically associated with a low fire risk.



Public Comment No. 365-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]

Sprinklers shall be arranged to comply with one of the following arrangements:

- (1) Subsection 9.5.5.2, Table 10.2.7.2, and Figure 10.2.7.2(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 10.2.7.2(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 10.2.7.2(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 no greater than 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.2.7.2(d) when the sprinkler is located within the allowable obstruction zone.
- (6) Sprinklers shall be installed below fixed obstructions over 4 ft (1.2 m) wide.
- (7) Sprinklers shall not be required under fixed obstructions less than 4 ft (1.2 m) wide when the provisions of Table 10.2.7.2 and Figure 10.2.7.2(a) is maintained.

Table 10.2.7.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

<u>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>			<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>		<u>in.</u>	<u>mm</u>
Less than 1	Less than 0.3	-	0	0
1	0.3	-	2½	65
1½	0.45	-	3½	90
2	0.6	-	5½	140
2½	0.75	-	7½	190
3	0.9	-	9½	240
3½	1.1	-	12	300
4	1.2	-	14	350
4½	1.4	-	16½	415
5	1.5	-	18	450
5½	1.7	-	20	500
6	1.8	-	24	600
6½	2.0	-	30	750
7	2.1	-	35	875

Note: For A and B, refer to Figure 10.2.7.2(a).

Figure 10.2.7.2(a) Positioning of Sprinkler to Avoid Obstruction to Discharge (SSU/SSP).

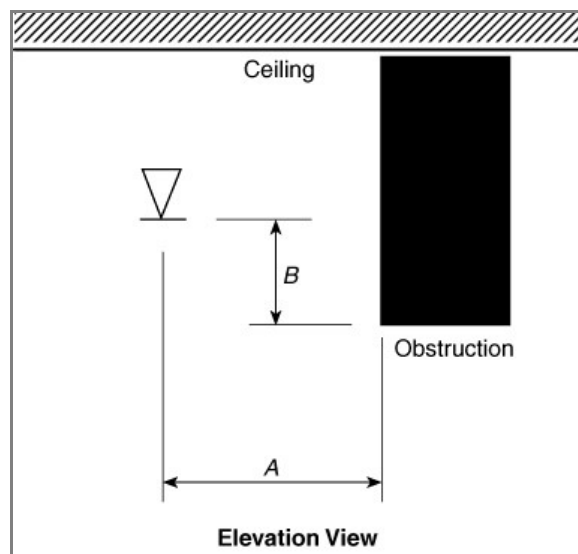


Figure 10.2.7.2(b) Obstruction Against Wall (SSU/SSP).

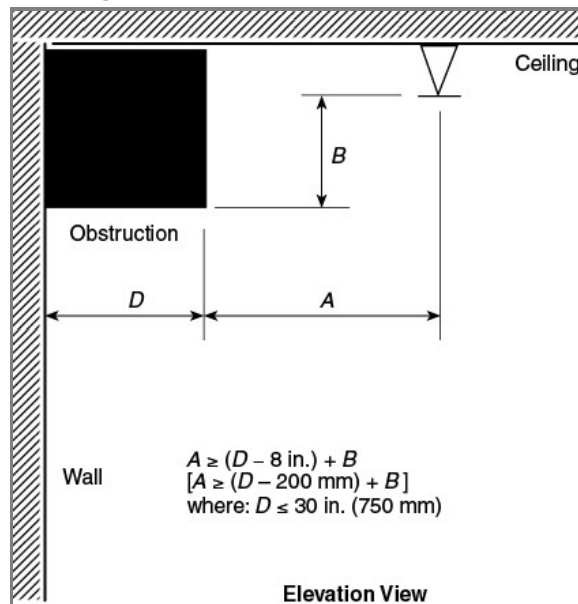


Figure 10.2.7.2(c) Obstructions Against Walls (SSU/SSP).

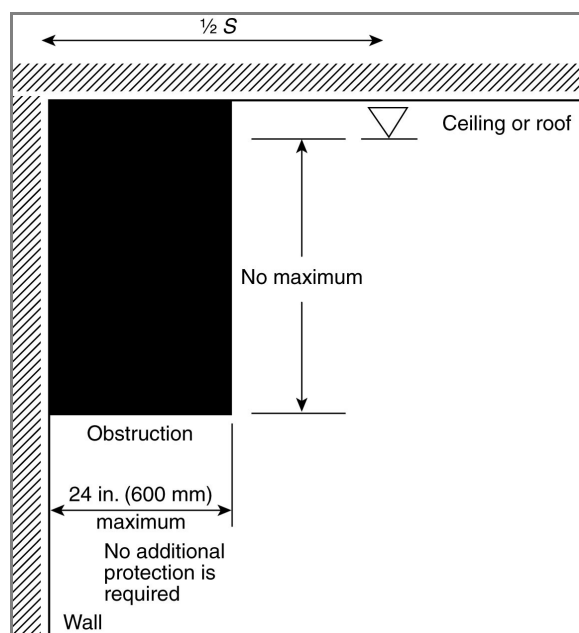
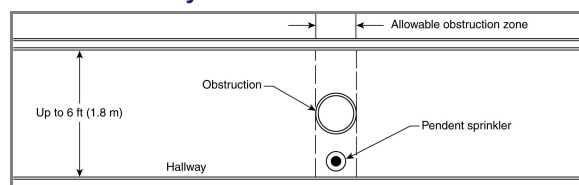


Figure 10.2.7.2(d) Obstruction in Hallway.



Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. This comment is to clarify that where the "beam rule" can be met, the addition of a sprinkler under a 4 ft obstruction is not required. It is the intent that all obstruction rules in the document are to be revised similarly.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 339-NFPA 13-2020 [Section No. 10.2.7.2]	
Public Comment No. 343-NFPA 13-2020 [Section No. 10.2.7.2.1]	
Public Comment No. 344-NFPA 13-2020 [Section No. 10.2.7.3.2.1]	
Public Comment No. 345-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 346-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	

Related Item

- FR-1123

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:** Wed May 06 10:33:22 EDT 2020**Committee:** AUT-SSI**Committee Statement****Committee Action:** Rejected but see related SR**Resolution:**SR-1109-NFPA 13-2020

Statement: There are several public comments submitted on Section 10.2.7.2 concerning obstructions. Revised the title of this section and addresses obstructions to the sprinkler pattern development. Pattern obstruction is what this section address in the form of three zone. 1. Obstruction above the deflector, 2. Obstructions below the deflector to 18" below and 3. Obstruction greater than 18" below the deflector.



Public Comment No. 100-NFPA 13-2020 [Section No. 10.2.7.2.1]

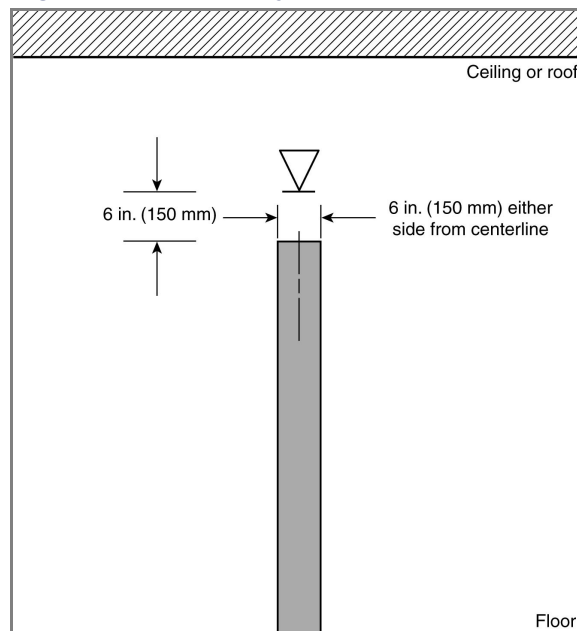
10.2.7.2.1

~~The~~ When the deflector distance from sprinklers to freestanding partitions, room dividers, and similar obstructions is less than 18 in. (450 mm) in ordinary hazard occupancies, the sprinklers shall be located in accordance with 10.2.7.2.1.1 and 10.2.7.2.1.2.

10.2.7.2.1.1

Sprinklers shall be located within 6 in. (150 mm) of the centerline of the freestanding partition, room divider, or similar obstruction, as illustrated in Figure 10.2.7.2.1.1.

Figure 10.2.7.2.1.1 Suspended or Floor-Mounted Obstruction in Ordinary Hazard Occupancies Only (Standard Spray Upright and Pendent Spray Sprinklers).



10.2.7.2.1.2

Sprinkler deflectors shall be a minimum of 6 in. (150 mm) above the top of the freestanding partition, room divider, or similar obstruction.

Statement of Problem and Substantiation for Public Comment

It has always been understood that for ordinary hazard occupancies there needs to be a minimum of 18 inches clearance between the sprinkler deflectors and the top of freestanding partitions. As per A.9.5.5.3.1: "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." However, with the new text as it is currently presented, the 18 inches of clearance is not provided as an option, so only precise positioning of the sprinklers would be acceptable. In some occupancies though, sprinklers may not be so exactly located, due to the specific configurations of the rooms/compartments. (ie. In apartment building storage locker rooms with the caged areas only 4 to 5 ft apart)

Related Item

- FR-1123

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 16:24:57 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: This reject is the simplest way to handle this PC. There are three other PC that address this section. PC 343 – deletes the text from this section, PC 347 relocates the text to Section 10.2.7.3.2.2 and PC 344 updates text (Light Hazard) and the tables for clarity and to coordinate with the beam obstruction tables. PC 347 as a new section that if for ordinary hazard using much of the existing text from 10.2.7.2.1 and 10.2.7.2.1.1 with a new figure that meets this PC's intent.



Public Comment No. 343-NFPA 13-2020 [Section No. 10.2.7.2.1]

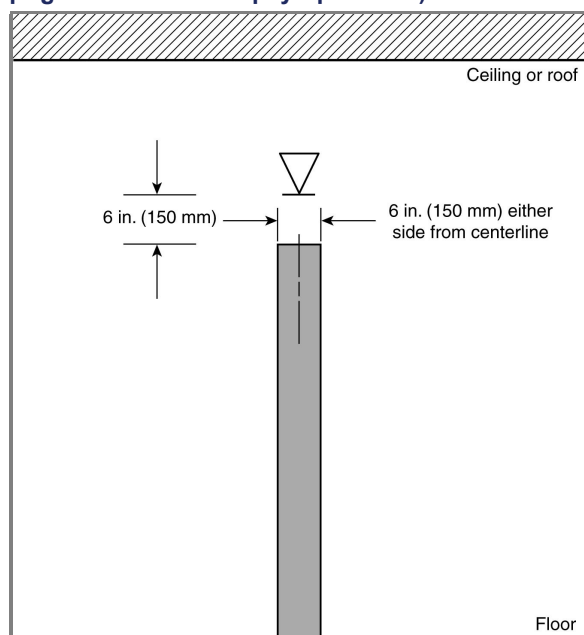
10.2.7.2.1 –

The distance from sprinklers to freestanding partitions, room dividers, and similar obstructions in ordinary hazard occupancies shall be in accordance with 10.2.7.2.1.

10.2.7.2.1.1 –

Sprinklers shall be located within 6 in. (150 mm) of the centerline of the freestanding partition, room divider, or similar obstruction, as illustrated in Figure 10.2.7.2.1.1.

Figure 10.2.7.2.1.1 Suspended or Floor-Mounted Obstruction in Ordinary Hazard Occupancies Only (Standard Spray Upright and Pendent Spay Sprinklers).



10.2.7.2.1.2 –

Sprinkler deflectors shall be a minimum of 6 in. (150 mm) above the top of the freestanding partition, room divider, or similar obstruction.

Statement of Problem and Substantiation for Public Comment

NFSA E&S committee created a Obstruction Task Group and this recommendation is intended relocate the concept of Suspended or Floor-Mounted obstructions from section 10.2.7.2.1 to section 10.2.7.3.2.2. There is a separate comment submitted to accomplish this.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 347-NFPA 13-2020 [New Section after 10.2.7.3.2.2]	
Public Comment No. 365-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
<u>Related Item</u>	
• FR-1123	

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: Tue May 05 16:24:20 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1110-NFPA 13-2020
Statement: Two new figures explaining the allowance for a single sprinkler to cover both sides of a partition or similar obstruction have been added. The first option to use a single sprinkler, is that it would have to be located directly above the wall no more than 6 inches to either side of center and the deflector at least 6 inches or more above the top of the partition. The second option, is that if the sprinkler is more than 6 inches from the center of the partition or similar obstruction there would have to be a minimum of 18 inches or more of clearance between the top of the partition and the sprinkler deflector. If neither of these rules can be satisfied sprinklers would have to be located on both sides of the partition or similar obstruction.



Public Comment No. 344-NFPA 13-2020 [Section No. 10.2.7.3.2.1]

10.2.7.3.2.1

The distance from sprinklers to privacy curtains, freestanding partitions, room dividers, and similar obstructions in light hazard occupancies shall be in accordance with Table 10.2.7.3.2.1 and Figure 10.2.7.3.2.1.

Table 10 SEE NEW TABLE 10 .2.7.3.2.1 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) 9

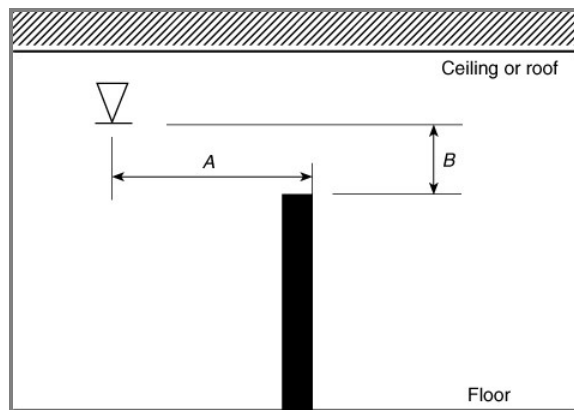
4

/2 240 More than 18 in. (450 mm) to 24 in. (600 mm) 12 4 /2 315 More than 24 in. (600 mm) to 30 in. (750 mm) 15 4 /2 390 More than 30 in. (750 mm) 18 450

Note: For A and B ,refer to Figure 10.2.7.3.2.1.

(a) and (b)

Figure 10.2.7.3.2.1 Suspended or Floor-Mounted Obstruction in Light Hazard Occupancies Only (SSU/SSP).



Additional Proposed Changes

File Name	Description	Approved
Partition_Rule_Table_Format_2022.pdf	New Partition Table	

Statement of Problem and Substantiation for Public Comment

This new Table Format is to provide clarity and mirrors the changes submitted to the beam obstruction tables. It is the intent that similar changes be made to other tables in the document.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 365-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 385-NFPA 13-2020 [Global Input]	
Related Item	

• FR-1123

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: Tue May 05 16:35:13 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1110-NFPA 13-2020](#)

Statement: Two new figures explaining the allowance for a single sprinkler to cover both sides of a partition or similar obstruction have been added. The first option to use a single sprinkler, is that it would have to be located directly above the wall no more than 6 inches to either side of center and the deflector at least 6 inches or more above the top of the partition. The second option, is that if the sprinkler is more than 6 inches from the center of the partition or similar obstruction there would have to be a minimum of 18 inches or more of clearance between the top of the partition and the sprinkler deflector. If neither of these rules can be satisfied sprinklers would have to be located on both sides of the partition or similar obstruction.



Public Comment No. 347-NFPA 13-2020 [New Section after 10.2.7.3.2.2]

TITLE OF NEW CONTENT

10.2.7.3.2.2 In ordinary hazard occupancies, freestanding partitions, room dividers, and similar obstructions shall be permitted when installed no more than 6 in. (150 mm) to the side of the centerline of the sprinkler deflector and 6 in. (150 mm) or more below the sprinkler deflector in as illustrated in Figure 10. 2.7.3.2.2.

INSERT NEW FIGURE 10.2.7.3.2.2

Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
OH_Partition_Rule_05_MAY_2020.pdf	

Statement of Problem and Substantiation for Public Comment

This is related to PI-343 which seeks to move the Ordinary Hazard Partition language from 10.2.7.2.1 to this section with the revisions to the language which better capture the intent of this section.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 343-NFPA 13-2020 [Section No. 10.2.7.2.1]	related
<u>Related Item</u>	
• FR-1123	

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: Tue May 05 16:49:37 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1110-NFPA 13-2020
Statement: Two new figures explaining the allowance for a single sprinkler to cover both sides of a partition or similar obstruction have been added. The first option to use a single sprinkler, is that it would have to be located directly above the wall no more than 6 inches to either side of center and the deflector at least 6 inches or more above the top of the partition. The second option, is that if the sprinkler is more than 6 inches from the center of the partition or similar obstruction there would have to be a minimum of 18 inches or more of clearance between the top of the partition and the sprinkler deflector. If neither of these rules can be satisfied sprinklers would have to be located on both sides of the partition or similar obstruction.

**Public Comment No. 297-NFPA 13-2020 [New Section after 10.2.8.2]****10.2.8.3**

The clearance between 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 Comment

The clearance of 36 in. was included in the 2016 Edition as a general requirement for all rubber tire storage in 8.5.6.5. In the 2019 Edition that requirement was moved to 20.6.6.5 which would not apply to miscellaneous storage. If left uncorrected the clearance for miscellaneous rubber tire storage would be 18 in. rather than the previously required 36 in. The addition as a general requirement for all CMDA Sprinklers would correct this.

Related Item

- PI 143

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 14:31:20 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1219-NFPA 13-2020

Statement: When the clearance to storage criteria was added to each sprinkler type chapter the clearance to tire storage was not added. This adds the requirements back into the standard.



Public Comment No. 195-NFPA 13-2020 [Section No. 10.3.2 [Excluding any Sub-Sections]]

Sidewall sprinklers shall only be installed as follows:

- (1) Light hazard occupancies with smooth, horizontal 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
- (8) For the protection of exterior projections and similar structures
- (9) * Under cars in car stackers and car lift systems with cars stacked vertically placed under each level of cars

A.10.3.2(9). Where sprinkler protection is provided under each level of cars, the ceilings sprinklers should be designed based upon the occupancy classification of parking garages per section 4.3. Annex section A.4.3.3.1 indicates a suggests a classification of Ordinary hazard (Group 1) for Automobile parking and showrooms.

Statement of Problem and Substantiation for Public Comment

This public comment resubmits the intent of PI-550 which although was not accepted at the first draft meeting, it was the basis of a committee input (CI-1126) which stated "The committee is seeking further information on the issue of car stackers / vertical car stackers and intends to revisit this subject in Second Draft."

The proposed subsection (9) 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 stacked vertically creates an obstruction. This comment 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).

The proposed annex section clarifies that where sprinklers are installed beneath the obstructions caused by the cars (in stackers) the ceiling sprinklers need to be per the occupancy classification in section 4.3. Note that PC-171 recommends that parking garages remain as an example of Ordinary Hazard Group 1 occupancy

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 171-NFPA 13-2020 [Section No. A.4.3.3.1]</u>	related
<u>Public Comment No. 196-NFPA 13-2020 [New Section after A.10.2.9.2(4)]</u>	

Related Item

• CI-1126 • PI-550

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 Apr 30 07:28:16 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1221-NFPA 13-2020
Statement: This adds an allowance to use sidewall sprinklers to protect the space in between cars that are stacked vertically. The cars create a large obstruction to the overhead sprinklers and protection with a sidewall sprinkler would assist with the blocked water pattern. The annex material adds clarification that the sidewall sprinklers must be installed with the installation requirements in the body of the standard and if they cannot be installed meeting those requirements the designer cannot use the sidewall in this manner unless it is a performance based design supported with documentation. If that is not able to happen the overhead design would need to be an EHII design.

**Public Comment No. 98-NFPA 13-2020 [Section No. 10.3.4.1.4.2]****10.3.4.1.4.2 –**

The lintel or soffit shall project a minimum of 4 in. (100 mm) below the deflector of the back-to-back horizontal sidewall sprinklers.

Statement of Problem and Substantiation for Public Comment

While I agree that guidance is needed for the construction of the continuous lintels for back-to-back sidewall sprinkler installations, this proposal should not have been accepted, because no technical substantiation was provided to justify the 4 inch minimum dimension.

It must be noted that for EC sidewall sprinklers, Figure A.11.3.5.1.3.2 illustrates a maximum 4 inch dimension. This discrepancy must be considered. How can the TC call for 4 inches minimum for one sprinkler in a soffit and 4 inches maximum for another similar configuration?

Related Item

- FR-1127

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 16:08:35 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: Manufacture installation instructions should always be used however, this section gives a minimum dimension for the soffit. Most sidewall sprinklers must be installed between 4"-6" down from the ceiling therefore a minimum dimension for a soffit per this section would be 8" in depth. Likewise, if the designer wanted to install the sidewall 6" below the ceiling then the minimum depth of the soffit would be 10".

**Public Comment No. 127-NFPA 13-2020 [Section No. 10.3.6.1.6]****10.3.6.1.6***

Obstructions on the wall opposite from the sidewall sprinkler shall be permitted ~~where the obstruction is up to 2 ft (600 mm) deep and 2 ft (600 mm) wide.~~ in accordance with Figure 10.3.6.1.6.

Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
NFPA_13_Figure_10.3.6.1.6.pdf	

Statement of Problem and Substantiation for Public Comment

Move annex figure and place in the body. All the other sidewall rules point to figures in the body of the standard. Makes it easier for the user.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 128-NFPA 13-2020 [Section No. A.10.3.6.1.6]	
<u>Related Item</u>	
• PI #278	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 24 17:50:41 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1222-NFPA 13-2020
Statement: This moves the figure in the annex into the body of the code. The rules in the standard point to this figure. Other sections addressing obstructions that have a figure associated with them have the figure in the body of the standard.

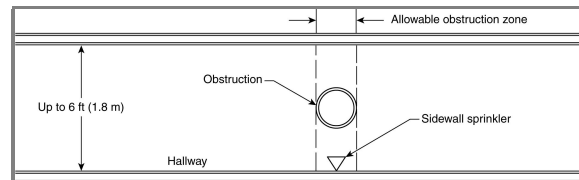


Public Comment No. 101-NFPA 13-2020 [Section No. 10.3.6.1.7]

10.3.6.1.7 –

Obstructions up to 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.3.6.1.7 when the sprinkler is located in the allowable obstruction zone.

Figure 10.3.6.1.7 Sprinkler Obstruction in Hallways (Standard Spray Sidewall Sprinklers).



Statement of Problem and Substantiation for Public Comment

The substantiation from PI No.286 that that was accepted with this revision was “Adds another obstruction allowance for obstructions in hallways.” and “This is also found in NFPA 13D & NFPA 13R.”. This reasoning actually provides no technical justification at all for the matter.

Indeed, for NFPA 13R-2019, the substantiation for SR-6 that “In a hallway, an obstruction is not a problem when the sprinkler is installed adjacent to the light on the width of the hallway” is also not a technically sound statement. With this provision, there is no standoff distance specified between the sprinkler and the obstruction, such that the sprinkler could be located anywhere, from 4 inches off the wall (or 2'-2" from the obstruction) to just maybe 4 inches away from the obstruction.

If the 1 ft wide obstruction is round, and located in the centre of the corridor, as shown in figure 10.2.7.2(d), with the sprinkler in the obstruction zone 4 inches away, the “shadow area” is approximately 17 ft² in size. Should the obstruction have a square shape, the obstructed floor space would be approximately 22 ft² in area.

Since the TC recently deleted part of the 3 Times Rule regarding vertical obstructions within 2 ft of a sprinkler and with the limitation of just a 15 ft², this new provision is much too liberal, and should be deleted.

Related Item

- FR-1128

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 16:32:27 EDT 2020

Committee: AUT-SSI

Committee Statement

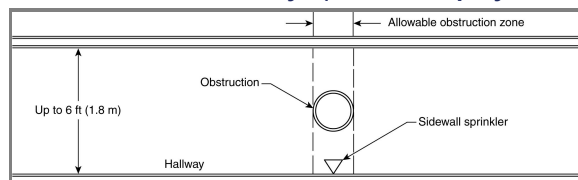
Committee Action: Rejected

Resolution: PC 366 also addresses the concerns for “dry” area that may occur due to obstructions in hallways. PC 366 adds a minimum distance that the sprinkler must be spaced from the obstruction to lessen the dry area. It is recognized that this will not completely eliminate the dry area, but it is also recognized that hallways have a light fuel load and typically associated with a low fire risk.

**Public Comment No. 366-NFPA 13-2020 [Section No. 10.3.6.1.7]****10.3.6.1.7**

Obstructions up to 12 in. (300 mm) in width in hallways up to 6 ft (1.8 m) in width shall be permitted in accordance with Figure 10.3.6.1.7 when the sprinkler is located in the allowable obstruction zone and the closest edge of the obstruction is a minimum of 12 in. (300 mm) away from the deflector.

Figure 10.3.6.1.7 Sprinkler Obstruction in Hallways (Standard Spray Sidewall Sprinklers).

**Statement of Problem and Substantiation for Public Comment**

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment seeks to revise the language of 10.3.6.1.7) and is intended to minimize the apparent dry area that may be created by the obstruction adjacent to the sprinkler.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 345-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 367-NFPA 13-2020 [Section No. 11.2.5.1.2]	
Public Comment No. 368-NFPA 13-2020 [Section No. 11.3.6.1.4]	
Public Comment No. 369-NFPA 13-2020 [Section No. 12.1.10.1.2]	
Public Comment No. 370-NFPA 13-2020 [Section No. 12.1.11.1.4]	

Related Item

- FR-1183

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: Wed May 06 10:50:43 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1083-NFPA 13-2020](#)

Statement:

The change was an update to the figure association with 10.3.6.1.7 showing the minimum of 12" from the obstruction.



Public Comment No. 102-NFPA 13-2020 [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 up to 12 in. (300 mm) in width 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>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>		<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>	<u>in.</u>	<u>mm</u>
Less than 1 ft	Less than 0.3	0	0
1	0.3	0	0
1½	0.45	1	25
2	0.6	1	25
2½	0.75	1	25
3	0.9	3	75
3½	1.1	3	75
4	1.2	5	125
4½	1.4	7	175
5	1.5	7	175
5½	1.7	7	175
6	1.8	9	225
6½	2	11	275
7	2.1	14	350
7½	2.3	14	350
8	2.4	15	375
8½	2.6	17	425
9	2.7	19	475
9½	2.9	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).

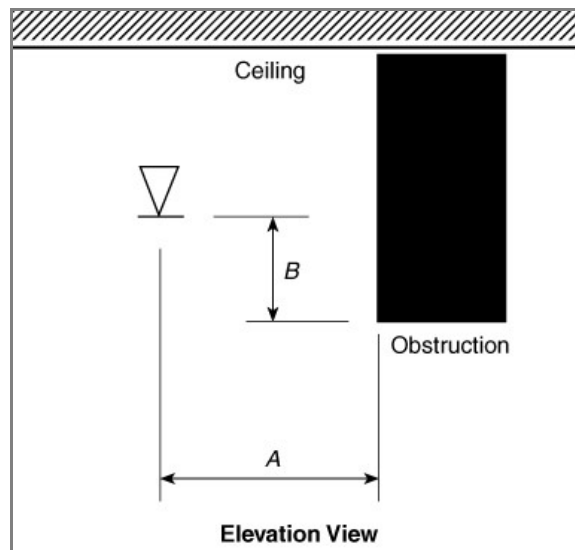


Figure 11.2.5.1.2(b) Obstructions Against Walls (Extended Coverage Upright and Pendent Spray Sprinklers).

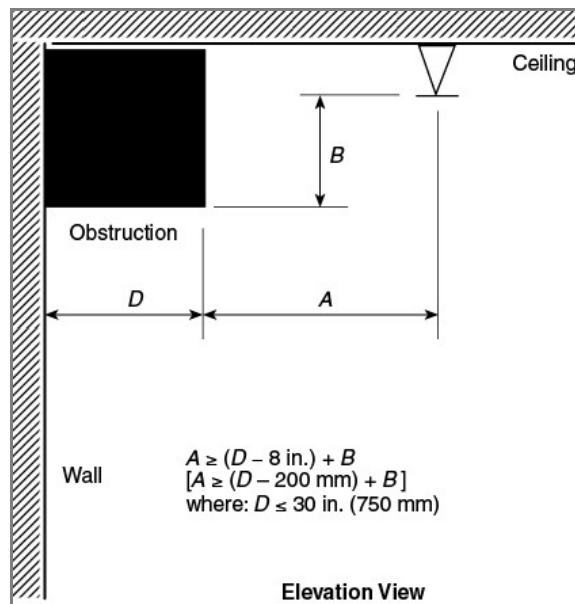


Figure 11.2.5.1.2(c) Obstructions Against Walls (Extended Coverage Upright and Pendent Spray Sprinklers).

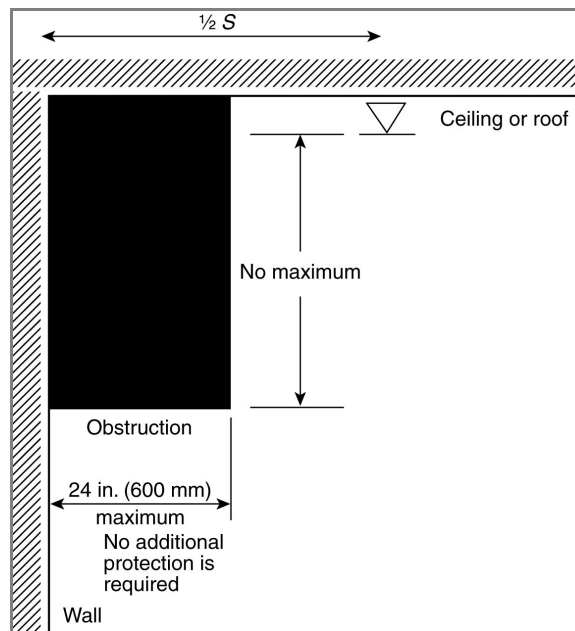
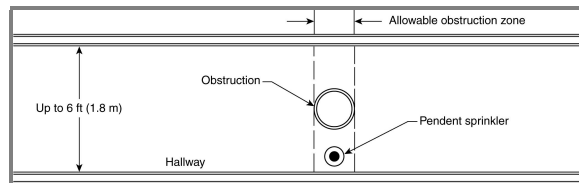


Figure 11.2.5.1.2(d) Obstruction in Hallway



Statement of Problem and Substantiation for Public Comment

The substantiation from PI No.283 that that was accepted with this revision was “Adds another obstruction allowance for obstructions in hallways.” and “This is also found in NFPA 13D & NFPA 13R.”. This reasoning actually provides no technical justification at all for the matter.

Indeed, for NFPA 13R-2019, the substantiation for SR-6 that “In a hallway, an obstruction is not a problem when the sprinkler is installed adjacent to the light on the width of the hallway” is also not a technically sound statement. With this provision, there is no standoff distance specified between the sprinkler and the obstruction, such that the sprinkler could be located anywhere, from 4 inches off the wall (or 2'-2" from the obstruction) to just maybe 4 inches away from the obstruction.

If the 1 ft wide obstruction is round, and located in the centre of the corridor, as shown in figure 10.2.7.2(d), with the sprinkler in the obstruction zone 4 inches away, the “shadow area” is approximately 17 ft² in size. Should the obstruction have a square shape, the obstructed floor space would be approximately 22 ft² in area. Since the TC recently deleted part of the 3 Times Rule regarding vertical obstructions within 2 ft of a sprinkler and with the limitation of just a 15 ft², this new provision is much too liberal, and should be deleted.

Related Item

- FR-1131

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 16:35:36 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: PC 367 also addresses the concerns for “dry” area that may occur due to obstructions in hallways. PC 367 adds a minimum distance that the sprinkler must be spaced from the obstruction to lessen the dry area. It is recognized that this will not completely eliminate the dry area, but it is also recognized that hallways have a light fuel load and typically associated with a low fire risk.



Public Comment No. 367-NFPA 13-2020 [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 up to 12 in. (300 mm) in width 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, zone and the closest edge of the obstruction is a minimum of 12 in. (300 mm) away from the deflector.

Table 11.2.5.1.2 Position of Sprinklers to Avoid Obstructions to Discharge (Extended Coverage Upright and Pendent Spray Sprinklers)

<u>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>		<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>	<u>in.</u>	<u>mm</u>
Less than 1 ft	Less than 0.3	0	0
1	0.3	0	0
1½	0.45	1	25
2	0.6	1	25
2½	0.75	1	25
3	0.9	3	75
3½	1.1	3	75
4	1.2	5	125
4½	1.4	7	175
5	1.5	7	175
5½	1.7	7	175
6	1.8	9	225
6½	2	11	275
7	2.1	14	350
7½	2.3	14	350
8	2.4	15	375
8½	2.6	17	425
9	2.7	19	475
9½	2.9	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).

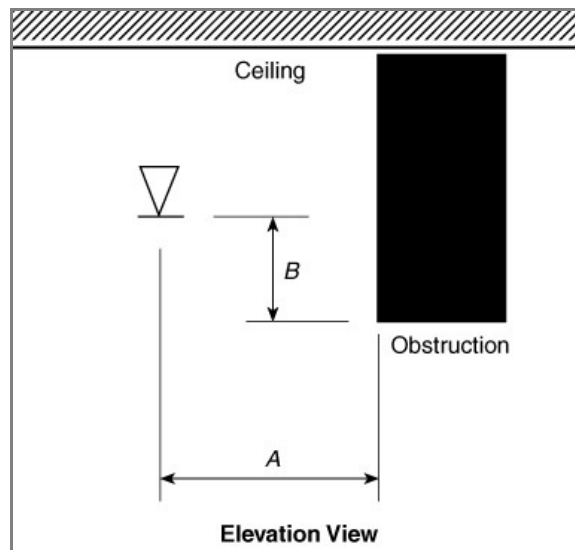


Figure 11.2.5.1.2(b) Obstructions Against Walls (Extended Coverage Upright and Pendent Spray Sprinklers).

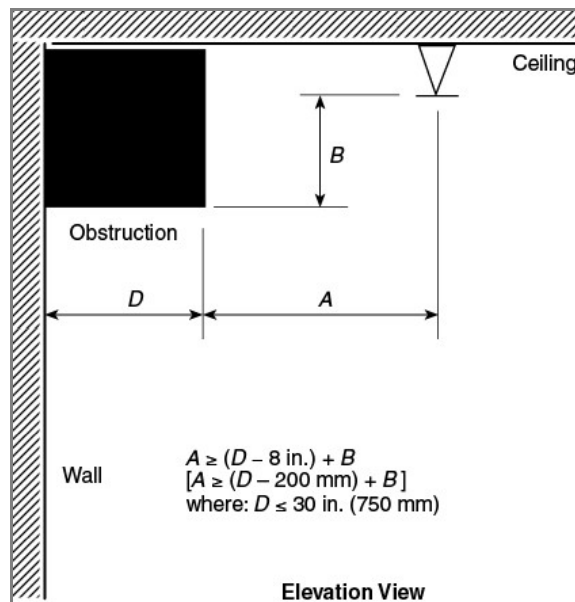


Figure 11.2.5.1.2(c) Obstructions Against Walls (Extended Coverage Upright and Pendent Spray Sprinklers).

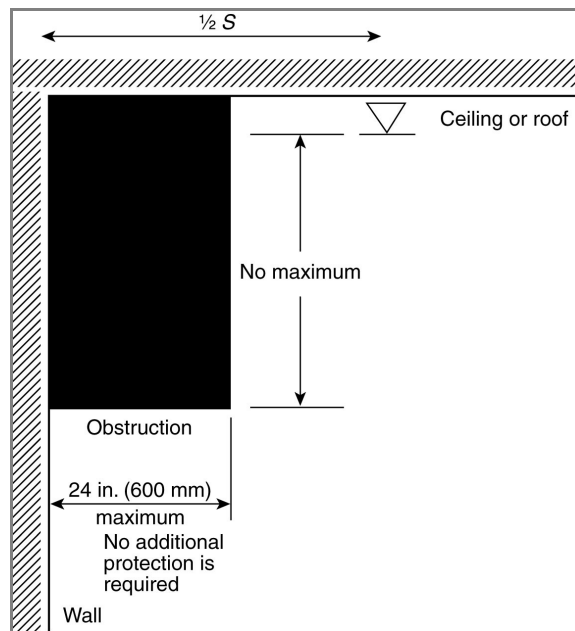
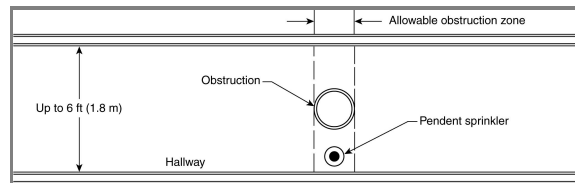


Figure 11.2.5.1.2(d) Obstruction in Hallway



Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment seeks to revise the language of 11.2.5.1.2(5) and is intended to minimize the apparent dry area that may be created by the obstruction adjacent to the sprinkler.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 345-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 366-NFPA 13-2020 [Section No. 10.3.6.1.7]	
Public Comment No. 368-NFPA 13-2020 [Section No. 11.3.6.1.4]	
Public Comment No. 369-NFPA 13-2020 [Section No. 12.1.10.1.2]	
Public Comment No. 370-NFPA 13-2020 [Section No. 12.1.11.1.4]	

Related Item

- FR-1131`

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:** Wed May 06 11:02:25 EDT 2020**Committee:** AUT-SSI**Committee Statement****Committee Action:** Rejected but see related SR**Resolution:**SR-1084-NFPA 13-2020**Statement:**

The words “centerline of the sprinkler” where added replacing “deflector” to correlate with NFPA 13D and 13R. Updated the figure association with 11.2.5.1.2.(d) showing the minimum of 12” from the obstruction.



Public Comment No. 103-NFPA 13-2020 [Section No. 11.2.5.2.3]

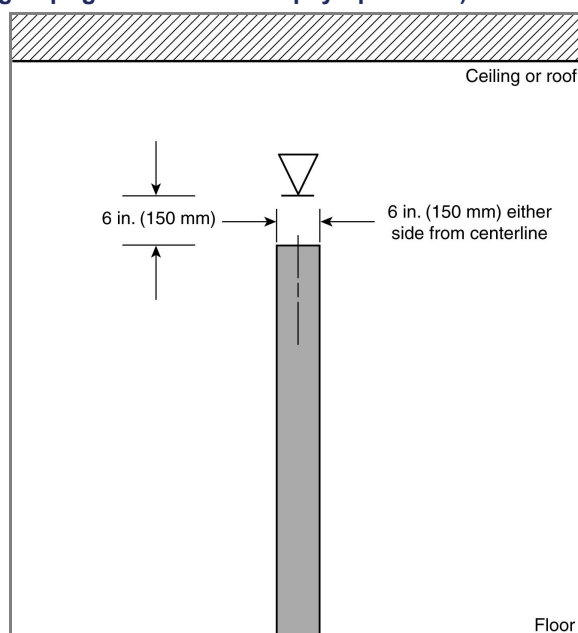
11.2.5.2.3

The distance When the deflector distance from sprinklers to freestanding partitions, room dividers, and similar obstructions is less than 18 in. (450 mm) in ordinary hazard occupancies, the sprinklers shall be located in accordance with 11.2.5.2.3.1 and 11.2.5.2.3.2.

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 in accordance with Figure 11.2.5.2.3.1.

Figure 11.2.5.2.3.1 Suspended or Floor Mounted Obstruction in Ordinary Hazard Occupancies Only (Extended Coverage Upright and Pendent Spay Sprinklers).



11.2.5.2.3.2

Sprinkler deflectors shall be a minimum of 6 in. (150 mm) above the top of the freestanding partition, room divider, or similar obstruction.

Statement of Problem and Substantiation for Public Comment

It has always been understood that for ordinary hazard occupancies there needs to be a minimum of 18 inches clearance between the sprinkler deflectors and the top of freestanding partitions. As per A.9.5.5.3.1: "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." However, with the new text as it is currently presented, the 18 inches of clearance is not provided as an option, so only precise positioning of the sprinklers would be acceptable. In some occupancies though, sprinklers may not be so exactly located, due to the specific configurations of the rooms/compartments. (ie. In apartment building storage locker rooms with the caged areas only 4 to 5 ft apart).

Related Item

- FR-1132

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:**City:****State:****Zip:****Submittal Date:** Thu Apr 23 16:38:38 EDT 2020**Committee:** AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR**Resolution:** SR-1085-NFPA 13-2020**Statement:** This second revision mirrors the action taken in chapter 10 on this topic (see PC 347). This section using much of the existing text from 11.2.5.2.3 and 11.2.5.2.3.1 with a new figure that meets this PC's intent. Also note that a global revision will update the associated tables to new format.

**Public Comment No. 299-NFPA 13-2020 [New Section after 11.2.6.2]****11.2.6.3**

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 Comment

The clearance of 36 in. was included in the 2016 Edition as a general requirement for all rubber tire storage in 8.5.6.5. In the 2019 Edition that requirement was moved to 20.6.6.5 which would not apply to miscellaneous storage. If left uncorrected the clearance for miscellaneous rubber tire storage would be 18 in. rather than the previously required 36 in. The addition as a general requirement for all CMDA Sprinklers would correct this.

Related Item

- PI 145

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 14:44:02 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1223-NFPA 13-2020

Statement: When the clearance to storage criteria was added to each sprinkler type chapter the clearance to tire storage was not added. This adds the requirements back into the standard.



Public Comment No. 286-NFPA 13-2020 [Section No. 11.3.4.1.5]

11.3.4.1.5

Where sidewall extended coverage spray sprinklers are installed to protect areas below overhead doors within ordinary hazard occupancy spaces or rooms, listed light hazard sidewall extended coverage spray sprinklers shall be permitted and the 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 Comment

In the original language there is no clarification that ECLH sprinklers can be used in this application and overhead doors is repeated in the back of the sentence when it is already clarified in the front of the sentence. This language makes the new section clearer.

Related Item

- FR-1135

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 14:06:36 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1087-NFPA 13-2020](#)

Statement: This adds language that permits sprinklers listed for extended coverage light hazard to be used under overhead doors.



Public Comment No. 104-NFPA 13-2020 [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 with a maximum width of 12 in. (300 mm) 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)</u>	
	<u>in.</u>	<u>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).

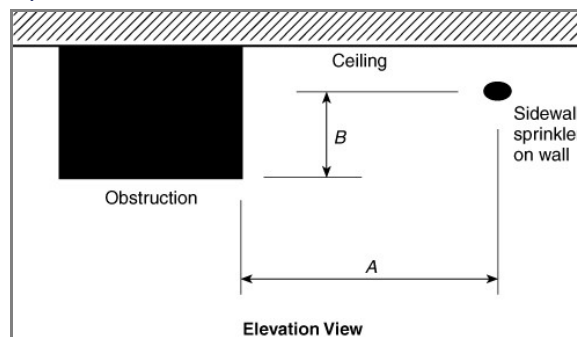


Figure 11.3.6.1.4(b) Obstruction Against Wall (Extended Coverage Sidewall Spray Sprinklers).

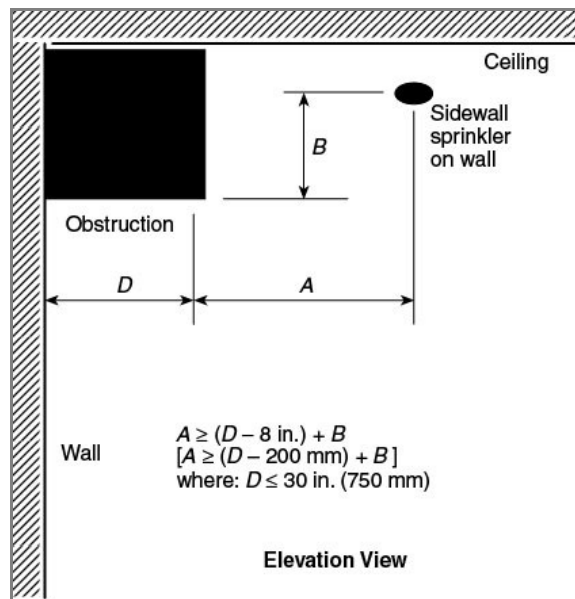


Figure 11.3.6.1.4(c) Obstruction Against Wall (Extended Coverage Sidewall Spray Sprinklers).

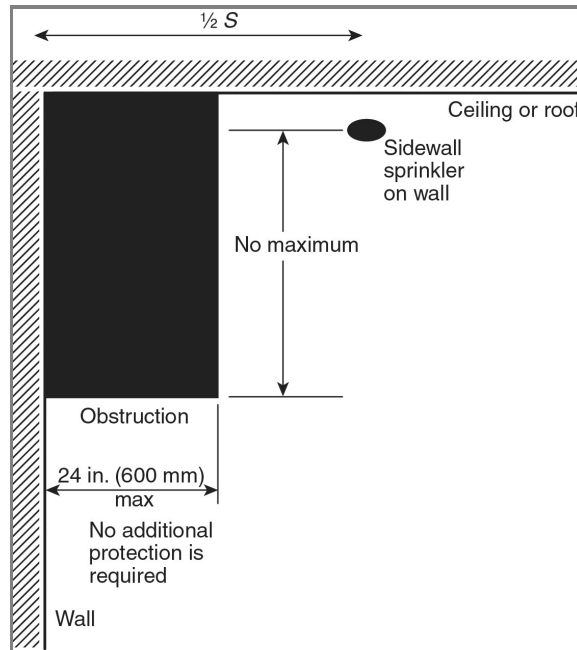
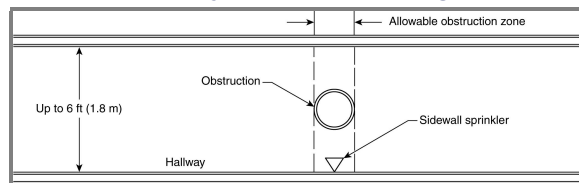


Figure 11.3.6.1.4(d) Obstruction in Hallway (Extended Coverage Sidewall Spray Sprinklers).



Statement of Problem and Substantiation for Public Comment

The substantiation from PI No.289 that was accepted with this revision was “Adds another obstruction allowance for obstructions in hallways.” and “This is also found in NFPA 13D & NFPA 13R.”. This reasoning actually provides no technical justification at all for the matter.

Indeed, for NFPA 13R-2019, the substantiation for SR-6 that “In a hallway, an obstruction is not a problem when the sprinkler is installed adjacent to the light on the width of the hallway” is also not a technically sound statement. With this provision, there is no standoff distance specified between the sprinkler and the obstruction, such that the sprinkler could be located anywhere, from 4 inches off the wall (or 2'-2" from the obstruction) to just maybe 4

inches away from the obstruction.

If the 1 ft wide obstruction is round, and located in the centre of the corridor, as shown in figure 10.2.7.2(d), with the sprinkler in the obstruction zone 4 inches away, the “shadow area” is approximately 17 ft² in size. Should the obstruction have a square shape, the obstructed floor space would be approximately 22 ft² in area.

Since the TC recently deleted part of the 3 Times Rule regarding vertical obstructions within 2 ft of a sprinkler and with the limitation of just a 15 ft², this new provision is much too liberal, and should be deleted

Related Item

- FR-1137

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 16:44:48 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: PC 368 also addresses the concerns for “dry” area that may occur due to obstructions in hallways. PC 368 adds a minimum distance that the sprinkler must be spaced from the obstruction to lessen the dry area. It is recognized that this will not completely eliminate the dry area, but it is also recognized that hallways have a light fuel load and typically associated with a low fire risk.



Public Comment No. 368-NFPA 13-2020 [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 with a maximum width of 12 in. (300 mm) 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. zone and the closest edge of the obstruction is a minimum of 12 in. (300 mm) away from the deflector.

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)</u>	
	<u>in.</u>	<u>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).

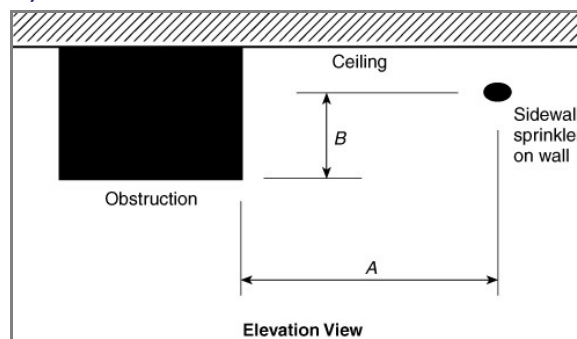


Figure 11.3.6.1.4(b) Obstruction Against Wall (Extended Coverage Sidewall Spray Sprinklers).

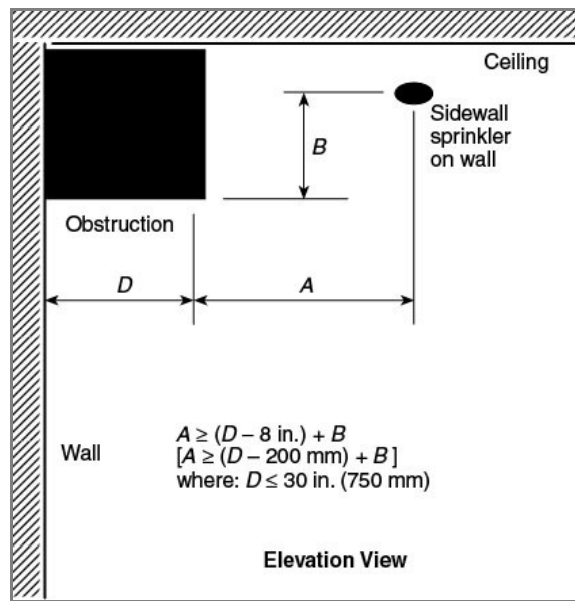


Figure 11.3.6.1.4(c) Obstruction Against Wall (Extended Coverage Sidewall Spray Sprinklers).

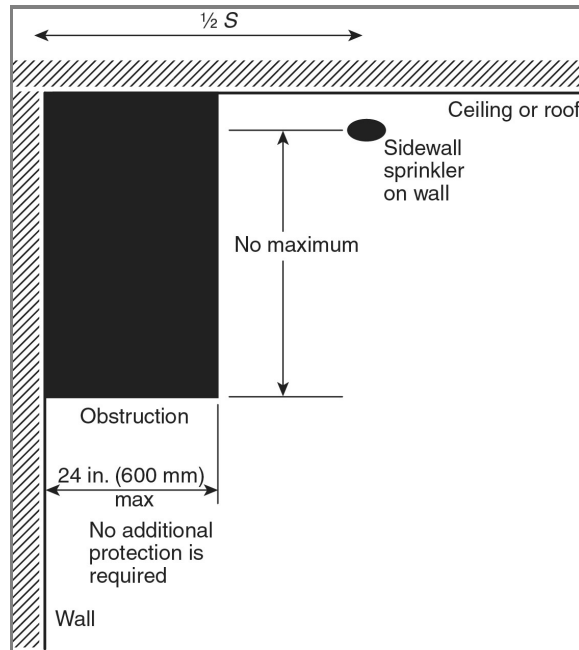
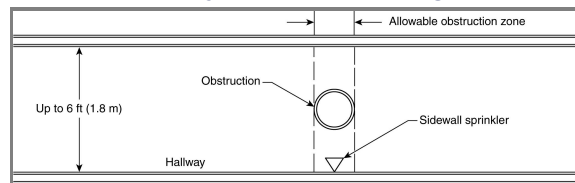


Figure 11.3.6.1.4(d) Obstruction in Hallway (Extended Coverage Sidewall Spray Sprinklers).



Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment seeks to revise the language of 10.3.6.1.4(5) and is intended to minimize the apparent dry area that may be created by the obstruction adjacent to the sprinkler.

Related Public Comments for This Document

Related Comment**Relationship**

[Public Comment No. 345-NFPA 13-2020 \[Section No. 10.2.7.2 \[Excluding any Sub-Sections\]\]](#)

[Public Comment No. 366-NFPA 13-2020 \[Section No. 10.3.6.1.7\]](#)

[Public Comment No. 367-NFPA 13-2020 \[Section No. 11.2.5.1.2\]](#)

[Public Comment No. 369-NFPA 13-2020 \[Section No. 12.1.10.1.2\]](#)

[Public Comment No. 370-NFPA 13-2020 \[Section No. 12.1.11.1.4\]](#)

Related Item

- FR-1137

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: Wed May 06 11:06:16 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1088-NFPA 13-2020](#)

Statement: The change was an update to the figure associated with 11.3.6.1.4(d) showing the minimum of 12" from the obstruction.

**Public Comment No. 129-NFPA 13-2020 [Section No. 11.3.6.1.6]****11.3.6.1.6***

Obstructions on the wall opposite from the sidewall sprinkler shall be permitted ~~where the obstruction is up to 2 ft (600 mm) deep and 2 ft (600 mm) wide.~~ in accordance with Figure 11.3.6.1.6.

Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
NFPA_13_Figure_11.3.6.1.6.pdf	

Statement of Problem and Substantiation for Public Comment

Move annex figure and place in the body. All the other sidewall rules point to figures in the body of the standard. Makes it easier for the user.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 130-NFPA 13-2020 [Section No. A.11.3.6.1.6]	
<u>Related Item</u>	
• PI#278	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 24 18:31:13 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1224-NFPA 13-2020
Statement: This moves the figure in the annex into the body of the code. The rules in the standard point to this figure. Other sections addressing obstructions that have a figure associated with them have the figure in the body of the standard.



Public Comment No. 146-NFPA 13-2020 [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 Comment

This language was submitted in the first draft (PI#432). The committee response for resolution was "Based on action taken on EC and standard coverage sprinklers."

I feel that I deserve a better response for a rejection from this committee. The response did not point to any specific section, PI or FR.

In many hotels, the corridors connected to the lobby are usually not separated with a door or lintel. The lobby is protected with QR sprinklers. Since there is not a separation, residential sprinklers cannot be used in those corridors as it would violate section 12.1.4.

Related Item

- PI#432

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 13:57:03 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1090-NFPA 13-2020

Statement: Small wording changes to make it clear that the residential sprinklers are only allowed in the corridors and not other common areas.



Public Comment No. 166-NFPA 13-2020 [Section No. 12.1.7.5]

12.1.7.5

The maximum distance shall be measured along the slope of the ceiling as shown in Figure 12.1.7.5(a) and Figure 12.1.7.5(b) and the maximum vertical distance from the peak shall be no more than 3 ft.

Figure 12.1.7.5(a) Maximum Distance Between Sprinklers with Sloped Ceilings — Arrangement A.

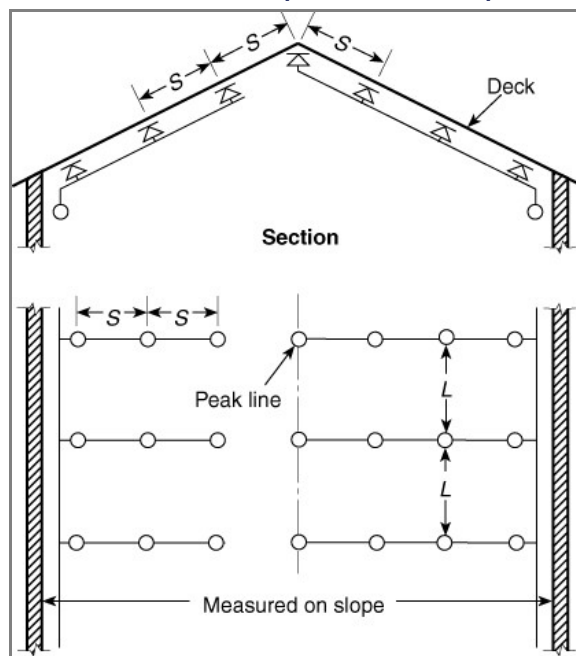
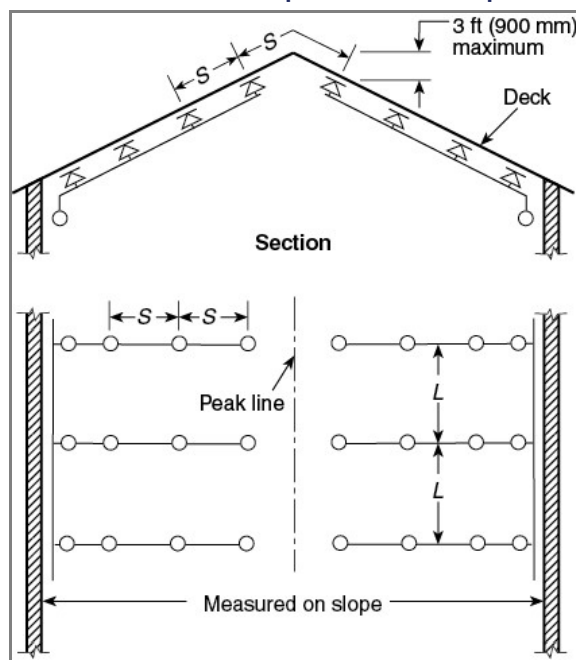


Figure 12.1.7.5(b) Maximum Distance Between Sprinklers with Sloped Ceilings — Arrangement B.



Statement of Problem and Substantiation for Public Comment

As noted by the correlating committee, the requirement for a sprinkler to be installed within 3 ft of the peak needed

to be clarified

Related Item

- CN-39

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 09:55:19 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1091-NFPA 13-2020

Statement: This clarifies that residential sprinklers must be installed within 3 ft of the peak. Acceptance of this is also a correlation with NFPA 13R.

**Public Comment No. 167-NFPA 13-2020 [Section No. 12.1.7.6]****12.1.7.6**

Where sprinklers are installed along sloped ceilings, a sprinkler shall be installed within 3 ft of the peak and the sprinklers shall maintain the minimum listed spacing, but no less than 8 ft (2.4 m), measured in the plan view from one sprinkler to another as shown in Figure 12.1.7.6(a) and Figure 12.1.7.6(b), or unless separated by baffles that comply with the following:

- (1) Baffles shall be arranged to protect the actuating 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.

Figure 12.1.7.6(a) Minimum Distance Between Sprinklers with Sloped Ceilings — Arrangement A.

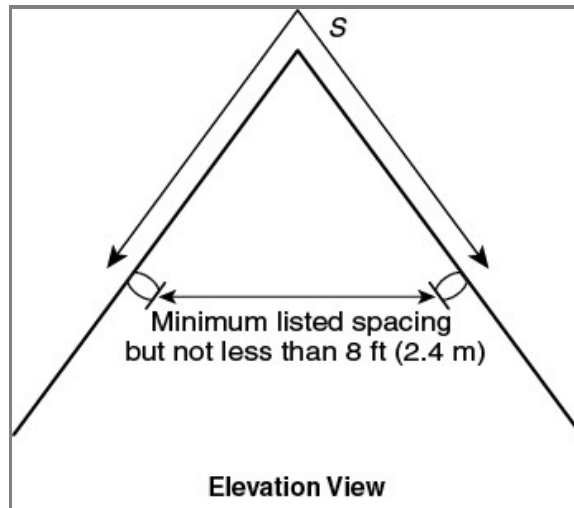
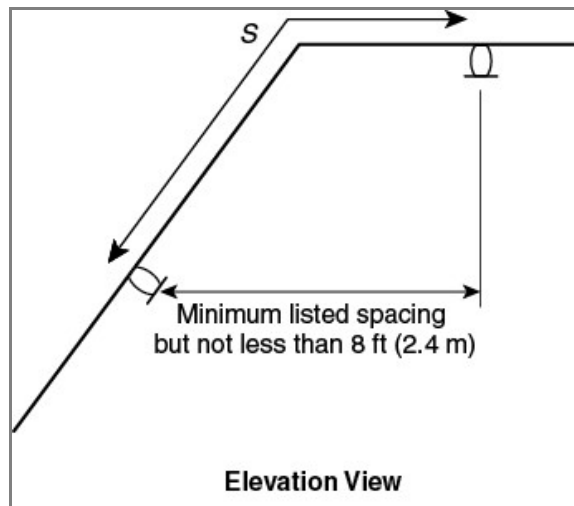


Figure 12.1.7.6(b) Minimum Distance Between Sprinklers with Sloped Ceilings — Arrangement B.

**Statement of Problem and Substantiation for Public Comment**

As noted by the correlating committee, the requirement for a sprinkler to be installed within 3 ft of the peak needed to be clarified

Related Item

- CN-39

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 10:08:37 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1092-NFPA 13-2020](#)

Statement: The existing Figure 12.1.7.6(a) was deleted and replaced with a new figure that depicts a more common installation while showing the sprinkler within 36". The new figure is being added to correlate with NFPA 13D/13R.

**Public Comment No. 269-NFPA 13-2020 [Section No. 12.1.7.6]****12.1.7.6**

Where sprinklers are installed along sloped ceilings, the sprinklers shall maintain the minimum listed spacing, but no less than 8 ft (2.4 m), measured in the plan view from one sprinkler to another as shown in Figure 12.1.7.6(a) and Figure 12.1.7.6(b), or unless separated by baffles that comply with the following:

- (1) Baffles shall be arranged to protect the actuating 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.

Figure 12.1.7.6(a) Minimum Distance Between Sprinklers with Sloped Ceilings — Arrangement A.

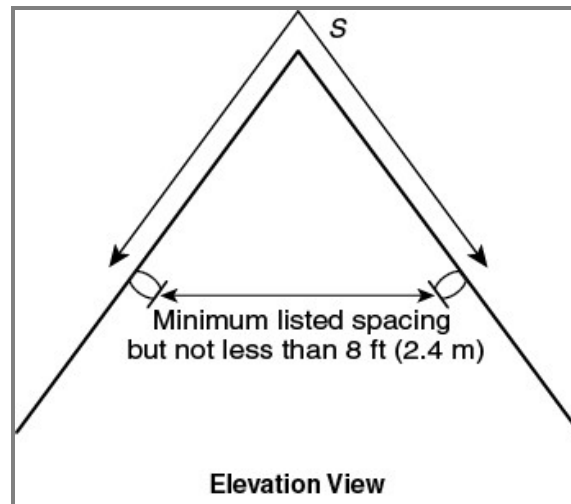
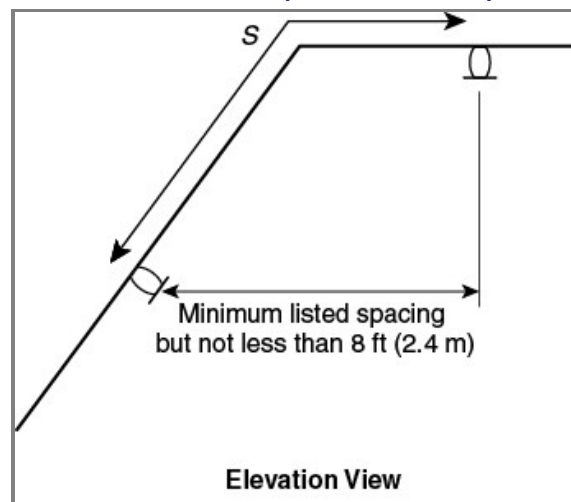


Figure 12.1.7.6(b) Minimum Distance Between Sprinklers with Sloped Ceilings — Arrangement B.

**Additional Proposed Changes**

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
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13_CCN_39.pdf

13_CCN_39

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 39 in the First Draft Report.

The Correlating Committee directs AUT-RSS and AUT-SSI to review residential sprinkler installation under peaked roofs and determine if the maximum 3 ft vertical distance down from peak requirement for standard spray sprinklers is also applicable to residential sprinklers. If so, add requirements to correlate residential sprinklers in NFPA 13, 13D, and 13R with the 3 ft requirement of standard spray sprinklers.

Related Item

- CCN-39

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 13:05:35 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1092-NFPA 13-2020](#)

Statement: The existing Figure 12.1.7.6(a) was deleted and replaced with a new figure that depicts a more common installation while showing the sprinkler within 36". The new figure is being added to correlate with NFPA 13D/13R.



Public Comment No. 105-NFPA 13-2020 [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.

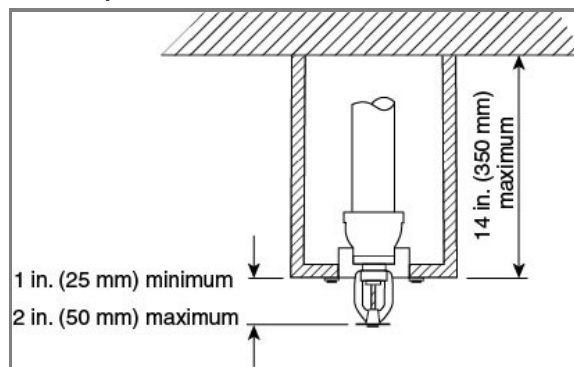
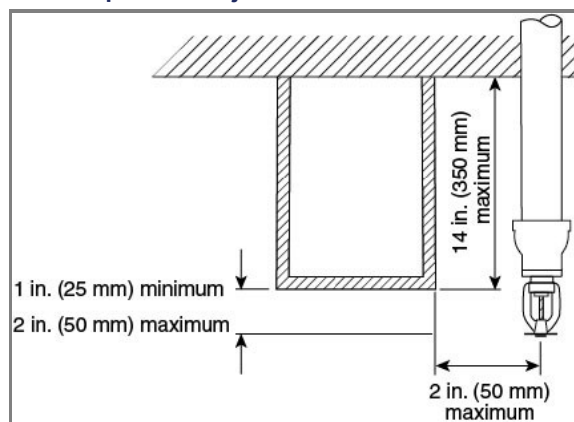


Figure 12.1.8.1.2(b) Position of Sprinkler Adjacent to Beam.



Statement of Problem and Substantiation for Public Comment

It is not appropriate to bury a concealed sprinkler in a beam as proposed. Concealed sprinklers are listed as assemblies that include vented escutcheons, so that hot gases from a fire will pass through, past the sprinkler linkage, and up into the ceiling space. If the sprinklers are buried in a beam (either solid or hollow), the listing of the sprinklers will be violated because they will be installed in a closed/unvented space, and the sprinkler will most likely not activate until the fire gets very large and the hot gases entirely fill the space between the beams in order for enough heat to activate the sprinklers.

The text from the 2019 edition, which this comment is attempting to restore, was only added during the previous revision cycle. When 12.1.8.1.3 was under consideration, the substantiation of PI 255 stated: "Following discussions at the first draft meeting on the installation of residential pendent sprinklers below beams, the question

was raised if this would also apply to concealed sprinklers. Upon review of existing test data, a recommendation was made to limit concealed sprinklers installed under beams to no greater than 4 inches in depth. This language would clarify that the previous section would not apply to concealed sprinklers”.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 106-NFPA 13-2020 [New Section after 12.1.8.1.3]	
Public Comment No. 106-NFPA 13-2020 [New Section after 12.1.8.1.3]	
<u>Related Item</u>	
• FR-1444 • FR-1145	

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 23 16:49:41 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The concern for concealed sprinklers located in beams brought up in the 2019 Edition of NFPA 13 was based on a white paper that explored fire testing of residential sprinklers under ceilings as used in the UL1626 fire tests, that is 8 ft ceilings. In this application a 14 inch deep would place the beams at a depth of less than 7 ft above the floor which is not a realistic space design. Under these conditions a 3rd sprinkler was activated in a normally permitted 2 sprinkler test and in some scenarios the temperature at the ceiling was higher than permitted per the UL testing requirements. A more realistic set of tests, that was more in line with the testing done for the Fire Protection Research Foundation testing that were used to develop the other beam and sloped ceiling criteria, was a set of tests performed in 2007 that looked at residential recessed and concealed sprinklers under sloped ceilings with beams. This report provided a series of 16 tests, 8 of which utilized concealed sprinklers. The results of the concealed sprinkler tests can be seen below as well. As can be seen in the table, the sprinklers performed better when located in beams than when located in bays. Further the one test where more than 4 sprinklers activated (5 sprinklers total activated) with sprinklers located in beams had a ceiling that was open to a loft that would not be permitted per the NFPA 13. Positioning concealed sprinklers in beams provides better activation than positioning them in bays. Further positioning sprinklers in beams allows for a better distribution pattern for the sprinklers as well. Report: A Technical Analysis: Residential Sprinkler Fire Tests with Steeply Pitched Beamed Ceilings (<https://www.yumpu.com/en/document/read/28980285/a-technical-analysis-tyco-fire-products/13>)



Public Comment No. 106-NFPA 13-2020 [New Section after 12.1.8.1.3]

12.1.8.1.3 Concealed sprinklers shall not be installed in beams greater than 4 inches.

Statement of Problem and Substantiation for Public Comment

It is not appropriate to bury a concealed sprinkler in a beam as proposed. Concealed sprinklers are listed as assemblies that include vented escutcheons, so that hot gases from a fire will pass through, past the sprinkler linkage, and up into the ceiling space. If the sprinklers are buried in a beam (either solid or hollow), the listing of the sprinklers will be violated because they will be installed in a closed/unvented space, and the sprinkler will most likely not activate until the fire gets very large and the hot gases entirely fill the space between the beams in order for enough heat to activate the sprinklers.

The text from the 2019 edition, which this comment is attempting to restore, was only added during the previous revision cycle. When 12.1.8.1.3 was under consideration, the substantiation of PI 255 stated: "Following discussions at the first draft meeting on the installation of residential pendent sprinklers below beams, the question was raised if this would also apply to concealed sprinklers. Upon review of existing test data, a recommendation was made to limit concealed sprinklers installed under beams to no greater than 4 inches in depth. This language would clarify that the previous section would not apply to concealed sprinklers"

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 105-NFPA 13-2020 [Section No. 12.1.8.1.2]	
Public Comment No. 105-NFPA 13-2020 [Section No. 12.1.8.1.2]	

Related Item

• FR-1444 • FR-1445

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submission Date: Thu Apr 23 16:52:07 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The concern for concealed sprinklers located in beams brought up in the 2019 Edition of NFPA 13 was based on a white paper that explored fire testing of residential sprinklers under ceilings as used in the UL1626 fire tests, that is 8 ft ceilings. In this application a 14 inch deep would place the beams at a depth of less than 7 ft above the floor which is not a realistic space design. Under these conditions a 3rd sprinkler was activated in a normally permitted 2 sprinkler test and in some scenarios the temperature at the ceiling was higher than permitted per the UL testing requirements. A more realistic set of tests, that was more in line with the testing done for the Fire Protection Research Foundation testing that were used to develop the other beam and sloped ceiling criteria, was a set of tests performed in 2007 that looked at residential recessed and concealed sprinklers under sloped ceilings with beams. This report provided a series of 16 tests, 8 of which utilized concealed sprinklers. The results of the concealed sprinkler tests can be seen below as well. As can be seen in the table, the sprinklers performed better when located in beams than when located in bays. Further the one test where more than 4 sprinklers activated (5 sprinklers total activated) with sprinklers

located in beams had a ceiling that was open to a loft that would not be permitted per the NFPA 13. Positioning concealed sprinklers in beams provides better activation than positioning them in bays. Further positioning sprinklers in beams allows for a better distribution pattern for the sprinklers as well. Report: A Technical Analysis: Residential Sprinkler Fire Tests with Steeply Pitched Beamed Ceilings (<https://www.yumpu.com/en/document/read/28980285/a-technical-analysis-tyco-fire-products/13>)



Public Comment No. 107-NFPA 13-2020 [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 12 in. (300 mm) in width 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>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>		<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>	<u>in.</u>	<u>mm</u>
Less than 1	Less than 0.3	0	0
1	0.3	0	0
1½	0.45	1	25
2	0.6	1	25
2½	0.75	1	25
3	0.9	3	75
3½	1.1	3	75
4	1.2	5	125
4½	1.4	7	175
5	1.5	7	175
5½	1.7	7	175
6	1.8	9	225
6½	2.0	11	275
7	2.1	14	350

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).

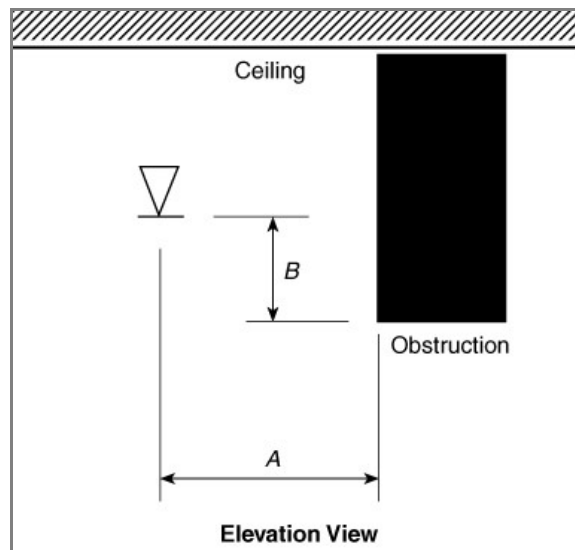


Figure 12.1.10.1.2(b) Obstructions Against Wall (Residential Upright and Pendent Spray Sprinklers).

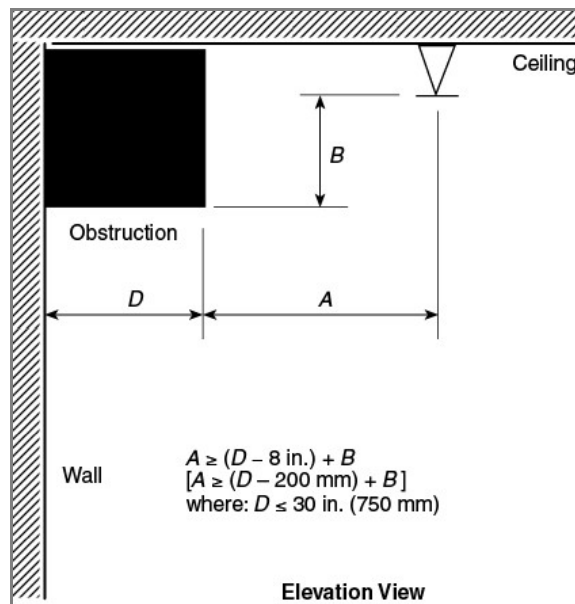


Figure 12.1.10.1.2(c) Obstructions Against Wall (Measurements for Residential Upright and Pendent Spray Sprinklers).

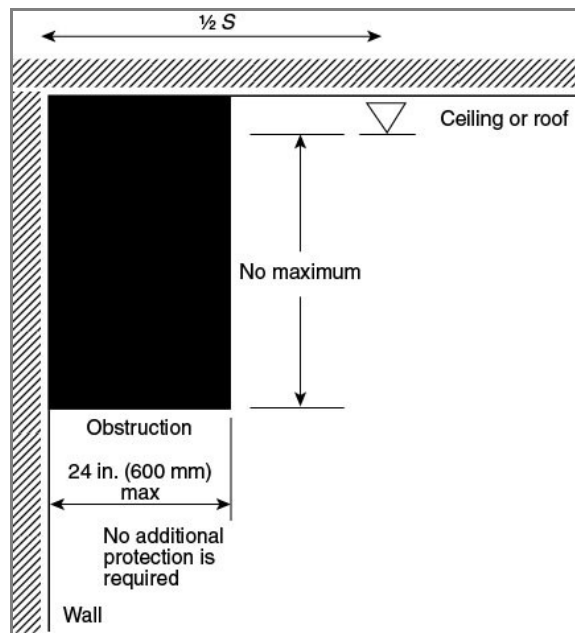
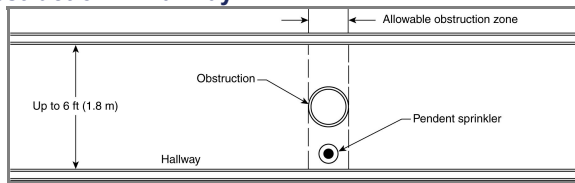


Figure 12.1.10.1.2(d) Obstruction in Hallway.



Statement of Problem and Substantiation for Public Comment

The substantiation from PI No.281 that that was accepted with this revision was “Adds another obstruction allowance for obstructions in hallways.” and “This is also found in NFPA 13D & NFPA 13R.”. This reasoning actually provides no technical justification at all for the matter.

Indeed, for NFPA 13R-2019, the substantiation for SR-6 that “In a hallway, an obstruction is not a problem when the sprinkler is installed adjacent to the light on the width of the hallway” is also not a technically sound statement. With this provision, there is no standoff distance specified between the sprinkler and the obstruction, such that the sprinkler could be located anywhere, from 4 inches off the wall (or 2'-2" from the obstruction) to just maybe 4 inches away from the obstruction.

If the 1 ft wide obstruction is round, and located in the centre of the corridor, as shown in figure 10.2.7.2(d), with the sprinkler in the obstruction zone 4 inches away, the “shadow area” is approximately 17 ft² in size. Should the obstruction have a square shape, the obstructed floor space would be approximately 22 ft² in area.

Since the TC recently deleted part of the 3 Times Rule regarding vertical obstructions within 2 ft of a sprinkler and with the limitation of just a 15 ft², this new provision is much too liberal, and should be deleted.

Related Item

- FR-1146

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 16:56:38 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: PC 369 also addresses the concerns for “dry” area that may occur due to obstructions in hallways. PC 369 adds a minimum distance that the sprinkler must be spaced from the obstruction to lessen the dry area. It is recognized that this will not completely eliminate the dry area, but it is also recognized that hallways have a light fuel load and typically associated with a low fire risk.



Public Comment No. 369-NFPA 13-2020 [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 12 in. (300 mm) in width 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~~ zone and the closest edge of the obstruction is a minimum of 12 in. (300 mm) away from the deflector.

Table 12.1.10.1.2 Positioning of Sprinklers to Avoid Obstructions to Discharge (Residential Upright and Pendent Spray Sprinklers)

<u>Minimum Distance from Sprinklers to Side of Obstruction (A)</u>		<u>Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B)</u>	
<u>ft</u>	<u>m</u>	<u>in.</u>	<u>mm</u>
Less than 1	Less than 0.3	0	0
1	0.3	0	0
1½	0.45	1	25
2	0.6	1	25
2½	0.75	1	25
3	0.9	3	75
3½	1.1	3	75
4	1.2	5	125
4½	1.4	7	175
5	1.5	7	175
5½	1.7	7	175
6	1.8	9	225
6½	2.0	11	275
7	2.1	14	350

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).

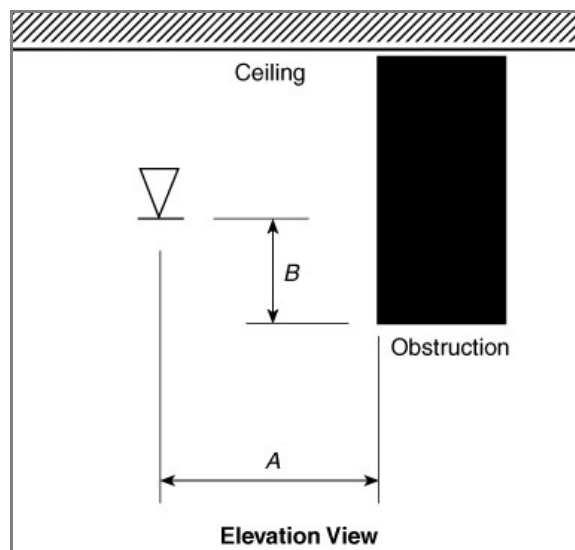


Figure 12.1.10.1.2(b) Obstructions Against Wall (Residential Upright and Pendent Spray Sprinklers).

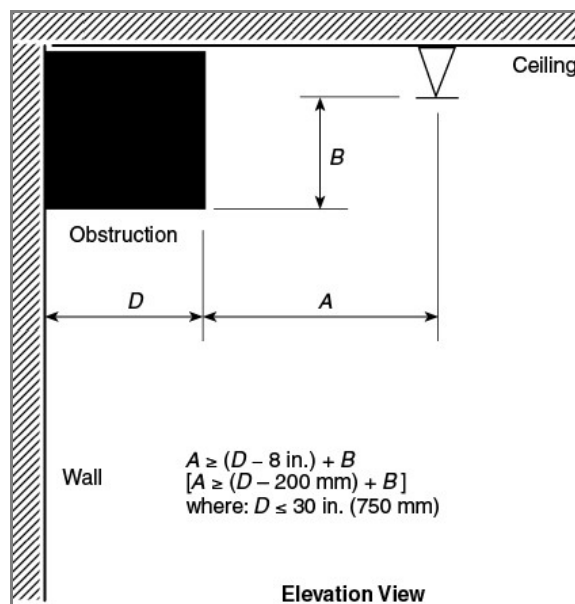


Figure 12.1.10.1.2(c) Obstructions Against Wall (Measurements for Residential Upright and Pendent Spray Sprinklers).

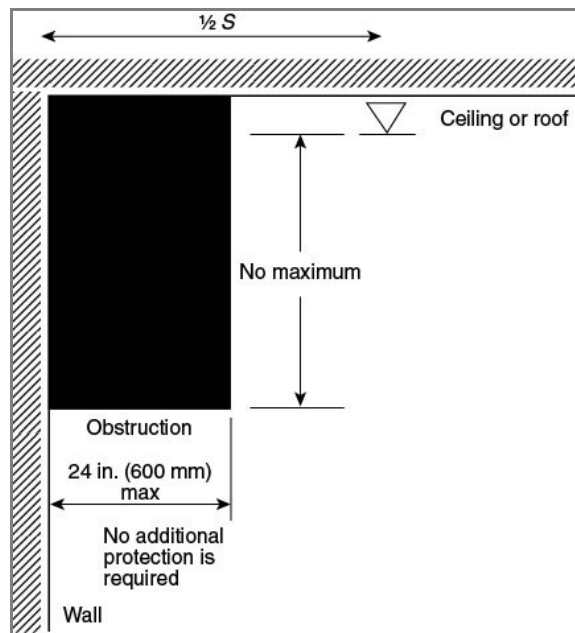
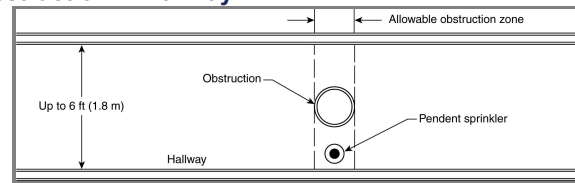


Figure 12.1.10.1.2(d) Obstruction in Hallway.



Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment is intended to minimize the apparent dry area that may be created by the obstruction adjacent to the sprinkler.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 345-NFPA 13-2020 [Section No. 10.2.7.2 [Excluding any Sub-Sections]]	
Public Comment No. 366-NFPA 13-2020 [Section No. 10.3.6.1.7]	
Public Comment No. 367-NFPA 13-2020 [Section No. 11.2.5.1.2]	
Public Comment No. 368-NFPA 13-2020 [Section No. 11.3.6.1.4]	
Public Comment No. 370-NFPA 13-2020 [Section No. 12.1.11.1.4]	

Related Item

- FR-1146

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: Wed May 06 11:12:02 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1093-NFPA 13-2020](#)

Statement: The words “centerline of the sprinkler” where added replacing “deflector” to correlate with NFPA 13D and 13R. Updated the figure association with 12.1.10.1.2.(d) showing the minimum of 12” from the obstruction.

**Public Comment No. 300-NFPA 13-2020 [New Section after 12.1.10.3.3]****12.1.10.4 Clearance to Stuff (Residential Sprinklers).**

12.1.10.4.1 The clearance between the sprinkler deflector and the top of stuff 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 stuff 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 stuff thereon, directly below sprinklers shall not extend above a plane located 18 in. (450 mm) below the ceiling sprinkler deflectors.

12.1.10.4.3 Where other standards specify a greater clearance to stuff minimums, they shall be followed.

Statement of Problem and Substantiation for Public Comment

While "Storage" might not be anticipated in residential occupancies, the placement of "Stuff" needs to be addressed, otherwise there is no limit on how close "Stuff" can be placed with respect to the sprinkler deflector.

Related Item

- PI 152

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 14:51:32 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The word "stuff" is not defined in Chapter 3 and is ambiguous for a user of the standard. Section 12.1.10.2 does have obstructions for sprinkler discharge and pattern development.



Public Comment No. 108-NFPA 13-2020 [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 12 in. (300 mm) in width 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.</u>	<u>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).

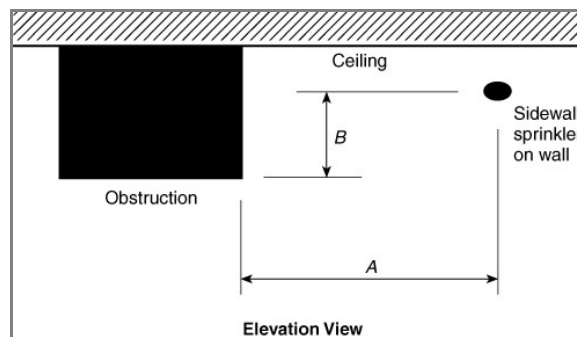


Figure 12.1.11.1.4(b) Obstruction Against Wall (Residential Sidewall Spray Sprinklers).

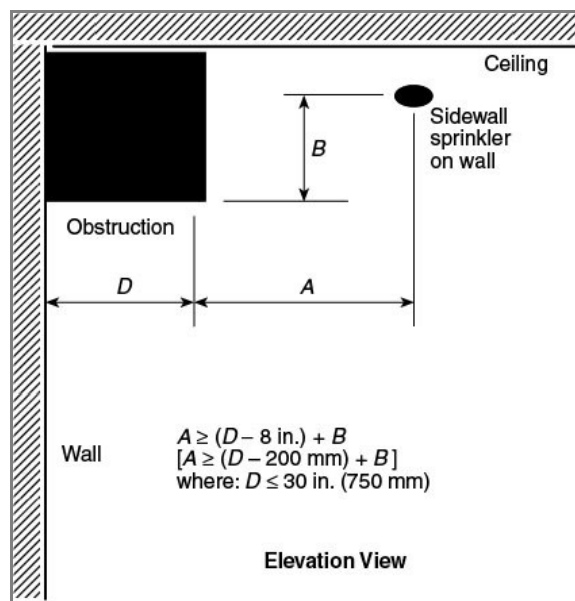


Figure 12.1.11.1.4(c) Obstruction Against Wall (Residential Sidewall Spray Sprinklers).

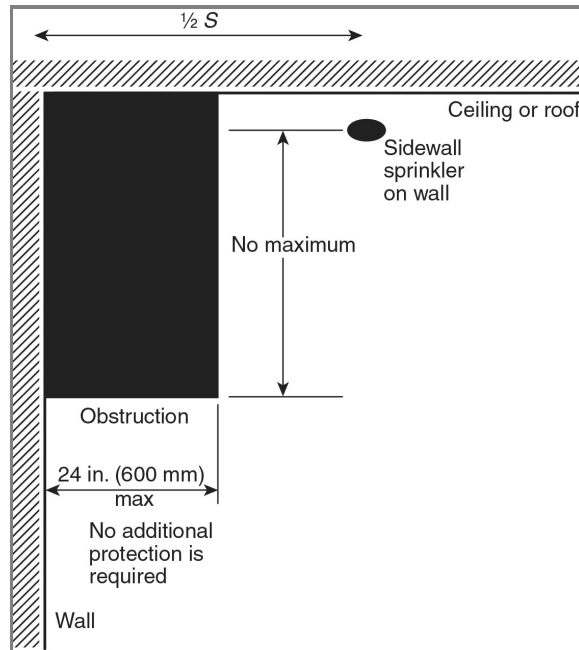
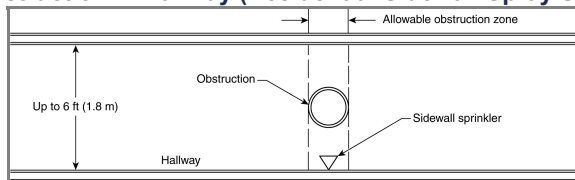


Figure 12.1.11.1.4(d) Obstruction in Hallway (Residential Sidewall Spray Sprinklers).



Statement of Problem and Substantiation for Public Comment

The substantiation from PI No.285 that that was accepted with this revision was “Adds another obstruction allowance for obstructions in hallways.” and “This is also found in NFPA 13D & NFPA 13R.”. This reasoning actually provides no technical justification at all for the matter.

Indeed, for NFPA 13R-2019, the substantiation for SR-6 that “In a hallway, an obstruction is not a problem when the sprinkler is installed adjacent to the light on the width of the hallway” is also not a technically sound statement. With this provision, there is no standoff distance specified between the sprinkler and the obstruction, such that the sprinkler could be located anywhere, from 4 inches off the wall (or 2'-2" from the obstruction) to just maybe 4

inches away from the obstruction.

If the 1 ft wide obstruction is round, and located in the centre of the corridor, as shown in figure 10.2.7.2(d), with the sprinkler in the obstruction zone 4 inches away, the “shadow area” is approximately 17 ft² in size. Should the obstruction have a square shape, the obstructed floor space would be approximately 22 ft² in area.

Since the TC recently deleted part of the 3 Times Rule regarding vertical obstructions within 2 ft of a sprinkler and with the limitation of just a 15 ft², this new provision is much too liberal, and should be deleted.

Related Item

- FR-1149

Submitter Information Verification

Submitter Full Name: Larry Keeping

Organization: PLC Fire Safety Solutions

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 16:59:35 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: PC 370 also addresses the concerns for “dry” area that may occur due to obstructions in hallways. PC 370 adds a minimum distance that the sprinkler must be spaced from the obstruction to lessen the dry area. It is recognized that this will not completely eliminate the dry area, but it is also recognized that hallways have a light fuel load and typically associated with a low fire risk.



Public Comment No. 370-NFPA 13-2020 [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 12 in. (300 mm) in width 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, zone and the closest edge of the obstruction is a minimum of 12 in. (300 mm) away from the deflector.

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.</u>	<u>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).

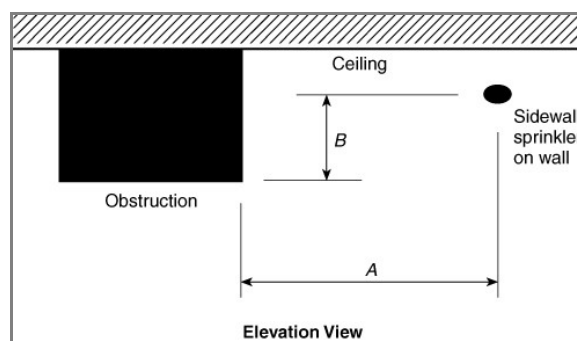


Figure 12.1.11.1.4(b) Obstruction Against Wall (Residential Sidewall Spray Sprinklers).

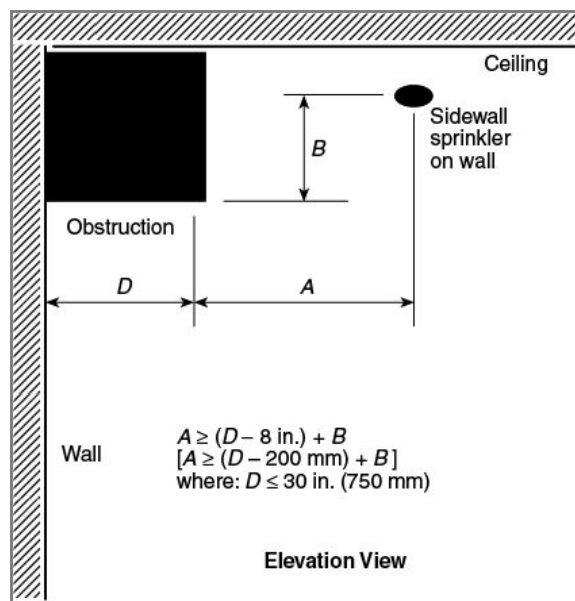


Figure 12.1.11.1.4(c) Obstruction Against Wall (Residential Sidewall Spray Sprinklers).

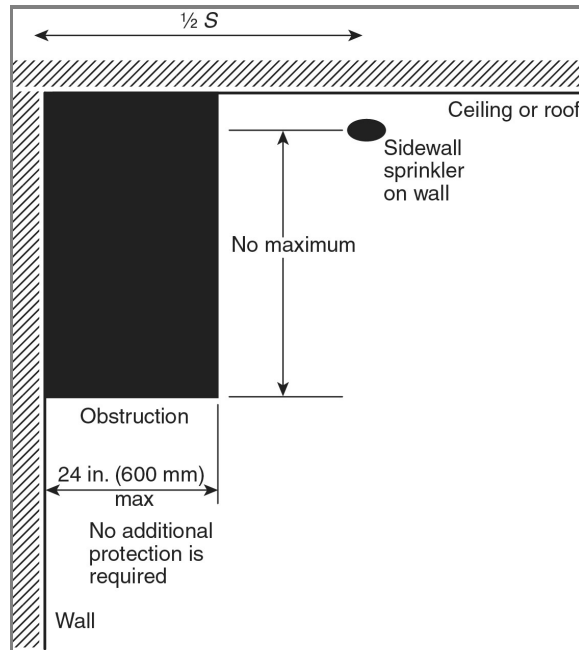
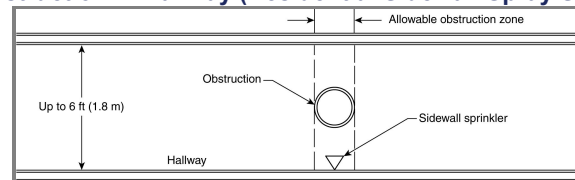


Figure 12.1.11.1.4(d) Obstruction in Hallway (Residential Sidewall Spray Sprinklers).



Statement of Problem and Substantiation for Public Comment

This comment (and others) were developed by a NFSA Engineering and Standards Committee Task Group on Obstructions. Additional comments are being submitted on this section in separate comments. The entire Task Group Report which addresses all the comments is being uploaded in this comment. This comment and is intended to minimize the apparent dry area that may be created by the obstruction adjacent to the sprinkler.

Related Public Comments for This Document

Related Comment**Relationship**

[Public Comment No. 369-NFPA 13-2020 \[Section No. 12.1.10.1.2\]](#)

[Public Comment No. 345-NFPA 13-2020 \[Section No. 10.2.7.2 \[Excluding any Sub-Sections\]\]](#)

[Public Comment No. 368-NFPA 13-2020 \[Section No. 11.3.6.1.4\]](#)

[Public Comment No. 366-NFPA 13-2020 \[Section No. 10.3.6.1.7\]](#)

[Public Comment No. 367-NFPA 13-2020 \[Section No. 11.2.5.1.2\]](#)

Related Item

- FR-1149

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: Wed May 06 11:15:29 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1094-NFPA 13-2020](#)

Statement: The change was an update to the figure associated with 12.1.11.1.4(d) showing the minimum of 12" from the obstruction.

**Public Comment No. 131-NFPA 13-2020 [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 30 in. (750 mm) deep and 30 in. (750 mm) wide.~~ in accordance with Figure 12.1.11.1.6.

Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
NFPA_13_Figure_12.1.11.1.6.pdf	

Statement of Problem and Substantiation for Public Comment

Move annex figure and place in the body. All the other sidewall rules point to figures in the body of the standard. Makes it easier for the user.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 132-NFPA 13-2020 [Section No. A.12.1.11.1.6]	
<u>Related Item</u>	
• PI#278	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 24 18:37:17 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1225-NFPA 13-2020
Statement: This moves the figure in the annex into the body of the standard. See PC 132 for the deletion of the figure in the annex.

**Public Comment No. 301-NFPA 13-2020 [New Section after 12.1.11.3]****12.1.11.4 Clearance to Stuff (Residential Sidewall Spray Sprinklers).**

12.1.11.4.1 The clearance between the sprinkler deflector and the top of stuff 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 shelving 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 stuff thereon, shall be permitted to extend above the level of a plane located 18 in. (450 mm) below the sidewall sprinkler deflectors.

12.1.11.4.2.2 Shelving, and any stuff thereon, directly below sprinklers shall not extend above a plane located 18 in. (450 mm) below the sidewall sprinkler deflectors.

12.1.11.4.3 Where other standards specify a greater clearance to stuff minimums, they shall be followed.

Statement of Problem and Substantiation for Public Comment

While "Storage" might not be anticipated in residential occupancies, the placement of "Stuff" needs to be addressed, otherwise there is no limit on how close "Stuff" can be placed with respect to the sprinkler deflector.

Related Item

- PI 153

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 15:03:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The word "stuff" is not defined in Chapter 3 and is ambiguous for a user of the standard. Section 12.1.11 does have obstructions for sprinkler discharge and pattern development.

**Public Comment No. 145-NFPA 13-2020 [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~~ under the unprotected ceiling pocket is protected by ~~any type of residential sprinkler~~ 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 Comment

A change was made to ceiling pockets for residential in NFPA 13 and 13R. Each committee had different language. I have submitted a comment to change the language to match NFPA 13R (See First Revision #40) as suggested by the Correlating Committee (CN#12).

Related Item

- CN#12

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 13:44:16 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1096-NFPA 13-2020

Statement: Revised the wording to "listed residential sprinklers" so there is an option to use an upright residential sprinkler. There are listed upright residential sprinklers that can be used in this situation.

**Public Comment No. 270-NFPA 13-2020 [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 any type of residential sprinkler at the lower ceiling elevation.
- (4) The interior finish of the unprotected ceiling pocket is noncombustible or limited-combustible construction.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_12.pdf	13_CCN_12

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 12 in the First Draft Report on First Revision No. 1151.

Consider correlating language in NFPA 13 with NFPA 13D & 13R by specifically referencing pendent and sidewall sprinklers.

Related Item

- FR-1151

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 13:10:53 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1096-NFPA 13-2020

Statement: Revised the wording to "listed residential sprinklers" so there is an option to use an upright residential sprinkler. There are listed upright residential sprinklers that can be used in this situation.

**Public Comment No. 310-NFPA 13-2020 [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 Comment

Additional testing utilizing the provisions of the current UL 199 for determination of cold solder impact for sprinklers spaced closer than 8 ft will be provided with the described baffle installation at the 2nd Draft Meeting.

Related Item

- PI 156

Submitter Information Verification

Submitter Full Name: Tracey Bellamy
Organization: Telgian Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 17:41:56 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1113-NFPA 13-2020
Statement: Committee received test data for the CMSA K-16.8 upright identifying baffles can be used to separate sprinklers per U.L. 199 section 54.12 lateral discharge test.

**Public Comment No. 149-NFPA 13-2020 [Section No. 14.2.4.1]****14.2.4.1**

Where depths of the solid structural members (beams, stem, and so forth) exceed ~~12 in~~ 18 in . (300 mm), ESFR sprinklers shall be installed in each channel formed by the solid structural members.

Statement of Problem and Substantiation for Public Comment

ESFR K-22 and larger can be installed lower in some situations. Should this 12" requirement apply to these sprinklers?

Related Item

- FR#1178

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 15:07:44 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: Insufficient data to justify allowing sprinklers to be eliminated from individual bays when the structure exceeds 12".

**Public Comment No. 148-NFPA 13-2020 [Section No. 14.2.4.2]****14.2.4.2**

Minimum sprinkler spacing and area of coverage shall comply with the requirements of 14.2.8 and 14.2.9 .

14.2.4.2.1

Where installed in obstructed construction and the sprinklers are not located entirely above the horizontal plane created by any adjacent solid structural member, the minimum sprinkler spacing and area of coverage shall comply with the requirements- bottom plane of the structural components (beams, stem and so forth), the minimum area per sprinkler and the minimum distance between sprinklers of 14.2.8 .3 and 14.2.9 .4 shall not apply.

Statement of Problem and Substantiation for Public Comment

I understand the concept that the submitter is trying to codify. However, the way this is worded, if a sprinkler is above an adjacent obstruction, none of the rules of 14.2.8 & 14.2.9 would apply.
I have submitted some new language that I believe achieves the submitter's intent?

Related Item

- FR#1178

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Sat Apr 25 14:55:33 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1114-NFPA 13-2020
Statement: The committee revised the text of the section to be in line with the submitters concerns and expanded the section to include new additional sections for unobstructed construction.



Public Comment No. 201-NFPA 13-2020 [Section No. 14.2.4.2]

14.2.4.2*

Where sprinklers are not located entirely above the horizontal plane created by any adjacent solid structural member, the minimum sprinkler spacing and area of coverage shall comply with the requirements of 14.2.8 and 14.2.9.

A.14.2.4.2 This section applies to both obstructed and unobstructed construction.

Statement of Problem and Substantiation for Public Comment

In Committee Note 21 (CN-21), the correlating committee directed the committee to clarify the intent of FR-1178 with the statement "As currently written, this section is not currently limited to obstructed construction". This proposed annex note clarifies that the intent was to apply section 14.2.4.2 to both obstructed and unobstructed construction.

Related Item

• CN-21 • FR-1178

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 May 01 07:21:57 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1114-NFPA 13-2020

Statement: The committee revised the text of the section to be in line with the submitters concerns and expanded the section to include new additional sections for unobstructed construction.

**Public Comment No. 271-NFPA 13-2020 [Section No. 14.2.4.2]****14.2.4.2**

Where sprinklers are not located entirely above the horizontal plane created by any adjacent solid structural member, the minimum sprinkler spacing and area of coverage shall comply with the requirements of 14.2.8 and 14.2.9.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_21.pdf	13_CCN_21

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 21 in the First Draft Report on First Revision No. 1178.

The committee should reconsider and clarify the intent of this section. As currently written, this section is not currently limited to obstructed construction.

Related Item

- FR-1178

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 13:13:33 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1114-NFPA 13-2020

Statement: The committee revised the text of the section to be in line with the submitters concerns and expanded the section to include new additional sections for unobstructed construction.

**Public Comment No. 150-NFPA 13-2020 [Section No. 14.2.6]****14.2.6** Temperature Ratings.

Sprinkler temperature ratings for ESFR sprinklers shall be ordinary or intermediate unless 9.4.2 requires intermediate ~~or high~~ temperature ratings.

Statement of Problem and Substantiation for Public Comment

This section is in conflict with chapter 9. Do intermediate temperature ESFR sprinklers not work? Are these sprinklers not tested in a full scale fire test? I would assume so since there are UL and FM approved intermediate temperature sprinklers.

Related Item

- PI#39

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 15:14:09 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Accepted

Action:

Resolution: SR-1116-NFPA 13-2020

Statement: The technical committee agrees with the submitter that testing is completed with U.L. for the intermediate temperature sprinkler and therefore agree with the application.

**Public Comment No. 197-NFPA 13-2020 [Section No. 14.2.7]****14.2.7 Occupancy and Hazard.**

ESFR sprinklers designed to meet any criteria in Chapter 23 or 24 shall be permitted to protect light and ordinary hazard occupancies.

4.2.7.1 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 Comment

This comment seeks to resubmit PI-545. This PI was not accepted by the committee but should be reconsidered. The original substantiation is still applicable: 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.

Related Item

- PI-545

Submitter Information Verification

Submitter Full Name: Roland Asp

Organization: National Fire Sprinkler Association

Affiliation: On behalf NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 30 08:10:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1129-NFPA 13-2020

Statement:

This allowance gives flexibility to the user when protecting light and ordinary hazard spaces using ESFR sprinklers.



Public Comment No. 60-NFPA 13-2020 [Section No. 14.2.9.1]

14.2.9.1 Maximum Distance Between Sprinklers.

The maximum distance between sprinklers shall be in accordance with the following:

- (1) Where the storage height is less than or equal to 25 ft (7.6 m) and the ceiling height is less than or equal to 30 ft (9.1 m), the distance between sprinklers shall be limited to not more than 12 ft (3.7 m) between sprinklers as shown in Table 14.2.8.2.1.
- (2) Unless the requirements of 14.2.9.1(3) or 14.2.9.1(4) are met, where the storage height exceeds 25 ft (7.6 m) and or the ceiling height exceeds 30 ft (9.1 m), the distance between sprinklers shall be limited to not more than 10 ft (3.0 m) between sprinklers.
- (3)* Regardless of the storage or ceiling height arrangement, 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) where all of the following conditions are met:
 - (4) The average actual floor area protected by the moved sprinkler and the adjacent sprinklers shall not exceed 100 ft² (9 m²).
 - (5) Adjacent branch lines shall maintain the same pattern.
 - (6) In no case shall the distance between sprinklers exceed 12 ft (3.7 m).
- (7) Where branch lines are parallel to trusses and bar joists, 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 single branch line a maximum of 1 ft (300 mm) from its allowable spacing, provided coverage for the sprinklers on that branch line and the sprinklers on the branch line it is moving away from does not exceed 110 ft² (10 m²) per sprinkler where all of the following conditions are met:
 - (8) The average actual floor area protected by the sprinklers on the moved branch line and the sprinklers on the adjacent branch lines shall not exceed 100 ft² (9 m²) per sprinkler.
 - (9) In no case shall the distance between sprinklers exceed 12 ft (3.7 m).
 - (10) It shall not be permitted to move a branch line where there are moved sprinklers on a branch line that exceed the maximum sprinkler spacing.

Statement of Problem and Substantiation for Public Comment

There is a problem with the current language. There is no maximum spacing for situations where the storage height is less than or equal to 25 ft and the ceiling height is greater than 30 ft. For example, consider 25 ft high storage in a 35 ft high building. Section 14.2.9.1(1) does not apply because of the ceiling height. But the current wording of section 14.2.9.1(2) also does not apply because the storage height is 25 ft. So there is no section that covers this storage/ceiling configuration, which is quite common. The change would make the combination of sections 14.2.9.1(1) and 14.2.9.1(2) mutually exclusive and complete.

Note that without this change, the standard is inconsistent with Table 14.2.8.2.1. This table, which focuses on ceiling height, which is probably the best way to discuss the situation, limits the maximum distance between sprinklers to 10 ft when the ceiling is greater than 30 ft high, regardless of the storage height. Unfortunately, this table is not referenced by section 14.2.9 and in section 14.2.8, the charging paragraph only talks about using the table for area, not distance. So, the distance information is useless in the table.

This comment at least makes the information consistent and all encompassing.

Related Item

- FR 896

Submitter Information Verification

Submitter Full Name: Kenneth Isman
Organization: University of Maryland
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 11:40:27 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1118-NFPA 13-2020
Statement: The committee agrees with the submitter that this is an either “or” application in lieu of an “and” application



Public Comment No. 311-NFPA 13-2020 [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 actuating elements.
- (2) Baffles shall be of solid and rigid materials that will stay in place before and during sprinkler operation.
- (3) Baffles shall not be 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 Comment

Additional testing utilizing the provisions of the current UL 199 for determination of cold solder impact for sprinklers spaced closer than 8 ft will be provided with the described baffle installation at the 2nd Draft Meeting.

Related Item

- PI 157

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 17:48:20 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1120-NFPA 13-2020

Statement: Committee received test data for the ESFR K-14.0 and K-25.2 pendent sprinklers identifying baffles can be used to separate sprinklers per U.L. 199 section 54.12 lateral discharge test.

**Public Comment No. 272-NFPA 13-2020 [Section No. 14.2.10.1.3]****14.2.10.1.3**

Pendent sprinklers with a nominal K-factor of K-28.0 (400) shall be positioned so that deflectors are a maximum 14 in. (350 mm) and a minimum 6 in. (150 mm) below the ceiling.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_16.pdf	13_CCN_16

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 16 in the First Draft Report on First Revision No. 1207.

Consider merging new 14.2.10.1.3 into 14.2.10.1.1, similar to the merge of existing 14.2.10.1.2 into 14.2.10.1.1 in FR-1062.

Related Item

- FR-1207

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 13:17:40 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1119-NFPA 13-2020

Statement: Committee concurred that this manual of style would be acceptable to merge the K28 Sprinkler with the K14 and K16.8 distance below ceiling. Additionally, the committee added the K-33.6 to 14.2.10.1.2

**Public Comment No. 358-NFPA 13-2020 [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.
- (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 in accordance with 14.2.7 and obstructions comply with 9.5.5.3, provided the obstruction is located a minimum of 15 ft . from the storage area.

Statement of Problem and Substantiation for Public Comment

As written, this omission would conflict with the hazard extension requirements. I does not make sense to extend a hazard beyond the storage area but ignore the obstruction requirements. obstructions located within the storage area and all required extended areas should be treated the same .

Related Item

- PI 23 and PI 696

Submitter Information Verification

Submitter Full Name: Jason Gill

Organization: Crews & Gregory Fire Sprinkler

Affiliation: AFSA

Street Address:

City:

State:

Zip:

Submission Date: Wed May 06 07:58:44 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1122-NFPA 13-2020](#)

Statement: The revisions were more closely aligned to the actual test data presented the FPRF research report. The original submittal was revised for better clarification and conformity with NFPA 13 standard language. Number 7 was added from original section, no changes. Number 8 was added to address PC 358 for providing protection beyond a high storage area protected by a sprinkler beyond the high piled storage occupancy.



Public Comment No. 393-NFPA 13-2020 [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.
- (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 in accordance with 14.2.7 and obstructions comply with 9.5.5.3.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
14.2.11.2_- _PALENSKE.docx	14.2.11.2 - Proposed changes	
ESFR_Final_Report_5.1.20._submittal_version.pdf		

Statement of Problem and Substantiation for Public Comment

SEE ATTACHED WORD DOC FOR PROPOSED CHANGES.

Committee input for the submitted previously PI's was that the test results do not support the proposed changes and the results should be revisited. These revisions submitted are intended to address the committee comments. The proposed changes are the based upon the findings of the NFPA Research Foundation's six year ESFR and Obstruction research project. Nine full-scale and 80 Actual Delivered Density tests were completed. Seven tests were completed with obstructions located 6 inches horizontally from the sprinkler. Six of the tests were successful. The recently completed report (final draft) is attached for documentation. The findings from the report are shown below:

- The obstruction created by an open web steel truss between the depths of 22 - 36 inches, located 6 inches horizontally from a K14 or K17 ESFR sprinkler, should not significantly decrease sprinkler performance.
- The obstruction created by a bridging member 1½ x 1½ inches in size or less, located directly below the sprinkler with an 18 inch vertical clearance (K14) or 12 inch vertical clearance (K17) should not significantly decrease sprinkler performance. This also applies to bridging members attached to open web steel trusses.
- The obstruction created by flat or round obstructions less than or equal to 12 inches in width located 6 inches horizontally from a K17 or K14 sprinkler should not significantly decrease sprinkler performance.
- The obstruction created by flat or round obstructions less than or equal to 24 inches in width located 12 inches horizontally from a K17 or K14 sprinkler should not significantly decrease sprinkler performance.

Related Item

- 14.2.11.2

Submitter Information Verification

Submitter Full Name: Garner Palenske
Organization: Wiss Janney Elstner Associates
Affiliation: self
Street Address:

City:
State:
Zip:
Submittal Date: Wed May 06 16:36:43 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1122-NFPA 13-2020](#)
Statement: The revisions were more closely aligned to the actual test data presented the FPRF research report. The original submittal was revised for better clarification and conformity with NFPA 13 standard language. Number 7 was added from original section, no changes. Number 8 was added to address PC 358 for providing protection beyond a high storage area protected by a sprinkler beyond the high piled storage occupancy.



Public Comment No. 394-NFPA 13-2020 [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.
- (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) The obstruction 1 1/2 in (50 mm) or less in width is located a minimum of 1 ft (300 mm) below the elevation of the sprinkler.
- (5) 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.
- (6) Sprinklers with a special obstruction allowance shall be installed according to their listing.
- (7) ~~Additional sprinklers shall not be required where the occupancy is protected in accordance with 14.2.7 and obstructions comply with 9.5.5.3.~~

Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
ESFR_Final_Report_5.1.20._submittal_version.pdf	

Statement of Problem and Substantiation for Public Comment

Committee input for the submitted previously PI's was that the test results do not support the proposed changes and the results should be revisited. These revisions submitted are intended to address the committee comments. The proposed changes are the based upon the findings of the NFPA Research Foundation's six year ESFR and Obstruction research project. Nine full-scale and 80 Actual Delivered Density tests were completed. Seven tests were completed with obstructions located 6 inches horizontally from the sprinkler. Six of the tests were successful. The recently completed report (final draft) is attached for documentation. The findings from the report are shown below:

- The obstruction created by an open web steel truss between the depths of 22 - 36 inches, located 6 inches horizontally from a K14 or K17 ESFR sprinkler, should not significantly decrease sprinkler performance.
- The obstruction created by a bridging member 1½ x 1½ inches in size or less, located directly below the sprinkler with an 18 inch vertical clearance (K14) or 12 inch vertical clearance (K17) should not significantly decrease sprinkler performance. This also applies to bridging members attached to open web steel trusses.
- The obstruction created by flat or round obstructions less than or equal to 12 inches in width located 6 inches horizontally from a K17 or K14 sprinkler should not significantly decrease sprinkler performance.
- The obstruction created by flat or round obstructions less than or equal to 24 inches in width located 12 inches horizontally from a K17 or K14 sprinkler should not significantly decrease sprinkler performance.

Related Item

- 14.2.11.2

Submitter Information Verification

Submitter Full Name: Garner Palenske
Organization: Wiss Janney Elstner Associates
Street Address:
City:
State:

Zip:**Submittal Date:** Wed May 06 16:45:46 EDT 2020**Committee:** AUT-SSI**Committee Statement****Committee Action:** Rejected but see related SR**Resolution:**SR-1122-NFPA 13-2020

Statement: The revisions were more closely aligned to the actual test data presented the FPRF research report. The original submittal was revised for better clarification and conformity with NFPA 13 standard language. Number 7 was added from original section, no changes. Number 8 was added to address PC 358 for providing protection beyond a high storage area protected by a sprinkler beyond the high piled storage occupancy.



Public Comment No. 396-NFPA 13-2020 [Section No. 14.2.11.3]

14.2.11.3 Continuous Obstructions Below Sprinklers.

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 in accordance with 14.2.7 and obstructions comply with 9.5.5.3.

14.2.11.3.2 Bottom Chords of Bar Joists or Open Trusses.

ESFR sprinklers shall be positioned a minimum of 1 ft (300 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.

14.2.11.3.2.1

The requirements of 14.2.11.3.2 shall not apply where upright sprinklers are located over the bottom chords of bar joists or open trusses that are 4 in. (100 mm) maximum in width.

14.2.11.3.3 Branchlines.

Upright sprinklers shall be positioned with respect to branch lines in accordance with one of the following:

- (1) Attached directly to branch lines less than or equal to 4 in. (100 mm) nominal diameter
- (2) Offset horizontally a minimum of 12 in. (300 mm) from the pipe
- (3) 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

14.2.11.3.4*

For pipes, conduits, or groups of pipes and conduit to be considered individual, they shall be separated from the closest adjacent pipe, conduit, cable tray, or similar obstructions by a minimum of three times the width of the adjacent pipe, conduit, cable tray, or similar obstruction.

14.2.11.3.5 Open Gratings.

Sprinklers installed under open gratings shall be of the intermediate level/rack storage type or otherwise shielded from the discharge of overhead sprinklers.

14.2.11.3.6 Overhead Doors.

Quick-response spray sprinklers shall be permitted to be utilized under overhead doors.

14.2.11.3.7 Special Obstruction Allowance.

Sprinklers with a special obstruction allowance shall be installed according to their listing.

Additional Proposed Changes

File Name

Description Approved

14.2.11.3 - _PALENSKE.docx

ESFR_Final_Report_5.1.20._submittal_version.pdf

Statement of Problem and Substantiation for Public Comment

SEE ATTACHED WORD DOC FOR PROPOSED CHANGES.

Committee input for the submitted previously PI's was that the test results do not support the proposed changes and the results should be revisited. These revisions submitted are intended to address the committee comments. The proposed changes are based upon the findings of the NFPA Research Foundation's six year ESFR and Obstruction research project. Nine full-scale and 80 Actual Delivered Density tests were completed. Seven tests were completed with obstructions located 6 inches horizontally from the sprinkler. Six of the tests were successful. The recently completed report (final draft) is attached for documentation. The findings from the report are shown below:

- The obstruction created by an open web steel truss between the depths of 22 - 36 inches, located 6 inches horizontally from a K14 or K17 ESFR sprinkler, should not significantly decrease sprinkler performance.
- The obstruction created by a bridging member 1½ x 1½ inches in size or less, located directly below the sprinkler with an 18 inch vertical clearance (K14) or 12 inch vertical clearance (K17) should not significantly decrease sprinkler performance. This also applies to bridging members attached to open web steel trusses.
- The obstruction created by flat or round obstructions less than or equal to 12 inches in width located 6 inches horizontally from a K17 or K14 sprinkler should not significantly decrease sprinkler performance.
- The obstruction created by flat or round obstructions less than or equal to 24 inches in width located 12 inches horizontally from a K17 or K14 sprinkler should not significantly decrease sprinkler performance.

Related Item

- 14.2.11.3

Submitter Information Verification

Submitter Full Name: Garner Palenske

Organization: Wiss Janney Elstner Associates

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 06 16:58:18 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1123-NFPA 13-2020](#)

Statement: The revisions were more closely aligned to the actual test data presented the FPRF research report. The original submittal was revised for better clarification and conformity with NFPA 13 standard language.

**Public Comment No. 151-NFPA 13-2020 [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 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.
- (7) Additional sprinklers shall not be required where the occupancy is protected in accordance with 14.2.7 and obstructions comply with 9.5.5.3.

Statement of Problem and Substantiation for Public Comment

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.

Related Item

- PI#328

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 15:38:36 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1124-NFPA 13-2020

Statement: Added a section dedicated to obstruction guidelines for conveyors incorporating PCs 151, 375 and 376.



Public Comment No. 374-NFPA 13-2020 [Section No. 14.2.11.3.1]

14.2.11.3.1 General Continuous Obstructions: 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.
- (6) Additional sprinklers shall not be required where the occupancy is protected in accordance with 14.2.7 and obstructions comply with 9.5.5.3.

Statement of Problem and Substantiation for Public Comment

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 note that this new section is limited to areas with no storage below. Note this comment is resubmitting PI 510 which shows this comment was resolved but my notes show that the committee did take action on this concept. Note there are two additional comments on this concept.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 375-NFPA 13-2020 [New Section after 14.2.11.3.7]	
Public Comment No. 376-NFPA 13-2020 [New Section after 14.2.11.3.7]	

Related Item

- FR-1065

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: Wed May 06 11:37:13 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action:	Rejected
Resolution:	Adding the language to the title of the section adds confusion to the end user and conflicts with item number 6.



Public Comment No. 375-NFPA 13-2020 [New Section after 14.2.11.3.7]

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 Comment

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 note that this new section is limited to areas with no storage below.

Note this comment is resubmitting PI 511 which shows this comment was resolved but my notes show that the committee did take action on this concept.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 374-NFPA 13-2020 [Section No. 14.2.11.3.1]	
Public Comment No. 376-NFPA 13-2020 [New Section after 14.2.11.3.7]	

Related Item

- FR-1065

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: Wed May 06 11:51:07 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1124-NFPA 13-2020](#)

Statement:

Added a section dedicated to obstruction guidelines for conveyors incorporating PCs 151, 375 and 376.

**Public Comment No. 376-NFPA 13-2020 [New Section after 14.2.11.3.7]****TITLE OF NEW CONTENT**

4.2.11.4.3 Continuous 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 Comment

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 Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 374-NFPA 13-2020 [Section No. 14.2.11.3.1]</u>	
<u>Public Comment No. 375-NFPA 13-2020 [New Section after 14.2.11.3.7]</u>	

Related Item

- FR-1065

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: Wed May 06 12:23:36 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1124-NFPA 13-2020
Statement: Added a section dedicated to obstruction guidelines for conveyors incorporating PCs 151, 375 and 376.



Public Comment No. 152-NFPA 13-2020 [Section No. 16.2.1.1 [Excluding any Sub-Sections]]

When a threaded sprinkler is removed from a 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 Comment

There are now grooved sprinklers that can be removed without applying any torque to the sprinkler. The committee's statement once again points to a section that has no bearing on this matter (Fire Department Connections).

Related Item

- PI#287

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 16:10:16 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1130-NFPA 13-2020

Statement: Adds the word "threaded" in a new section after 30.3.2. This change will permit the reuse of sprinklers removed from grooved fittings where torque is not applied to the removal or installation of the sprinkler.

Supplemental annex language clarifies the allowance to re-use sprinklers removed from grooved connections and attachments without applying torque to the sprinkler.



Public Comment No. 392-NFPA 13-2020 [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 $400\text{-ft } 800\text{ ft}^2$ ($37\text{-m } 74\text{ m}^2$).

Statement of Problem and Substantiation for Public Comment

This change correlates with revisions taken in NFPA 13R.

Related Item

- PI 689 • NFPA 13R FR-43

Submitter Information Verification

Submitter Full Name: Mark Fessenden

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 06 16:36:03 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: The submitter has not provided a technical substantiation for increasing the room size. NFPA 13 is intended to provide systems for the protection of lives and property, as opposed to NFPA 13R and NFPA 13D where the focus is life safety. There is no listing provision or testing showing the larger room exposure is acceptable.



Public Comment No. 48-NFPA 13-2020 [Section No. 16.4.1.4 [Excluding any Sub-Sections]]

Listed heat-tracing systems shall be permitted in accordance with 16.4.1.4.1 and 16.4.1.4.2.

Add new Annex text as follows:

16.4.1.4 * Listed heat-tracing systems shall be permitted in accordance with 16.4.1.4.1 and 16.4.1.4.2.

A.16.4.1.4 Requirements for heat tracing and associated controls intended for the fire protection application can be found in *UL 515A, Outline of Investigation for Electrical Resistance Trace Heating and Associated Controls for Use In Sprinkler and Standpipe Systems*. Also, since heat tracing has the potential to overheat sprinklers and system piping as well as adversely impact the sprinkler discharge characteristics, heating tracing used for branch lines is required to be specifically listed for this use.

Statement of Problem and Substantiation for Public Comment

Heat tracing systems are listed for a large number of different applications. This revision provides a reference to the requirements that are applicable to the use on fire protection systems. The reference to this standard is consistent with the approach taken for a large number of other standards. Refer to Annex F. Also, information as to why it is important to require a specific listing for heat tracing for branch lines is provided.

Related Item

- Public Input 527

Submitter Information Verification

Submitter Full Name: Kerry Bell

Organization: UL LLC

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City:

State:

Zip:

Submission Date: Fri Apr 17 14:12:44 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1132-NFPA 13-2020

Statement: Several UL Standards address requirements for heat tracing systems. The additional language will provide UL requirements specific to fire sprinkler systems, and specific to branch line piping.

**Public Comment No. 274-NFPA 13-2020 [Section No. 16.4.3]**

16.4.3* Protection of Piping in Hazardous Areas.

16.4.3.1

Private service main aboveground piping shall not pass through hazardous areas and shall be located so that it is protected from mechanical and fire damage.

16.4.3.2

Private service main aboveground piping shall be permitted to be located in hazardous areas protected by an automatic sprinkler system.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_10.pdf	13_CCN_10

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 10 in the First Draft Report on First Revision No. 1075.

Coordinate requirements for nail plates with NFPA 13D, Section 5.2.3.3.

Related Item

- FR-1075

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 13:21:11 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1133-NFPA 13-2020

Statement: Eliminating (4) aligns with NFPA 13D and 13R.

**Public Comment No. 275-NFPA 13-2020 [Section No. 16.9.7]****16.9.7* Pressure-Reducing Valves.****16.9.7.1**

In portions of systems 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 10 psi (0.7 bar) below the minimum rated pressure of any component within that portion of the system at the maximum inlet pressure.

16.9.7.1.1

The pressure on the inlet side of the pressure-regulating device shall not exceed the rated working pressure of the device.

16.9.7.2

Pressure gauges shall be installed on the inlet and outlet sides of each pressure-reducing valve.

16.9.7.3*

A listed relief valve of not less than ½ in. (15 mm) in size shall be provided on the discharge side of the pressure-reducing valve set to operate at a pressure not exceeding the rated pressure of the components of the system.

16.9.7.4

A listed indicating valve shall be provided on the inlet side of each pressure-reducing valve, unless the pressure-reducing valve meets the listing requirements for use as an indicating valve.

16.9.7.5

Means shall be provided downstream of all pressure-reducing valves for flow tests at sprinkler system demand.

Additional Proposed Changes

<u>File Name</u>	<u>Description Approved</u>
13_CCN_7.pdf	13_CCN_7

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 7 in the First Draft Report on First Revision No. 1358.

Correlating Committee directs AUT-SSI to review 16.9.7 PRV requirements along with NFPA 14 PRV requirements and annex material to see if closer alignment is needed.

NFPA 14 has requirements for a pressure switch, manual bypass in case the valve fails closed, and annex language that discusses low flow conditions. These are applicable conditions to sprinkler systems as well.

Related Item

- FR-1358

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 13:24:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: NFPA 14 design criteria incorporates PRV's to provide safety for 1st responders. This level of safety is not needed for fire sprinkler systems.



Public Comment No. 282-NFPA 13-2020 [Section No. 16.9.7.5]

16.9.7.5

Means- One or more test connections shall be provided downstream of all pressure-reducing valves for the performance of flow tests at sprinkler system demand as required by this standard and NFPA 25 .

16.9.7.5.1 A 2 1/2 in. (65 mm) hose valve shall be provided downstream of the pressure reducing valve for every 250 gpm (950 L/min) of flow rate required by the system demand.

16.9.7.5.2* Existing hose connections downstream of the pressure reducing valve shall be allowed to be utilized.

16.9.7.5.3* Other means shall be permitted as long as the system doesn't require modification to perform the test.

Statement of Problem and Substantiation for Public Comment

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. Sprinkler contractors seem to be ignoring this requirement or assuming someone will have to figure out how to do it later. Unless prescriptive requirements are included it is unlikely the "means" will be provided.

The technical committee accepted the concepts of including prescribed means by moving the text submitted in PI 556 to the annex. Unfortunately, the annex text is for guidance only, is unenforceable, and will do little to make contractors comply with this requirement. Also, the annex text was attached to the wrong section. It should have been attached to section 16.9.7.5 and not 16.9.7.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 284-NFPA 13-2020 [Section No. A.16.9.7]</u>	
<u>Public Comment No. 289-NFPA 13-2020 [New Section after A.16.9.7.3]</u>	

Related Item

- PI 556 FR 1358

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

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City:

State:

Zip:

Submission Date: Mon May 04 13:56:04 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1134-NFPA 13-2020

Statement: Specific language has been added to provide installation options to facilitate testing of PRVs.



Public Comment No. 37-NFPA 13-2020 [Section No. 16.10.3 [Excluding any Sub-Sections]]

~~Piping- Dry pipe and pre-action systems. All piping shall be pitched at least 1/2 inch per 10 feet to drain as stated in 16.10.3.1 through 16.10.3.3.~~

Statement of Problem and Substantiation for Public Comment

The intent of this change is to ensure adequate and proper pitch exists so as to reduce the amount of corrosion and build up of the products of corrosion in dry and pre action systems mains. It will also simplify this section by removing unnecessary sub sections, additions and or exemptions dependent on conditions.

In both the standard and real world applications there has been an increased focus on corrosion and the products of corrosion in systems and the problems related to them. As far back as I could find, in the 1969 edition of NFPA 13 section 3214 it states " On dry pipe systems sprinkler pipe on branch lines shall be pitched at least 1/2 inch in 10 feet and the pipe of cross mains and feed mains shall be given a pitch of not less than 1/4 inch in 10 feet. A pitch of 3/4 inch to 1 inch should be provided for short branch lines and 1/2 inch in 10 feet for cross and feed mains in refrigerated areas and in buildings of light construction where floor may settle under heavy loads." I believe that with the exception of changing the word "should" to "shall" and the addition of "pre-action systems", this section remained basically the same for about a quarter of a century. In my original PI statement a number of examples and concerns were listed including the issue of buildings settling which in itself seemed to be enough of a concern to warrant inclusion in the standard all the way back at least to the '69 edition of NFPA 13 over a half century ago.

I do not believe the committee resolution and statement addressed the intent of the original PI or the bulk of the original substantiation. The accumulation of water and products of corrosion and the continued increase of accumulation once the process begins appears to be made worse in mains installed under the 1/4 inch in 10 ft. VS. the required 1/2 inch per 10 ft. already required for branch lines and mains in refrigerated spaces.

This also streamlines the standard and makes it easier to understand. Why are there two different pitch requirements? Why should there be a different pitch required for branch lines vs. mains, why a different pitch for mains in refrigerated spaces vs. those only subject to freezing six or eight months out of the year, and isn't corrosion worse in a system that isn't always below 32 degrees. If 1/2 inch for 10 feet is the right pitch for all branch lines and mains in refrigerators and freezers why isn't it right for all applications even if the mains may not be exposed to freezing temperatures for a few months out of the year?

If a resolution of this PC is considered on a basis of "lack of technical substantiation to support this change", I would submit that this is not a new requirement so much as a return to the original intent or objective of the standard that continues to work for lines and mains in refrigerated spaces and that should provide a base for substantiation. Also see FM Global Research Technical Report titled Corrosion and Corrosion Mitigation in Fire Protection Systems 2nd edition July 2014 sections 4.3.1.2, 5.3 and 6.2.

If this is written up as 16.10.3, then we can eliminate 16.10.3.1, 16.10.3.2 and 16.10.3.3 all together along with 8.8.2.3.

Thank you for your consideration.

Related Item

- PI #228

Submitter Information Verification

Submitter Full Name: David Baron

Organization: Global Fire Protection Company

Street Address:

City:

State:

Zip:

Submittal Date: Mon Mar 30 17:01:50 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Rejected

Action:

Resolution: Increasing the pitch is not practical in all buildings and will not solve problems associated with water trapped between roll grooves that contributes to corrosion at coupling sites.



Public Comment No. 193-NFPA 13-2020 [New Section after 16.10.3.3]

New section 16.10.3.4

16.10.3.4 Nitrogen Supply for Increased C-Value

16.10.3.4.1 Where nitrogen is used to allow for increased c-value in accordance with Table 28.2.4.8.1, the nitrogen supply shall be in in accordance with 16.10.3.4.2 through 16.10.3.4.6.

16.10.3.4.2 Nitrogen shall be from an approved nitrogen generator permanently installed.

16.10.3.4.3 The generator shall be capable of supplying at least 98% nitrogen concentration throughout the system.

16.10.3.4.4 A means of verifying nitrogen concentration shall be provided for each system where increased c-value is used.

16.10.3.4.5 The system control valve shall be provided with a permanently marked weather-proof metal or rigid plastic sign indicating the use of nitrogen gas in the system.

16.10.3.4.5.1 The control valve sign shall be secured with corrosion-resistant wire, chain, or other approved means.

16.10.3.4.6 The nitrogen generator shall be maintained in accordance with chapter 32.

Statement of Problem and Substantiation for Public Comment

The purpose of the values in the Hazen-Williams C Values table is to account for internal pipe conditions expected in the future under various circumstances. Numerous independent studies have come to the same conclusion regarding the benefits of using nitrogen as a supervisory gas to slow corrosion in dry and preaction sprinkler systems. The table should reflect the most current data available, and that is that the use of nitrogen as a supervisory gas will dramatically reduce the amount of corrosion and improve pipe wall integrity, therefore justifying a c-value higher than when it is not used.

Other design standards such as the DoD's Unified Facilities Criteria already recognize a higher c-value for nitrogen. FM has stated that they will be including a higher c-value in the next edition of their data sheets based on their research.

During the first draft, the technical committee brought up several concerns with the original proposal. Each have each been addressed in Public Comments to chapters 16 and 28. In addition, Public Inputs to the next edition of NFPA 25 have been submitted to address the ongoing maintenance of both the nitrogen generator and the nitrogen concentration in the system.

Related Public Comments for This Document

Related Comment

Public Comment No. 192-NFPA 13-2020 [Section No. 28.2.4.8.1]

Public Comment No. 194-NFPA 13-2020 [Section No. 29.6.2]

Relationship

Related Item

- PI No. 602

Submitter Information Verification

Submitter Full Name: Jason Webb

Organization: Potter Electric Signal Company

Street Address:

City:

State:

Zip:
Submittal Date: Wed Apr 29 16:22:59 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1136-NFPA 13-2020](#)
Statement: These provisions provide guidance where the C value is being increased based on the use of nitrogen which has been proven to reduce the risk of corrosion.



Public Comment No. 319-NFPA 13-2020 [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.

Table 16.10.4.2 Drain Size

<u>Riser or Main Size</u>		<u>Size of Drain Connection</u>	
<u>in.</u>	<u>mm</u>	<u>in.</u>	<u>mm</u>
Up to 2	Up to 50	¾ or larger	20 or larger
2½, 3, 3½	65, 80, 90	1¼ or larger	32 or larger
4 and larger	100 and larger	2 or larger	50 or larger

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

Statement of Problem and Substantiation for Public Comment

This annex section was new to the 2016 edition, and dropped from the 2019 edition with no substantiation. It appears to have been lost in the reorganization and should be retained.

For this cycle, I submitted this issue as PI 482, and it was resolved as part of FR 1082. The TC needs to substantiate why this was removed, or reinsert this annex for A.16.10.4.2. Simply bundling it into another revision is inappropriate if it then slips through the cracks (PC 72 last cycle), and then when it is mentioned again next cycle (PI 482 this cycle) it gets resolved without being addressed by the committee

Related Item

- FR1082 • PI 482

Submitter Information Verification

Submitter Full Name: Chase Browning

Organization: Chase A. Browning Consulting

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 19:55:14 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1226-NFPA 13-2020

Statement: This is replacing text from the 2016 edition annex which appears to have been lost in transition in the 2019 edition.

**Public Comment No. 154-NFPA 13-2020 [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, flexible sprinkler connection hoses or other easily separated connections are used, the nipple and cap or plug shall be permitted to be omitted.

Statement of Problem and Substantiation for Public Comment

PI #216 attempted to clarify that we can have trapped water in a flex drop (flexible sprinkler hose connection) without a drain. The committee indicate that (3) already addressed it. This comment clarifies both.

Related Item

- PI#216

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 16:45:51 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1138-NFPA 13-2020](#)

Statement: Provides additional clarification for allowable means of draining portions of system piping where less than 5 gallons of water is considered to be trapped.

**Public Comment No. 61-NFPA 13-2020 [Section No. 16.11.1.1]****16.11.1.1***

An alarm unit shall device shall include a listed mechanical alarm, horn, or siren or a listed electric gong, bell, speaker, horn, or siren electrical alarm horn, or strobe, bell, gong, siren or voice/alarm notification, or a listed mechanical water motor-operated alarm gong .

Statement of Problem and Substantiation for Public Comment

This revised wording adds more recent attachments to the list. It does not remove or change any devices on the existing list.

Related Item

- PI No.47-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 22 18:57:52 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Rejected

Action:

Resolution: As noted in the submitter's substantiation, the proposed change does not remove or change any devices on the existing list.

**Public Comment No. 62-NFPA 13-2020 [Section No. 16.11.1.2]****16.11.1.2***

~~Outdoor water~~ **Exterior** ~~water~~ motor-operated or electrically operated bells shall be weatherproofed and guarded.

Statement of Problem and Substantiation for Public Comment

"Exterior" is preferred over "outdoor", as generally used in the sprinkler codes.

Related Item

- PI No.47-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 22 19:20:01 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1139-NFPA 13-2020

Statement: The committee agrees the term "Exterior" may better describe the location of the local alarm bell than the term, "outdoor" in some cases.

**Public Comment No. 67-NFPA 13-2020 [New Section after 16.11.2.1]****TITLE OF NEW CONTENT****16.11.2.1* Waterflow Alarm Devices**

Audible and visual waterflow alarm devices shall be located in the interior of the building in all habitable areas protected by the sprinkler system. Alarm notification appliances shall be of such character and so distributed as to be effectively heard above the average ambient sound level that exists under normal conditions of occupancy. Buildings with smoke alarms or smoke detectors in accordance with NFPA 72, are exempt. There shall be a minimum of one audible/visual alarm device on the exterior. An exterior mechanical 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 Comment

Sprinklers were invented to extinguish fires in warehouses. Sprinklers are now being promoted by the NFPA and fire departments for their life safety capabilities. Requiring compliance with the NFPA 72 National Fire Alarm and Signaling Code would be cost prohibitive. At present, NFPA 13 requires only a single exterior water motor-operated alarm device indicating waterflow. PC No. 67 requires, instead, that there be a single exterior electrical audible/visual alarm device indicating waterflow and will, in effect, disallow the water motor gong.

The sprinkler alarm must be audible throughout the house if all the occupants are to fully benefit from the life safety capability of the sprinkler system. Where the building has no fire alarm system the owner would be required to (1) install complying detectors, or (2) extend the sprinkler contract to include any additional waterflow alarm(s) that may be required by the AHJ. Additional waterflow alarms would be required only in a very large, or multi-storied building. The moderate additional cost for alarm(s) is justified by the marked increase in life safety. If a sprinkler system is to be promoted to the public for its life safety capabilities then there is an obligation to use best available techniques. PC No. 67 will be the first strengthening of code language to augment the life safety capabilities of sprinkler systems. The language is taken from "NFPA 101 9.6.3.7 Audible alarm notification appliances shall be of such character and so distributed as to be effectively heard above the average ambient sound level that exists under normal conditions of occupancy". Additional alarms, should they be required, shall be considered as simply extensions of the waterflow alarms and not as fire alarms.

Related Item

- PI No.43-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN
Organization: CITY OF DENVER Fire Department
Street Address:
City:
State:
Zip:
Submission Date: Wed Apr 22 20:21:31 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected

Resolution: Not all buildings protected with automatic sprinkler systems are provided with fire alarm systems. The alarm notification in NFPA 13 is for waterflow only and not for building occupant notification.

**Public Comment No. 64-NFPA 13-2020 [Section No. 16.11.7.3]****16.11.7.3**

Outdoor electric Exterior electric alarm devices shall be listed for outdoor use exterior use .

Statement of Problem and Substantiation for Public Comment

"Exterior" is preferred over "outdoor", as generally used in the sprinkler codes.

Related Item

- PI No.48-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN

Organization: CITY OF DENVER Fire Department

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 22 19:40:02 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1140-NFPA 13-2020

Statement: UL Listing uses the term "outdoor". The revision was accepted as a location indicator but as matter related to listing, the listing language should prevail.



Public Comment No. 302-NFPA 13-2020 [Section No. 16.14.5.1]

16.14.5.1* Backflow Prevention Valves.

Means- One or more test connections shall be provided downstream of all backflow prevention valves for the performance of forward flow tests required by this standard and NFPA 25 at a minimum flow rate of the system demand including hose allowance where applicable.

16.14.5.1.1

~~The arrangement required in~~

A 2 1/2 in. (65 mm) hose valve shall be provided downstream of the backflow prevention valve for every 250 gpm (950 L/min) of flow rate required by the system demand including hose allowance where applicable.

16.14.5.1.2* Existing hose connections downstream of the backflow prevention valve shall be serviceable without requiring the owner to modify the system

allowed to be utilized.

16.14.5.1.3* Other means shall be permitted as long as the system doesn't require modification to perform the test.

Statement of Problem and Substantiation for Public Comment

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. Sprinkler contractors seem to be ignoring this requirement or assuming someone will have to figure out how to do it later. Unless prescriptive requirements are included it is unlikely the “means” will be provided.

Performing a forward flow test of a backflow device is no different than doing a flow test of a pressure-reducing valve. The technical committee accepted the concepts of including prescribed means for pressure-reducing valves by moving the text submitted in PI 556 to the annex. When resolving PI 558, the committee statement said “See statement on PI 556” but no text was added to either the standard or the annex related to testing backflow devices. However, even if the text had been added to the annex it would be for guidance only, is unenforceable, and will do little to make contractors comply with this requirement.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 303-NFPA 13-2020 [Section No. A.16.14.5]	
Public Comment No. 304-NFPA 13-2020 [Section No. A.16.14.5.1]	

Related Item

- PI 558

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 15:27:13 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action:	Rejected but see related SR
Resolution:	SR-1163-NFPA 13-2020
Statement:	Specific language has been added to provide installation options to facilitate forward flow testing for systems equipped with backflow preventers.

**Public Comment No. 155-NFPA 13-2020 [New Section after 29.2.1.3]**

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 Comment

I am resubmitting this PI because the Committee statement points to a section that has nothing to do with the proposed subject.

The Committee Statement is

"Resolution: Section 28.2.5.1 already addresses the submitters concern".

Section 28.2.5.1 (Now 29.2.5.1 after the first draft) is pasted below. Not sure how this applies to test pressures when fire pumps are present.

The backflow prevention assembly shall be forward flow tested to ensure proper operation

Related Item

- PI#341

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 17:05:29 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1111-NFPA 13-2020](#)

Statement: The fire pump shutoff pressure (churn pressure) should be taken into consideration when determining system test pressure.



Public Comment No. 65-NFPA 13-2020 [Section No. 29.2.3.1 [Excluding any Sub-Sections]]

~~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~~ inspector's test connection and shall result in an audible alarm on the premises within 5 minutes after such flow begins and until such flow stops.

Statement of Problem and Substantiation for Public Comment

The first part of the sentence refers to multiple "devices", while the latter half of the sentence refers to singular "inspector's test connection".

Related Item

- PI No.45-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN
Organization: CITY OF DENVER Fire Department
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 19:58:20 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1227-NFPA 13-2020
Statement: It is unclear what the submitter is attempting to achieve. The proposed modified language does not provide any additional clarity to the existing requirement. Rather it is simply revised language that repeats what is already present in this section. Section 29.2.3.1 has been revised to align with the changes made to section 7.7.



Public Comment No. 330-NFPA 13-2020 [Section No. 29.2.3.5]

29.2.3.5 Operating Test for Control Valves.

All control valves shall be fully closed and opened- 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 Comment

This was submitted under PI 677. The technical committee resolved this PI. The technical committee statement stated this issue was already covered by the standard. Given normally closed control valves are not frequently installed in sprinkler system but they are installed in some systems. This change accounts for normally closed control valves while still covering normally open control valves.

Related Item

- PI 677

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 05 12:52:22 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1101-NFPA 13-2020](#)

Statement: The revised language makes it clear that whether a valve is in the normally open or closed position they must be operated through their full range of motion and returned to their normal position.



Public Comment No. 246-NFPA 13-2020 [New Section after 29.2.5]

TITLE OF NEW CONTENT

29.2.7 Automated Inspection and Testing Devices and Equipment.

29.2.7.1 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.

29.2.7.1.1 Automated inspection devices and equipment shall be tested to verify that the image received allows for an effective visual examination of the system or component being inspected.

29.2.7.1.2 Automated testing devices and equipment shall be tested to verify that they produce the same action as required by this standard to test a device.

29.2.7.1.2.1 The testing shall discharge water where required by this standard and NFPA 25.

29.2.7.2 Testing shall verify that failure of automated inspection and testing devices and equipment does not impair the operation of the system unless indicated by an audible and visual trouble signal in accordance with *NFPA 72* or other applicable fire alarm code .

29.2.7.3 Testing shall verify that failure of a system or component to pass automated inspection and testing devices and equipment results in an audible and visual trouble signal in accordance with *NFPA 72* or other applicable fire alarm code .

29.2.7.4 Testing shall verify that failure of automated inspection and testing devices and equipment results in an audible and visual trouble signal in accordance with *NFPA 72* or other applicable fire alarm code .

Statement of Problem and Substantiation for Public Comment

FR 1371 moved sections 28.3.1.1 through 28.3.4 (2019 edition numbering) to chapter 7 section 7.9, since the text contained requirements for system components. In addition, the rest of section 28.3 was deleted even though that wasn't supposed to be the action of the FR (see response to PI 171). As a result there isn't any test criteria for automated inspection and testing devices and equipment in chapter 29. This PC adds back the section on testing Automated Inspection and Testing Devices and Equipment that was inadvertently deleted and provides more specific test criteria for these devices and equipment back into chapter 29.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 243-NFPA 13-2020 [Section No. 7.9.1 [Excluding any Sub-Sections]]	
Public Comment No. 244-NFPA 13-2020 [Section No. 7.9.1.2.1]	

Related Item

- PI 170 FR 1371

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submission Date: Mon May 04 10:49:43 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1112-NFPA 13-2020](#)

Statement: The provided test criteria allows the contractor and the AHJ to perform and witness the testing of these devices in accordance with the installation criteria in 7.9. The test criteria also allows for a benchmark for NFPA 25 periodic testing.

**Public Comment No. 110-NFPA 13-2020 [New Section after 29.2.6]****29.3 Automated Inspection and Testing Devices and Equipment.**

29.3.1 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.

29.3.2 The testing shall discharge water where required by this standard and NFPA 25.

Statement of Problem and Substantiation for Public Comment

This is the second of two PCs relating to FR 1371. Also please see the related action request for Section 7.9. I am the author of PI no. 170 and PI no. 171 and the action of FR 1371 goes beyond what was requested in those PIs. The intent was to relocate the provisions of Section 28.3 of the 2019 edition of NFPA 13 that do not contain any Acceptance Testing criteria to Chapter 7, but instead, the entire section was deleted. With this the previous text from 28.3, 28.3.1 and 28.3.1.2.1 should be copied back into Chapter 29, as shown above.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 86-NFPA 13-2020 [Section No. 7.9]	
Public Comment No. 86-NFPA 13-2020 [Section No. 7.9]	

Related Item

- FR-1371

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 23 17:09:22 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1112-NFPA 13-2020
Statement: The provided test criteria allows the contractor and the AHJ to perform and witness the testing of these devices in accordance with the installation criteria in 7.9. The test criteria also allows for a benchmark for NFPA 25 periodic testing.

**Public Comment No. 194-NFPA 13-2020 [Section No. 29.6.2]****29.6.2**

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) Indication of presence of nitrogen where used to allow for increased c-value in dry or preaction systems.

Statement of Problem and Substantiation for Public Comment

The purpose of the values in the Hazen-Williams C Values table is to account for internal pipe conditions expected in the future under various circumstances. Numerous independent studies have come to the same conclusion regarding the benefits of using nitrogen as a supervisory gas to slow corrosion in dry and preaction sprinkler systems. The table should reflect the most current data available, and that is that the use of nitrogen as a supervisory gas will dramatically reduce the amount of corrosion and improve pipe wall integrity, therefore justifying a c-value higher than when it is not used.

Other design standards such as the DoD's Unified Facilities Criteria already recognize a higher c-value for nitrogen. FM has stated that they will be including a higher c-value in the next edition of their data sheets based on their research.

During the first draft, the technical committee brought up several concerns with the original proposal. Each have each been addressed in Public Comments to chapters 16 and 28. In addition, Public Inputs to the next edition of NFPA 25 have been submitted to address the ongoing maintenance of both the nitrogen generator and the nitrogen concentration in the system.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 192-NFPA 13-2020 [Section No. 28.2.4.8.1]	

Public Comment No. 193-NFPA 13-2020 [New Section after 16.10.3.3]

Related Item

- PI No. 802

Submitter Information Verification

Submitter Full Name: Jason Webb

Organization: Potter Electric Signal Company

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 29 16:28:35 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Accepted

Resolution: SR-1102-NFPA 13-2020

Statement: Having the nitrogen information on the sign will help prevent someone from converting a system to regular air where there was a hydraulic advantage allowed for the use of Nitrogen.



Public Comment No. 156-NFPA 13-2020 [Section No. 30.3.2 [Excluding any Sub-Sections]]

When a threaded sprinkler is removed from a fitting or welded outlet, it shall not be reinstalled except as permitted by 30.3.2.1.

Statement of Problem and Substantiation for Public Comment

There are sprinklers available that have grooved connections and can be removed without applying torque to the sprinkler

Related Item

- FR#1364

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 17:19:06 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1131-NFPA 13-2020](#)

Statement: Provides a link to allowing sprinklers attached by grooved connections to be reused where torque is not imposed on the sprinkler for removal or reinstallation.

**Public Comment No. 298-NFPA 13-2020 [New Section after 30.6]****Additional Proposed Changes**

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
Chapter_30_-_CMDA_Requirements.docx	Removes the existing system modification and evaluation requirements from Chapter 21 and relocates them to Chapter 30	

Statement of Problem and Substantiation for Public Comment

Reinsert existing system requirements removed from Chapter 21 by PC 228, 292, 294, 295, and 296. Existing system and modification requirements from Chapter 21 should be located in Chapter 30

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 296-NFPA 13-2020 [Section No. 21.4.1.7.1]	
Public Comment No. 295-NFPA 13-2020 [Section No. 21.4.1.5]	
Public Comment No. 294-NFPA 13-2020 [Section No. 21.4.1.3.2]	
Public Comment No. 292-NFPA 13-2020 [Section No. 21.4.1.2.2]	
Public Comment No. 288-NFPA 13-2020 [Section No. 21.2.2.3]	
Public Comment No. 288-NFPA 13-2020 [Section No. 21.2.2.3]	
Public Comment No. 292-NFPA 13-2020 [Section No. 21.4.1.2.2]	
Public Comment No. 294-NFPA 13-2020 [Section No. 21.4.1.3.2]	
Public Comment No. 295-NFPA 13-2020 [Section No. 21.4.1.5]	
Public Comment No. 296-NFPA 13-2020 [Section No. 21.4.1.7.1]	

Related Item

- FR-1334

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: NFSA
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 14:33:10 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1146-NFPA 13-2020](#)
Statement: With continual modification of the standard and the introduction of a new chapter relating to existing systems there is a need to provide clarification regarding the requirements for evaluations and modifications to existing systems. There have been instances where the retroactivity requirements

have been ignored and compliance with requirements for new installations have been enforced. The addition of the language in 30.1.2 and the supporting annex A.30.1.2 are intended to redirect the scope of requirements for existing systems to adhere to the retroactivity provisions of 1.4.

The new section 30.5 has been added to allow the use of density/area curves used as the basis of design for modifications or additions to existing systems. This section is needed as a pointer to the requirements for existing systems which will remain in Chapters 19, 21 and 25.

**Public Comment No. 327-NFPA 13-2020 [New Section after 30.6.7]****Evaluation of Cartoned Commodities.**

Where K-11.2 or larger sprinklers are installed, the requirements of 20.3.1.5 shall not apply.

Statement of Problem and Substantiation for Public Comment

As noted in the affirmative comment from Bell, large orifice sprinklers still perform adequately in fire testing scenarios.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 326-NFPA 13-2020 [Section No. 20.3.1.5]	
<u>Related Item</u>	
• FR-1257	

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: NFSA
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 05 10:12:07 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Accepted
Resolution: SR-1144-NFPA 13-2020
Statement: Larger K-Factor sprinklers are more effective in the protection of cartoned commodities.
Renummer subsequent sections.

**Public Comment No. 81-NFPA 13-2020 [New Section after A.3.3.190]****TITLE OF NEW CONTENT**

A.3.3.191 Shadow Area. Water is not required to fall on every square inch of floor space of the occupancy. This definition establishes a term that will be used to address the rules for acceptable dry spaces that occur when walls interfere with the residential sprinkler's spray pattern. Angled walls, wing walls, and slightly indented walls can disrupt water discharging from a sprinkler, which does not travel only in an absolute straight line, as if it were beams of light. Where small (typically triangular) shadowed areas are formed on the floor adjacent to the wall, these shadowed areas are purely on paper and do not take into account the dynamic variables of sprinkler discharge. In order to be acceptable, the shadow area needs to be within the coverage area of a sprinkler, meaning that water would discharge to the space directly if the structural or architectural feature was not there. The purpose of the shadow area is not to replace any existing obstruction requirements. Instead, the shadow area concept has been added to the standard to provide clarity to specific situations in which walls form non-rectangular-shaped rooms, as shown in Figure A.9.1.1(3)(a) and Figure A.9.1.1(3)(b).

Statement of Problem and Substantiation for Public Comment

The proposed definition from FR 1020 was taken from directly NFPA 13R, but with no disrespect to that standard, shadow areas are not necessarily dry floor areas. They are just not directly impinged upon by the sprinkler discharge.

To complement the revised definition offered here, the Annex text about Shadow Areas from NFPA 13R contains valuable information on the subject and should be adopted, along with the definition.

Please note, because the Shadow Area applications in NFPA 13 are limited to residential sprinklers, text was added to both the revised definition and to the Annex text to specify residential sprinklers.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 78-NFPA 13-2020 [Section No. 3.3.191]	

Related Item

- FR-1020

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 23 14:35:18 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1033-NFPA 13-2020
Statement: The proposed annex language appropriately captures the intent of the committee regarding this subject. Proposed changed impacted other sections of the standard that currently uses similar terms.

**Public Comment No. 212-NFPA 13-2020 [New Section after A.5.1.5]****A.5.1.5.2.2 (#6)**

In order to maintain a 98% concentration of nitrogen the generator must be able to replace the allowed amount of leakage for existing systems (3 psi over a 2-hr period) (NFPA 25: 13.4.3.2.5) . If the generator can not keep up with system pressure loss the air bypass is engaged.

Statement of Problem and Substantiation for Public Comment

This annex material supports the change proposed in PC-211

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 211-NFPA 13-2020 [Section No. 5.1.5.2.2]	

Related Item

- FR-1187

Submitter Information Verification

Submitter Full Name: Raymond Fremont
Organization: General Air Products, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 13:43:11 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1136-NFPA 13-2020
Statement: These provisions provide guidance where the C value is being increased based on the use of nitrogen which has been proven to reduce the risk of corrosion.



Public Comment No. 71-NFPA 13-2020 [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>
Sprinklers	ANSI/UL 199, <i>Automatic Sprinklers for Fire Protection Service</i>
-	FM 2000, <i>Automatic Control Mode Sprinklers for Fire Protection</i>
-	ANSI/UL 1626, <i>Residential Sprinklers for Fire Protection Service</i>
-	FM 2030, <i>Residential Automatic Sprinklers</i>
-	ANSI/UL 1767, <i>Early-Suppression Fast-Response Sprinklers</i>
-	FM 2008, <i>Suppression Mode ESFR Automatic Sprinklers</i>
-	FM 1632, <i>Telescoping Sprinkler Assemblies for Use in Fire Protection Systems for Anechoic Chambers</i>
- <u>Antifreeze and Corrosion Control</u>	UL 2901, <i>Outline for Antifreeze Solutions for Use in Fire Sprinkler Systems</i>
	<u>UL 2901A, Outline for Corrosion Control Additives for Use in Fire Sprinkler Systems</u>
Valves	ANSI/UL 193, <i>Alarm Valves for Fire Protection Service</i>
-	FM 1041, <i>Alarm Check Valves</i>
-	ANSI/UL 260, <i>Dry Pipe and Deluge Valves for Fire Protection Service</i>
-	FM 1021, <i>Dry Pipe Valves</i>
-	FM 1020, <i>Automatic Water Control Valves</i>
-	UL 262, <i>Gate Valves for Fire Protection Service</i>
-	FM 1120, 1130, <i>Fire Service Water Control Valves (OS & Y and NRS Type Gate Valves)</i>
-	ANSI/UL 312, <i>Check Valves for Fire Protection Service</i>
-	FM 1210, <i>Swing Check Valves</i>
-	UL 1091, <i>Butterfly Valves for Fire Protection Service</i>
-	FM 1112, <i>Indicating Valves (Butterfly or Ball Type)</i>
-	ANSI/UL 1468, <i>Direct Acting Pressure Reducing and Pressure Restricting Valves</i>
-	ANSI/UL 1739, <i>Pilot-Operated Pressure-Control Valves for Fire Protection Service</i>
-	FM 1362, <i>Pressure Reducing Valves</i>
-	FM 1011/1012/1013, <i>Deluge and Preaction Sprinkler Systems</i>

<u>Category</u>	<u>Standard</u>	
		FM 1031, <i>Quick Opening Devices (Accelerators and Exhausters) for Dry Pipe Valves</i>
		ANSI/UL 1486, <i>Quick Opening Devices for Dry Pipe Valves for Fire Protection Service</i>
		ANSI/UL 346, <i>Waterflow Indicators for Fire Protective Signaling Systems</i>
		FM 1042, <i>Waterflow Alarm Indicators (Vane Type)</i>
		FM 1045, <i>Waterflow Detector Check Valves</i>
		FM 1140, <i>Quick Opening Valves 1/4 Inch Through 2 Inch Nominal Size</i>
Hangers	ANSI/UL 203, <i>Pipe Hanger Equipment for Fire Protection Service</i>	
		FM 1951, 1952, 1953, <i>Pipe Hanger Components for Automatic Sprinkler Systems</i>
		FM 1950, <i>Seismic Sway Brace Components for Automatic Sprinkler Systems</i>
		UL 203A, <i>Sway Brace Devices for Sprinkler System Piping</i>
Fittings	ANSI/UL 213, <i>Rubber Gasketed Fittings for Fire Protection Service</i>	
		FM 1920, <i>Pipe Couplings and Fittings for Fire Protection Systems</i>
		UL 1474, <i>Adjustable Drop Nipples for Sprinkler Systems</i>
		FM 1631, <i>Adjustable and Fixed Sprinkler Fittings 1/2 Inch through 1 Inch Nominal Size</i>
		ANSI/UL 2443, <i>Flexible Sprinkler Hose with Fittings for Fire Protection Service</i>
		FM 1637, <i>Flexible Sprinkler Hose with Fittings</i>
Pipe — Aboveground	ANSI/UL 852, <i>Metallic Sprinkler Pipe for Fire Protection Service</i>	
		FM 1630, <i>Steel Pipe for Automatic Fire Sprinkler Systems</i>
		ANSI/UL 1821, <i>Thermoplastic Sprinkler Pipe and Fittings for Fire Protection Service</i>
		FM 1635, <i>Plastic Pipe & Fittings for Automatic Sprinkler Systems</i>
		FM 1636, <i>Fire Resistant Barriers for Use with CPVC Pipe and Fittings in Light Hazard Occupancies</i>
Pipe — Underground	UL 1285, <i>Polyvinyl Chloride (PVC) Pipe and Couplings for Underground Fire Service</i>	
		FM 1612, <i>Polyvinyl Chloride (PVC) Pipe and Fittings for Underground Fire Protection Service</i>
		FM 1613, <i>Polyethylene (PE) Pipe and Fittings for Underground Fire Protection Service</i>
		FM 1610, <i>Ductile Iron Pipe and Fittings, Flexible Fittings and Couplings</i>
		UL 194, <i>Gasketed Joints for Ductile-Iron Pipe and Fittings for Fire Protection Service</i>

Category**Standard**

FM 1620, *Pipe Joints and Anchor Fittings for
Underground Fire Service Mains*

Statement of Problem and Substantiation for Public Comment

The UL 2901 Outline for antifreeze systems has been published as a standard since the first draft meeting. UL 2901A, Outline of Investigation for Corrosion Control Additives for Use in Fire Sprinkler Systems, has been published for evaluating corrosion control chemicals. The reference to these standards is consistent with the approach taken for a large number of other standards. Refer to Annex F.

Related Item

- PI 526 and PI 528

Submitter Information Verification

Submitter Full Name: Jeff Hebenstreit

Organization: UL LLC

Street Address:

City:

State:

Zip:

Submittal Date: Thu Apr 23 13:04:53 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1030-NFPA 13-2020](#)

Statement: Corrected references that are appropriate for the proper application of the Standard.



Public Comment No. 216-NFPA 13-2020 [Section No. A.7.2.4]

A.7.2.4

Information regarding the highest temperature that can be encountered in any location in a particular installation can be obtained by use of a thermometer that will register the highest temperature encountered; it should be hung for several days in the location in question, with the plant equipment in operation that produce heat .

Statement of Problem and Substantiation for Public Comment

Proposed language better reflects what is to be in operation.

Related Item

- PI 290 and FR 1025

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

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City:

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Submittal Date: Sat May 02 16:52:20 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1031-NFPA 13-2020](#)

Statement: Proposed language better reflects intent of the standard.



Public Comment No. 222-NFPA 13-2020 [Section No. A.8.6]

A.8.6

In cold climates and areas where the potential for freezing of pipes is a concern, options other than antifreeze are available. Such options include installing the pipe in warm spaces, tenting insulation over the piping [as illustrated in Figure A.8.9.3.9.1(a) through Figure A.8.9.3.9.1(e f) of NFPA 13D], listed heat tracing, and the use of dry pipe systems and preaction systems.

Statement of Problem and Substantiation for Public Comment

Editorial Correction of the referenced links from NFPA 13D

Related Item

- Editorial Correction of References

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submittal Date: Sun May 03 12:15:54 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1053-NFPA 13-2020](#)

Statement: Editorial correction to reflect appropriate reference.

**Public Comment No. 223-NFPA 13-2020 [Section No. A.9.1]****A.9.1**

The installation requirements are specific for the normal arrangement of structural members. There will be arrangements of structural members not specifically detailed by the requirements. By applying the basic principles, layouts for such construction can vary from specific illustrations, provided the maximums specified for the spacing and location of sprinklers (~~see Section 8.4~~) are not exceeded.

Where buildings or portions of buildings are of combustible construction or contain combustible material, standard fire barriers should be provided to separate the areas that are sprinkler protected from adjoining unsprinklered areas. All openings should be protected in accordance with applicable standards, and no sprinkler piping should be placed in an unsprinklered area unless the area is permitted to be unsprinklered by this standard.

Water supplies for partial systems should be designed with consideration to the fact that in a partial system more sprinklers might be opened in a fire that originates in an unprotected area and spreads to the sprinklered area than would be the case in a completely protected building. Fire originating in a nonsprinklered area might overpower the partial sprinkler system.

Where sprinklers are installed in corridors only, sprinklers should be spaced up to the maximum of 15 ft (4.6 m) along the corridor, with one sprinkler opposite the center of any door or pair of adjacent doors opening onto the corridor, and with an additional sprinkler installed inside each adjacent room above the door opening. Where the sprinkler in the adjacent room provides full protection for that space, an additional sprinkler is not required in the corridor adjacent to the door.

Statement of Problem and Substantiation for Public Comment

The reference to 8.4 is no longer correct. This criteria is located in multiple locations within the Standard. Deletion of the reference and reliance on the stated criteria of not exceeding the allowable spacing and location criteria stands on its own with the need for a specific reference.

Related Item

- Editorial Correction

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

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Zip:

Submission Date: Sun May 03 12:18:52 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1074-NFPA 13-2020

Statement: The reference has been deleted as it was a reference to the 2016 edition. The last paragraph has been deleted as it is an old technique used for corridors based on hotel retrofits.

**Public Comment No. 147-NFPA 13-2020 [Section No. A.9.1.1(3)]****A.9.1.1(3)**

Notwithstanding the obstruction rules provided in Chapter 8, it is not intended or expected that water will fall on the entire floor space of the occupancy.

When obstructions or architectural features interfere with the sprinkler's spray pattern, such as columns, angled walls, wing walls, slightly indented walls, and various soffit configurations, shadowed areas can occur. Where small shadowed areas are formed on the floor adjacent to their referenced architectural features, these shadowed areas are purely on paper and do not take into account the dynamic variables of sprinkler discharge. Examples of shadow areas are shown in Figure A.9.1.1(3)(a) and Figure A.9.1.1(3)(b).

Figure A.9.1.1(3)(a) Shadow Area in Corridor.

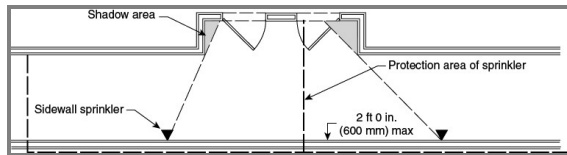
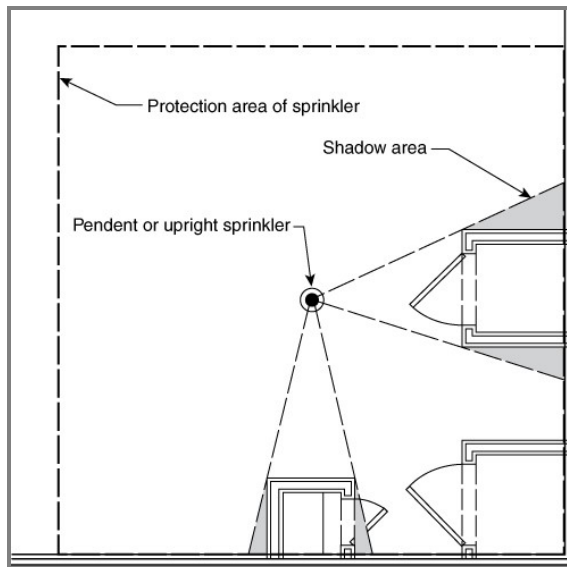


Figure A.9.1.1(3)(b) Example of Shadow Area.

**Statement of Problem and Substantiation for Public Comment**

Remove the text 2ft 0 in (600 mm) max language and dimension line. This figure was copied from NFPA 13R which allows up to a 2'-0" recess behind the sprinkler.

Related Item

- FR #1020

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 14:10:39 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1075-NFPA 13-2020](#)

Statement: Deletion of the "2 ft 0 in. (600 mm) max" along with the dimension line is text that was left in this figure as a mistake and is not pointing to anything. This is an editorial correction. Accept the editorial correction referencing the correct chapters.



Public Comment No. 224-NFPA 13-2020 [Section No. A.9.1.1(3)]

A.9.1.1(3)

Notwithstanding the obstruction rules provided in ~~Chapter 8~~ Chapters 9 through 14 , it is not intended or expected that water will fall on the entire floor space of the occupancy.

When obstructions or architectural features interfere with the sprinkler's spray pattern, such as columns, angled walls, wing walls, slightly indented walls, and various soffit configurations, shadowed areas can occur. Where small shadowed areas are formed on the floor adjacent to their referenced architectural features, these shadowed areas are purely on paper and do not take into account the dynamic variables of sprinkler discharge. Examples of shadow areas are shown in Figure A.9.1.1(3)(a) and Figure A.9.1.1(3)(b).

Figure A.9.1.1(3)(a) Shadow Area in Corridor.

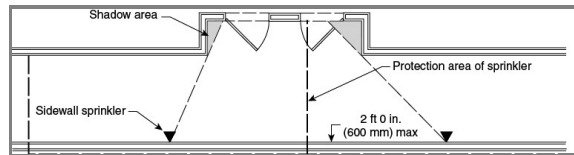
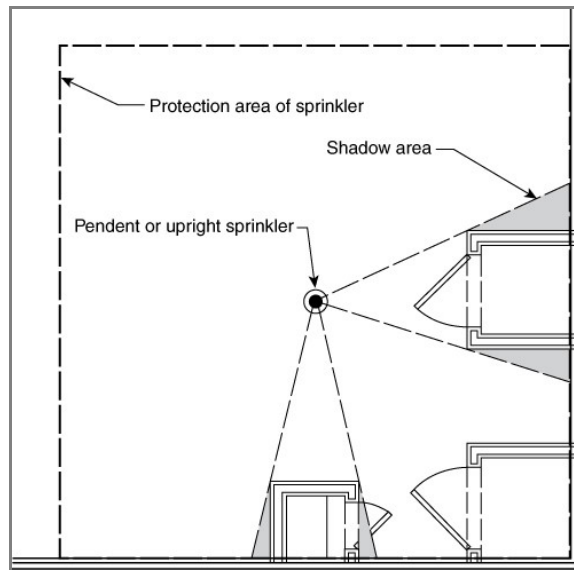


Figure A.9.1.1(3)(b) Example of Shadow Area.



Statement of Problem and Substantiation for Public Comment

Correction of an editorial reference. The obstruction rules are now in Chapters 9 through 14.

Related Item

- Editorial Correction

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

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Zip:

Submittal Date: Sun May 03 12:23:41 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1075-NFPA 13-2020](#)

Statement: Deletion of the “2 ft 0 in. (600 mm) max” along with the dimension line is text that was left in this figure as a mistake and is not pointing to anything. This is an editorial correction. Accept the editorial correction referencing the correct chapters.



Public Comment No. 95-NFPA 13-2020 [Section No. A.9.2.4.2]

A.9.2.4.2 —

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 *International Building Code* and NFPA 13R.

Statement of Problem and Substantiation for Public Comment

This is the third of four PCs relating to FR 1099. Also please see the related action request for deletion of Section 9.2.4.2.

This text has been inserted into the wrong part of Chapter 9. Section 9.2 is for “Allowable Sprinkler Omission Locations”, but as written the subject is about when sprinklers are specifically required. With this, the text should be relocated to a new Section 9.3.20, to follow the provisions for Exterior Projections and the accompanying Annex text should be renumbered as a new A.9.3.20.

Further, neither the Building Codes nor NFPA 13R call for sprinklers below the eaves/soffits of the roofs of buildings (residential or otherwise). Therefore, instead of the incorrect references to roofs and decks, the text suggested for 9.3.20.1 has been revised to reference balconies and the corresponding overhangs instead.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 93-NFPA 13-2020 [Section No. 9.2.4.2]	
Public Comment No. 94-NFPA 13-2020 [New Section after 9.3.20]	
Public Comment No. 96-NFPA 13-2020 [New Section after A.9.3.20.1]	
Public Comment No. 93-NFPA 13-2020 [Section No. 9.2.4.2]	
Public Comment No. 94-NFPA 13-2020 [New Section after 9.3.20]	
Public Comment No. 96-NFPA 13-2020 [New Section after A.9.3.20.1]	

Related Item

- FR-1099

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submission Date: Thu Apr 23 15:51:37 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1058-NFPA 13-2020](#)
Statement: This requirement is requiring the addition of sprinklers. Section 9.2 is for the omission of sprinklers. Section 9.2.4.2 has been relocated to 9.3.20 (new section with re-numbering) as it belongs in the same location as exterior projections.

**Public Comment No. 158-NFPA 13-2020 [Section No. A.9.2.5.1]****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.~~

Statement of Problem and Substantiation for Public Comment

See Public Comment No. 157. This annex language belongs in section A.9.2.9 which addresses wardrobe units.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 157-NFPA 13-2020 [Section No. A.9.2.9]	
<u>Related Item</u>	
• FR#1353	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Sat Apr 25 18:03:37 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1077-NFPA 13-2020](#)
Statement: The annex is referenced under the wrong section. The correct section is 9.2.9. See PC 157.

**Public Comment No. 157-NFPA 13-2020 [Section No. A.9.2.9]****A.9.2.9**

Furniture includes such items as portable wardrobe units, lockers, cabinets, or trophy cases.

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 these 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 Comment

This language belongs in this annex section which references wardrobe units. In the first draft it was placed in the annex for section A.9.2.5.1 which references closets in hotels and motels. A separate PC has been submitted to delete that section.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 158-NFPA 13-2020 [Section No. A.9.2.5.1]	
<u>Related Item</u>	
• FR#1353	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Sat Apr 25 17:52:55 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1076-NFPA 13-2020](#)
Statement: This annex material is being relocated to the correct Section which it is referenced under (9.2.9). See PC 158 for the text deleted from the incorrect section and See FR 1353 for language that appears to be new which was accepted in the First Draft.



Public Comment No. 337-NFPA 13-2020 [Section No. A.9.2.10.1]

A.9.2.10.1

These spaces are similar to hearing testing booths, pumping stations, phone booths, safe spaces, or pods and are not used for storage. Miscellaneous furniture, wastebaskets and other non storage items are allowed in the space.

Statement of Problem and Substantiation for Public Comment

The revised text should make the application of this allowance easier to understand.

Related Item

- FR 1102

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 05 15:14:01 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1062-NFPA 13-2020](#)

Statement: Bathrooms and similar rooms are not intended to be addressed in this section and not considered temporarily occupied spaces. This is intended for the portable/move-in type pods (office pods). The word “spaces” was changed to “enclosures” to better identify the small room. The words “pumping stations” was changed to “lactation room” as a more commonly and acceptable term. Safe spaces was deleted from the comment due to the broad interpretation of what a “safe space” might be.

**Public Comment No. 141-NFPA 13-2020 [Section No. A.9.3.6.3]****A.9.3.6.3 —**

~~Passenger elevator cars that have been constructed in accordance with ASME A17.1, *Safety Code for Elevators and Escalators*, Rule 204.2a (under A17.1a-1985 and later editions of the code) have limited combustibility. Materials exposed to the interior of the car and the hoistway, in their end-use composition, are limited to a flame-spread index of 0 to 75 and a smoke-developed index of 0 to 450, when tested in accordance with ASTM E84, *Standard Test Method of Surface Burning Characteristics of Building Materials*.~~

Statement of Problem and Substantiation for Public Comment

Either remove this section or relocate it if Public Comment 140 is accepted.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 140-NFPA 13-2020 [Section No. 9.3.6]	
<u>Related Item</u>	
• PI#257	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 24 21:16:10 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1104-NFPA 13-2020
Statement: Editorial revisions have been made to make the text read consistent from section to section. Annex attached to 9.3.6.3 or renumbered 9.3.6.5 was in the wrong location and has been moved to 9.3.6.4 or renumbered 9.3.6.6.

**Public Comment No. 228-NFPA 13-2020 [Section No. A.9.3.6.3]****A.9.3.6.3 — 4**

Passenger elevator cars that have been constructed in accordance with ASME A17.1, *Safety Code for Elevators and Escalators*, Rule 204.2a (under A17.1a-1985 and later editions of the code) have limited combustibility. Materials exposed to the interior of the car and the hoistway, in their end-use composition, are limited to a flame spread index of 0 to 75 and a smoke-developed index of 0 to 450, when tested in accordance with ASTM E84, *Standard Test Method of Surface Burning Characteristics of Building Materials*.

Statement of Problem and Substantiation for Public Comment

Relocate Annex material to correct section.

Related Item

- Global FCR 41

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

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Zip:

Submittal Date: Sun May 03 14:42:14 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1104-NFPA 13-2020

Statement: Editorial revisions have been made to make the text read consistent from section to section. Annex attached to 9.3.6.3 or renumbered 9.3.6.5 was in the wrong location and has been moved to 9.3.6.4 or renumbered 9.3.6.6.



Public Comment No. 96-NFPA 13-2020 [New Section after A.9.3.20.1]

[A.9.3.20 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 International Building Code and NFPA 13R.](#)

Statement of Problem and Substantiation for Public Comment

This is the fourth of four PCs relating to FR 1099. Also please see the related action request for deletion of Section 9.2.4.2.

This text has been inserted into the wrong part of Chapter 9. Section 9.2 is for "Allowable Sprinkler Omission Locations", but as written the subject is about when sprinklers are specifically required. With this, the text should be relocated to a new Section 9.3.20, to follow the provisions for Exterior Projections and the accompanying Annex text should be renumbered as a new A.9.3.20.

Further, neither the Building Codes nor NFPA 13R call for sprinklers below the eaves/soffits of the roofs of buildings (residential or otherwise). Therefore, instead of the incorrect references to roofs and decks, the text suggested for 9.3.20.1 has been revised to reference balconies and the corresponding overhangs instead.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 93-NFPA 13-2020 [Section No. 9.2.4.2]</u>	
<u>Public Comment No. 94-NFPA 13-2020 [New Section after 9.3.20]</u>	
<u>Public Comment No. 95-NFPA 13-2020 [Section No. A.9.2.4.2]</u>	
<u>Public Comment No. 93-NFPA 13-2020 [Section No. 9.2.4.2]</u>	
<u>Public Comment No. 94-NFPA 13-2020 [New Section after 9.3.20]</u>	
<u>Public Comment No. 95-NFPA 13-2020 [Section No. A.9.2.4.2]</u>	

Related Item

- FR-1099

Submitter Information Verification

Submitter Full Name: Larry Keeping
Organization: PLC Fire Safety Solutions
Street Address:
City:
State:
Zip:
Submission Date: Thu Apr 23 15:53:58 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1058-NFPA 13-2020](#)
Statement: This requirement is requiring the addition of sprinklers. Section 9.2 is for the omission of sprinklers. Section 9.2.4.2 has been relocated to 9.3.20 (new section with re-numbering) as it belongs in the same location as exterior projections.

**Public Comment No. 232-NFPA 13-2020 [Section No. A.9.3.20.1]****A.9.3.20.1 —**

~~Sprinkler protection under exterior projections should not be required to spray beyond the support beam on the exterior edge of the exterior projection. An additional line of sprinklers on the exterior edge is not required due to obstruction rules. This is considered a reasonable level of protection since sprinklers are located between the structure and the exterior edge.~~

Statement of Problem and Substantiation for Public Comment

Delete incorrect Annex material. It has nothing to do with electric rooms. Material is covered in A.9.3..9.1 for exterior projections.

Related Item

- Editorial Correction

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

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Submittal Date: Sun May 03 14:49:59 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1107-NFPA 13-2020](#)

Statement: This annex is not affiliated with this section, delete.

**Public Comment No. 235-NFPA 13-2020 [New Section after A.9.4.2.7]****A.9.5.3.2.3**

Furniture includes such items as portable wardrobe units, lockers, cabinets, and trophy cases.

Statement of Problem and Substantiation for Public Comment

Move furniture examples to the Annex that same as was done for 9.2.9.

Related Item

- FR 1120

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

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Submittal Date: Sun May 03 14:59:56 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1108-NFPA 13-2020

Statement: Examples are moved to the annex based on the NFPA Manual of Style.



Public Comment No. 240-NFPA 13-2020 [New Section after A.9.4.2.7]

A.9.5.1.3

Small areas created by architectural features include items such as planter box windoes, bay windoes, wing walls, and similar features.

Statement of Problem and Substantiation for Public Comment

The criteria is currently included as a nonenforceable part of A.9.5.5.2. 1st the location as part of 9.5.5.2 does not appear to be appropriate since this is a floor coverage issue which is better suited under 9.5.1 as opposed to an obstruction issue under 9.5.5.2. 2nd the provisions of the Annex are intended to offer explanation of a provision of the Standard or a recommendation. As written the current Annex A.9.5.5.2 provides compliance direction to needs to be included as part of the mandatory provisions of the Standard. The movement of a list of examples to the Annex is proposed to meet the manual of style.

Related Item

- FR 1122

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

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Zip:

Submittal Date: Mon May 04 09:35:45 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1071-NFPA 13-2020

Statement: The material is being relocated from the annex material to the body of the standard as it provides direction with mandatory language for users of the standard. Annex material add examples of what an architectural feature could be.



Public Comment No. 239-NFPA 13-2020 [Section No. A.9.5.5.2]

A.9.5.5.2

Where of a depth that will obstruct the spray discharge pattern, girders, beams, or trusses forming narrow pockets of combustible construction along walls can require additional sprinklers. ~~In light and ordinary hazard occupancies, small areas created by architectural features such as planter box windows, bay windows, wing walls, and similar features can be evaluated as follows: Where no additional floor area is created by the architectural feature, no additional sprinkler protection is required.~~

- ~~Where additional floor area is created by an architectural feature, no additional sprinkler protection is required, provided all of the following conditions are met:~~
 - (1) ~~The floor area does not exceed 18 ft² (1.7 m²).~~
 - (2) ~~The floor area is not greater than 2 ft (600 mm) in depth at the deepest point of the architectural feature to the plane of the primary wall where measured along the finished floor.~~
 - (3) ~~The floor area is not greater than 9 ft (2.7 m) in length where measured along the plane of the primary wall.~~

~~Measurement from the deepest point of the architectural feature to the sprinkler should not exceed the maximum listed spacing of the sprinkler. When no additional floor space is created, the hydraulic design is not required to consider the area created by the architectural feature. Where the obstruction criteria established by this standard are followed, sprinkler spray patterns will not necessarily get water to every square foot of space within a room.~~

Statement of Problem and Substantiation for Public Comment

The criteria is currently included as a nonenforceable part of A.9.5.5.2. 1st the location as part of 9.5.5.2 does not appear to be appropriate since this is a floor coverage issue which is better suited under 9.5.1 as opposed to an obstruction issue under 9.5.5.2. 2nd the provisions of the Annex are intended to offer explanation of a provision of the Standard or a recommendation. As written the current Annex A.9.5.5.2 provides compliance direction to needs to be included as part of the mandatory provisions of the Standard.

Related Item

- FR 1122

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 09:33:31 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1078-NFPA 13-2020

Statement: The deleted material has been moved into the body of the code with the remaining text staying as annex.

**Public Comment No. 242-NFPA 13-2020 [Section No. A.9.5.5.3.2]****A.9.5.5.3.2**

Where 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 conference table is an example of an obstruction that is not fixed in place.

Statement of Problem and Substantiation for Public Comment

The current Annex material is a repeat of that contained in A.9.5.5.3.1 where is it appropriately located and should be deleted here. The additional of the conference table example of an obstruction that is not fixed in place is needed to meet the Manual of Style.

Related Item

- FR 1122

Submitter Information Verification

Submitter Full Name: Tracey Bellamy

Organization: Telgian Corporation

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 09:54:12 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1073-NFPA 13-2020

Statement: This adds the correct word (term). Sprinklers must be below the obstruction, not required to be physically under the obstruction.

This deletes the example from the body of the standard and moves it to the annex based on Manual of Style. It also deletes duplicate annex materials from A.9.5.5.3.2 and adds the example from 9.5.5.3.2. The deleted annex remains in A.9.5.5.3.1. Add a second figure to A.9.5.5.3.1.2 showing a round duct.



Public Comment No. 196-NFPA 13-2020 [New Section after A.10.2.9.2(4)]

A.10.3.2(9)

Where sprinkler protection is provided under each level of cars, the ceilings sprinklers should be designed based upon the occupancy classification of parking garages per section 4.3. Annex section A.4.3.3.1 indicates a suggests a classification of Ordinary hazard (Group 1) for Automobile parking and showrooms.

Statement of Problem and Substantiation for Public Comment

This is the annex section that goes along with PI-195.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 195-NFPA 13-2020 [Section No. 10.3.2 [Excluding any Sub-Sections]]	
<u>Related Item</u>	
• CI-1126 • PI-550	

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: Thu Apr 30 07:56:55 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1221-NFPA 13-2020
Statement: This adds an allowance to use sidewall sprinklers to protect the space in between cars that are stacked vertically. The cars create a large obstruction to the overhead sprinklers and protection with a sidewall sprinkler would assist with the blocked water pattern. The annex material adds clarification that the sidewall sprinklers must be installed with the installation requirements in the body of the standard and if they cannot be installed meeting those requirements the designer cannot use the sidewall in this manner unless it is a performance based design supported with documentation. If that is not able to happen the overhead design would need to be an EHII design.

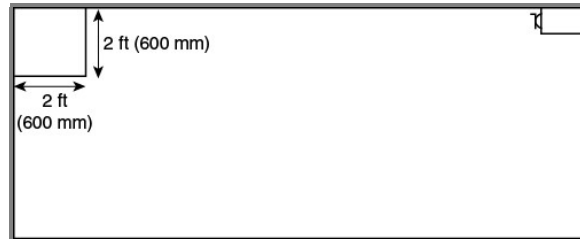
**Public Comment No. 128-NFPA 13-2020 [Section No. A.10.3.6.1.6]**

A.10.3.6.1.6 –

–

See Figure A.10.3.6.1.6 .

Figure A.10.3.6.1.6 Permitted Obstruction on Wall Opposite Sidewall Sprinkler.

**Statement of Problem and Substantiation for Public Comment**

See Public Comment #127 for reason for deleting this section.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 127-NFPA 13-2020 [Section No. 10.3.6.1.6]	
<u>Related Item</u>	
• PI#278	

Submitter Information Verification

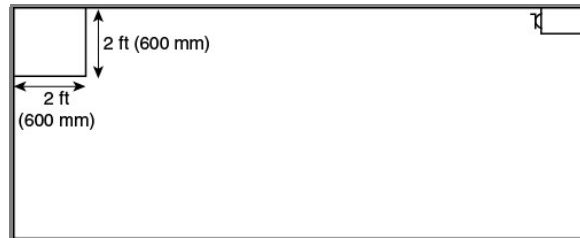
Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 24 18:29:01 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1222-NFPA 13-2020](#)
Statement: This moves the figure in the annex into the body of the code. The rules in the standard point to this figure. Other sections addressing obstructions that have a figure associated with them have the figure in the body of the standard.

**Public Comment No. 130-NFPA 13-2020 [Section No. A.11.3.6.1.6]****A.11.3.6.1.6 —**

See Figure A.11.3.6.1.6 .

Figure A.11.3.6.1.6 Permitted Obstruction on Wall Opposite EC Sidewall Sprinkler.**Statement of Problem and Substantiation for Public Comment**

See Public Comment 129 for reason for deleting this section.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 129-NFPA 13-2020 [Section No. 11.3.6.1.6]	
<u>Related Item</u>	
• PI#278	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 24 18:34:16 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1224-NFPA 13-2020](#)
Statement: This moves the figure in the annex into the body of the code. The rules in the standard point to this figure. Other sections addressing obstructions that have a figure associated with them have the figure in the body of the standard.

**Public Comment No. 144-NFPA 13-2020 [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. An example would be in a hotel occupancy where the corridor immediately leading to the guest rooms also has doors to rooms such as conference rooms, housekeeping closets, laundry rooms, back of house offices, etc.

Statement of Problem and Substantiation for Public Comment

In the first draft, I submitted PI No.'s 434 & 436 in regards to using residential sprinklers in corridors. The resolution pointed to the language in the annex. I have modified this language to be more explanatory.

Related Item

• PI#436 • PI#434

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 13:16:25 EDT 2020

Committee: AUT-SSI

Committee Statement

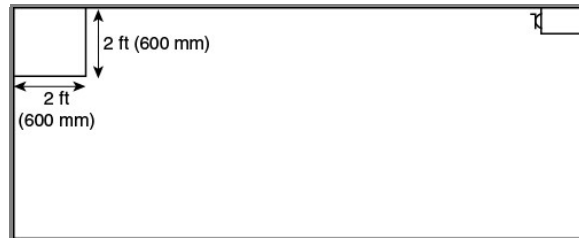
Committee Action: Accepted

Resolution: SR-1127-NFPA 13-2020

Statement: Adds additional clarification as to the use of residential sprinklers in corridors.

**Public Comment No. 132-NFPA 13-2020 [Section No. A.12.1.11.1.6]****A.12.1.11.1.6 —**

See Figure A.12.1.11.1.6 .

Figure A.12.1.11.1.6 Permitted Obstruction on Wall Opposite Residential Sidewall Sprinkler.**Statement of Problem and Substantiation for Public Comment**

See Public Comment #131 for reason for deleting this section.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 131-NFPA 13-2020 [Section No. 12.1.11.1.6]	
<u>Related Item</u>	
• PI #278	

Submitter Information Verification

Submitter Full Name: Peter Schwab
Organization: Wayne Automatic Fire Sprinkler
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 24 18:42:40 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1225-NFPA 13-2020](#)
Statement: This moves the figure in the annex into the body of the standard. See PC 132 for the deletion of the figure in the annex.



Public Comment No. 381-NFPA 13-2020 [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), Figure A.15.3.1(c), and Figure A.15.3.1(e) for examples 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 examples 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.

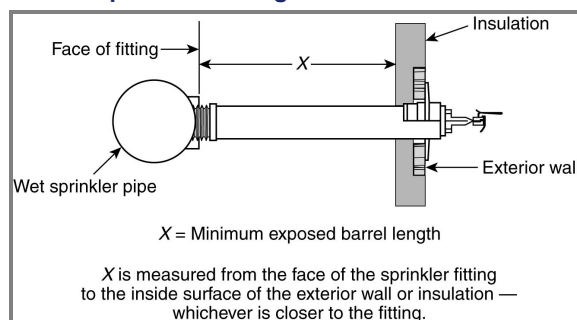


Figure A.15.3.1(b) Dry Pendent Sprinkler Through Ceiling or Top of Freezer.

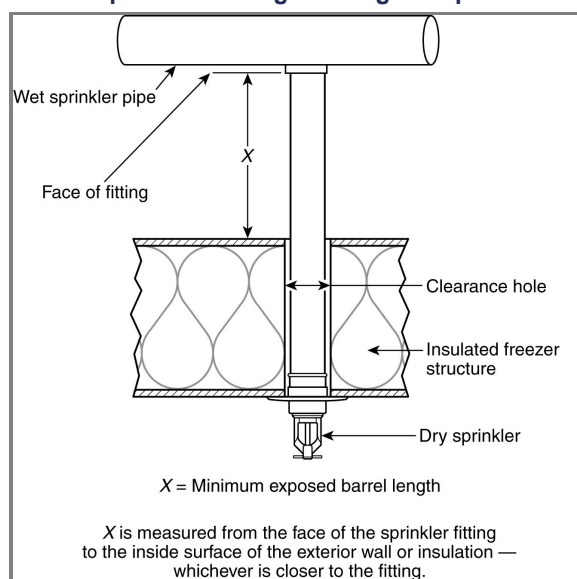


Figure A.15.3.1(c) Dry Sidewall Sprinkler Through Wall

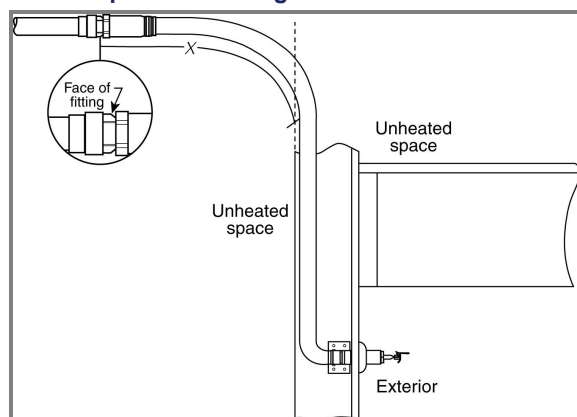


Figure A.15.3.1(d) Dry Pendent Sprinkler Through Ceiling

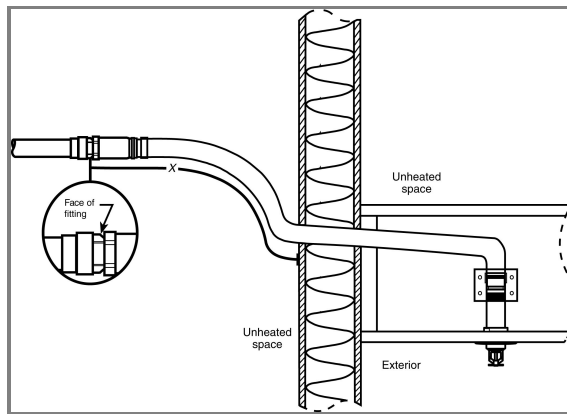
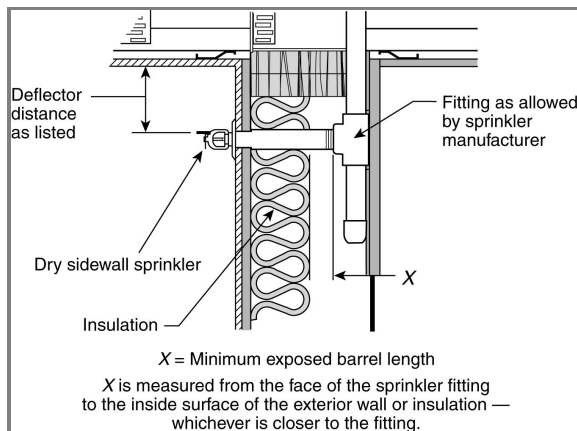


Figure A.15.3.1(e) Dry Sidewall Sprinkler Through Wall.



Statement of Problem and Substantiation for Public Comment

The note in figure (e) about the fitting needs to be added to figures (a) and (b). This is a common mistake and adding the note might prevent an issue.

Related Item

- FR 1070

Submitter Information Verification

Submitter Full Name: John Denhardt

Organization: American Fire Sprinkler Association

Street Address:

City:

State:

Zip:

Submittal Date: Wed May 06 14:48:44 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1125-NFPA 13-2020](#)

Statement: The committee agrees with the submitter that the additional note adds clarity to Figures (a) and (b).

**Public Comment No. 168-NFPA 13-2020 [Section No. A.15.5]****A.15.5 —**

~~It is not the intent of this section to require the use of attic sprinklers. Special rules for use of standard spray sprinklers used in attics are addressed in 10.2.6.1.4. Attic sprinklers can also have the following characteristics/limitations:~~

- ~~(1) Intermediate temperature rating~~
- ~~(2) For use in light hazard only~~
- ~~(3) For use in wet or dry systems~~
- ~~(4) For use with CPVC or steel pipe~~

Statement of Problem and Substantiation for Public Comment

FR 1199 does not add any value to the standard as it describes a product that is already listed for a specific use.

Related Item

- FR-1199

Submitter Information Verification

Submitter Full Name: Kevin Hall

Organization: NFSA

Affiliation: NFSA Engineering and Standards Committee

Street Address:

City:

State:

Zip:

Submittal Date: Mon Apr 27 10:28:46 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-1126-NFPA 13-2020](#)

Statement: The manufacturer's installation instructions provide comprehensive information related to the proper use of attic sprinklers. This Annex text may be misleading since it does not include all of the information and limitations associated with the use and application of these sprinklers.



Public Comment No. 236-NFPA 13-2020 [Section No. A.16.2.1.1]

A.16.2.1.1

Sprinklers should be permitted to be reinstalled when the sprinkler being removed from the system remains attached to the original fitting or welded outlet or can be removed by a grooved connection , provided care has been taken to ensure the sprinkler has not been damaged. Flexible hose connections are considered a fitting.

In new installations, where sprinklers are installed on pendent drop nipples or sidewall sprinklers prior to final cut-back, protective caps and/or straps should remain in place until after the drop nipple has been cut to fit to the final ceiling elevation.

Statement of Problem and Substantiation for Public Comment

The concern here is a wrench being directly applied to the sprinkler to remove it. Removing a sprinkler that is attached to a drop is inherently more difficult than removing a sprinkler by itself with more cause for issue. If removing a sprinkler with a drop attached to it is acceptable, then removing a sprinkler by itself should be acceptable if the concern for directly applying a wrench to the sprinkler can be removed by using a coupling instead of a threaded connection.

Related Item

- FR-1364

Submitter Information Verification

Submitter Full Name: Kevin Hall
Organization: NFSA
Affiliation: NFSA Engineering and Standards Committee
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 08:25:06 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1130-NFPA 13-2020
Statement: Adds the word “threaded” in a new section after 30.3.2. This change will permit the reuse of sprinklers removed from grooved fittings where torque is not applied to the removal or installation of the sprinkler.

Supplemental annex language clarifies the allowance to re-use sprinklers removed from grooved connections and attachments without applying torque to the sprinkler.

**Public Comment No. 153-NFPA 13-2020 [Section No. A.16.2.7.2]****A.16.2.7.2**

It ~~On properties with multiple buildings under a single ownership, it~~ is not the intent to provide a spare sprinkler box for each building ~~in the one location~~ . ~~A~~ A sufficiently 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 ~~or a campus style university~~ .

Statement of Problem and Substantiation for Public Comment

The original submittal added language to the body of the standard and this accompanying annex section went with it. The committee only accepted the annex language which needed to be rewritten since it was coordinated with the rejected language.

Related Item

• FR#1357 • PI#370

Submitter Information Verification

Submitter Full Name: Peter Schwab

Organization: Wayne Automatic Fire Sprinkler

Street Address:

City:

State:

Zip:

Submittal Date: Sat Apr 25 16:23:53 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1145-NFPA 13-2020

Statement: The requirements for maintaining spare sprinklers is not intended to require each riser location or building in campus arrangements to be provided with spare sprinkler cabinets. This annex material supports the requirement for spare sprinklers to be maintained by the owner per facility.

**Public Comment No. 284-NFPA 13-2020 [Section No. A.16.9.7]****A.16.9.7 —**

A 2 ¹/₂ in. (65 mm) hose valve should be provided downstream of the pressure-reducing valve for every 250 gpm (950 L/min) of flow rate required by the system demand. Existing hose connections downstream of the pressure-reducing valve should be allowed to be utilized. Other means should 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 Comment

This annex text should have been tied to 16.9.7.5 and not 16.9.7. A second public comment will provide annex text for the appropriate sections.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 282-NFPA 13-2020 [Section No. 16.9.7.5]	
Public Comment No. 289-NFPA 13-2020 [New Section after A.16.9.7.3]	

Related Item

- PI 556 FR 1358

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 14:04:19 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Accepted
Resolution: [SR-1135-NFPA 13-2020](#)
Statement: Prescriptive requirements have been added to the body of the standard so the annex is not necessary.

**Public Comment No. 289-NFPA 13-2020 [New Section after A.16.9.7.3]****TITLE OF NEW CONTENT**

A.16.9.7.5.2 Hose connections on a standpipe or on a fire pump test header can be utilized for the full flow test.

A.16.9.7.5.3 Providing another means is at the discretion of the designer in consultation with the owner or developer. Any number of arrangements would be acceptable as long as the flow through the pressure-reducing valve can be measured to verify it is equal to or greater than the system demand. One example is the use of the fire department connection as long as it will accommodate the required flow and the check valve has a bypass with a shut-off valve provided for this purpose.

Statement of Problem and Substantiation for Public Comment

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. Sprinkler contractors seem to be ignoring this requirement or assuming someone will have to figure out how to do it later. Unless prescriptive requirements are included it is unlikely the “means” will be provided.

The annex text gives further guidance on how to comply with the prescriptive requirements in section 16.9.7.5.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 282-NFPA 13-2020 [Section No. 16.9.7.5]	
Public Comment No. 284-NFPA 13-2020 [Section No. A.16.9.7]	

Related Item

- PI 556 FR 1358

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submission Date: Mon May 04 14:10:42 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1134-NFPA 13-2020](#)
Statement: Specific language has been added to provide installation options to facilitate testing of PRVs.

**Public Comment No. 276-NFPA 13-2020 [Section No. A.16.10.5.3.5]****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.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u> <u>Approved</u>
13_CCN_38.pdf	13_CCN_38

Statement of Problem and Substantiation for Public Comment

NOTE: This Public Comment appeared as CC Note No. 38 in the First Draft Report on First Revision No. 1083.

The Correlating Committee recommends relocating A.16.10.5.3.5 to A.16.10.5.3.4, which seems more appropriate.

Related Item

- FR-1083

Submitter Information Verification

Submitter Full Name: CC on AUT-AAC

Organization: NFPA

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 04 13:29:19 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1142-NFPA 13-2020

Statement: The Technical Committee agrees with the Correlating Committee that A.16.10.5.3.4 is a better location for this material.

**Public Comment No. 66-NFPA 13-2020 [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 water~~ **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 Comment

The revised wording is more in keeping with that generally used in the sprinkler codes.

Related Item

- PI No.49-NFPA 13-2019

Submitter Information Verification

Submitter Full Name: BARNEY MULLIGAN
Organization: CITY OF DENVER Fire Department
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 20:13:19 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-1139-NFPA 13-2020
Statement: The committee agrees the term "Exterior" may better describe the location of the local alarm bell than the term, "outdoor" in some cases.

**Public Comment No. 303-NFPA 13-2020 [Section No. A.16.14.5]****A.16.14.5**

Where backflow prevention devices are installed, they should be in an accessible location to provide for inspection, testing, service and maintenance. When a backflow prevention device is retroactively installed on a pipe schedule system, the revised hydraulic calculation still follows the pipe schedule method of 19.3.2 with the inclusion of friction loss for the device.

Statement of Problem and Substantiation for Public Comment

The location of a BFP should also take into consideration the inspections and tests required by NFPA 25. The text in the annex that gives guidance for retroactively installed BFPs and the hydraulic calculation procedure is a better fit for this section.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 302-NFPA 13-2020 [Section No. 16.14.5.1]	
Public Comment No. 304-NFPA 13-2020 [Section No. A.16.14.5.1]	

Related Item

- PI 558

Submitter Information Verification

Submitter Full Name: Terry Victor
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 15:38:32 EDT 2020
Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1228-NFPA 13-2020](#)
Statement: This additional annex material provides guides for existing systems retrofitted with backflow devices.



Public Comment No. 304-NFPA 13-2020 [Section No. A.16.14.5.1]

A.16.14.5.1

System demand refers to flow rate and pressure. This test is only concerned with testing at the proper flow rate. The full flow test of the backflow prevention valve can be performed with a test header or other connection downstream of the valve. A bypass around the check valve in the fire department connector line with a control valve in the normally closed position can be an acceptable arrangement. When flow to a visible drain cannot be accomplished, closed loop flow can be acceptable if

a flowmeter or site glass is incorporated into the system to ensure flow. When a backflow prevention device is retroactively installed on a pipe schedule system, the revised hydraulic calculation still follows the pipe schedule method of 19.2.2 with the inclusion of friction loss for the device

A.16.14.5.1.2 Hose connections on a standpipe or on a fire pump test header can be utilized for the full flow test.

A.16.14.5.1.3 Providing another means is at the discretion of the designer in consultation with the owner or developer. Any number of arrangements would be acceptable as long as the flow through the backflow prevention valve can be measured to verify it is equal to or greater than the system demand. One example is the use of the fire department connection as long as it will accommodate the required flow and the check valve has a bypass with a shut-off valve provided for this purpose .

Statement of Problem and Substantiation for Public Comment

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. The revised and added annex text aligns with the changes proposed to this section by the related public comment.

The technical committee accepted the concepts of including prescribed means for pressure-reducing valves by moving the text submitted in PI 556 to the annex. When resolving PI 558 with the same language for backflow devices, the committee statement said "See statement on PI 556" but no text was added to either the standard or the annex related to testing backflow devices.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 302-NFPA 13-2020 [Section No. 16.14.5.1]</u>	
<u>Public Comment No. 303-NFPA 13-2020 [Section No. A.16.14.5]</u>	

Related Item

- PI 558

Submitter Information Verification

Submitter Full Name: Terry Victor

Organization: Johnson Controls

Street Address:

City:

State:

Zip:

Submission Date: Mon May 04 15:52:12 EDT 2020

Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-1163-NFPA 13-2020

Statement:

Specific language has been added to provide installation options to facilitate forward flow testing for systems equipped with backflow preventers.



Public Comment No. 39-NFPA 13-2020 [Section No. F.1.2.6]

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 A603, *Standard Specification for Zinc-Coated Steel Structural Wire Rope*, 1998, reapproved 2014.

ASTM A1023/A1023M, *Standard Specification for Stranded Carbon Steel Wire Ropes for General Purposes*, 2015.

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*, 2017.

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)*, 2017.

ASTM E8/E8M, *Structural Test Method for Tension Testing of Metallic Materials*, 2016.

ASTM E84, *Standard Test Method of Surface Burning Characteristics of Building Materials*, 2018a 2020 .

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, 2018b 2019 .

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*, 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*, 2017.

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*, 2018.

Statement of Problem and Substantiation for Public Comment

updating ASTM fire standards

Related Item

• FR1192 •

Submitter Information Verification

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Committee: AUT-SSI

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-1154-NFPA 13-2020](#)
Statement: Updated references.